

LIFE ON THE BORDER: CONSTRUCTING THE MÉXICO/U.S. BORDERLANDS,
1961-1971

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to my parents, and to growing up in the borderlands

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David Leatherbarrow

In 1961, Mexican President Adolfo López Mateos launched a program that attempted to reinvigorate and develop the northern borderland region of México. The Programa Nacional Fronterizo (National Border Program, PRONAF) sought, among its established goals, to: “improve the general environment of the border cities... Promote the constant raising of the cultural standards of the population...and stress the values of our history, folklore, language, culture and arts.” Through projects of urban beautification, it would build the entrance gates of the country, and civic, cultural and commercial centers that would attract and maintain a certain type of tourism.

I argue that Mario Pani’s master plans not only sought to exalt Mexico’s national identity through an architecture, at once both modern and yet appearing to be linked to an indigenous past; but that the few actual built projects were an architecture of hybridity, that of resistance to, and assimilation of, the post-war American way of life in the midst of Cold War politics. While the Mexican centralist government wanted to prevent the Americanization of the borderlands by building the last cultural frontline that would remind *fronterizos* of their *mexicanidad*, it also wanted to build “the biggest storefront” that, by leveraging on the purchasing power of its northern neighbor, would allow México to be seen as an equal participant in the new world economy.

Waves of fatigue overcome my body
As I think about liberation
Make claims for open borders
Speak out against nativist legislation
Then snap back to my reality
Snap back to daily life by the Río Grande

Where my siblings
nieces nephews
primos primas
tíos tías
my grandmother
and myself
Are surveilled daily by the state
Harassed by its border guards

Where, during an early morning commute to
work,
A blue-eyed, brown skin agent questions my
existence
In broken Spanish with American nativist
undertones
As his buddies pin me between their fist and the
wall
Between their Brigadier pistols and the door

Where, at dawn off the shoulder of Military
Highway,
Two State Troopers yell to my face that I must
be or know “the enemy”
Yell to my face to get used to their presence
Yell to my face this is now normal

Where, one evening on the levee roads,
A brown skin rinche tells me
There is no other way
In a high-traffic zone
In a riverspace

They must identify, map out, secure
That they know has been in my family for
generations
A space where lineage is reason for suspicion

The Treaty of Guadalupe Hidalgo was only the
beginning
Of how my abolitionist and contrabandista
ancestors
Made burlas of white laws and resisted the
border
Of how migration became a “criminalized dark
anxiety”¹

The Treaty of Guadalupe Hidalgo was only the
beginning
Of how the meandering Río Grande
Concretized into border walls in backyards
Of its transformation from fluid waters to rigid
boundaries

Waves of rage and grief overcome my body
As I question my existence
My settler-colonialist lineage
My indigenous heritage usurped
And think about liberation
The anti-migration sentiment and
desconocimientos² festering
inside state and non-state agent bodies that look
like mine

How can we dismantle the border
This wall behind my home
When white folk and
Brown and Black raza lift it up
Love its weight on their backs?

How do we move forward from here?

1. For an analysis of how border policing is experienced beyond the border and has increasingly relied on the racial profiling of brown non-citizens and citizens alike, fueled by legislation and practiced in everyday policing of communities of color in the United States, see Latinx anthropologist Gilberto Rosas’ essay, “The Border Thickens: In-Securing Communities After IRCA,” in *International Migration* 54 (2), 2016.

2. Chicana feminist autohistorian-theorist Gloria Anzaldúa defined desconocimiento as: “To not see is to be in a state of desconocimiento. Desconocimiento is the state of not knowing, either by willful intention, that is by setting out to remain ignorant, by refusing to know or not know or not knowing by default, by expediency. Desconocimiento is an ignorance that damages, betrays trust, and destroys. It fosters miscommunication with irreversible harmful effects.” (Anzaldúa, “Queer Conocimientos,”)

Borderlands	The cultural territory surrounding the borderline.
CAM	Colegio de Arquitectos Mexicanos. In English, College of Mexican Architects.
CAPFCE	Comité Administrador del Programa Federal de Construcción de Escuela. In English, Administration Committee for the Federal School Construction Program.
Capitalinos	People from the capital of the country.
CILA / IBWC	Comisión Internacional de Límites y Aguas / International Boundary and Water Commission
COMDUF	Comisión Mixta del Desarrollo Urbano Fronterizo. In English, Mixed Commission for Border Urban Development.
CUPA	Conjunto Urbano Presidente Miguel Alemán, or Multifamiliar Miguel Alemán, a housing project.
DUIA	Dirección de Urbanismo, Ingeniería y Arquitectura. In English, Sub-secretary of Urbanism, Engineering, and Architecture Management.
Fronterizos	Border dwellers.
Hybridity	According to Nestor García Canclini's <i>Hybrid Cultures: Strategies for Entering and Leaving Modernity</i> , a process of intersections and transactions that makes possible a multi-cross-cultural reality.
IMSS	Instituto Mexicano del Seguro Social. In English, Mexican Institute of Social Security.
INAH	The Instituto Nacional de Antropología e Historia. In English, Institute of Anthropology and History.
INS	Immigration and Naturalization Service, United States.
JFMM	Juntas Federales de Mejoras Materiales. In English, Federal Bureau of Material Betterment
Maquiladora	A factory in México run by a foreign company (most commonly American) that exports its products to the country of that company. These factories normally take raw materials and assemble, manufacture, or process them into finished products.
Mexicanidad	The essence of being Mexican. Comes from the Nahuatl word Mexicayotl meaning "essence of the Mexican." It started to be promoted by a movement of intellectuals in the 1950s.
MNAH	Museo Nacional de Antropología e Historia. In English, Museum of Anthropology and History.
Multifamiliar	Multifamily public housing building. Comparable to the American "projects."

Nahuatl	The language of the Mexica (Aztec) and Toltec civilizations of Mexico, it is the most commonly spoken indigenous language in modern-day Mexico.
NAFINSA	Nacional Financiera Sociedad Anónima. In English, National Finance Associates.
PIF	Programa de Industrialización de la Frontera. Oficialmente, Programa de Aprovechamiento de la Mano de Obra sobrante a lo largo de la Frontera con Estados Unidos. In English, Border Industrialization Program. Officially, Program for the Use of Surplus Labor Along the Border with the United States.
PRI	Partido Revolucionario Institucional. Institutional Revolutionary Party
PRONAF	Programa Nacional Fronterizo. In English, National Border Program.
SAM	Sociedad de Arquitectos Mexicanos. In English, Society of Mexican Architects.
SEP	Secretaría de Educación Pública. In English, Secretariat of Public Education.
SHCP	Secretaría de Hacienda y Crédito Público. In English, Secretariat of Finance and Public Credit. Equivalent to the IRS in the U.S.
SPN	Secretaría del Patrimonio Nacional. In English, Secretariat of National Patrimony
UNAM	Universidad Nacional Autónoma de México. In English, National University of México.

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CHAPTER 1

Introduction

“Build the Wall” became the political chant and one of the top promises of the 2016 presidential campaign and subsequent administration in the United States (2016-2020). The architecture/infrastructure project at the borderlands was made to be seen as the symbol for the solution to the death of the “American Dream”. With a rhetoric that courted the “angry and nostalgic”¹ conservative American, but also the largely uneducated, neglected, and those who felt disappointed by Washington, the promise was to “build a great, great wall on our southern border,”² and to make México pay for it. The weight to “make America great again,” was put on a wall.

How much of such wall was actually built? depends on, what Lucy Rodgers and Dominic Bailey wrote in an article, “the definition of the words ‘new’ and ‘wall.’”³ Although hundreds of miles of the existing barrier were replaced, only 15 new miles of primary barrier where none existed before were built, 350 of secondary barrier were replaced, 221 miles of new and replacement of primary and secondary barrier were built, and 157 miles were left in pre-construction stage. The “wall,” although promised and described to be made out of concrete, consisted in 18-30 ft high bollard fencing, and

¹ Ryan Iwin, “Trump’s Ascendancy as History,” in *Chaos in the Liberal Order: The Trump Presidency and International Politics in the 21st Century*, ed. Robert Jervis (New York: Columbia University Press, 2018), 185.

² “Here’s Donald Trump’s Presidential Announcement Speech,” Time, accessed February 26, 2021, <https://time.com/3923128/donald-trump-announcement-speech/>.

³ Christopher Giles, “Trump Wall: How Much Has He Actually Built?,” *BBC News*, October 31, 2020, sec. US & Canada, <https://www.bbc.com/news/world-us-canada-46824649>.

pertaining the question of who paid for it, remained controversial.⁴ Even so, the architectural device, and the narrative that promoted it made a huge impact on the bi-national relations between México and the United States.

The wall affair became more than a constructed device to control immigration, it turned into a human rights crisis, an environmental disaster, and an international relations affront. During its construction, crews bulldozed the Organ Pipe Cactus National Monument, an ecological reserve and ancestral sacred lands of the Tohono O'odham Nation a binational indigenous community living in the Arizona-Sonora desert.⁵ In the media the wall became a very powerful symbol, it was transformed into the battleground of a polarized dichotomy: us vs them, an architectural element that symbolized the exclusive distinction between the American and the un-American.⁶

The 1854 Treaty of Guadalupe Hidalgo drove the Mexican and U.S. governments to physically demarcate the borderline that divided both territories, but it wasn't until years later with the excuse of preventing the crossing of diseased livestock from México to the U.S that fences started to appear.⁷ The Mexican Revolution, and the U.S participation in the World War I, brought larger fences and patrolling troops to the borderlands. With Nixon's, and Reagan's declaration of war on drugs in 1971 the border

⁴ Giles.

⁵ Erik Ortiz, "Trump's Border Wall Endangered Ecosystems, Sacred Sites. Can It Come down under Biden?," NBC News, accessed March 10, 2021, <https://www.nbcnews.com/science/environment/trump-s-border-wall-endangered-ecosystems-sacred-sites-could-it-n1247248>.

⁶ Mimi Yang, "The Trump Wall: A Cultural Wall and a Cultural War," *Lateral* 6, no. 2 (2017), <https://doi.org/10.25158/L6.2.9>.

⁷ For more see Mary E Mendoza, "Treacherous Terrain: Racial Exclusion and Environmental Control at the U.S.-Mexico Border," *Environmental History* 23, no. 1 (January 1, 2018): 117–26, <https://doi.org/10.1093/envhis/emx124>.

became even more policed.⁸ It was not until the early 1990s, with an increase of immigration flow from Central America, a result of U.S. intervention on Guatemala, Honduras, El Salvador, and Nicaragua, that the U.S. began to build metal fences to prevent illegal border crossings.⁹

El Paso's "Operation Hold the Line," brought more patrolling, and high-tech surveillance, and encouraged programs like "Operation Gatekeeper" in San Diego, and "Operation Safeguard" in Nogales, which included the construction of fences between the twin-cities.¹⁰ By George W. Bush's second term the introduction of the Secure Border Initiative (SBI), increased the number of agents in the US Border Patrol (USBP) and Immigration and Customs Enforcement (ICE), and 700 miles of that primary fence were built.¹¹ By the first Obama term, the completion of the 60 remaining miles was approved. During the rest of his time in office, no further congress budget assignation for construction was officially registered, but the ICE detentions and deportations dramatically increased, creating an infrastructure for the ICE Private Detention Centers.

When Donald J. Trump announced his intentions to run for President in 2015, his speech was full of anti-Mexican, and anti-immigrant sentiments.¹² In his xenophobic anti-invasion rhetoric the construction of the wall became a symbol of national pride and identity for his followers and supporters, and it helped him create adversaries for the

⁸ James M Cooper, "The United States, Mexico, and the War on Drugs in the Trump Administration," n.d., 252–53.

⁹ M. J. Dear, *Why Walls Won't Work: Repairing the US-Mexico Divide* (Oxford ; New York: Oxford University Press, 2013), 106.

¹⁰ Dear, 106.

¹¹ Dear, 107.

¹² "Here's Donald Trump's Presidential Announcement Speech."

media. His threat to make México pay, was itself “nothing but a neocolonial humiliation.”¹³ But for Mexicans, and Mexican-Americans living in the U.S the cost of Trump’s divisive election ploy was much worse. Violent episodes like the El Paso shooting on August 3, 2019 ignited by incendiary language that resembled that used by Trump took the lives of 22 people and leaving 26 more injured, the majority of them Mexicans.¹⁴

Although Trump endured two impeachment attempts, his bid to run for President for a second term was stopped by the concerned citizens of the U.S. that voted against hate and xenophobia. Efforts to reconstruct the relations with México at the borderlands are in the plans of the new administration headed by President Joseph R. Biden.

In view of the threat of the resurgence of extreme nationalist politics that push forward nation-states’ isolationist immigration policies, gaining a comprehensive understanding about the borderlands built-environment and their cross-border interconnectedness become increasingly relevant and necessary. *Life on the Border: Constructing the México/U.S. Borderland*, reveals the trans-boundary urban and architectural projects of the 1960s and 70s along the México/U.S. borderlands as agents of modernization, industrialization, and culturalization. It explores the proposed governmental border cities Planos Reguladores (master plans) as models of economic and cultural development, presenting them as the projections of architects and planners for the construction of identity in liminal spaces. The dissertation puts at the forefront a

¹³ Yang, “The Trump Wall: A Cultural Wall and a Cultural War.”

¹⁴ “Texas Walmart Shooting: El Paso Gun Attack Leaves 20 Dead,” *BBC News*, August 4, 2019, sec. US & Canada, <https://www.bbc.com/news/world-us-canada-49221936>.

history of the Mexican architecture and urbanism at the borderlands, that during the Cold War was used as the symbol of the effort to participate in the globalizing culture, and economy.

This work focuses on the Mexican 1961 Programa Nacional Fronterizo (PRONAF) promoted by President López Mateos directed and lobbied for by Antonio J. Bermúdez, with Mario Pani as Architect in Chief. A federal program that sought to propose a model of economic and cultural development for the territory that neighbored “the country with the highest economic potential in the world.”¹⁵ Through the construction of modern superblocks that included a new center zone connected to new road systems, where the establishment of Commercial, Cultural and Shopping Centers, sought to improve the border cities’ physical appearance, cultivate a new kind of tourism, and increase Mexican exports. PRONAF also served for the development of the Puertas de México, the entrance gates for the country, and the construction of national roads and urban infrastructure.

This study analyzes the evolution of the border cities through this major governmental project at different scales and PRONAF’s perception on both sides of the border. It contrasts the Mexican initiatives that prioritized architectural projects of cultural and commercial exchange with the efforts of the American government that focused mainly on connective infrastructure, bringing to light the architecture and infrastructure of the binational enterprises as local responses to global conflicts. Pointing

¹⁵ Programa Nacional Fronterizo, *National Border Program*, vol. 2 (México: Programa Nacional Fronterizo, 1961), 2.

to the difference between both countries' projects, it examines the twin-city systems, border cities that have a symbiotic relation and shared a territory, as places of experimentation, where contradictions and agreements alternate, where Mexican and American cultures overlap and coexist. The study also delves into the repercussions that the imposition of foreign, though hybridized, modernist urban models have had on the patterns of life on the border. The study brings into perspective the politics of the binational negotiations that these projects demanded, the joint efforts of colleges and associations of architects on both countries. It stresses the implications for both sides of the border on how the built environment contributes to the unification or separation of a trans-boundary urban system when urban planners, architects, and designers are involved.

To situate this study geographically, it is crucial to be aided by the historical accounts that defined it. The political history that demarcated the México/U.S. borderlands can be traced back to Texas's Independence in 1836, the 1848 Guadalupe Hidalgo Treaty, the results of the Mexican American War, and its final settling in 1963 after the 100-year contested territory of El Chamizal was returned to México, and the project for the channeling of the Rio Bravo was initiated. From the Gulf of Mexico to the Pacific Ocean, the México/U.S. border stretches over almost 2000 miles. Four states lie on the American Side: from east to west: Texas, New Mexico, Arizona, and California; and six on the Mexican side: also, from east to west, Tamaulipas, Nuevo León, Coahuila, Chihuahua, Sonora, and Baja California. It represents the combination of one of the longest international boundaries in the world with the starkest degree of economic inequality between the nations.

The subject matter of this study develops in the midst of the political climate of the Cold War, when México had just elected the self-proclaimed “of extreme left within the constitution,” Adolfo López Mateos as president for the period between 1958-1964, when the anti-communist Dwight D. Eisenhower held the American presidency. México’s international diplomacy was put in a compromised position with the tensions instigated by the Cuban Revolution; having to juggle with its relations between the communist side, characterized by the historical relations of brotherhood with the now communist Cuba, and its northern neighbor, the leader of the capitalist bloc. Opening its borders, and its markets to commerce, México began the construction of gates, and shopping centers oriented to American tourists and shoppers at the borders, while trying to protect its internal markets and control over its economy.

In addition to the tense international political climate, the border territories were being affected economically after the war and needed urgent attention. The *Mexican Farm Labor Agreement* signed in 1942 during World War II, a program that attracted many Mexicans to the U.S. to compensate for the shortage of agricultural handwork during the war, was being terminated and generated a massive repatriation and deportation of nationals to the borders. The return of the GIs at the end of the war increased the demand for jobs in the U.S. Consequently, the government began to reduce the number of legal work permits, and the American government began negotiations to terminate in 1951. By 1954 President Eisenhower launched “Operation Wetback” to repatriate illegal laborers still working in the U.S., leading to the termination of the agreement in 1963. The border states were severely impacted by the return of the braceros, laborers.

The end of the war and the subsequent Cold War and the effects that they caused urged México to take actions. López Mateos implemented policies that continued the “Mexican Miracle,” a period of economic bonanza (1940-1970). Prioritizing the process of development and industrialization at the borders, the urbanization, and the construction of much needed infrastructure, roads, water, sewer, telephone, hospitals, and other, were made available thanks to the same new building technologies that allowed the growth and development of Ciudad de México. Committed to the progress of the Mexican borderlands, López Mateos created several federal agencies and programs that attempted to solve the urban problems and socioeconomic inequalities of the northern Mexican border, leveling the city’s development with the rest of the country, mainly Mexico City. Although, the goal was not only to correct economic and social inequalities, it was also to put México on the international map.

The borderlands were planned to be used as the show window that represented the country in front of the eyes of the U.S. The most modern and technified architecture was chosen to be the symbol of that developing country, but México also had to display its vast and deep history. Architects and planners found themselves in a new conundrum. The question of, how to represent a country with a deep and rich indigenous past, that was modern? was one that the architects involved in the projects were already working and experimenting on. PRONAF, on the other hand, added the layer of the complexity of borderlands, a bi-cultural environment. México’s cultural identity -architectural, and others- had always been dictated by the center. This episode in Mexican architectural history; although the designers were still from the center, and rather informed by such

circumstances, transported its ideation from the center to the borderlands, the question of national identity was generated for and put on display at the edge of the country.

Summary

Given the simultaneity in how the projects were developed and the characteristics of their scattered geography and construction patterns, the dissertation is organized following a typological / performative structure. By grouping the elements designed and/or built by the means by which they shaped the built environment, the actions they performed, and how they approached liminality. The chapters are articulated under terminology selected from architectural theory that coincidentally coincides temporarily with the development of the projects, but it has been selected for it has helped me with the understanding of the architectural elements and their relation to the urban environment that compose the analyzed projects. First a zoom-out to zoom-in operation was performed in order to separate the projects. The Planos Reguladores – Master Plans and urban actions in the border cities are analyzed for their general intentions, and policies. The next category are cultural buildings; museums are considered the last bastions of Mexican culture in the country, and places of resistance of the so-called Americanization of the borders. The Puertas de México are the third typology, they are gateways built to symbolize the entrance to the “new” México that PRONAF was promising. Finally, the commercial architecture is analyzed in its attempt to perform several operations of hybridization, formal, programmatic, urban, and architectural. The chapters are as follow:

Chapter 1. Introduction. Chapter 2. Border as Urban Artifact / Display, takes its name from Aldo Rossi's concept of Urban Artifact and studies not only the formal and "physical thing in the city, but all of its history, geography, structure, and connection with the general life of the city."¹⁶ It also takes the Display verb from the quote "an enormous show window," a phrase used by PRONAF's visionary to describe the situation at the U.S. border.

The chapter analyzes the program's background, politics, goals and means of implementation. It is an urban exploration of its insertion in the borderlands. Explores the involvement of Mario Pani as the Architect in Chief for PRONAF, and how, as one of the main promoters of modernization in México, he had shaped a considerable part of the urban landscape of Mexico City as well as other cities in the country. The chapter comments on the PRI's (the political party in power) social urbanistic visions and desire to modernize the country, and its alignment with Pani's urban and architectural views as a catalyst for his appointment.

The chapter explores how Pani's urban studies allowed him to develop the Master Plans for Tijuana, Nogales, Piedras Negras, Cd. Juárez, and Matamoros. It delves into the use of the superblock as the urban unit for a controlled growth of the city in complete and projectable parts, both dense and free of conflicts between cars and pedestrians, as well as how these superblocks containing the Shopping and Cultural Centers were connected by a high-speed motorway inspired by the German exiled architect Herman Herrey's uninterrupted high-speed road system, which was adapted and hybridized by Pani's team.

¹⁶ Aldo Rossi, *The Architecture of the City* (Cambridge, Mass.: MIT Press, 1982), 22.

The chapter is critical of Pani's superblock system; particularly, how it was superimposed on the grid of traditional Spanish colonial cities. It analyzes the result as a hybrid urbanity that allowed Pani to play with two systems: the *Traditional City* with a center and its surrounding mixed uses, and the four-zones of the *Functional City*.

The chapter by comparing one of the American scattered attempts of master plans, it looks at Lucio Costa's 1959 plan for Horizon City (a satellite city to El Paso, TX) as responses from the American government to the efforts of México in the borderlands and uncovers the extent of his involvement and the use of his name by local media to sell the project.

Chapter 3. Border as Edge / Resistance takes its name from Kevin Lynch's elements from the *Image of the City*; edges which "may be barriers, more or less penetrable, which close one region off from another; or they maybe seams, lines along which two regions are related and joined together."¹⁷ The chapter analyzes the cultural architecture, primarily that of the museums, as places that while attempting to resist American culture welcomed tourists and exalted Mexican traditions. It explores the other key component of PRONAF, a federal government museological program connected to other projects that were taking place in México City. Led by Pedro Ramírez Vázquez, the Museos de Historia y Arte for Tijuana, Matamoros, and Cd. Juárez were part of a group of works hat included in Mexico City the Galería de Historia Museo el Caracol (1960),

¹⁷ Kevin Lynch, "The City Image and Its Elements," in *The Image of the City*. (Cambridge: Technology Press, 1960), 41.

Museo de Arte Moderno (1964), and the Museo Nacional de Antropología e Historia (1964).

Ramírez Vázquez's museums are analyzed with a critical eye for their imposition of a homogenizing narrative of *Mexicanidad* orchestrated from the centralist government. Their architecture and exhibitions were designed as “reminders to *fronterizos* that the nation expects them to know, identify with, and be proud of their roots and the traditions and customs of the motherland.”¹⁸ It explores how their design, use of materials and forms of traditional character with modern application, managed to keep in mind the “national characteristics,” while making use of the most advanced architecture.

The chapter is also critical of the museum's exhibitions, specifically how they presented the successive stages in Mexican art chronologically, from the pre-Columbian cultures, down to the most recent schools and tendencies of mid-century Mexico; even the building itself serving to represent in its own modern contemporary architecture. It analyzes the inclusion of Mexican handicrafts, customs, folklore and landscapes, and the demonstration of industrial and commercial development in modern Mexico. And how together, all these elements were designed to showcase and display Mexico City as the center of the arts and culture in the country, erasing any cultural contribution from the borderlands.

Chapter 4. Border as Symbol / Passage, takes its name from Denise Scott Brown and Robert Venturi's *Learning from Las Vegas*: architecture as symbol. The chapter

¹⁸ Foreword by Oscar J. Martinez in Daniel D. Arreola and James R. Curtis, *The Mexican Border Cities: Landscape Anatomy and Place Personality* (Tucson: University of Arizona Press, 1993), xv.

analyzes the infrastructural projects, mainly the Puertas de México, the gates of entry, as “architecture of communication over space;” projects where “communication dominates space as an element in the architecture and in the landscape.”¹⁹ The Puertas de México was an infrastructural project intended to create the first front face of the country, the grand points of arrival and welcome.

In order to analyze the points of entry to the country, the chapter first delves into the history of the definition of the México/U.S. borderline and borderlands. A critical narrative of the different events in history that defined, changed, and altered the territory, is presented. The chapter concludes with the history of the return of the insignificant area, but internationally symbolic return of El Chamizal territory. It also explores the infrastructural projects derived from this agreement, primarily the channeling of the Rio Bravo/Grande which marked the final and current borderline.

The design of the Puertas is analyzed through the imagination and the vantage point of the automobile, how they integrated heavy traffic, public transportation, and pedestrian crossings, while also including offices for customs and immigration. The Chapter delves into the symbolic elements of their design and the messages that they tried to convey, from the architecture of the Puertas, to the landscaped flag plazas, the inclusion of the Mexican emblem, to the pompous dedication ceremonies. It also analyzes the infrastructural projects that connected the entrance gates with the newly built road system, their connection to the new PRONAF commercial and cultural centers through

¹⁹ Robert Venturi, Steven Izenour, and Denise Scott Brown, *Learning from Las Vegas - Revised Edition: The Forgotten Symbolism of Architectural Form*, revised edition (Cambridge, Mass.: The MIT Press, 1977), 8.

innovative monorail systems, and their connection to the national roads leading to México City.

The Chapter contrasts the aspects of beautification, representation, identity and modern nation building of the Mexican program with the American efforts of the time, which were mainly focused in constructing administrative, and connective infrastructure. Although its programs were not as established, the U.S. developed its border areas alongside México by building crossing infrastructure—bridges and customs offices—but more importantly focused its efforts on water management systems like dams and the channeling of the river, and connecting the region to the ongoing Interstate Highway System. By contrasting the different border projects, this Chapter hints to the different policies and political interests that were at play in the borderlands and the changes that were to come.

Chapter 5. Border as Hybrid / Intersection takes its name from several theorists and thinkers, first it takes from Gloria Anzaldúa the notion of hybridity as a geographical area that is “neither fully of Mexico nor fully of the United States,” but also a “mixing that she proposes as central to living on the U.S.-Mexican border.”²⁰ It also takes from Robert Venturi’s *Complexity and Contradiction*, the sense of elements that are hybrid rather than “pure”...,his preference for “‘both-and’ to ‘either-or,’ black and white, and sometimes gray, to black or white.”²¹ The chapter analyzes primarily the commercial

²⁰ Introduction by Norma Élia Cantú and Aída Hurtado in Gloria Anzaldúa, *Borderlands/La Frontera: The New Mestiza* (San Francisco: Aunt Lute Books, 2012), 6.

²¹ Robert Venturi, *Complexity and Contradiction in Architecture*, 2d ed, The Museum of Modern Art Papers on Architecture (New York : Boston: Museum of Modern Art ; distributed by New York Graphic Society, 1977), 14.

architecture that by catering to the American tourist but still using a Mexican formal language managed to hybridize the two cultures, performing several, architectural, programmatic, formal, and planning operations. It defines its architecture as a hybrid: an intersection between the modern and the traditional, between México and the United States, between the urban and the suburban, but also between the reality of the lives of the border residents and the policies implemented by the federal governments in these territories.

Pani's proposals for the Commercial and Cultural Touristic Centers for PRONAF, and its location inside the cities, are questioned as spaces that were designed under the model of the American "shopping center" but were supposed to be used for the sale of Mexican goods.²² It also questions how, the inclusion of hotels, motels, convention centers, museums, auditoriums, other types of shops, and supermarkets were planned to promote a sense of community that would bring together locals and tourists. The chapter also analyzes how the projects designed by Pani presented the users spaces where both modernity and the country's historical roots intersected in unexpected ways.

Beginning with a critical narrative of the becoming of México as a tourist destination for the American visitor, from when the Mexican American War, that initiated the flow of tourists that began to exoticize its history, landscape, architecture, and inhabitants. This section delves into the borderland's tourism, its negative reputation of a place of vice, and the attempts to subvert it. More generally, it indicates how

²² Marisol Rodriguez and Hector Rivero, "ProNaF, Ciudad Juárez: Planning and Urban Transformation.," *A/Z ITU Journal of Faculty of Architecture* 8, no. 1 (March 1, 2011): 196.

PRONAF's objectives, goals and means of action reflect the narrative that was constructed in the exterior and repeated in the center of the country historically.

Apropos hybridity, the Chapter also discusses the architectural discourse "crisis" in which México was involved, touching on Enrique Del Moral, who led the discussions around the topic of regional vs. international architecture, and how Mexican architects were responding to this moment in architectural history. The Chapter then delves into the history of the two main typologies that Pani hybridized in the Shopping Centers at the borderlands, the traditional mercado, and Victor Gruen's shopping center.

Once the bases of such typologies are set, the Chapter delves into analyzing the projects designed, and sometimes built in Tijuana, Nogales, Piedras Negras, Cd. Juárez, and Matamoros and how the border communities were affected by the construction of shopping centers on the American side of the border. The Chapter is critical of the construction of an identity for the type of tourism desired at the borders; how patriarchal, binary, consumerist constructions were used as models for the ideal borderland's tourist.

Chapter 6. Conclusion.

Contribution to the Field and Literature Review.

Life on the Border is the first architectural history to position the urban projects of the 1960s and 1970s in the México/U.S. borderlands as agents of modernization, industrialization and culturalization. It positions itself among bibliography that focuses on two main fields: The selective study of the theory and history of post-war architecture in Latin America and the United States, offering also a conceptual understanding of

border architecture. Of the bibliographies related to the history of architecture in México, PRONAF, or Mario Pani, and the other architects involved, this is the first history dedicated to narrating the architectural and urban projects that encompassed the program. By bringing these historical elements together in this way for the first time, this dissertation elucidates the importance of the PRONAF endeavor and its place in modern architectural history. This study forefronts the borderlands as crucial geographies for the construction of identity considering the architecture and infrastructure that operate within as pivotal points of such dynamics. It proposes a revisionist engagement with theory and history that focuses on urbanism and architecture relative not only to changes in style, but to a reconsideration of local traditions, international connectivity, means of production, and their relation to international politics.

In my research architecture and infrastructure are essential lenses to understand the complex and resonant dynamics between models of modernization and development, and state and institutional spatial control tools. My work is interdisciplinary drawing in particular on fields such as Border and Chicano Studies to explore Post-colonial and De-colonial concepts that refine understandings of territories, nations, and migration as they relate to architectural and urban conditions. I view borders as increasingly important sites for understanding politics, human rights, and economic equity; as “geographies of conflict”²³ that exceed their physical and political delineations and resonate across constructions of identity and networks of connection, communication and collaboration.

²³ In Foreword by Teddy Cruz in Ronald Rael, *Borderwall as Architecture : A Manifesto for the U.S.-Mexico Boundary* (Oakland: University of California Press, 2017), ix.

This study questions PRONAF, and its American counterparts as projects that contributed to the modernization of the borderlands, as well to what degree the political forces behind them disturbed and radically altered the inherently systemic territorial and cultural landscapes of the trans-border areas. To what degree architects and planners participate in the processes of nation building, when the aim is to consolidate a territory economically, culturally, and socially.

The fulfillment of this historical, typological, and performative study of buildings, infrastructure, and territory will answer questions such as the following: Can the study of urban and architectural design contribute to reveal the complex interrelated political and social systems that exist within the México/U.S. Borderlands? Did the built environment contribute to the ideal of a more porous borderlands, specifically at twin-cities? Can architecture act as an operative force for alienation, segregation and division? What is an appropriate architecture for the borderlands? Do the borderlands exist as a unity, and can design and architecture help generate and re-generate an identity? By answering such questions, this study will provide a perspective on the post-border potential of architecture for connection, communication, and collaboration that promotes the emergence of a new citizenship that surpasses political divisions.

The study analyzes the bibliography that focuses on the history of architecture in Latin America, reviews volumes edited and published in the U.S. and offers a review of its representation and reception in U.S. architecture and academic circles. It also engages with a selection of the most influential revisions of the history of modern architecture edited and published in México providing an internal perspective. By contrasting this body of knowledge, to printed ads, other publications and newspaper coverage of the

time, it will offer a perspective on the reception and perceived image of the 1960s projects in the borderland on both sides of the border. The selected texts elucidate by what means architecture and urbanism engage with conceptions of modernization in México, Latin America and the United States, and how commercial and industrial typologies were exported as models for development. They provide an understanding of the joint efforts on building a Pan-American identity but also the separate efforts to conform to a local-national identity while dealing with modernization.

The study used as primary sources the archives and documentation generated for PRONAF, as well as books authored by many of the individuals involved. Due to the scarcity of material, newspapers provided material that complemented the study. Photographs and narrations encountered in groups of local historians, and citizens concerned with the conservation of the architectural heritage served to contrast, complement, and confirm information obtained from observations and deductions from the primary sources.

Fondo Mario Pani Darqui at Tec de Monterrey archive, and Archivo de Arquitectos Mexicanos Mario Pani at UNAM provided information about PRONAF projects, and the extent of his involvement. The latter, although scarce due to a flood and mold infestation, provided drawings of the projects, while the Fondo archive focused more on his personal archive, digitized slides provided images of model's photographs, presentation panels, colored renderings, and other drawings. Archivo Pedro Ramírez Vázquez provided a vast amount of information about projects at the borders, plans, drawings, and sketches of process that helped to understand the evolution of the project. Colección Legorreta had a large collection of photos of the Camino Real hotel in Cd.

Juárez but little information about the project's development. Documents from the Casa Lucio Costa archive also contributed to this study.

The Archivo General de la Nación, and the Archivo del Banco de México in Mexico City were also consulted for the study. The El Paso Library archive, the Biblioteca Municipal de Ciudad Juárez archive, and the Instituto Municipal de Investigación y Planeación in Cd. Juárez archives, also were consulted for material that appears in this dissertation.

CHAPTER 2

Border as Urban Artifact / Display

Son ustedes, compatriotas de nuestras fronteras, ventana y bastión de México, la ventana por la que puede todos pueden asomarse a un pueblo que trabaja por su propio bienestar, que se esfuerza por superar las metas de su destino, con un programa que nació de la entraña misma del pueblo y que tiene como aspiraciones el bienestar general, la educación, la salubridad y la protección para todos sus hijos. Tal es nuestro programa y estamos orgullosos de exhibirlo ante propios y extraños, porque difícilmente habrá otro país que, como México, tan empeñosamente luche contra las adversidades naturales para integrarse como nación y, sobre todo, para dar a su pueblo, dentro de la mayor justicia social, el máximo bienestar posible.²⁴

Adolfo López Mateos

Introduction

Amidst the Cold War environment, the self-proclaimed “leftist within the constitution” Adolfo López Mateos was elected president for the period between 1958-1964. Benefiting from the momentum of the “Mexican Miracle,” the period of economic bonanza that started in the 1940s, López Mateos prioritized resolving the underdevelopment and other important politico-environmental problems in Mexico’s

²⁴ México Secretaría del Patrimonio Nacional, ed., *Normas, Métodos y Realizaciones En La Urbanificación de Las Ciudades Fronterizas y Portuarias Durante El Gobierno de Adolfo López Mateos, Presidente de La República, 1958-64*. (Mexico: Departamento de Información y Publicaciones, 1965). Translation: It is you, fellow citizens of our borders, window and bastion of Mexico, the window through which everyone can peek into the people that works for their own well-being, who strives to overcome the goals of their destiny, with a program that was born from the very heart of the people and whose aspirations are general well-being, education, health and protection for all its children. Such is our program and we are proud to exhibit it to our own and strangers, because hardly there will be another country that, like Mexico, so eagerly fights against natural adversities to integrate as a nation and, above all, to give its people, within the greater social justice, the maximum possible welfare.

border regions with the United States, and for the first time in modern Mexican history sought to improve the border cities physical appearance.

López Mateos intended to raise the population's living standard through modernist urban planning and the development of cultural and commercial infrastructure for the border cities. These changes would also generate a new kind of tourism, while increasing Mexican exports. The architectural projects intended to inscribe the "Mexican national representations within an unstable landscape of evolving diplomatic trends."²⁵ This was a period when México's international diplomacy was in a compromised position juggling its relations with the communist side of the dispute; intensified by the tensions instigated by the Cuban Revolution, and its northern neighbor's, the leader of the capitalist bloc.

México's attempts to generate an international image during the Cold War started with the 1958 Brussels Expo. The architect's brief for the Mexican pavilion claimed, "that the structure presented a 'new' Mexico that was 'a young and vigorous country with deep old roots.'"²⁶ Although Mexico's pre-Hispanic architecture was branded and used as a touristic commodity notably since Manuel Amabilis modeled a neo -Mayan palace for the 1929 Seville Fair, it was Pedro Ramírez Vázquez who introduced modern architecture to the design of the Mexican pavilions in 1958. These "scenographies of Mexicanness" experimented with at the International World's Fairs pavilions, had to include the old tropes of folkloric pre-Hispanism commonly used in touristic propaganda, but had to

²⁵ Luis M. Castañeda, *Spectacular Mexico : Design, Propaganda, and the 1968 Olympics* (Minneapolis: University of Minnesota Press, 2014), XXV.

²⁶ Castañeda, 2.

juxtapose them with the rapid industrialization of the young nation.²⁷ In the postwar period, with the burden of an image of laziness and backwardness, and the then used third-world country qualifier, “these pavilions had to persuade their audiences of potential international tourists and investors that Mexico was indeed on its way out of its undeveloped condition but retained its folkloric and exotic attributes.”²⁸

The Brussels Fair was the first staged after the end of the 2nd World War. Its emblematic Atomium, the central structure that dominated the organization of the fairgrounds, was a representation of the Fair’s interest in energy and praise of the technological advancements responsible for the wonders of the postwar boom. Hardly ignoring the Cold War atmosphere, the organizers encouraged a scientific, economic and cultural competition that could divert attention from the confrontation between the two major superpowers.²⁹ In adjoining sites, the American and the USSR pavilions presented two “competing images of modernity and the good life.”³⁰ While the Soviet pavilion with the display of the Sputnik I and II made the space race the emblem of socialist modernity, the United States went for a “softer” approach showcasing American folk art and fashion, and Walt Disney’s *America the Beautiful* in Circarama that offered a 360-degree tour of the natural and man-made wonders of the country.³¹

Assuming its then position as a third world country, “Mexico’s response to the

²⁷ In Castañeda, 2 Castañeda coins this term to describe the creation of the environments intended to five foreign audiences a dramatic sense of Mexico’s cultural, political, and economic conditions.

²⁸ Castañeda, 7.

²⁹ Arthur P Molella and Scott Gabriel Knowles, *World’s Fairs in the Cold War: Science, Technology, and the Culture of Progress*, 2019, 17.

³⁰ Molella and Knowles, 19.

³¹ Molella and Knowles, 20.

fair was to emphasize the cultural wealth of the country, exoticizing Mexico's differences from European culture and positioning the country's relative economic underdevelopment under a positive light." Elena Poniatowska, a French-born Mexican social and political journalist, mentioned in a newspaper's critique "that the pavilion positioned Mexico as a peripheral observer of the arms and space race then central to the conflicts between the United States and the USSR, and emphasized the country's peaceful diplomatic agenda, which contrasted with this divisive global climate."³²

In this chapter, I discuss the border policies implemented by the federal governments of México, and the United States, PRONAF – Programa Nacional Fronterizo/National Border Program, and their impact on the built environment of the México/US borderlands during the 1960s and 1970s. I will analyze how López Mateos's urban policies for the borders, lobbied by politician Antonio J. Bermúdez and designed and developed by Architect Mario Pani for PRONAF were decisive in the process of their modernization and how they affected the structure and modified the patterns of living in the border cities. How through PRONAF, the border cities were used as a framework to represent and construct an idea of *Mexicanidad*, an attempt to define the ethos of Mexican culture and architecture for export, in what was considered "an enormous show window [or] a great recreative and cultural avenue for the country".³³ (Fig.1) The chapter will present the modern urban models as artifacts that were introduced to the border cities following one of Pani's most important tenets in urban design "consentir el crecimiento

³² Castañeda, *Spectacular Mexico*, 12.

³³ Programa Nacional Fronterizo, *National Border Program*, 2:28.

de la ciudad dentro de la ciudad misma.”³⁴

Affecting specifically the built environment of the borderlands, its urban infrastructure and architecture, PRONAF sought to improve through modernist planning the border “physical appearance and condition, (so) that they may fulfill efficiently their urban functions both on behalf of their inhabitants and of national prestige, since they are entrance gates to the country.”³⁵ Through these combined measures they sought to improve the population’s standard of living. This also had the deliberate purpose of reducing to its bare minimum, the stark and sometimes degrading contrasts, that have existed between the American and the Mexican cities at the borderlands.

This chapter also discusses how PRONAF, through its modernist architecture and urban design solutions sought to represent the Mexican capability to participate in a global trade economy yet appear to be deeply rooted in the country’s indigenous past. The master plans included a new center zone connected to a new road system, where the establishment of cultural (Chapter 3) and commercial (Chapter 5) shopping centers would be located, including sports facilities and infrastructural buildings that would meet local needs. They also served to fund the development of the Puertas de México program (Chapter 4) consisting of bridges, customs and immigration offices infrastructure buildings; and also the construction of national roads, dams, irrigation systems, electricity lines, potable water sources, and new sewage systems. The new infrastructure was

³⁴ Manuel Larrosa and Louise Noelle, *Mario Pani, Arquitecto de Su Época*, 1. ed (México, D.F: Universidad Nacional Autónoma de México, Impr. Universitaria, 1985), 106. Translation: to promote the growth of the city, inside of the city.

³⁵ Programa Nacional Fronterizo, *National Border Program*, 2:4.

intended to make cities more attractive for both Mexican and foreign investors.

Furthermore, for the first time, they put forth an idea of the border that provided a more positive image of México.³⁶

However, it must be kept in mind that PRONAF remained an unfinished program, as it was not continued by subsequent administrations. The program, both its projects and its completed work, must then be measured through the perspective of its success as a program of resistance against American cultural dominance, through the defense of national values and culture, and integration with the global economy through tourism. This chapter will also deal with the factors that led to PRONAF's demise, and how the creation of the Programa de Industrialización de la Frontera – PIF, contributed to PRONAF losing its federal budget and marketing force, as well as how its legacy was continued by subsequent governments.

Border Policies

By the 1960s, Mario Pani's Taller de Urbanismo had established itself as one of the most active offices under the "Stabilizing Development" or "Mexican Miracle." As part of the policies that allowed this period of economic growth, the federal government undertook state sponsored social housing and transportation projects to modernize and integrate the country. As one of the main promoters of modernism in México, Pani had

³⁶ Barry Bergdoll et al., *Latin America in Construction: Architecture 1955-1980* (Museum of Modern Art, 2015), 228.

shaped a considerable part of the urban landscape of Mexico City, as well as other cities in the country through the implementation of superblocks.³⁷(Fig.2)

The ruling party's (PRI) social developmentalist projects had a double agenda; while they solved problems of housing, traffic, flooding and infrastructure, they also were an "exaggerated and ultimately empty gesture of the state's magnanimity and enlightened stewardship"³⁸ While they transformed the face of the cities, in the case of Mexico City they also pushed to the peripheries a lot of "unwanted" communities, that did not adhere to the standards of living that they wanted to publicize. The state crafted along with the planner-architects aligned with the regimen a modernity that making use of traditional materials and the latest construction techniques was a "highly politicized exploration of mestizaje through built form."³⁹Through these projects the citizens were offered preconfigured spaces they would "only enter, observe, and be satisfied," but not according to Flaherty participate in their construction, improvement, or social rearrangement.⁴⁰

In an effort to expand the industrialization and "semblance of democracy" happening at a very fast rate in Mexico City, Mario Pani's office was hired by the federal government to produce comprehensive demographic and urban studies of all of the border towns. Promoting a better understanding of the social, urban and economic

³⁷ Manuel Sánchez de Carmona, "Los Planos Reguladores," in *Mario Pani*, ed. Louise Noelle (Mexico: UNAM - Instituto de Investigaciones Estéticas, 2008), 169–82.

³⁸ George F. Flaherty, *Hotel Mexico: Dwelling on the '68 Movement* (Oakland, California: University of California Press, 2016), 197.

³⁹ Luis M. Castañeda, "Pre-Columbian Skins, Developmentalist Souls," in *Latin American Modern Architectures. Ambiguous Territories*. (New York: Routledge, 2013), 104.

⁴⁰ Flaherty, *Hotel Mexico*, 197.

conditions of the area, they generated the basic understanding for the federal government to devise the policies, agencies, and programs needed to solve the problematics of the borderlands.

PRONAF had higher goals than just claiming national borders. Behind this program there was a whole philosophy of México that was based on a deep knowledge of the border needs, which are necessarily linked to the greater needs and the greater economic issues of the nation.

In order to contextualize the political and economic situation of the border territories that led to these projects, I will begin to explain the Mexican Farm Labor Agreement signed in 1942 during World War II: this was a program that attracted many Mexicans to the U.S. as a response to the shortage of agricultural labor during the war. As a direct result of the agreement, more than 5 million braceros, or “manual laborers”, were hired during the program and lived in the U.S. as legal workers. This agreement promised laborers basic human rights such as adequate shelter, food and sanitation, as well as a minimum wage pay of 30 cents an hour and a non-discrimination policy that guaranteed the laborers would not be excluded from ‘white’ areas. It is worth mentioning that many of the promises were never fulfilled, and the agreement led to cases of exploitation by the employers and racial discrimination as a result of the segregation laws still in place at the time.⁴¹

⁴¹ Otey M. Scruggs, “Evolution of the Mexican Farm Labor Agreement of 1942,” *Agricultural History* 34, no. 3 (1960): 140–49.

The return of the GIs at the end of the war generated an increase in demand for jobs in the U.S. Consequently, the government took several actions to reduce the number of legal working permits, and the program began negotiations to terminate in 1951 leading to its expiration in 1964.⁴² By 1954, under President Eisenhower, the INS commanded by Commissioner Swing launched a mass repatriation campaign dubbed “Operation Wetback” to repatriate illegal laborers still working in the U.S.⁴³ The border states were severely impacted by the return of the braceros. While some returned to their hometowns after their deportation, many others opted to stay permanently in the border cities, either because they hoped to return to the U.S. where they had left their families and built their lives, or because of the similarity to the lifestyle to which they had become accustomed, which was present in the northern border cities.

During WWII, in 1942, President Miguel Alemán signed a treaty with the U.S. that left the Mexican economy in a very privileged position. Having secured the positioning of raw materials and products in the American market, and because of the natural implications of a war economy and a restriction of industrial imports, México benefited from a de facto protectionist economy.⁴⁴ But after the war this agreement had to be transformed into an economy for peace and reconstruction. The U.S. government

⁴² Kitty Calavita, *Inside the State :The Bracero Program, Immigration, and the I.N.S.* / (New York :, 1992), 148, <http://hdl.handle.net/2027/txu.059173000185884>.

⁴³ Operation Wetback was a program led by General Joseph Swing while he was commander of the Sixth Army in California during the presidency of Eisenhower. Because of a close friendship with the president he had direct access to the office and with direct support from the White House the program organized military offensive tactics against the immigrants. To read more refer to Juan Ramon García, *Operation Wetback :The Mass Deportation of Mexican Undocumented Workers in 1954* / (Westport, Conn. :, c1980.), 171, <http://hdl.handle.net/2027/mdp.39015008453287>.

⁴⁴ Rogelio Hernández Rodríguez, “La Política. Los Desafíos al Proyecto de Nación,” in *Adolfo López Mateos: Una Vida Dedicada a La Política*, ed. Rogelio Hernández Rodríguez (México, D.F: El Colegio de México, Centro de Estudios Internacionales, 2015), 193.

was devising a free commerce agreement with México, and later with the rest of Latin America, in order to prevent the mistakes that in international commerce characterized the 1930's Great Depression policies.⁴⁵

From the very beginning Adolfo López Mateos government was criticized by the conservative faction of the party, and the right-wing for positioning the state in a predominant role as the sponsor of the social benefits, development, and economic growth. Although the state's presence in previous decades had been already strong, in the López Mateos period with his strong sense of continuity to the promises of the Revolution, it became much more overarching. The government undertook the technification of agroindustry, the development of the manufacturing industry, a very aggressive schooling program that included construction of public schools around the country and provision of free textbooks, and the reinforcement of the social security and assistance systems with a similarly aggressive hospital construction program.⁴⁶ These policies were regarded as very problematic, socialists and even proto-communists, from the stance of the relations with the U.S., vis a vis the Cold War and the emergence of communism in Latin America, specifically in Cuba. Historical conflicts between the right and the left-wing factions of the politics in México were reignited.⁴⁷

The ambiguity between a developmentalist modern state and the socialist revolutionary demands which existed in the Mexican governments that followed the

⁴⁵ Hernández Rodríguez, 193.

⁴⁶ In Jorge Sayeg Helú and Adolfo López Mateos, *Perfil de Un Patriota: El México de Adolfo López Mateos*, Colección "Política" (Col. del Valle, México: Libros para Todos, 2006), 15–27 candidate López Mateos delineates his government plan, which he followed very closely to the end of his presidency.

⁴⁷ Hernández Rodríguez, "La Política. Los Desafíos al Proyecto de Nación," 221.

Revolution proved to be especially problematic during the Cold War. Since the 1930's, the left, socialism, communism, the Soviet Union, Cuba and the revolutions, were always a problematic topic for the Mexican politicians. Socialist related postulates emanated from contemporary revolutions, it was important to differentiate their governments from those already characterized as totalitarian governments, at the same time accepting that the social agenda and democratic vocations of their political systems were similar. Adding to the already ambiguous position of Mexico in the global political climate, the defense of Cuba's liberty to define its political system, based on the diplomatic tradition of no intervention, confronted the Mexican government with the American.⁴⁸

In his candidacy acceptance speech of November 17, 1957, López Mateos strongly stated that for his government, true to the values of the Mexican Revolution, the economic and social aspects were going to be a priority. Reaffirming the economic policies that since the 1930's was pursued, he emphasized that social welfare would only be possible through economic development, and that to attain it, the industrialization and urbanization of the country, and the technification of the farming industry were crucial. López Mateos was aware that such an endeavor would not happen fast and easily, but the role that the state had to play was to assure the incentives for a free enterprise to succeed.⁴⁹

The decision to boost development and not rely on the purported rationality of the market not only strengthened the state as an economic agent but also launched what was

⁴⁸ Hernández Rodríguez, 222–23.

⁴⁹ Hernández Rodríguez, 224.

the most important growth model of the Mexican state, the so-called stabilizing development, which would bear fruit for twelve continuous years.⁵⁰

The role of the planner-architect became an indispensable figure between the state, the market, and the private sphere.⁵¹ Mario Pani's work for the government in Mexico City - high-density multifamily-housing complexes situated in urban cells that he called supercuadras, or macromanzanas had won praise and the government favors. By the time of López Mateos term, it had gained the reputation of the model for modern city that was to be disseminated throughout the country.

Invested in the development of the Mexican borderlands, Presidente López Mateos created the Juntas Federales de Mejoras Materiales -JFMM (Federal Bureau of Material Betterment), an agency under the newly created Secretaría del Patrimonio Nacional -SPN (Secretary of National Patrimony) that, working in cooperation with State and Municipal authorities, was to take over the urban works and services in those areas where maritime and border customs existed. Driven by these policies, López Mateos devised a program that attempted to solve the urban problems and socioeconomic inequalities of the northern Mexican border cities, while establishing connections with their neighbors, consolidating a production and trade network, and leveling their development with the rest of the country. The 1961 PRONAF and later the PIF of 1964, directed and lobbied for by Antonio J. Bermúdez, were programs that sought to propose a

⁵⁰ Hernández Rodríguez, 229.

⁵¹ Flaherty, *Hotel Mexico*, 198.

model of economic and cultural development for the territory that neighbored “the country with the highest economic potential in the world.”⁵²

The legality of the federal implication in matters of municipal urban development was debated. Still, the SPN established a frame of legality in which the program, being federally funded and managed, could intervene in municipal manners without any constitutional programs. PRONAF’s funding was secured from the federal taxes that were being recollected from imports and exports rights at the border crossings and that by the constitution could not be administered by the state, nor the municipal finance secretariats. This federal funding will allow the municipalities to use their own funding in more targeted needs, while the federal government would take over the most expensive and larger projects needed at the border towns or where maritime customs offices exist.⁵³

The SPN conducted preliminary research in order to find out the main problems were that the secretariat would find by administering all federal assets in these locations.⁵⁴ The study showed that the ferocious speculation of the developers, the growing needs of infrastructure, housing and public buildings in these fast-growing cities,

⁵² Programa Nacional Fronterizo, *National Border Program*, 2:2.

⁵³ Eduardo. Bustamente, “Constitucionalidad de La Creación y Funcionamiento de Las Juntas Federales de Mejoras Materiales,” in *Normas, Métodos y Realizaciones En La Urbanificación de Las Ciudades Fronterizas y Portuarias Durante El Gobierno de Adolfo López Mateos, Presidente de La República, 1958-64.*, ed. México Secretaría del Patrimonio Nacional (Mexico: Departamento de Informacion y Publicaciones, 1965), Sección 1.

⁵⁴ The total investments administered by the SPN that were accounted for at the end of 1964, was for approximately \$544 million pesos, of which approximately \$372 million were directly investments in buildings and infrastructure, works that were to be handled to the States, Municipalities and local governments. More in Saltiel Alatraste, “Control y Vigilancia Externa de La Secretaria Del Patrimonio Nacional En Las Juntas Federales de Mejoras Materiales,” in *Normas, Metodos y Realizaciones En La Urbanificación de Las Ciudades Fronterizas y Portuarias Durante El Gobierno de Adolfo Lopéz Mateos, Presidente de La República, 1958-64.*, ed. México Secretaría del Patrimonio Nacional (Mexico: Departamento de Informacion y Publicaciones, 1965), Sección 2

the inexistence of a historical cataloguing of the built environment; the need for urban planning, were all at play. More importantly there was a lack of adequate urban and rural real-estate resources that would ensure the governments promise of a betterment in the social and economic welfare of the citizens.⁵⁵

In view of such problematics, several modifications to the structure of the Secretary needed to be made, resulting from this change the Dirección de Urbanismo, Ingeniería y Arquitectura – DUIA (Sub-secretary of Urbanism, Engineering, and Architecture Management) the first of the sub-secretariats created in the country to administer directly architectonic and urban problematics. One of the major problems that the governmental organism addressed was the growing socioeconomic needs that the “faja envolvente” (surrounding strip), that the port and border cities represented.

These locations, through which mainly the international exchanges happened, like San Luís Rio Colorado, Cd. Juárez, Tijuana, and Reynosa, were going through a demographic explosion of almost twice their population in less than ten years.

In the words of the sub-secretary of the DUIA architect Guillermo Rossell, population shifts originating from the national and international migration phenomena “abruptly invade” these towns. In order to respond to this problem that constituted a large number of floating populations that without proper housing generated other problems that

⁵⁵ Guillermo Rossell, “Principios Rectores de Técnica y Acción de Las Ciudades Fronterizas y Portuarias,” in *Normas, Métodos y Realizaciones En La Urbanificación de Las Ciudades Fronterizas y Portuarias Durante El Gobierno de Adolfo López Mateos, Presidente de La República, 1958-64.*, ed. México Secretaría del Patrimonio Nacional (Mexico: Departamento de Informacion y Publicaciones, 1965), Sección 3.

the local authorities found difficult to attend to, President López Mateos, instructed his cabinet to focus attention on the border areas.⁵⁶

Mario Pani **Architect/Urbanist/Statesman⁵⁷**

To speak about the history of modern architecture in Mexico is necessarily to speak about the figure of Mario Pani. His career was controversial and very public since his arrival back in México in 1934. Coming from a family of privileged diplomats of the Mexican government, Mario Pani spent his childhood, and youth years abroad. His formation years transpired in “highly structured cities with great urban life and culture.”⁵⁸ Rome, Venice, Brussels, and Madrid were the background for his intellectual growth, fostered by the parties hosted by his family, attended by the greatest minds of the time. L’Ecole des Beaux Arts in Paris, where he joined Georges Gromont’s, atelier was the next step that completed his education in architecture.⁵⁹

Pani’s return to México was marked by two distinctive circumstances that brought attention to his career, scandal and prestige. His first commission, obtained by nepotism and taken from the hands of the well respected and renowned Carlos Obregon Santacilia,

⁵⁶ Rossell, Sección 3.

⁵⁷ In Clive Bamford Smith, *Builders in the Sun; Five Mexican Architects*. (New York: Architectural Book Pub. Co., 1967) Smith cites Julian Díaz Arias, an engineer who works for Pani, that describes him as: “above all, a man with the capacity to coordinate dissimilar elements so as to realize plans of great social significance. More than anything, he is a statesman, although he has never occupied public post. His work serves the community, built it is on such scale that it rises above the field of what is commonly called architecture, and becomes the work of a statesman.”

⁵⁸ Miquel Adrià, *Mario Pani : La Construcción de La Modernidad*, 1a ed. (México, D.F. : Consejo Nacional para la Cultura y las Artes, 2005), 9.

⁵⁹ Adrià, 9.

was completed when he was only twenty-nine years and was considered the most modern and elegant hotel in México, the Hotel Reforma. Not having any other projects in sight, he participated in every competition that was announced. By winning them all his name started to resonate in the circles of the establishment and Mario Pani started to make a name for himself.⁶⁰

Arquitectura México

In 1938, only 4 years after his return to Mexico, Pani founded the *Arquitectura* magazine later known as *Arquitectura/México*. The magazine served him both as a method of self-promotion and to establish a common discourse about national architecture.⁶¹ Having spent his architecture education years in Paris, he was aware of the power of media and what the twenty-nine issues published between 1920-1925 of *L'Esprit Nouveau* did for Le Corbusier's career.⁶²

The magazine started as publication that reproduced what foreign magazines were publishing. Its main intention was to showcase international architecture to those who were interested in México.

Desprendiéndose de toda doctrina exclusiva, de todo sectarismo, su tarea principal será la selección; la de una selección rigurosa, para dar cabida dentro de sus estrechos límites sólo a la verdadera arquitectura; [...] No pretende señalar un camino; imponer una tendencia, sino documentar. No es su intención

⁶⁰ Adrià, 14–15.

⁶¹ Mario Pani and Graciela Garay, *Mario Pani : Historia Oral de La Ciudad de México : Testimonios de Sus Arquitectos (1940-1990)* (Mexico: Conaculta, 2000), 45.

⁶² Louise Noelle, "La Revista Arquitectura/México," in *Mario Pani*, ed. Louise Noelle (México: Universidad Nacional Autónoma de México, Instituto de Investigaciones Estéticas, 2008), 317.

la de poner modelos para que se copine, sino la de mostrar [...] lo mejor que en el mundo se hace sobre ramas tan interesantes para la humanidad.⁶³

Shortly thereafter, by issue number five, there was enough material of new construction built in the country to be published in the magazine, and by issue fifteen the whole publication was dedicated to the hospitals of México.⁶⁴

In the more than forty years of its publication, the magazine evolved from its documenting origins to a platform that sparked controversies, set trends and doctrines, and controlled the narrative through its modernist agenda.⁶⁵ Among its collaborators were expats Vladimir Kasper, first editor in chief who contributed with interviews to Perret and Le Corbusier, and Mathias Goeritz who brought an art section which served as a platform for the movement called “La Ruptura”.⁶⁶ Also, important figures of Mexican functionalism like Villgrán García, Yáñez, and O’Gorman, and more diverse authors like Barragán, Candela, and Legorreta were important part of the pages of the magazine.⁶⁷

In 1938 the magazine was titled *Arquitectura* with subtitle *Selección de Arquitectura, Urbanismo y Decoración*,⁶⁸ by issue 19 the subtitle was dropped and by

⁶³ Noelle, 318.

Translation: Getting rid of all exclusive doctrine, all sectarianism, the main task will be selection; a rigorous selection, to accommodate within its narrow limits only true architecture; [...] It does not pretend to point out a path; set a trend, but to document. It is not its intention to set models to be copied, but to show [...] the best that is done in the world on fields so interesting for humanity

⁶⁴ Larrosa and Noelle, *Mario Pani, Arquitecto de Su Época*, 26.

⁶⁵ Adrià, *Mario Pani*, 28.

⁶⁶ La Ruptura was an artistic movement that tried to break ties with muralism for its simplistic, chauvinistic, dogmatic, and Manichean ways. They believed they were too deferential towards the government and stuck with old formulas. More in Museo de Arte Carrillo Gil, and Museo Biblioteca Pape. 1988. *Ruptura 1952-1965: catálogo de la exposición*. México: Museo de Arte Alvar y Carmen T. de Carrillo Gil.

⁶⁷ Noelle, “La Revista Arquitectura/México,” 320–21.

⁶⁸ Translation: Selection of Architecture, Urbanism and Decoration.

issue 29 in April 1949 to the title was added the word México. Although architecture was the central topic of the magazine, decoration articles appeared sporadically and mostly featuring and recognizing Clara Porset's work. Urbanism on the other hand was a frequent topic in which Mario Pani became the central figure.⁶⁹ (Fig.3)

Urbanism / Taller de Urbanismo

Pani's career as an architect is intrinsically related to his career as an urbanist. His rejection of a separation between the two fields was clearly stated until the very last of his interviews.⁷⁰ Although his larger early projects like the Escuela Nacional de Maestros (National School of Teachers) 1945, or the Conservatorio Nacional de Música (National Conservatory of Music) 1946, are architectural in nature, the composition of the pieces in the ensemble give clues of his later understanding of the urban environment. Following these projects and with a clearer intention to modify the traditional urban grid of Mexico City, the projects for the Multifamiliares, Presidente Alemán in 1949 (Fig.4), and Presidente Juárez in 1950, experimented with the supermanzana (superblock).

Described by Moyssén as:

“Supermanzana”, y que consiste en conservar un terreno de dimensiones mayores que las de una manzana normal, diseñando las vialidades perimetrales, sin penetraciones ni cruces con las áreas peatonales, y localizando los estacionamientos en la periferia.⁷¹

⁶⁹ Noelle, “La Revista Arquitectura/México,” 321.

⁷⁰ Pani and Garay, *Mario Pani*, 26.

⁷¹ Xavier Moyssén, “El Centro Urbano Presidente Alemán,” in *Mario Pani*, ed. Louise Noelle (Mexico: UNAM - Instituto de Investigaciones Estéticas, 2008), 127. Translation: superblock, consists in maintaining a plot with larger dimensions than a standard block, designing perimetral roads without crossing the designated pedestrian areas, and placing parking in the periphery

The superblock served Pani to address the population growth that Mexico City was experimenting by the end of the 1940s. Having received an invitation from the director of the then Pensiones Civiles de Retiro⁷² to participate in the competition for the construction of two-hundred housing units in a forty-thousand square meter plot, Pani proposed a revolutionary idea. Considering that two-hundred small houses in such a big plot of land was a waste space, he proposed a model that consisted of a series of fourteen level zig-zagged buildings for one-thousand apartments.

The proposal not only allowed for a better use of the land, but that also followed Le Corbusier's Ville Radieuse imagined density for Paris of 1,000 people per hectare. Although the project was not readily accepted, Pani and Bernardo Quintana, the director of ICA, a construction company,⁷³ convinced the federal agency of the financial, social, and urbanistic benefits of the proposal. With construction cost under budget the project was approved for construction. By 1949 México gained a new model of housing urban densification, and a new typology -the Multifamiliar, with the Multifamiliar Miguel Aleman project.⁷⁴

For 1949 Carlos Lazo's UNAM campus master plan in collaboration with Enrique Del Moral, and Pani; Pani had the opportunity to experiment even further with the superblock. On a vast plot of land of seven million three hundred thousand square meters,

⁷² Pensiones Civiles de Retiro now ISSSTE (Instituto Mexicano de Seguridad Social al Servicio de los Trabajadores del Estado) – Civil Retirement Pensions now the Institute for Social Security and Services for State Workers is a federal government organization that administers social security, health care and provides social assistance to federal workers.

⁷³ ICA (Ingenieros Civiles Asociados) – Civil Engineers Associated was founded in 1947 to build most of Mario Pani's projects. It has been one of the main federal government commissioners and has grown to be one of the most important construction companies of Latin América.

⁷⁴ Larrosa and Noelle, *Mario Pani, Arquitecto de Su Época*, 52–54.

Pani and associate had to locate all the school's buildings and facilities. Contained by a peripheric one way traffic circuit (Herrey System), the education, living, sports, and administrative buildings and facilities were located in their respective zone. In the project he experimented with several operations of hybridization, an attitude towards architecture and urban design that would later be recognizable in the projects for PRONAF. (Fig. 5)

The *mexicanization* of the International Style was sought through several strategies: a formal language reminiscent of the pre-Columbian pyramids, like in Alberto T. Arai's frontones and Pérez Palacios' Olympic stadium; but that also classroom volumes raised on Corbusian pilotis in Enrique Yañez's project for the School of Chemistry. The use of local materials, specifically the tezontle, a volcanic rock found in the immediate environment, in the previously mentioned frontons, but also in a more contemporary application in the walls and paving of the scrupulously designed gardens and landscaped areas.

Finally, the master plan incorporated modernist urbanism, as per Le Corbusier & CIAM's 1933 Athens Charter: utopian functional city tenets, with four separated areas for living, working, recreation, and circulation. The plan contemplated traditional pre-Hispanic guidelines and axes. The monumental quadrangles and processional axis of the pre-Columbian archeological sites of the Valley of México were taken as inspiration for the plazas and corridors that connected the main campus buildings inside the UNAM complex.⁷⁵

In collaboration with Jose Luis Cuevas, Mario Pani founded the office Taller de

⁷⁵ Enrique X. de Anda, *Historia de La Arquitectura Mexicana* (Barcelona: GG, 2013), 194–99.

Urbanismo in 1944 to develop a plan the Reforma-Insurgentes intersection, one of crossings with the most traffic in the city, even today. Despite the project not being built, the office and their project gained such prominence that it positioned Pani before the federal authorities as the go-to figure when urban development plans were needed.

Pani's urban theories considered the technical functional aspects of the solutions to be no less important than the plastic-aesthetic aspects, since their goal was to solve social problems. In the position of the architect-planner,⁷⁶ he represented both public and private interests.

His urban solutions considered four fundamental elements: zoning, road systems, the hierarchization of development stages, and planning the legal and financial means of execution. In an article published in his *Arquitectura México* magazine in 1960, (Fig.6) Pani delves into issues of urban zoning mentioning the strong influence of Le Corbusier's Athens Charter, but with a developer's perspective.

Hay la convicción general de que el desarrollo de una comunidad debe ser planeada no dando ocasión a que se verifique obedeciendo a urgencias inmediatas o especulaciones [...] la población de una ciudad debe alojarse, trabajar, transportarse y tener los medios necesarios para la recreación [...] cuestión primordial es estudiarse como parte de un engranaje que integra una región.

La zonificación fija usos: un espacio para cada función y cada función en su espacio. Permite un desarrollo económico adecuado a la vialidad y a los servicios públicos, una estabilidad de los valores comerciales y simplifica los procesos de avalúo.⁷⁷

⁷⁶ George Flaherty in his book *Hotel Mexico. Dwelling on the 68' Movement* coins the term architect-planner for figures whom like Pani and Pedro Ramírez Vazquez, were crucial tools for the federal government to develop and construct the modern infrastructure for the country during the "Mexican Miracle."

⁷⁷ Mario Pani in Sánchez de Carmona, "Los Planos Reguladores," 173–75. Translation: There is a general conviction that the development of a community should be planned not giving importance to verification, instead by obeying immediate urgencies or speculation [...] the population of a city must dwell, work,

Planos reguladores /Urban design guidelines

In 1950 Mario Pani received the federal government appointment to develop an urbanization plan for the city of Acapulco. Under his direction, the Comisión de Planificación Regional de Acapulco (Regional Planification Commission for Acapulco) for the first time in the history of México involved the three levels of authority: municipal, state, and federal. It proposed a master plan (not built) that presented the separation of the three main activities of the city: tourism, port, and agro-industrial activities. A *Plan Regulador* designed by Domingo García Ramos inside the Taller de Urbanismo followed in 1951 for the city of Campeche, the first to be published in his magazine. In following issues of *Arquitectura/México* were published: planning studies for the Yucatán peninsula, and the *Plan Regulador* for the cities of Merida, Guaymas, Acapulco, Mazatlán, and Culiacán, Sinaloa; and in a study for the whole country titled *México. Un problema. Una solución.* the *Plan Regulador* de Ciudad Juárez, Ciudad Pemex, and Matamoros.

In Pani's master plans zoning becomes a very important guideline, a separation for dwelling, laborer, residential or touristic; and working areas for administrative, industrial and agricultural activities were always clearly demarcated. He shows respect for the existing urban grid. Planning an appropriate urban density that could be supported

transport, and have the necessary means for recreation [...] the most important thing is to study it as a part that integrates a greater region.

Zoning fixes uses; a space for each function and each function in its space. It allows an adequate economic development for roads and public services, a stability of commercial values and simplifies the appraisal processes.

by the projected infrastructure and urban equipment was important. Zoning becomes a result of carefully planning land use, population density, minimum lot area, maximum area of construction, minimum free area, restrictions in heights and parking spaces. Pani locates the industrial areas facing toward the direction where the wind is blowing, and the laborer housing areas close to them to reduce travel. Growth is planned modularly in order to optimize investments.⁷⁸

In the *Plano Regulador de la Ciudad de Mérida*, Pani and collaborators, architects Jose Luis Cuevas, Domingo García Ramos, Enrique Manero, and engineer Victor Vila, clearly show Taller de Urbanismo's urban design thesis. The drawings presented in the extensive *Arquitectura/México*⁷⁹ magazine spread show a timeline of the urban grid from its foundation in 1240 to 1906, the date of the latest urban plan. The profuse documentation provided shows a deep understanding of the conditions of the city, both historical and present. Graphs, maps, plans and analysis demonstrate the deep investigation and research that Taller de Urbanismo realized before proposing a solution. For the *Plan Regulador de Mérida* they offer nine illustrated propositions: (Fig.7)

1. Stop the sprawling and promote the vertical growth of the city.
2. Transform and regeneration of some areas into superblocks.
3. Regulation of an industrial area in the east side of the city.
4. Renovation of the central market and relocation of tenants.
5. Initiate the construction of new schools.
6. Link the city to the main important highways avoiding the center city.
7. Convert the soon to be obsolete railway into a highway
8. Create two ring roads. One peripheric to the city and one around the city center. Modify the circulation directions to generate a faster and efficient system.
9. In order to control the growth of the city, the municipal or state government

⁷⁸ Sánchez de Carmona, 175.

⁷⁹ Mario Pani et al., "Estudios de Planificación Sobre Yucatán," *Arquitectura México*, March 1953, 25–39.

must acquire a belt of land around the current city limit to prevent its excessive and uncontrollable growth.

As seen in the previous example, alongside zoning, roadway design becomes one of the central planning areas for Taller de Urbanismo. Their design tenets included circuit systems that prevented crossing the central grid of the city - one internal ring around the historical center, and one external, connected to the main federal highways; they also maintained a separation of the different means of transportation: one to move people, and one to move products. They designed for the urban areas, a public transportation system with transfer points every four or five blocks; for the new development areas, the Herrey system was proposed in order to articulate the *supermanzanas*. The Herrey system was inspired by the article published by Herman Herrey in 1944 in *Time Magazine* and *Pencil Points*, in which he describes an uninterrupted high-speed road system, which was then adapted by Pani's team and first hybridized for the project of *Ciudad Satélite* in 1954.⁸⁰

In a general way, Pani's main urban thesis through his career were: To allocate in the historic center the government, religious, higher education, fixed commerce, and great spectacle buildings. Limit the industry in the center and move it to an industrial zone. Re-densify the residential areas to optimize infrastructure and services and limit urban expansion. Transform zones to the superblock system. Move daily consumption markets from the center to the housing units. Build schools by zones. Organize the collective transport avoiding that all routes are concentrated at one point. Public transit routes every five blocks. Create an external road circuit to link roads. Establish the

⁸⁰ Mario Pani, "México. Un Problema. Una Solución.," *Arquitectura México*, 1957.

Herrey circulation system Build a road ring surrounding the city center. (Fig.8) Propose autonomous housing units for future urban growth. Promote the integration of neighborhood units with homes of different types for inhabitants with different training and economic capacity. Lastly, promote regional integration and planning of agricultural areas.⁸¹

Planos reguladores para las ciudades fronterizas /
Urban design guidelines for the border cities

Although Pani never held a public office, some of his disciples and close collaborators did, which allowed him to institutionalize his urban ideology. Architect Guillermo Rosell director of the Secretaria de Bienes Inmuebles y Urbanismo – Secretariat of Real Estate and Urban Planning was one of them. Under the auspices of the SPN several urban studies were conducted, and it was established that all cities follow an urban development plan, and that these plans should prioritize populations in need, in order to favor social justice. By using state of the art technology in the planning and construction, all urban establishments should allow maximum use of the investment with minimal effort. Lastly, the character of the Mexican cities had to be established without giving up the advances in urban design, allowing to take advantage of the cultural assets.⁸²

⁸¹ Sánchez de Carmona, “Los Planos Reguladores,” 175–76.

⁸² Rosell, “Principios Rectores de Técnica y Acción de Las Ciudades Fronterizas y Portuarias.”

The presidential agreement of June 29, 1959 instituted the procedures to program the public investments allowing the coordination of the big enterprise to satisfy the requirements that the national survey provided. In September 1959, the Primera Reunión Nacional para el Estudio de los Problemas de las Ciudades Fronterizas y Portuarias (First National Meeting for the Study of the Problematics of the Border Cities and Ports) takes place. In it, each level of government (federal, state, and municipal) met to discuss theory and practice, and established methodological guidelines to elaborate the *Planos Reguladores* (Master Plans) or Programas de Desarrollo Urbano (Urban Development Programs). Such methodology was set to prevent insularity, and subjective personal inspiration that would not take into account all the factors, internal and external, that operate in the development of Mexican cities.⁸³

For this, Guillermo Rossell developed fourteen *Guiding Principles of Technique and Action for the Border and Port Cities*, which contained the criteria to understand, design and plan the cities at borders and ports that would later be used as the base for the Planos Reguladores.

- a) The modern city should be the center where freedom is enjoyed and exercised.
- b) The city is part of a region, the region part of the country, the country part of the world.
- c) Therefore, to study and analyze the city it is necessary to consider the internal and external factors that affect its growth.
- d) In the city the equilibrium between the individual and the community must be achieved through the design of urban elements that allow this coexistence.

⁸³ México Secretaria del Patrimonio Nacional, *Normas, Metodos y Realizaciones En La Urbanificación de Las Ciudades Fronterizas y Portuarias Durante El Gobierno de Adolfo López Mateos, Presidente de La República, 1958-64*. (Mexico: Departamento de Informacion y Publicaciones, 1965), Sec. 4 Actividades de Programación, Promoción y Coordinación.

- e) The city must be seen as a living organism, like a being that is born, structured, and grows in function to the natural and cultural environments, and the human. actions that are inflicted to it.
 *natural environment is the biophysical and ecologic characteristics of the site where the city is located. The cultural environment is shaped by the quantitative and qualitative characteristic of everything man made in the city.
- f) The urban physiology is constituted by the functions man perform in the city: production, distribution, and consumption in that natural environment in which social, economic, and politico-administrative values are made
- g) In the city there must be an equilibrium between natural and cultural environments, achieving habitability by integrating it to nature in order to obtain the maximum good.
- h) To increase coexistence means to promote and organize communities that acquire their dimension due to the density of their inhabitants, the surrounding areas and regions, their physical factors, the degree of their industrialization, social customs and historical factors of the population.
- i) The functions and activities referred to are a consequence, a result of the economic and social cycle, which is carried out in the city.
- j) The city should favor the establishment of the following areas, clearly demarcated according to the functions and activities that take place in them:
 - The areas where man predominantly work and produce: Zonas de Producción Urbana – Urban Production Areas.
 - The areas or strips where man circulates and distributes its production and consumption goods: Zonas Distributivas – Distribution Areas.
 - The areas where man consume goods, solve its biological, social, subsistence, and personal integration needs: Zonas de Consumo – Commercial Areas.
- k) The organization of community life should be around one central heart or center, and as many other secondary as specific communities exist.
- l) Everything external to the urban environment should stay outside. The production elements that pass through the city but not stay, should not cross it.
- m) The city must facilitate all means of transportation but should prioritize pedestrians until a total freedom is achieved.
- n) A city must be understood as a large collective enterprise in which everyone participates with attributions and obligations. In which it must be economically produced, distributed equally, and consumed with the highest sense of fairness and justice

The principles and guidelines contain a particular view of the modern city,

Rosell's view both as an architect and planner, is not only modernist and very much

aligned with the ideas of Mario Pani; but is also in line with the ideals of the leftist

government of López Mateos. The guidelines show a concern for the wellbeing of the citizen as well as an interest for the development of the city as an economic and cultural entity. The guidelines were the base for the Comisión Mixta del Desarrollo Urbano Fronterizo – COMDUF,⁸⁴ that would work to reshape the urban structure of the border cities. The commission was led by Rossell and Pani, fulfilling one of the functions for which he was hired for PRONAF, and it consisted of representatives of the private sector, architectural, urban, and technical drafters from all federal and state agencies, financial specialists from Banco de México, and “specialists” citizens from each city. The drafters worked under the direct supervision of Pani’s Taller de Urbanism, managed at the time by Architect Domingo García Ramos and Engineer Víctor Vila.

International Collaboration

Rossell, following the great diplomatic skills of President López Mateos spearheaded the organization of the many of binational meetings between Architect’s Associations of both México and the US for the borderlands projects. On June 27, 1959, a committee from the AIA left from New Orleans to Mexico City. Received by their Mexican counterpart the Colegio de Arquitectos de la Ciudad de México - CAM, they were hosted by Carlos Contreras and the president of the CAM, Luis Gonzalez Aparicio. Other local architects, well known to the AIA commission like Ramon Corona, Martin Hector Mestre and Nicolas Mariscal Barroso, escorted them on a visit to UNAM, the

⁸⁴ COMDUF – Mixed Commission for Border Urban Development

Castillo de Chapultepec, the Cathedral of México, residences in Lomas and el Pedregal, and to Mario Pani's housing project Ciudad Satélite. (Fig.9) After the courtesies and protocols, a meeting with President López Mateos and Mexico City Mayor, Ernesto Uruchurtu, the American committee was favorably impressed with the planning work that their Mexican colleagues were doing, saying:

When the time came to say "adios" to Mexico we were well aware of the excellent job of planning and design by our Mexican colleagues and there is no doubt in my mind that the exchange of ideas and communication between our great organizations will continue and grow.⁸⁵

April 20, 1961 was the time for the Mexican architects to visit the United States. The Ninety-Second Annual Convention of The AIA in San Francisco, California was the context in which discussions about the relations between México and the United States architectural fields were to happen. After presenting honorary memberships for American architects, as well as invitations to host in Mexican cities the AIA and Pacific Rim conventions, a more important announcement was made. Mexican architects presented for the first time the commission that the president had placed on them, and that even before going through the official Washington channels it was presented to the American architects for their collaboration.

Defense, languages, races and selfishness have drawn boundary lines between nations, but ideals are the same, real friendship exists, such lines become almost imperceptible, actually architects are very poor draftsmen when it comes to drawing such lines.⁸⁶

⁸⁵ John Noble Richards, "¡Gracias Arquitectos Mexicanos!," *AIA Journal* XXXIII, no. 5 (May 1960): 35.

⁸⁶ Ramon Corona, "Address by Ramon Corona. President of the Comission for International Affairs of the Sociedad de Arquitectos Mexicanos," *AIA Journal* XXXIII, no. 6 (June 1960): 73.

These were the lines with which Ramon Corona, president of the Commission for International Affairs of the Sociedad de Arquitectos Mexicanos- SAM (Society of Mexican Architects), started his detailed presentation of the project. Acknowledging the strong relationship that exists in the border cities, where people live on one side and work on the other, own businesses in both sides, or even have family members in both sides, he recognized the inequality existing between them. Reinforcing the strong connection and physical proximity of the infrastructure used by citizens of both sides, Corona called on the architects to take actions and move forward, stating: “The architect has grown into a city planner and as such has to consider the needs of each inhabitant, added to the ones of his neighbors and solve the problem for the benefit of both and everyone.”⁸⁷

Ramon Corona made especially clear how the president has considered architects and planners the center of these projects. The abilities of the field to coordinate engineering, design, and construction efforts, along the vocation of solving human problems through functional solutions, were exalted in his speech. Corona called for American architects to do their part, to participate in the international commissions and leave behind the selfish ways in which planners and architects in the border cities had been working before. Pushing this agenda, he hoped that the joint efforts would get to the government and expedite the construction of such needed projects.

⁸⁷ Corona, 74.

The El Paso Congress

Carta de El Paso / Charter of El Paso

The congress in El Paso, Texas, “Architecture for the Americas” on November 2-5, 1960 originated from the presentation that Ramon Corona president of the SAM gave at the San Francisco AIA Convention. His calling for American Architects to collaborate on the design of the border cities was responded to by the Executive Board of the Texas Society of Architects. Having had exploratory meetings in Mexico City and Austin Texas, where the profuse studies that the SAM had done in the border cities, speakers were assigned, and the scope and size of the planning was started to be defined. Architects from both sides of the border delineated the Charter of El Paso, a document that would end up being the final document of this convention.

In preparation for the event, and by suggestion of S.B. Zisman (AIA, Texas) in the 1959 “The Conference on the Problems of Border and Port Cities” meeting in Mexico City,⁸⁸ a meeting of the four border states governors’ (Texas, New Mexico, Arizona, California) was organized and Eduardo Bustanmente, Secretario de Patrimonio Nacional was invited to attend and make an address. The interest of the governors was provoked, and they designated official representatives to attend the El Paso convention. (Fig.10) Two hundred members of the AIA, and one hundred Mexican delegates (half of which were representatives of the SAM), three hundred students, and other guests attended the convention. As part of the events that happened during the convention, the Mexican delegation presented an exhibition entitled 4000 Years of Mexican Architecture, were

⁸⁸ S.B. Zisman, “Letters,” *AIA Journal* XXXIX, no. 2 (February 1963): 10.

they also showed the master plans already developed by Rosell and Pani's COMDUF for the borders.⁸⁹

The comprehensive project from the Mexican architects was praised for Their thinking on the matter was virtually cosmic, since it went not only far beyond mere city planning in its accepted sense but also into all phases of the social, economic and cultural aspects of the development of these important cities and their surrounding regions.⁹⁰

Impressed by the projects, these series of lectures and presentations concluded with the creation of the Joint Planning Commission. President Phillip Will, from the FAIA, and President Gonzales Aparicio, from SAM, appointed correspondingly Robert E. Alexander and Edwin W. Carroll as the AIA representatives, and Ramon Corona Martin and Carlos Contreras as the SAM members, with Guillermo Rossell as the first Chairman. The Charter of El Paso (Fig.11) was presented at the final banquet and it was formally adopted with the signatures of Jack Corgan, President, TSA; Philip Will, Jr, President, AIA; Luis Gonzales Aparicio, President, SAM, and other delegates who participated to make the program successful. Containing ten main tenets it read:

We, the architects of the United States of America and the Estados Unidos Mexicanos, meeting today, the fourth day of November of the year 1960 in the city of El Paso in the State of Texas, do hereby declare:

- 1.- That we accept the mission and service of our profession as an unavoidable duty that we must fulfill
- 2.- That we define this mission as the responsibility for preparing a total physical environment in harmony with man's highest aspirations
- 3.- That we recognize that the problems to be solved are common to both nations
- 4.- That we must work together and exchange freely our ideas and experiences
- 5.- That it is impossible to conceive the adequate development of a city without previous analysis and knowledge of its region

⁸⁹ John G. Flowers, "The El Paso Congress," *AIA Journal* XXXV, no. 1 (January 1961): 56.

⁹⁰ Flowers, 56.

6.- That all citizens living along the border dwell in a geographical area with similar characteristics and with common problems of urban production, distribution and consumption

7.- That these common problems deserve and require urgent technical attention to have a harmonious development of our cities and regions

8.- That we agree fully in our objectives and our basic ideals in planning and architecture;

9.- That we would transform public indifference into civic enthusiasm and isolated activity into coordinated effort

10.- That we propose to create technical border commissions to collaborate with our governments to further the aims of this charter.

With a high spirit of human understanding we, on this fourth day of November 1960, appeal to architects and all other citizens of the Americas to accept and adopt these principles and ideals and to work with us toward their ultimate fulfillment.⁹¹

The Texas Society of Architects, excited about the challenge and invitation presented by the SAM in the San Francisco Convention, made the efforts to bring both professional organizations together, and promoted a cooperation that would endure beyond this project and continue for future endeavors. Acknowledging their position as the first and experimental instruments for this joint effort, President Jack Corgan from the TSA called the entire AIA to participate and cooperate to improve the border areas of both countries, stating: “let us as architects consider the Rio Bravo and the boundary line as an axis and not as a line of regional division.”⁹²

⁹¹ Flowers, 55.

⁹² Edwin W. Carroll, “Good Neighbors. Planificación Fronteriza de Arquitectos Norteamericanos y Mexicanos,” *AIA Journal* XXXVIII, no. 6 (December 1962): 27.

PRONAF / “An enormous show window”

The Programa Nacional Fronterizo PRONAF, was created as an escrow/trust from the federal government in Nacional Financiera S.A. (National Financial Society),⁹³ as a result of successful lobbying a new governmental entity that was able to manage the budget, personnel, and projects for the northern border of México. The broad ideals and objectives of the PRONAF were to balance the social, economic, and political interdependence between México and the United States.⁹⁴ The desires were to modernize the country and the social urbanistic visions of the government of the Partido Revolucionario Institucional (PRI) were fundamental to Pani's appointment as the designer of the Planos Reguladores for sixteen border cities. PRONAF came as an urban development model derived from the Planos Reguladores project for the border cities. It would be a model of urban development for the eight major twin-cities (those that neighbored cities of equal or larger size on the other side of the border) selected to receive the program's investments.

The selection of these cities was driven by two main factors: tourism and industrialization. PRONAF's ten main objectives can be grouped in three categories that corresponded to particular actions to be carried out in the border zones: (Fig.12) Those that reflected the establishment and development of new industrial enterprises to increase

⁹³ Nacional Financiera operates as a development banking institution. The Organization promotes the development and modernization of the industrial sector through project management, establishing financing programs, and coordination of investments capital

⁹⁴ Antonio J. Bermúdez, *El rescate del mercado fronterizo: una obra al servicio de México* (México, D.F.: Ediciones Eufesa, 1966), 20.

Mexican exports, those that emphasized the development of a new type of tourism, and lastly those that in conjunction with the first two sought the betterment of the standards of living of the border cities.

The establishment of new industrial enterprises relied on the construction of new infrastructure and betterment of the existing connective infrastructure. Roads and highways needed to be constructed and/or expanded to ensure the supply of raw materials but also the quality end-products in time and guarantee better prices. The project contemplated more than the securing of the transportation of supplies and end products from the industrialized cities of the country; the industrialization of the border cities, in which the private sector had to play an important part, was a fundamental goal of PRONAF in order to generate jobs for the *fronterizos*.

The second group of objectives were aimed at the stimulation of family tourism, and the showcasing of typical products of México and Latin American arts & crafts. They sought to “stress the values of our history, folklore, language, culture and arts,”⁹⁵ and attract those interested in these subjects. Through concentrating a curated selection of the best products of the varied regions that México had to offer in the border markets PRONAF would become a showcase of the arts & crafts of the country. Also, there was the intention that, with the alliances already established with the tourism offices of the other South and Central America countries specific areas could also be used to display their products and use them as promotional spaces to invite tourism. Within the tourism objectives, there are mentions of a specific type of tourist, the academic/study-abroad

⁹⁵ Programa Nacional Fronterizo, *National Border Program*, 2:4.

student. An intention to establish educational centers offering first-rate teaching to promote a firmly-rooted national population, displaying the best evidence of Mexican culture in intensive courses, which can be attended by foreigners, is mentioned in the objectives.⁹⁶ But, although it is considered to be part of the program, and a couple of diagrams and sketches depict them, the plans, designs, and projects never again touch on the program of the University, instead staying limited to relocation for primary schools.

The PRONAF plan used the superblock as the urban unit for a controlled growth of the city in complete and projectable parts, both dense and free of points of conflict between cars and pedestrians and connected to high-speed motorways. In the promotional booklets edited by PRONAF, the *Plan Regulador* for Matamoros, already approved by the municipality, is used as an example to show the inclusion of the Cultural and Shopping centers required for these modern cities. Following the thorough urban studies, the center is planned and designed to become a new central point for the city that, without interfering with the daily activities of the inhabitants, will provide new business promotions for the border. A new urban road system was planned to provide access. Sport facilities were located in the adjoining land, still underdeveloped but with a great potential for the program's growth.⁹⁷ The Planos Reguladores's superblock system is superimposed in some instances over the traditional grid of Spanish colonial cities. For example in the case of Matamoros the grid had been mostly preserved until the 1940s due to the physical boundary of the canals, called Defense Works, built to control flooding

⁹⁶ Programa Nacional Fronterizo, 2:29.

⁹⁷ Programa Nacional Fronterizo, 2:39.

and channel water, constructed towards the mid-19th century during the consolidation of the city.⁹⁸ The result was a hybrid urbanity that allowed Pani to play with both systems: a traditional city with a center and its surrounding mixed uses (church, city hall and other government buildings) and the four-zones of the *Functional City*. Interchanging the living component for temporary dwelling typologies like hotels and motels, the plan considered in its surrounding areas the development of new residential zones. (Fig.13)

The general plan for a Civic and Cultural Center depicted in the booklets included shopping, tourist and entertainment centers, a museum, a convention hall, a cinema, a theater, office building, hotel, motel, and a charro stadium, laid out in a sort of *mat building*⁹⁹ arrangement, with parks, and gardens woven in within the superblock. (Fig.14) The plan provided a model with “a single homogenous configuration composed of many sub-systems, each covering the same overall area and equally valid, but each with a different grain, scale of movement and association-potential.”¹⁰⁰

⁹⁸ Eduardo. Alarcón, *Estructura Urbana En Ciudades Fronterizas: Nuevo Laredo-Laredo, Reynosa-McAllen, Matamoros-Brownsville*, 1. ed. (Tijuana : El Colegio de la Frontera Norte, 2000), 101.

⁹⁹ In “Mat-Building: How to Recognise and Read It,” *Architectural Design* 44, no. 9 (1974): 573. Alison Smithson mentions the “mat-building can be said to epitomize the anonymous collective; where the functions come to enrich the fabric, and the individual gains new freedoms of action through a new and shuffled order, based on interconnections, close-knit patterns of association, and possibilities for growth, diminution, and change.” Mario Pani in the model master plan drawing offers a view of a plan that is similar to a mat-building in the way that is a mesh, and a system of buildings. A series of patterns, roads, both pedestrian and automotive, that create plazas, parking spaces and gardens. And a series of buildings that position themselves with a different logic over these patterns creating different densities. But, it is hard to believe that a modernist like Mario Pani, who never shown much interest in the work of the Smithson’s could be directly citing their ideas. In the case of Pani’s “quasi/sort-of mat-building” what could be at play is his Beaux-Arts formation. As a great artist in architectural composition, an historicist view of ordering architectural elements but using a modern language -like the same Smithson mentions some historical examples in the article- provides an approximation to the language of the new typology.

¹⁰⁰ Aldo Van Eyck in Alison Margaret comp Smithson, *Team 10 Primer* (Cambridge: MIT Press, 1968), 59.

Using Herrey's roadway system to connect the urban unit with the rest of the city, this urban-architectural arrangement responded to two different types of movements, the automobile and the pedestrian. Inside the superblock, the movement was mainly by foot, with bridges and passageways that if needed, connected the adjacent blocks to the main unit. (Fig.15) For Pani, the pedestrian was the most important character in his urban work, they are the main character of his designs, hence they lead the design process.¹⁰¹ He experimented with different systems of pedestrian lanes in his previous Multifamiliar projects, where the public spaces and gardens are used as resting spaces; as nodes positioned along the superblock connected by covered walkways, like in the CUPA (Conjunto Urbano Presidente Miguel Alemán) and later in the Nonoalco-Tlatelolco project. (Fig.16)

Pani offered an adaptable solution for the different environments in which the project would be introduced. Pani's proposal positioned the new commercial and touristic centers as the new and alternative heart of the city, as "monumental" spaces placed on the main avenues that led to the international border. The design of these spaces seems to have the same concerns that Josep Lluís Sert and Sigfried Gideon show in the CIAM 8 on the *Heart of the City* in 1951,¹⁰² as well as in the earlier text of 1943 published in collaboration with Leger, *Nine Points on Monumentality*.¹⁰³ Sert, and Gideon, with Leger in their text on monumentality, and in their conclusions at CIAM8 made a series of

¹⁰¹ Larrosa and Noelle, *Mario Pani, Arquitecto de Su Época*, 108.

¹⁰² Eric Paul Mumford, *The CIAM Discourse on Urbanism, 1928-1960* (Cambridge, Mass.: MIT Press, 2000), 201.

¹⁰³ José Luis Sert, Sigfried Giedion, and Fernand Léger, "Nine Points on Monumentality," in *Architecture Culture, 1943-1968: A Documentary Anthology*, ed. Joan Ockman and Edward Eigen (New York: Rizzoli, 1993).

recommendations that parallels Pani and his team's designs for the PRONAF city's master plans.¹⁰⁴ Another connection between Pani and Gideon was that, in 1951 Pani was invited to participate as a juror in the first Architecture Biennale of Sao Paulo in Brazil, a position that he shared with Gideon. In the book *Mario Pani. Investigacion y Entrevistas* by Gabriela Garay, he confirms his admiration for Gideon's work as an architecture critic and recognizes having "read his books and knowing his theories."¹⁰⁵ (Fig. 17)

Following also the political agenda of the federal government that wanted to promote both a financial stability and a cohesive and unified national culture at the borderlands, the projects' design was undertaken from the architectural to the urban design as a singular and co-related task. As it will be explained in each of the chapters organized by typological categories, the projects, in their different scales and grains of detail, presented a link between the past and the future. Pani's projects respond to the treaties and guidelines established by contemporary thinkers in the design field; they demonstrated a solid concern to present the inhabitants with both modernity and the country's historical roots. The forms and layouts abstracted from the temple cities of the Valle de México were used as models to organize the commercial and cultural centers, while adapting into the model the increasingly important role of the automobile; even

¹⁰⁴ Sert, Giedion, and Léger, 29–30.

¹⁰⁵ Pani and Garay, *Mario Pani*, 98. In the anecdote he also mentions that being both of them fervent followers of Le Corbusier they advocated for him as the receiver of the *Grande Prêmio Internaciol de Arquitectura*.

using traditional materials in innovative ways, clay tiles, volcanic rock coverings, and others were used as a symbol of the pre-Colombian and colonial architectures of México.

Although Pani's proposal to create a new and alternative core to the historical one went in opposition to CIAM's recommendations of a singular core for each city, these new spaces, as mentioned by Rodríguez and Rivero for the case of Cd. Juárez, established the first step in the transition from a monocentric to the polycentric urban structure that the cities would later adopt.¹⁰⁶ Designed as open spaces, "secure from traffic -where the pedestrian can move about freely,"¹⁰⁷ the master plans located these monuments (museums, convention centers- iconic buildings) in privileged positions. Close enough and visually predominant from the highspeed surrounding roads, these iconic buildings appeared in landscaped plazas, that still connected to the architectural ensemble through pavements and/or covered walkways, provided a clean stage for their contemplation.

The general programing for PRONAF's master plans included a list of varied amenities: luxury hotel, first class hotel, motel, trailer court, International shopping center, local shopping center, center of high education, art museum and expositions, auditorium-convention hall, dancing school, outdoor theater, school of dance, conservatory, bullring, charro stadium, zoo, sport fishing – yacht harbor, swimming facilities, decoration and gateway to Mexico, local special buildings, country club,

¹⁰⁶ Rodríguez and Rivero, "ProNaF, Ciudad Juárez: Planning and Urban Transformation.," 198.

¹⁰⁷ In Summary of Needs at the Core in Joan Ockman, Edward Eigen, and Columbia University, eds., *Architecture Culture, 1943-1968: A Documentary Anthology* (New York: Rizzoli, 1993), 136.

warehouse and storage facilities.¹⁰⁸ These catalog of building typologies and activities, complemented by infrastructural works like parking areas, gardens, pavements, sewers, waterworks, etc., represented the options from which according to the regional detailed studies that included population to be serviced, capacity of the area, and total investment, were to be selected to be included in the city's masterplan. (Fig.18)

Pani, in a very similar approach to that taken in the text "Nine Points on Monumentality," attempts to promote a sense of community beyond that of just fulfilling the functional aspect of the buildings and the activities planned for PRONAF. He designed these superblocks so they would include spaces where "cultural festivals of symphonic music, ballet, high quality Mexican and foreign motion pictures, would be presented in these first-rate theaters, while preserving and promoting those sporting events which have a high drawing power."¹⁰⁹ The events, organized by the three levels of government in collaboration with the private sector, would be considered accessible to the entire community.¹¹⁰

Another aspect of great importance of these centers that the government was after, was the stimulation of a border market, one that would allow these territories an economic independence, a desire not only of the Mexican people, but one that was highly demanded by the borderland dwellers. Special attention was paid not only to the products that were offered but also to their presentation, and in these aspects the architecture played an important role. Interior design, well-lit and open spaces, cleanliness, and

¹⁰⁸ Programa Nacional Fronterizo, *National Border Program*, 2:31.

¹⁰⁹ Programa Nacional Fronterizo, 2:29.

¹¹⁰ Bermúdez, *El rescate del mercado fronterizo: una obra al servicio de México*, 91.

automobile accessibility were aspects that made these establishments worthy competitors to any others in the United States.

Puertas de México

One other important component of PRONAF (discussed thoroughly in Chapter 4 – Border as Symbol / Passage) that stands out for their distinguished appearance and social morale booster importance is the project called Puertas de México – Gates of México. (Fig.19) The project was born out of the idea of “changing the bad impression, either of the Mexican who returns to the homeland, or that of those who visit us, making the stark and depressing contrasts that have existed for so many years at the moment of crossing the dividing line disappear by the great difference that has been so unfavorable to us.”¹¹¹

Four cities were benefited with Puertas projects. They were Piedras Negras, Nogales, Matamoros and Tijuana. The urban and architectural aspect of the works carried out in the four populations aforementioned surpasses the facilities of the American side that focused on solving the functional aspect of the border crossing. The projects were intended not only to ‘lift the spirit’ of the *fronterizos*, and to mitigate the sense of inferiority that the federal government assumed existed in the border populations. This had contributed also to “levantar la fe, la seguridad y el optimismo, lo que permite pensar

¹¹¹ Bermúdez, 45.

que esta muy lejos de ser imposible transformar a la frontera, y convencernos de que la frontera, como todo México, será lo que nosotros hagamos de ella.”¹¹²

America responds – A Latin American counter model.

Aware of the binational meetings among the collegiate architect associations of both sides of the border, and politicians, developers on both sides started to devise ways in which they could make a profit of the promised changes for the borderlands. On December 15, at the Waldorf-Astoria Hotel in New York City before a list of industrialists and financiers Joseph Timan, president of Horizon Land Corp. of Tucson, Arizona, and Willard Brown, vice president of Chicago’s Arthur Rubloff & Co., presented the project of a self-contained community for population of 1.5million inhabitants in a territory of 107,000 acres outside El Paso, Tx.¹¹³Two days later, the investors met with El Paso’s “top civic” leaders at the Hilton Hotel to outline their development.¹¹⁴(Fig.20)

Promising a planned controlled growth for a city of a 1.5 million inhabitants, the project was expected to start with a regional shopping center, a country club with golf course, and 400 homes. Land was set aside for schools, churches, and parks. The plan was not to compete with El Paso but to be a part of it, they mention in their press release,

¹¹² Bermúdez, 45. Translation: raise hope, security and optimism, which allows us to think that it is far from being impossible to transform the border, and convince ourselves that the border, like all of Mexico, will be what we make of it.

¹¹³ Art Leibson, “Elaborate Proposal For Gigantic Model City, To Be Constructed Near El Paso, Outlined,” *El Paso Times*, December 16, 1959.

¹¹⁴ “Outline Program Of Horizon City For EP Leaders,” *El Paso Times*, December 18, 1959.

“we would be most happy to be annexed and become an integral part of one big city. We certainly are not out to bankrupt El Paso or take away your people or your jobs. We expect to grow slowly at first, but surely as soon as it becomes known what we have to offer.”¹¹⁵

Offering facilities that will accommodate the extra leisure time that the shortening of the working week would bring, they also added how they would provide special accommodations for the retired and the “physically handicapped,” but added how “there will be no children crossing streets in our community.” A great excitement and trust in technology was shown to solve the problems of water and climate control in the desert, mentioning that there was a group of experts already working in the issues and that a vast underground reservoir was discovered 50 miles away.

Horizon Land and Rubloff, two of the nation’s top developers at the time, recognized in Brasília a model that was too good not to be replicated.¹¹⁶ With the intention to build a city “from scratch” they started to work with Nicholas Sakellar and Guy Green’s Tucson Architecture offices on the preliminary plans for Horizon city. Green’s studies predicted the movement of people to the southwest in search for a better living and promoted a city model saying “suburbia is not working out. The only possibility is a city offering a full potential for such families.”¹¹⁷

The office of Timan and Brown contacted Lucio Costa in Nov 1959 through the Brazilian embassy in Washington, D.C., with the intention of retaining him as the chief

¹¹⁵ “Outline Program Of Horizon City For EP Leaders.”

¹¹⁶ Brazilian Government Trade Bureau, “Braziliaa Bulletin” (New York, February 1, 1960), 3.

¹¹⁷ “Outline Program Of Horizon City For EP Leaders.”

planner and design consultant for Horizon City.¹¹⁸ With an invitation to visit the United States to consult on a project of one hundred seven thousand acres “to do the same work here as in Brasilia” he was invited to travel to the US after the inauguration of Brasilia. Lucio Costa traveled with his two daughters to New York in June, 1960.¹¹⁹ From there, he traveled to Boston, MA to receive an honorary doctor of arts degree from Harvard University on June 16th,¹²⁰ to later travel to El Paso to meet with Horizon Land Corp.’s president Joseph Timan to discuss his position as consultant for the Horizon City project.

Before Costa’s arrival, Horizon City was presented as a huge residential, commercial, and industrial center, and the endeavor was sold as the development of a “metropolis” from the raw land. The name of Costa as a designer, was used profusely and indiscriminately as a marketing tool, Brasilia’s fame was being used to their advantage. Timan told his audience that:

developing a metropolis from the raw land, as we are doing in Horizon City, is an economic and practical method of providing modern living conditions for the booming American population. Starting with the raw earth probably is the only way in which the planner, designer and architect can apply the great technical and scientific advances of the past 100 years to creating a living environment that will keep pace with the future.¹²¹

The city was to include the four aspects of the functional city: living, working, recreation, and circulation. The population at the beginning was expected to come from the region, but there was a confidence of growth and plan to generate industrial

¹¹⁸ Joseph Timan, “LT SR LUCIO COSTA RUA ALMI DARROSO NUMBER 54 19TH FLOOR RIO DE JANEIRO,” November 20, 1959, LuC Texas, Acervo Casa Lucio Costa.

¹¹⁹ Lucio Costa, “Dear Mr. Sakellar, I Was Shocked...,” May 12, 1960, Horizon City, Acervo Casa Lucio Costa.

¹²⁰ Harvard, “Harvard Graduates 309th Class,” *The Boston Globe*, June 17, 1960.

¹²¹ Leibson, “Elaborate Proposal For Gigantic Model City, To Be Constructed Near El Paso, Outlined.”

enterprises that would attract even more people to the region. This sentiment resembled and was shared with that of the projects happening on the other side of the border.

Brazilian Model – Lucio Costa’s consultation

Costa arrived for the first time in El Paso, Tx., on July 22, 1960, seven months after the announcement of the project to the media. He was there to consult with the planners of Horizon City. Impressed by the openness of the landscape, he made comparisons with the Brazilian prairie, where Brasilia was built. “You have much room here, so much freedom of space with which you can use imagination.”¹²² Costa reminded Timan and Nicholas Sakelar, head of the US architecture firm, of the two objectives behind Brasilia; “first to serve as the new seat of the government, and second to draw away Brazilians from the narrow, crowded coastal regional into the interior.” He considered this to also be the purpose of Horizon City: “from your narrow valley, the new city can draw people into your desert. We must make this a place of beauty.”¹²³

Only a couple of renderings were presented and circulated to the media. They have been attributed to Costa, because of the similarity that certain elements have with buildings in Brasilia. This was a misconception, since the most iconic buildings in Brasilia are not Costa’s design but Niemeyer’s. In the few descriptions in newspaper articles, the “core” of Horizon City is described as “in a circular and oval design, comprises a lake, civic centers, legislative buildings, a radio-television complex, financial

¹²² “Architect Who Designed Brasilia Confers On Plan for Horizon City,” *El Paso Times*, July 22, 1960.

¹²³ “Architect Who Designed Brasilia Confers On Plan for Horizon City.”

plaza and heliports.”¹²⁴ Another description for the project that commonly appeared in the newspapers was: “Horizon City will have streets five hundred feet wide. A huge athletic and sports center will be conveniently located as to transportation facilities. The city will have a "ranch cluster" layout for subdivision and building fronts will be set back thirty feet from the curbstones,”¹²⁵ description that always came illustrated with a rendering reminiscent of the Hilberseimer Vertical City. (Fig.21)

The images that were used to sell the idea of Horizon City were indeed using not only the concepts that Lucio Costa experimented with in his project for Brasilia in 1956, but these ideas also referenced contemporary modern planning concepts advocated by CIAM and Corbusier’s planning techniques for Chandigarh.¹²⁶ The clear and strong separation between pedestrian and vehicular transportation, that in the case of Horizon City goes to the extreme of five-hundred-feet-wide highways, would be precisely one of the elements that became the most criticized of Costa’s plan for Brasilia, for it completely alienated the pedestrian from the park and public spaces. Horizon City would repeat the idea of monumental buildings grouped in the center, where perfectly designed gardens and even a lake -in the middle of the desert- would embellish and dignify the function of these spaces, but yet again, this core is surrounded by impossible-to-cross highways recreating the “wide-open spaces and the absence of street life to which they (the

¹²⁴ Marshal Hail, “Horizon City Plans Leave CC Unshaken,” *El Paso Herald-Post*, December 16, 1959.

¹²⁵ Brazilian Government Trade Bureau, “Braziliaa Bulletin,” 3.

¹²⁶ Luis E. Carranza and Fernando L. Lara, *Modern Architecture in Latin America : Art, Technology, and Utopia* (Austin: University of Texas at Austin, 2015), 201.

citizens) were accustomed,”¹²⁷ and that generated little to no empathy in the case of Brasilia. (Fig.22)

Horizon City’s core never got built, neither its shopping mall nor industrial areas. A very small section of the lake, the golf course and clubhouse and a housing section were finished by 1963.¹²⁸ Although the developers always maintained that the water situation was managed and under control, it was a concern of the citizens of El Paso at the time. Months after it proved to be the main problem for the future. The water supply proved to be a complicated technical problem, and lot owners desisted from building. By 1973 only 250 homes were built, and many lot owners decided to sue Horizon Land development for embezzlement finally finding a solution to a long-standing problem by 1981.

Sybil Moholy Nagy and Victor Gruen’s critique¹²⁹

Victor Gruen in his book *The Heart of Our Cities the Urban Crisis: Diagnosis and Cure* dedicates a chapter to *The False Friends of the City*, enlisting the major types as follows: the traffickist, the bulldozerite, the segregator, the projectite, and the economizer. He characterizes them as the dehumanizers of the city, and identifies to be

¹²⁷ Carranza and Lara, 205.

¹²⁸ Trish Long, “Horizon City Planned in 1959 as ‘City of Tomorrow,’ Marks 30th Year of Incorporation,” *El Paso Times*, July 6, 2018, Digital edition.

¹²⁹ Victor Gruen, *The Heart of Our Cities the Urban Crisis: Diagnosis and Cure*. (New York: Simon and Schuster, 1964), 111.

part of any field, architects, planners, politicians, builders, etc, that participates in the construction of cities.

Their interests, their love, their industry and their actions are employed first and foremost to serve not human beings but rather the well-being of machines (real or political), for political or economic advantages; their gods are the motorcar, power and money.¹³⁰

When discussing Brasilia, he makes a fierce critique to Costa's planning. He mentions "the loves and goals of the false friends of the city"¹³¹, when trying to analyze the city as an urban organism. And defines it as "that most gorgeous autocratically planned new city in the Western world" for it not only bankrupted the country but pays homage in its planning "to the traffickist, the bulldozerite, the segregator and the projectite (but, unfortunately in this case. not to the economizer)."¹³²

Gruen mentions how Costa had been invited, despite his assessment of the planning of Brasilia, as a chief planning consultant for a newly projected city in Texas, Horizon City. Outraged by the scale and the population number, he makes a comparison with the city of Boston's core of 200 acres for a city of 3,000,000 inhabitants vs. a 1,100 acres core for a city of 1,500,000 inhabitants. And critiques the football-shaped park with a man-made lake for its formalism, and the six-lane highways and the lack of any mention of any mass transportation system. Gruen mentions that he discussed the matter

¹³⁰ Gruen, 98.

¹³¹ Gruen, 111.

¹³² Gruen, 111.

with his friend and well-known architectural critic and professor of architectural history

Sibyl Moholy-Nagy, and shares her response:

The plan for Horizon City is a document to see and behold. It is a somewhat sad confirmation of the basic formalism of a planner who is so hard to dislike because he is such a nice person. Here he switches from a town 'conceived in the sign of the cross' to a town "conceived in the sign of the football." It is really amusing because only the shape differs; otherwise he has sold the same lot of Brazilian clichés. The "Plan of the Three Powers" of Brasilia here becomes the "Plan for the Legislative, judicial and Executive Branches of City Government." The sliced up plan with its total disregard for contained groupings is so familiar from Brasilia. Imagine the pleasures of a community park with two heliports right smack in the midst of it! And of course there is the by now so well known separation of functions—the Financial Plaza dozen miles from the City Center and the Recreational Center neatly isolated by multilaned speedways on all sides. The 30 percent solid park area located in the midst of a 1100-acre core benefits nobody because the surrounding business and commercial zones cannot possibly make use of it, and the inhabitants of the residential areas would have to make a multimiled journey in order to get there.¹³³

Gruen continues by saying how he hasn't heard any developments on the progress of Horizon City, to which I've explained in previous paragraphs the fate of the project.

He adds that "maybe it is not possible to arrive at the realization of an autocratic scheme within a democratic society. Yet the danger is always present that something of this order could happen if the false friends of the city do not wake up to the facts of true city life: its values, needs and requirements."¹³⁴

Two considerations in the comparison of the projects of PRONAF and Horizon City need to be raised in consideration with Gruen's commentaries. First, the difference between both projects lies in that one was government funded and promoted, and the

¹³³ Sibyl Moholy-Nagy cited in Gruen, 111–12.

¹³⁴ Gruen, 112.

other a private development. A democratic government like the Mexican, had intentions beyond the commercial for the projects at the borderlands. The cultural aspect of it was a very important factor, as it was for the project in Brasilia. In a way a more direct line can be drawn between PRONAF and Brasilia than between PRONAF and Horizon City, although the geographical and chronological closeness, and relation to the area's growth. Second, Horizon City used modern urbanism and architecture as tools to attract investment to the area, not only it relied on the imagery, renderings and drawings, that although scarce, they could be formally related to images widely distributed of Brasilia, but it used one of the most famous names in modern planning at the time, Costa. If Mario Pani, was an important figure in México and Latin America, Lucio Costa was at the time worldwide.

Unfortunately, both projects failed. PRONAF for lack of continuity in the interest of the new governments agenda that veered and bet on industrialization instead of culture, and the other, Horizon City bet on technology that couldn't solve the primordial problem in the desert, water supply.

Replacing Museums and Hotels with Maquiladoras

The industrialization of the borderlands was part of the ten main objectives of PRONAF, either through the assurance of the accessibility of the nation's industrial products in "proper conditions of timeliness quality and price,"¹³⁵ or through the increase

¹³⁵ Programa Nacional Fronterizo, *National Border Program*, 2:5.

in production of the same through the “establishment of new industrial enterprises.”¹³⁶

The necessity of the creation of new job opportunities at the borderlands, a result of the termination of the Bracero Program, was understood to have a solution that lay both in the tourism industry and in the implementation of new types of industrial enterprises that would use the competitive advantage of the geographical nearness of the US.

Hoping that the effort to push the consumption of Mexican industrial products would require not only an adequate supply in the immediate future, but in the long run centers of production that could handle supply for local and regional consumption.

PRONAF integrated into its advisor committee a group to initiate investigations, studies and analysis around the possibilities of industrialization at the borderlands.

The commission became formalized with members of NAFINSA, the Confederación de Cámaras Nacionales de Comercio- Confederation of National Chambers of Commerce, the Centros Industriales de Productividad- Industrial Centers of Productivity, the Comité Regional de Estudios Económicos del Banco de México- Regional Committee for Economic Studies of Banco de México, and PRONAF. Aiming to enlarge the scope of their actions, they entrusted the Boston consulting group Arthur D. Little with a formal study of the industrialization possibilities at the borderlands for their economic consolidation. The study was made available to local and regional non-governmental commerce and industrial chambers.¹³⁷

As a result of the efforts of the committee several industrial enterprises were

¹³⁶ Programa Nacional Fronterizo, 2:5.

¹³⁷ Bermúdez, *El rescate del mercado fronterizo: una obra al servicio de México*, 51.

established in the border cities and surrounding areas. In Nogales, Son. and Matamoros, Tamps. pasteurizing plants were opened, reducing the need for Mexican citizens to cross and acquire dairy products in the US. In Reynosa, Tamps. a filter factory that supplied the railroad and petro industries was established. In Cd. Juárez twenty-five requests to establish industries were being reviewed by the end of 1963.¹³⁸

Cd. Juárez was the epicenter of the industrialization of the border. As early as 1957, the Comité de Desarrollo Económico Nacional- National Economic Development Committee- had selected the city to receive a strong economic investment for its industrialization.¹³⁹ The 1958 *Plan Regulador* for Cd. Juárez, projected by Pani's Taller de Urbanismo, already considered sites for the industrial parks and their growth.¹⁴⁰ Nevertheless it wasn't until early 1964 when the Patronato Pro-Industrialización de Ciudad Juárez- Ciudad Juárez Pro-Industrialization Board was organized, that the process to industrialize the border started. With a financial contribution of \$5,000 by each of its thirty members for preliminary costs, Promociones Industriales A.C. was consolidated as a corporation in January 1965. In May 1965, recently elected President Gustavo Díaz Ordaz sent the Secretary of Commerce and Industry to Cd. Juárez to meet with the group of industrials and the Programa de Industrialización de la Frontera- Border Industrialization Program or the *Programa de Aprovechamiento de la Mano de Obra*

¹³⁸ Bermúdez, 52.

¹³⁹ Luis Enrique Gutiérrez Casas, "Ciudad Juárez en los sesenta: la estructura urbana en transición," *Nóesis. Revista de Ciencias Sociales y Humanidades* 18, no. 36 (2009): 145.

¹⁴⁰ Domingo Garcia Ramos, Victor Villa, and Guillermo De La Torre, "Plano Regulador de Ciudad Juárez," *Arquitectura. México*, June 1958.

sobranante a lo largo de la Frontera con Estados Unidos was officially initiated.¹⁴¹ A month later in Mexico City, the SHCP ratified it and the projection of the first industrial parks was started.

The maquiladora model developed by PRONAF and PIF at the beginning established that a maquiladora was a:

empresa industrial que 1) con maquinaria importada temporalmente, cualquiera que sea su costo de fabricación, exporte la totalidad de sus productos o 2) con planta industrial ya instalada para abastecer el mercado interno se dedique parcial o totalmente a producir para la exportación, siempre que el costo directo de fabricación del producto a exportar no llegue al 40% (Reglamento del 31 de octubre de 1972).¹⁴²

It dictated that they should be established in the industrial parks administered by PRONAF, by renting plots of land, and that their operations were to be supervised by the committee.

On federal land purchased by PRONAF, the private corporations installed their first industrial parks.¹⁴³ The first industrial park in Cd. Juárez was the Antonio J. Bermúdez, named in honor of the director of PRONAF. It was located outside the main urban area of Cd. Juárez, and it generated yet another change to the city urban model, bringing several new problems of housing, road connectivity, and other issues for the

¹⁴¹ Lawrence Douglas Taylor Hansen, "The Origins of the Maquila Industry in Mexico," *Comercio Exterior*, November 2003, 12.

¹⁴² Jorge A. Bustamante, "El Programa Fronterizo de Maquiladoras: Observaciones Para Una Evaluación," *Foro Internacional* 16, no. 2 (62) (1975): 183. Translation: Maquiladora was an industrial company that 1) with temporarily imported machinery, whatever its manufacturing cost was, exports all of its products or 2) with an industrial plant already installed to supply the domestic market is partially or totally dedicated to producing for exportation, provided that the direct cost of manufacturing the product to be exported does not reach 40%.

¹⁴³ Bermúdez, *El rescate del mercado fronterizo: una obra al servicio de México*, 54.

city. The first two maquiladoras installed there were RCA Victor de México S.A., an electronics manufacturing plant which would serve as the model for the modern manufacturing model to come, and Convectores de México S.A., which fabricated medical products.¹⁴⁴ Although these were the first two maquiladoras in the industrial park, these were not the first two maquiladoras in Cd. Juárez. In 1966 A.C. Nielsen de México started operations, it was the first plant to process commercial coupons in the city, and not to produce articles. It was located inside the city, in the center area.¹⁴⁵

The maquiladora program allowed the establishment of foreign, mostly American-owned companies in the border cities of México. Because of their proximity to the US, and the cost of exportation, they continued to prefer such locations. Although México was not the first to participate in similar activities with the US, (Export Processing Zone) by 1975 it became the holder of 37% of the market, over Taiwan and Hong Kong. By 1980, 578 maquiladoras were functioning just in Cd. Juárez, employing more than 119,546 workers.¹⁴⁶

Maquiladoras had shown a negative side too. In the same way that the border has been associated with the negative connotation of drug trafficking, the maquiladora has been likened to a narcotic addiction:

The installing of American plants along the border not only provides a certain amount of relief from Mexico's perennial unemployment problems there; it also creates a wholesale dependence on the jobs thus created, so that if the jobs are then suddenly taken away, the economic conditions of the area become critical.¹⁴⁷

¹⁴⁴ Gutiérrez Casas, "Ciudad Juárez en los sesenta: la estructura urbana en transición," 150.

¹⁴⁵ Gutiérrez Casas, 147.

¹⁴⁶ Oscar J. (Oscar Jáquez) Martínez, *Ciudad Juárez Saga of A Legendary Border City* (Tucson: The University of Arizona Press, 2018), 128.

¹⁴⁷ Martínez, 131.

Also, the construction of industrial parks had been responsible of the sprawling of the city, leading to the aforementioned urban problems. But more importantly, possible problems of land ownership and sale dependent on traffic of influences were brought to attention.¹⁴⁸ Although Antonio J. Bermúdez had already resigned from PRONAF by the end of 1965, during that year the SHCP sold privileged land from PRONAF –urbanized with electricity, sewer, potable water, and connected to the main roads leading to the international border crossing- to Bermúdez’s nephew Jaime Bermúdez who started the planning of Cd. Juárez’s first industrial parks.

By 1966 the Border Industrialization Program was functioning at full speed. PRONAF, under the direction of Enrique Sodi Álvarez (also designated as *Special Ambassador of Mexico to the United States*¹⁴⁹ by Díaz Ordaz,) fell into oblivion. Two factors, I believe, were responsible for its disappearance. First, the construction of hotels and shopping centers was replaced by the construction of industrial parks and maquiladoras. PIF stole the attention and budget formerly of PRONAF, since the program generated more immediate revenues. With the popularization of air-travel by the mid 1960s, car travel became a less viable option to cross the country and visit other important touristic cities, rendering the border cities again functional just as places of

¹⁴⁸ Guadalupe Santiago Quijada, *Políticas federales e intervención empresarial en la configuración urbana de Ciudad Juárez, 1940-1992*, 1. ed (Ciudad Juárez, Chihuahua Zamora, Michoacán: Universidad Autónoma de Ciudad Juárez, 2013), 240–43.

¹⁴⁹ Enrique Sodi Álvarez, *Frontera* (México, D.F.: Programa Nacional Fronterizo, 1970), 11.

local entertainment. Second, Díaz Ordaz received from López Mateos the task of organizing the Olympic Games in Mexico City, redirecting the view of architects, designers and strategists to the center of the country, in order to display the *Mexicanidad* at the greatest display to the world, an opportunity even larger than the border's "show window."

PRONAF stopped building any new developments after 1965, and since then only administered the shopping centers and the land rented and/or sold for the industrial parks. After the infamous events of the 1968 Olympic games came a new President, and with him, yet another reorganization. In March 1971, the new President Luis Echeverría gave for the first time a legal framework for the maquiladoras, confining them to a 20km wide strip from the borders, and requiring them to register among several federal worker institutions. By May 1971, the Comisión Intersecretarial para el Fomento Económico de la Franja Fronteriza Norte y de las Zonas y Perímetros Libres - Intersecretarial Commission for the Economic Development of the Northern Border Zone and of the Free Trade Zones and Ports) was created.¹⁵⁰ This commission's main concern was the development of the maquiladora industry, putting the final nail in PRONAF's coffin.

Conclusion

The urban structure of Mexican border cities differs from their North American

¹⁵⁰ Taylor Hansen, "The Origins of the Maquila Industry in Mexico," 14.

counterparts despite the physical proximity and close relations.¹⁵¹ The changes proposed by the urban project and architectural language of Pani and his collaborators for PRONAF—essentially that of Mexican modernity—sought to breach the gap between the Mexican border and the culture of the center of the country, thus emphasizing its differences from its neighbor to the north. In the foreword of *The Mexican Border Cities: Landscape Anatomy and Place Personality* by Curtis and Arreola, Oscar J. Martínez describes the PRONAF as

a series of “Cultural Centers and Historical icons that serve as reminders to *fronterizos* that the nation expects them to know, identify with, and be proud of their roots and the traditions and customs of the motherland.”¹⁵²

Many of the completed projects (which will be discussed in the following chapters) show traces of the trends followed in the other important cities of the country: concrete shells, structurally defying and hyperbolic paraboloid buildings similar to others in México at the time could be found along the borders. These characteristics made the Mexican projects very distinguishable from the public buildings of the border cities in the United States. In direct contrast with “American modernity,” that of a consumerism focused lifestyle “of postwar U.S. suburban, middle class affluence registered in the diffusion of ranch-type houses, residential subdivisions, shopping centers, freeways, and big cars,”¹⁵³ at the borders Mexican modernity presented monumental public buildings.

¹⁵¹ Alarcón, *Estructura Urbana En Ciudades Fronterizas: Nuevo Laredo-Laredo, Reynosa-McAllen, Matamoros-Brownsville*, 13.

¹⁵² Foreword in Arreola and Curtis, *The Mexican Border Cities*, xv.

¹⁵³ Stephen Fox, “PRONAF: Constructing a New Mexico on the U.S. Border, 1961-69,” 2012, 8.

PRONAF was a government financed development-oriented project, where the federal government was to provide the land, settings, and cultural and urban infrastructure for the private sector to occupy and manage commerce through different fiduciary mechanisms. Pani had built his career by using, promoting and creating new mechanisms of collaboration within the public and the private sectors, and it was this experience what allowed him to plan these centers both as profitable and as cultural landmarks. Aware of the trend of shopping plazas and malls in the United States, and México, his approach to these commercial centers took from Gruen's work.¹⁵⁴ Located in some cases in the newer parts of the city, like in Cd. Juárez, or inserted in the traditional historical city, like in Matamoros or Tijuana; the shopping center component of the project concentrated the commerce commercial strips, in these cases not suburban, and located them near the international crossing points to offer them to the American visitors.

The result of the actions undertaken by president López Mateos can be mainly summarized in four main mega projects. The service urban infrastructure became independent from those of their sister cities in the U.S. Water, sewage, electricity, and health and education are now provided locally and "in the limits of reason" self-sufficiently. There has been an unprecedented physical and spiritual dignification of the Mexican borders, preparing ambitious plans to present the border cities as windows of the "homeland" to the foreign world. For this, PRONAF was the main tool. The initiation of economic programs that ensured Mexicans consumed national products and ensured that

¹⁵⁴ Victor Gruen, "Cityscape and Landscape," in *Architecture Culture 1943-1968. A Documentary Anthology*, ed. Joan Ockman, 1993.

the visitor was presented with touristic and cultural values, so they acquire national products that are representative of the industrialization of the country.¹⁵⁵

The success of PRONAF is difficult to measure since subsequent administrations did not allocate funds denying continuity to the program. But we can ask the following question: How successful was the program as a project whose objective was at once a resistance against North American culture, the defense of national values and culture, and the integration to the global economy through tourism?

As Bermúdez states:

El PRONAF, en su programa de mejoramiento de la frontera, pugna por cambiar esta situación, de manera que los millones de turistas que pisan el territorio nacional no regresen prontamente, sino se sientan estimulados por la novedad, por la limpieza, por el ambiente sano, a proseguir su viaje hacia el interior de nuestro país.¹⁵⁶

PRONAF, more than just a project for the borders, is a project that sought to represent the whole country at the borderland territory. It was a project that had the double intention of creating and solidifying a weakened economy for the territory, attract short stay tourism and push them further into the country. PRONAF as project that served three masters - local development, generation of a local economy through tourism, and the attraction of a national tourism - was perhaps likely to fail.

¹⁵⁵ Also, although not directly related to PRONAF, in terms of infrastructure the design and construction of maritime facilities, and communication infrastructure was important so that ports and other important commercial hubs, could ensure the growth of a diversified international commerce with the rest of the world. See more in Rossell, "Principios Rectores de Técnica y Acción de Las Ciudades Fronterizas y Portuarias."

¹⁵⁶ Bermúdez, *El rescate del mercado fronterizo: una obra al servicio de México*, 26. Translation: PRONAF, in its intention to improve the border, strives to change this situation, so that the millions of tourists who set foot in the national territory do not return quickly, but rather feel stimulated by novelty, cleanliness, and a healthy environment, to continue their journey into the interior of our country.

In order to answer this and other questions, the analysis of the federal government's projects for the border requires an interdisciplinary vision that is aware that minor design decisions, as well as the planning of urban environments and international connectivity, reflect or are responses of a country's federal public policies and international relations. PRONAF's initiatives may be read merely as efforts to transfer the model of American capitalist modernization to Mexico, as expressed by Bermúdez:

La forma como Estados Unidos ha alcanzado su grandeza económica, de la que depende su fuerza militar y su Desarrollo social y cultural, es precisamente lo que nosotros los mexicanos deberíamos tener siempre presente y como ejemplo, procurando imitarla.¹⁵⁷

The cities imagined by Pani for the border did not adhere to the model of “westernization due to proximity and economic dependence” discussed by many urbanists.¹⁵⁸ Analyses mention the most important studies carried out on the border and they specifically refer Gildersleeve's study, *The International Border City: Urban Spatial Organization in a Context of Two Cultures along the United States – Mexico Boundary*, which attributes the growth of the Mexican border towns to the proximity to and economic relations with their neighboring cities in the U.S., arguing that the border towns should be understood as a symbiotic unit and a result of both cultures;¹⁵⁹ but in the

¹⁵⁷ Bermúdez, 19. Translation: The way the United States has reached its economic greatness, on which depends its military strength and its social and cultural development, is precisely what we Mexicans should bear in mind as an example, and we should imitate.

¹⁵⁸ Alarcón, *Estructura Urbana En Ciudades Fronterizas: Nuevo Laredo-Laredo, Reynosa-McAllen, Matamoros-Brownsville*, 13.

¹⁵⁹ Alarcón, *Estructura Urbana En Ciudades Fronterizas: Nuevo Laredo-Laredo, Reynosa-McAllen, Matamoros-Brownsville*.

majority of cases, with the exception of Tijuana-San Diego, the Mexican cities of the era had a larger population and thus greater dimensions. The economy of the North American border cities depended just as much, if not more, on Mexican consumption than the Mexican cities on investment from the United States.

For PRONAF, Pani's urban planning alternately pursued the growth model of Mexico City that he had repeatedly experimented with and "modernized" the urban environment while also considering the cultural conditions of the country. His urban theories were indeed based on international modern ideologies but adapted and applied to local contexts. His genius consisted of conceiving the big picture, the master plan, the interconnection of the pieces. The PRONAF plans for the border cities, were the result connecting his long experimentation and expertise of that hybridization between the internationalism of CIAM's tenets, and his observations and projections for the Mexican reality. In the same way, the border cities were planned to be a commercial, cultural and geographic link between English and Spanish-speaking Americas,¹⁶⁰ a point of encounter.

But a point of encounter cannot exist without hybridization, without cross-
 "contamination," without blending. What the politicians of the time pursued was a strengthening of national identity through these spaces. Inasmuch as "de no hacerse así, los residentes fronterizos acabarán por perder su identidad y por convertirse en un grupo de ciudadanos propensos a poner en peligro la soberanía de la región."¹⁶¹ But Pani, "was not an extremist of culture, for him there was no rigid hierarchy, no separation between

¹⁶⁰ Larrosa and Noelle, *Mario Pani, Arquitecto de Su Época*, 104.

¹⁶¹ Larrosa and Noelle, 106. Translation: Otherwise, border residents will end up losing their identity and becoming a group of citizens prone to endangering the sovereignty of the region.

the elevated and the vulgar; for him there was an ideal of harmonious continuity between the material and the spiritual.”¹⁶² His urban proposals for PRONAF were precisely that, a continuity between the modern planning that the Mexican politicians wanted to extend to the borders, and the he gave form and firmly believed in, and the American culture that the tourists and visitors sought in México.

¹⁶² Pani and Garay, *Mario Pani*, 17.

CHAPTER 3

Border as Edge /Resistance

Introduction

On September 25, 1963 Presidente Adolfo López Mateos, accompanied by local, state, and federal government officials opened to the public the Museo de Arte e Historia de Ciudad Juárez (Museum of Art and History of Ciudad Juárez).¹⁶³ For this event an exhibition was prepared titled *Mexican Textile Exposition and Style Show* that offered “styles of 50 Mexican clothing manufacturers,”¹⁶⁴ . It was five months later, on March 8, 1964, that the permanent exhibition of images, objects, and models that presented the history of México from the Mesoamerica pre-Columbian cultures to modern Mexico’s artistic and cultural achievements, officially opened its doors to foreign and local visitors.¹⁶⁵

In this chapter I will discuss one of the main objectives of PRONAF, a program whose objective was cultural resistance to Americanization at the borderlands: How, through the establishment of museums, and the staging of a homogenizing narrative of *Mexicanidad*, the government intended not only to promote Mexican culture through PRONAF but assert cultural dominance over the borderlands.

¹⁶³ All translations from Spanish are the by author unless stated otherwise.

¹⁶⁴ “Mexican Textile Exposition and Style Show,” *El Paso Herald-Post*, September 25, 1963, Home edition.

¹⁶⁵ Unknown, “Fue Abierto al Público El Museo Fronterizo, Ayer,” *El Fronterizo*, March 8, 1964.

The museum, part of the project that López Mateos initiated to “raise the living standards of the borderland dwellers” by integrally linking their economy and cultural life to the rest of the nation’s, was praised and celebrated in national and international media. A New York Times article in the summer of 1964, with large images of the museum in Ciudad Juárez, stressed how the borderlands had “never been especially noteworthy example examples of the best that Mexico has to offer in the way of attractions for visitors,” spoke highly of the “\$14 million program” that sought to “make each such gateway a ‘Garden City’ showcase for the cultural and commercial assets of modern Mexico.”¹⁶⁶ (Fig. 1)

True to the fourth PRONAF’s objective “to transform the environment of the border towns creating cultural and recreational attractions with the idea of stimulating to its maximum the flow of tourism, in particular of families, which could only be achieved in the midst of order and morality,”¹⁶⁷ the museum received, in the first years of its opening, groups of students from both Mexican and American schools of various levels, but also multiple families that made weekend trips across the border to visit the new museum.

The chapter will also analyze PRONAF’s cultural program’s double intention of “reminding the fronterizos of Mexico’s culture and traditions, thus strengthening their pride in being Mexican.”¹⁶⁸ By the assessment of the centralists of the federal

¹⁶⁶ “Mexico’s Striking Border Showcase at Ciudad Juárez,” *New York Times*, 1964, sec. RESORTS TRAVEL.

¹⁶⁷ Bermúdez, *El rescate del mercado fronterizo: una obra al servicio de México*, 25.

¹⁶⁸ Ciudad Juárez (Mexico) Museo de Arte e Historia, *Museo de Arte e Historia de Ciudad Juárez, Chihuahua; [Guía Oficial] Museum of Arts and History; [Official Guide]*. (Mexico: Programa Nacional Fronterizo, 1964), 5.

government, and in general the population of México's center, *fronterizos* were in danger of a total 'Americanization'. Carlos Monsivais mentions that the common citizen of the borderlands, the *fronterizo*, resists, 'though vaguely,' the American imperialism in politics and economics, but not so much its culture. Characterizing the view from the center, "along a border that has been besieged, infested, devastated and conquered by an imperialistic economy complex" of the United States, the Mexican government, the *capitalino* (those who live in Ciudad de México) bureaucrats of culture, in response to this phenomena, "repeat the old theses: 'preservation of our temperament' (idiosincracia), 'maintenance of our spiritual values' (escencias), 'safeguarding our traditions' (raíces)." ¹⁶⁹ Responding in a nationalistic, patriotic way, they staged an overwhelming display of *Mexicanidad*, as in the celebrations of the Mexican Independence day every September 16th. ¹⁷⁰

The chapter also elucidates how the museums at the border cities were, under these ideals, 'promotional' in the way that they could show the visitors a general panorama of the country to entice them to travel to the 'interior' of the country. ¹⁷¹ They were designed to erase from the border crosser -the American- the image that México was nothing more than the poorly urbanized, even suburban character of most of the border cities at that time. As architect Pedro Ramírez Vázquez, the designer of the museums for the border cities mentions, "que supieran que había algo de mayor interés y

¹⁶⁹ Edward J. Williams, "The Resurgent North and Contemporary Mexican Regionalism," *Mexican Studies/Estudios Mexicanos* 6, no. 2 (1990): 306, <https://doi.org/10.2307/1051836>.

¹⁷⁰ Williams, 306.

¹⁷¹ Pedro Ramírez Vázquez, *Ramírez Vázquez en la arquitectura*. (Mexico: Diana-UNAM, 1989), 101. Translation: So that they knew that there was something of greater interest and value in the interior of the territory.

valor en el interior del territorio.” The chapter will discuss and question the objectives of PRONAF for the museums; how, for the central government, the *capitalinos*, the museums were to show the best of Mexican culture, a culture that existed only further inside the country, and not at the borders, inviting the user to continue their trip into México.

Constructing a Mexican identity for export

The staging of a unified Mexican identity, at the borders was a complicated task. There was a long history of conflicts and resentments between the populations that lived in the border territories and those from the center of the country, the capital. The government in its attempt to generate a unified identity for a territory as vast as the Mexican had to contemplate historical quarrels. The *fronteriza* author María Socorro Tabuenca, as well as the *capitalino* Carlos Monsivais, both agree that the distrust of *fronterizos* against the *capitalino* was a result of the 1847 Mexican-American war. Tabuenca adds a local perspective to what Monsivais says when he mentions that the 1847 Mexican-American war strengthened a sense of nationalism but failed in strengthening the economic ties with the metropolitan area of México City.¹⁷² She adds that the fear of repeating the loss of half of its territory, fostered in the *capitalinos* a sentiment of regret to *fronterizos*, since their lack of national culture reflected in their

¹⁷² Carlos Monsivais, “The Culture of the Frontier,” in *Views across the Border: The United States and Mexico*, ed. Stanley R Ross (Albuquerque: University of New Mexico Press, 1979), 55.

lack of will to defend the territory.¹⁷³ After the mid-nineteenth century conflict, the centralist government strengthened their view of a singular *Mexicanidad*, one that every Mexican, regardless of where they lived, had to adhere to-one identity with a single language and common values. Imposing this idea, especially in the borders of the country, turned those who failed to accept it into *vende patrias* (sellouts)¹⁷⁴ and *pochos* (Americanized Mexicans).¹⁷⁵

Although Monsivais described the borderland's culture as "a loss of identity (identity here meaning political and cultural force), the dubious mixture of two national lifestyles (each at its worst), the deification of technology, and a craze for the new."¹⁷⁶ He contradicts himself 'generously' accepting that the national identity and culture in the borderlands is not at all lost, mentioning "one is surprised to find that despite the proximity of the United States, there are in the border towns certain manifestations of a desire to remain Mexican in custom and behavior."¹⁷⁷ But as PRONAF's double intention clearly states the desire was never enough, and not sufficient to represent the country's pride.

The 'othering' from the *capitalinos* towards *fronterizos* and *norteños* (northerners) in general, has deeper historical precedents. The northern regions of what today is México lived on the outskirts of the Aztec empire, far away from Tenochtitlán;

¹⁷³ Tabuenca in Ramón Eduardo Ruiz, *On the Rim of Mexico: Encounters of the Rich and Poor* (Boulder, Colo: Westview Press, 2000), 100.

¹⁷⁴ The term *vende patrias*, refers to the figure of Antonio López de Santa Anna, whom after the Mexican-American war in 1853 sells under the Mesilla or Gadsden Treaty, 100,000 km² for 15 million pesos.

¹⁷⁵ Ruiz, *On the Rim of Mexico*, 101.

¹⁷⁶ Monsivais, "The Culture of the Frontier," 67.

¹⁷⁷ Monsivais, 54.

reinforced during the conquest, Spaniards during the *colonia* disdained the “barbaric” north.¹⁷⁸ In response, Mexico’s most structured efforts to create a national image for international consumption started during the Porfirian Era (1877-1910) mainly for the World’s Fairs, rapidly growing in fame. Carefully designed and staged by the Mexican intelligentsia, a group of experts that Mauricio Tenorio-Trillo calls the “wizards of progress”, the Mexican displays included the abundant raw materials available to export, but also a display of the industrialization project carried out by President Diaz in order to publicize a modern image of México and to attract immigrants and investment.¹⁷⁹ For the Paris World’s Fair, housed in a neo-Aztec beaux-arts style palace, the exhibit, in Tenorio-Trillo’s words emphasized “form, style, and façade,” rather an attempt to convey the reality of the Mexican society, all efforts made to “fit in” with the developed Euro-American nations.¹⁸⁰ “If modernity was the goal, France was the place to be in 1889”.¹⁸¹ (Fig 2.)

The initial effort of the Mexican pavilions to include imagery, food, and clothing of the indigenous cultures, was rejected for a more “modern” image of México. The “wizards considering anything indigenous as sign of backwardness, instead included in the exhibitions “Moorish architecture, Mexican art, women’s exhibits, education statistics, public works, and Mexico’s economics staples of mining and agriculture.”¹⁸²

¹⁷⁸ Ruiz, *On the Rim of Mexico*, 103.

¹⁷⁹ Mauricio Tenorio-Trillo, *Mexico at the World’s Fairs: Crafting a Modern Nation* (Berkeley: University of California Press, 1996), 19.

¹⁸⁰ Kevin B. Witherspoon, *Before the Eyes of the World: Mexico and the 1968 Olympic Games* (DeKalb: Northern Illinois University Press, 2008), 12.

¹⁸¹ Tenorio-Trillo, *Mexico at the World’s Fairs*, 18.

¹⁸² Witherspoon, *Before the Eyes of the World*, 12.

To differentiate the nation from others, some concessions had to be made, like the promotion of tequila instead of the distillation plants of whisky in México, and *huipiles*¹⁸³ instead of the manufactured shirts proved to be more successful. These efforts were interrupted by the revolution and were after substituted by Vasconcelos' idea of mestizaje as key to the construction of an official 'Mexican' culture. The ideas of 'hybridity' or in his words mestizaje pushed by Vasconcelos as secretary of public education, were supported by the federal government and artistic and architectural styles of the colonial period were favored as the genuine expression of Mexico's European and pre-Columbian origins. The integration of Murales by Diego Rivera and Roberto Montenegro into the refurbished colonial buildings and the neo-colonial ones built for schools, and government institutions, clearly "showed racial and cultural mixing as the ethos of Mexican modern culture and were 'hailed as instruments of indoctrination.'" ¹⁸⁴

After the Revolution the idea of tradition, an 'official' construction that included Mexico's rural life, artisanal products, and the pre-Columbian past, was the foundation of the idea of national identity that would unify the dismembered country. Although wanting to present itself as a modern country, it was the existence of that 'Mexican tradition' what, for Lomnitz, "made it possible for Mexico to claim a particular modernity," one that didn't "den[y] the nation-states' fundament and eternal aspiration: modernity and modernization."¹⁸⁵ In order to disseminate nationalism, it had to be shaped

¹⁸³ Huipiles are a type of loose fitting tunic, a traditional indigenous garment for women.

¹⁸⁴ Castañeda, "Pre-Columbian Skins, Developmentalist Souls," 103.

¹⁸⁵ Claudio Lomnitz-Adler, *Deep Mexico, Silent Mexico : An Anthropology of Nationalism* / (Minneapolis : University of Minnesota Press, c2001.), 133.

into clear identifiable signs, repeated as a story, and like Lomnitz mentions, located in space and territory so it could be fixed in the collective memory. Architecture and regional planning were used as tools for national economic emergence, and “modernism [Mexican], with its characteristic combination of state-of-the-art technology, abstracted traditional motifs, and the subordination of the whole to modern usage, provided the ideal vehicle.”¹⁸⁶

The Golden Age of México (1940-1970)¹⁸⁷ was a period of economic prosperity. By modernizing and updating its image, marketing for tourism, building new hotels with modern amenities, but also the promotion of folklore and rustic life of the indigenous cultures, México became an internationally renowned touristic destination. Impressing the international tourists with this exotic blend of modern infrastructure and traditional culture the 1960’s slogan “So foreign...yet so near,” successfully marketed that image for the country.¹⁸⁸

During the turmoil of the Cold War, México needed to do more in order to advance its position in the new world. President López Mateos started a strong diplomatic campaign from the beginning of his period, personally contacting international mandataries.¹⁸⁹ Achieving that, the UN, and therefore the powerful nations, recognized Latin America as a de-nuclearized area, and therefore compulsorily respected them in case of a future conflict. Latin America was favored to be considered as neutral during

¹⁸⁶ Lomnitz-Adler, xviii.

¹⁸⁷ Witherspoon, *Before the Eyes of the World*, 15.

¹⁸⁸ Witherspoon, 15.

¹⁸⁹ His pacifist diplomatic efforts accomplished that the Presidents of Bolivia, Brasil, Chile and Ecuador promoted a multilateral agreement with other Latin American nations to not fabricate, receive, store or allow or test any nuclear weapons.

the Cold War. By ensuring that México would stay away from any military conflicts, president López Mateos, dedicated his efforts to promote Mexico's cultural international presence.¹⁹⁰

Culture and education as State policy

Following the social betterment principles of the revolution, López Mateos dedicated an important amount of effort, budget and governmental force to solve the educational problems still prevalent, due to poverty, in the lower social classes. Given that by the constitution of 1917¹⁹¹ primary education was mandatory and free, due to the cost burden that the textbooks and other materials imposed, high levels of abandonment still prevailed. As a solution, the president devised the Plan Nacional de Expansión y Mejoramiento de la Enseñanza Primaria (National Plan of Expansion and Betterment of Primary Education) or the Plan of the Eleven Years. The program started by providing free school texts nationally, including for rural areas where the problem was more severe.

¹⁹⁰ To address this, he created several agencies: the Dirección de Relaciones Culturales – DCR (Direction of cultural relations) within the Secretaría de Relaciones Exteriores (Secretary of Foreign Affairs), and the Organismo Promocional de la Cultura, OPIC (Cultural Promotion Organism). These agencies centralized the efforts to design and organize exhibitions and cultural festivals, where Mexican culture from the pre-Colombian to modern was shown in Centroamerica and Europe. Successful cases were the exhibitions at the Paris' Petit Palais in 1962, Perfil de México, and the World's Fairs pavilions in Seattle and New York . For more see *Adolfo López Mateos : la cultura como política de estado*.

¹⁹¹ La Constitución Política de los Estados Unidos Mexicanos (The Political Constitution of the United States of Mexico) of 1917 in its 3rd article promulgates that primary education provided by the municipal, state, and federal governments, besides being mandatory must be free. In 1959 President López Mateos modifies the constitution adding to the article that education can only be free given that the students receive textbooks without any cost for them and their families.

The program also contained a seed-classroom system; a modular classroom plus teacher living quarters¹⁹², paired with rural teacher-training schools.

The solutions devised by the government were criticized for they could easily become tools of indoctrination. At the time only two types of countries had education ministries that had attempted such programs, in general those who had solved their illiteracy problems and wanted to generate regional solutions, like most of European countries; or the communist countries that were looking to indoctrinate the masses through their youth's education. México's government, pressured by the right wing and catholic groups in power— since they controlled most private schools- addressed the textbook issue, being careful of not falling into the indoctrination trap but following an ideology that promoted the values of the revolution, those of the ruling party, PRI, and following a nationalist agenda.¹⁹³

The education solution program incorporated three main parts: the free textbook program, the school building program, and the teaching of history as an institutional effort for unifying the country. Although devised entirely between López Mateos and Torres Bodet, it was Torres Bodet in his position as Secretary of education, and the first

¹⁹² The seed-classroom system consisted in a modular hybrid system of metal frame structure -columns, beams, and trusses- and a system of wall coverings adaptable to the varied climate and cultural conditions of the country. The system included for the initial cell, a classroom for 50 students with restrooms, and living quarters for the rural professor consisting of small living room, kitchen, bedroom, and bathroom. The classroom modules of 6 x 9 mts (standard measurements for the construction materials produced at the time) were meant to duplicate, generating schools, of 1, 2, 4, and so forth classroom. For more see El Aula y la Casa del Maestro in *Arquitectura Pedro Ramírez Vázquez*.

¹⁹³ Fundación Universidad Autónoma del Estado de México (México), *Adolfo López Mateos : la cultura como política de estado*. (Toluca de Lerdo, Estado de México: Biblioteca Mexiquense del Bicentenario Fundación UAEMEX, 2010), 241–43.

lady professor Eva Sámano de López Mateos who carried it out.¹⁹⁴ Conciliating with an important part of the educational system, the Sindicato Nacional de Trabajadores de la Educacion (National Union of Education Workers), a reformed educational plan was devised and with it all the textbooks necessary to implement it. By the beginning of the school year in 1960 more than 16 million textbooks were distributed throughout the country.¹⁹⁵

The systemic classroom construction program was already started by the Comité Administrador del Programa Federal de Construcción de Escuelas -CAPFCE- (Administration Committee for the Federal School Construction Program), created under the presidency of Manuel Avila Camacho (1940-1946) with Jaime Torres Bodet as Secretary of Education. But it was not until López Mateos presidency (1958-1964) with Torres Bodet now serving as Secretary of Education, that one more urgent need was added to the equation: housing for the rural professors.

Torres Bodet, the Secretary of Education, appointed architect Pedro Ramírez Vázquez as manager of CAPFCE. The name of Ramírez Vázquez has relevance because it is his experience in this appointment that would position him to later design the museums at the border. His experiences building in every cultural environment of the country will later be reflected in his design choices. Continuing from the work of Juan O’Gorman at the beginning of the 1930s for the Secretaría de Educación Pública- SEP

¹⁹⁴ Emilio Arellano, *Adolfo López Mateos: Una Nueva Historia*, Primera edición (México, D.F: Planeta, 2014), 165.

¹⁹⁵ Aurora Loyo Bambrilia, “Entre La Celebración Del Pasado y La Exigencia Del Future: La Accioón Educativa Del Gobierno de Adolfo López Mateos,” in *Adolfo López Mateos: Una Vida Dedicada a La Política*, ed. Rogelio Hernández Rodríguez (México, D.F: El Colegio de México, Centro de Estudios Internacionales, 2015), 365.

(Secretariat of Public Education) -from the more than twenty-five schools built in Ciudad de México in less than six months – he learned the systematized set of building methods, functionalist volumetric solutions, and the use of local and traditional materials. Ramírez Vázquez, perfectly conscious of his social responsibilities took the opportunity to produce a body of work that tried to follow the modernist dream of offering solutions to help the most people in the largest swath of society. During this time, and as part of his collaboration, 35,000 rural schools were built from 1944-1964, using mainly metal structures and prefab systems.¹⁹⁶ With a special interest in the local construction methods and material that allowed for a faster and cheaper construction process, Ramírez Vázquez early in his career showed an interest in tradition and regional expressions of culture. For him “region had become an intertext to tradition.”¹⁹⁷ (Fig.3)

The last piece of the triad of López Mateos and Torres Bodet’s educational program was the teaching of Mexican History as an institutional tool for national unity and exaltation of *Mexicanidad*. Adhering himself to Benedetto Croce’s view of history as a field that is not completely deprived of the passionate element, Torres Bodet’s view of history advocated for a middle point between a history that “served man and civilization in their plans for the future” and that, “is in search and believes it can find extreme objectivity.” Because, for Torres Bodet:

¹⁹⁶ Pedro Ramírez Vázquez, *Arquitectura: Pedro Ramírez Vázquez*, ed. Aldonza Porrúa (Mexico, D.F.: Miguel Ángel Porrúa, 2013), 49–61.

¹⁹⁷ Susanne C. Dussel and José Morales-Saravia, “Architecture and the Discourses on Identity in 20th Century Mexico,” in *Constructing Identity in Contemporary Architecture: Case Studies from the South*, ed. Peter Herrle and Stephanus Schmitz (Berlin: Lit, 2009), 111.

En el termino medio en que descansa la realidad, las enseñanzas de la historia representan una ayuda insustituible para comprender el presente y, al mismo tiempo, para concebir sin proféticos dogmatismos el futuro de la nación.¹⁹⁸

In this view of a “complete” History of México, the “universal scenario” played an important part, because it was in this universal dimension, the history of humanity, in which the Mexican chapters of history were to be embedded and not presented as isolated events in a hermetic territory.¹⁹⁹ Education, in particular that on history, fulfilled a civilizing function, in which although the indigenous is recognized as valuable, the homogenizing agenda of the government sought through education to exalt the values of the Mexican soul and civilize the groups that the progress of cities had abandoned and left isolated.²⁰⁰

In the government of López Mateos, the educational efforts could not be separated from the cultural politics.²⁰¹ In the search for a democratization of public education, his government showed a great interest in cultural activities for the country, favoring the inclusion of Mexicans of all socioeconomic extraction. A better and more inclusive education was the goal, one that provided all citizens with equal opportunities. Culture was institutionalized, and although the middle class struggled to distance

¹⁹⁸ Torres Bodet cited in Loyo Bambrilia, “Entre La Celebración Del Pasado y La Exigencia Del Future: La Accioón Educativa Del Gobierno de Adolfo López Mateos,” 339. Translation: “In the middle term on which reality rests, the teachings of history represent an irreplaceable help to understand the present and, at the same time, to conceive the future of the nation without prophetic dogmatisms.”

¹⁹⁹ Loyo Bambrilia, 340.

²⁰⁰ Torres Bodet cited in Loyo Bambrilia, 341.

²⁰¹ Fundación Universidad Autónoma del Estado de México (México), *Adolfo López Mateos : la cultura como política de estado.*, 241–43.

themselves from the popular and folkloric, the government intentionally worked on including them with the “high” arts²⁰².

An important component of this cultural program in López Mateo’s presidency was the building of infrastructure that complemented the formal educational program targeting primary education. The Instituto Mexicano del Seguro Social – IMSS (Mexican Institute of Social Security) built under López Mateos period the greatest network of theaters of Latin America: 38 enclosed theaters and 36 open forums.²⁰³ The government, in order to support the educational effort commissioned 40-minute plays aimed at every sector of society, which would present dramatic representations of heroic acts of Mexican history.²⁰⁴

Museological program

The museum as an extracurricular didactic tool finds its greatest expression during this period. Finding a great excuse in the celebration of the 50th anniversary of the Mexican Revolution, SEP included in its goals to bring history and culture closer to the people. With the clear interest of making culture more accessible, his government

²⁰² The fine arts received a great support during this period. Classical and contemporary theater representations were abundant and accessible, mainly in Ciudad de México. La Comédie Française, Marcel Marceau, Martha Graham, Paul Taylor, among many other international artists performed at the palace of Fine Arts. The famous national ballet company by Amalia Hernández received support and finally a space of their own. Following his interest in cinema, due to his family but also friendship relation with famous movie photographer Gabriel Figueroa, cinema also received a great support, Buñuel directs *Nazarín* at the beginning of López Mateos period and *El Ángel Exterminador* at the end in 1964.

²⁰³ Fundación Universidad Autónoma del Estado de México (México), *Adolfo López Mateos : la cultura como política de estado.*, 57. The author mentions that architect Alvar Aalto was invited to supervise the construction of Teatro Hidalgo, p.100.

²⁰⁴ Fundación Universidad Autónoma del Estado de México (México), 249.

underook a campaign of a magnitude never seen before in México to provide spaces where culture could be experienced in a more direct way. More than 5 museums and 3 international pavilions of great historical and national importance, including the Museo Nacional de Antropología e Historia -MNAH (Museum of Anthropology and History), the crown jewel; were renovated or built during this period. Ramírez Vázquez was responsible for at least 3 of the built works, and a few more that remained as projects.

The three main museums started with the idea of rescuing the cultural heritage that had been abandoned, scattered, and kept in poor condition in their previous locations. The MNAH was in the street of Moneda in downtown Ciudad de México, a location that few local visitors, and even fewer foreign tourists considered in their visits. Torres Bodet and López Mateos devised the Chapultepec Park as the perfect location for the new cluster of museums, cultural activities and recreation for the city, and with this in mind they launched the museological program.

The selection of the architect for projects of this magnitude in México is always colored by a personal connection between the President and the architect. To become part of the system there's always a personal anecdote that justifies it. For Pedro Ramírez Vázquez, it all started meeting Adolfo López Mateos when he was the Secretary of Labor during Adolfo Ruiz Cortines presidency (1952-1958). Having been hired to design and build his house in San Jerónimo, an upscale residential neighborhood, next to El Pedregal (the 1940s development by Luis Barragán) and Lomas de Chapultepec in the southern part of Ciudad de México, he developed a close relation with the future president of México.

Incited by his deep interest in culture and prompted by Ramírez Vázquez' interests in the development of a new museum of anthropology and history, López Mateos asked him to organize a visit to the former Museo Nacional de Antropología. In attendance at the site visit was the museographer Luis Avleyra, who would later be an instrumental part of the planning of the new museum, along with other architect friends of Ramírez Vázquez. Ramírez Vázquez mentions that later, when López Mateos was elected president, in a private meeting to congratulate him, he reminded him of the project and its feasibility.²⁰⁵

Although his first major governmental commission came in 1953 with the School of Medicine at UNAM in collaboration with Héctor Velázquez and Ramón Torres, it was his appointment as manager of the CAPFCE what set him in the orbit of the future president López Mateos. Working for Torres Bodet, and his involvement as the architect of his personal residence, made him believe that his young architecture student's interest of developing a new museum of anthropology, and the subsequent museums to come, could become a reality.

World's Fair Pavilions

The museums and pavilions designed by Ramírez Vázquez were to be inserted within the governmental efforts to expose Mexican culture internationally. His first opportunity to explore topics of promotion and marketing in architecture was the

²⁰⁵ Pedro Ramírez Vázquez and Humberto Iannini, *Charles de Pedro Ramírez Vázquez*, 2016, 70–71.

Mexican Pavilion for the Brussels World's Fair, 1958. In his words the project “se trataba de vender, de promocionar en el extranjero una imagen de cultura y progreso de México.”²⁰⁶ The architect realized in this first experience that exhibitions and pavilions had a promotional character, that the countries that assist are looking to spread and exalt their values. It is about showing culture, ideas and how this is contributing to universal technological knowledge. It is the duty to enrich the essence of the country even from the building of the space that contains the exhibition.²⁰⁷

For the Brussels' Expo Pavilion, the brief from the government was short and clear - to show “a young and vigorous country with deep old roots.” Ramírez Vázquez in collaboration with Rafael Mijares, making use of the skills gained at CAPFCE, and in need of a quick and cheap solution, designed a steel frame shed, with concrete prefab panels for walls. Conscious of the international interest on ‘integración plástica’ - the integration into architectural works, of painting and sculpture to create a unified work of art- a concept used very successfully in the recently completed 1952 UNAM campus. The architects decided to include a wooden and blown glass screen in the front façade, commonly used in vernacular architecture, in close proximity to a multicolored mural made of stones and glass by sculptor Chávez Morado.

With an exhibition that alluded to Mexico's pre-Columbian past, its modern art and architecture, and to technological and economic advancement, the pavilion was fulfilling its function. It was expected that “these pavilions also had to persuade their

²⁰⁶ Ramírez Vázquez, *Arquitectura*, 198. Translation: it was about to sell, to promote abroad the image, the culture and the economic progress of México.

²⁰⁷ Ramírez Vázquez, 198??

audiences of potential international tourists and investors, that México was indeed on its way out of its undeveloped condition but retained its folkloric and exotic attributes,” which indeed for a so-called third world country in the postwar period posed, “a fundamental postcolonial predicament that took on specific contours in the Mexican case.”²⁰⁸ Ponchos, sombreros, and the pre-Columbian heritage were to be presented and exalted, while at the same time the modern architecture, hotels and its amenities, UNAM’s campus, and other advancements were to be symbols of a modern nation. (Fig.4)

The general formula was basically the same for the pavilions for the Seattle World’s Fair, 1962 and New York, 1964. In the case of Seattle, constrained by the plot and regulations only to add to the façade a distinctive emblem, the interior shone instead - independent walls covered with tezontle and wood were used as part of the exhibition. Large format photography panels of México’s most important monuments, folklore, and an array of Mexican’s racial types were used as dividers for the exhibition, consisting of stone sculptures and other pieces, that were contrasted by a mural-sized reproduction of Hernán Cortez’s map of Tenochtitlán (1524).

For New York the expectations for the Mexican were higher than in previous fairs. Having received an invitation directly from Robert Moses and given a privileged site in the Flushing Meadows park in Queens, directly in front of the famous sphere, the organizers wanted “to have the architects stress the cultural aspects of Mexico above and beyond the others.” Bruce Nicholson (Fair official) wrote. “We are not sure that the

²⁰⁸ Castañeda, *Spectacular Mexico*, 7.

Mexicans are entirely aware of the great impression and influence their modern architecture and paintings are having on architects and artists throughout the world.”²⁰⁹

The pavilion was designed to echo the sphere and included all the elements that were successful in the previous fairs, but unfortunately it didn’t cause a great impression. On the second season of the fair in 1965, Ramírez Vázquez decided to include in the front plaza the “voladores de papantla” spectacle, an element that attracted tourists.²¹⁰ (Fig.5)

Museo Nacional de Historia – Galería del Caracol²¹¹

After an analysis of the basic museums needed to complement the newly renovated education system, and due the proximity of 1960, year in which the 150th anniversary of the Mexican Independence and the 50th of the Mexican Revolution were to be celebrated, the first project to be approached was the Museo Nacional de Historia (Museum of National History) a museum that would cover the formative years of modern México, those between the Independence and the Revolution.

The museum rather than presenting documentation and memorabilia of the characters involved in the important historical events, instead followed a rigorous historical narrative in which each event and character would be positioned according to its importance and value to the narration of a “buena historia de México”²¹² that wanted to

²⁰⁹ Castañeda, 25.

²¹⁰ Castañeda, 28.

²¹¹ Inaugurated November 21, 1960.

²¹² Ramírez Vázquez and Iannini, *Charlas de Pedro Ramirez Vazquez*, 62. It could be translated as “a well written history of México” or “good history of México.”

be instructive to the youth and the Mexican population in general. Without having original materials to exhibit, the exhibition consisted of dioramas that sometimes included reproductions but that complemented the didactic and “objective” line of historical events, organized spatially in a continuous similar manner, from the antecedents to the Independence to the Constitution of 1917 that ended the Mexican Revolution.²¹³

Located on a hillside next to the Castillo de Chapultepec (Chapultepec Castle), once Maximilian of Habsburg’s, and president’s residence until 1939, on a small piece of lands previously used for horse training, the museum was projected in a circular shape responding to the plot and the need to take advantage of the views. For the museum Ramírez Vázquez took inspiration from the spiral galleries of the recently completed Guggenheim museum in New York (1949)²¹⁴ and turned the internal curved walls into dioramas scripted by Torres Bodet and designed by Julio Prieto showing the transition from colonial to independent México. “Although the Gallery mostly focused on Mexico’s modern history, its spatial narrative was nothing if not “archeological” in its language.”²¹⁵ (Fig.6)

The exhibition pathway spiraled down three-stories through the history of modern Mexico, culminating in a grand, cave-like central room designed as a secular altar,

²¹³ Ramírez Vázquez and Iannini, *Charlas de Pedro Ramírez Vázquez*, 62.

²¹⁴ In Pedro Ramírez Vázquez et al., *Pedro Ramírez Vázquez: inédito y funcional (Marzo-Agosto, 2015) = Exhibition Pedro Ramirez Vázquez: unedited and functional (March-August, 2015)*, 2014 Iñaki Herranz mentions that the architect traveled to New York a couple of years before the design of the museum, and is alerted, referencing this project, by Max Cetto to not commit the same mistake that Wright made at the Guggenheim.

²¹⁵ Castañeda, “Pre-Columbian Skins, Developmentalist Souls,” 108.

alluding to the religiosity of the Mexican people. With walls covered in volcanic stone dramatically illuminated by a translucent fiberglass amber colored dome of 8 mts diameter as high as the building, the chamber, designed by Iker Larrauri as an almost-religious altar to Mexico's national identity, presented the visitor with carefully selected symbols: a copy of the 1917 Mexican constitution -the first republican constitution-, the Mexican flag held by a snake's head sculpture facing a pre-Colombian rough style sculpture by Chávez Morado of an eagle devouring a snake, the national emblem of México.²¹⁶ Torres Bodet in his memories say:

A la continuidad histórica del relato (síntesis de la vida de nuestro pueblo, desde la Independencia hasta la Constitución de 1917), debería corresponder la continuidad material del itinerario de quien quisiera seguirlo ordenadamente. Dos interpretes persuasivos lo acompañarían en su viaje: la voz – grabada – del invisible maestro que explicaba cada diorama, y el cielo del altiplano sobre la extensión de Chapultepec. Pedro tuvo que luchar con múltiples adversarios. El primero fue el tiempo, demasiado breve para un esfuerzo de magnitud considerable. A él se agregaban otros: la ironía de ciertos historiadores, que calificaban de absurda mi decisión; la lentitud de resumir en escenas claras, con figuras poco voluminosas, hechos acaecidos en grandes plazas, anchas avenidas o salones majestuosos. Más que esos adversarios le molestaban – si no me engaño- mis impaciencias. La construcción fue muy rápida, ciertamente. Pero empezaron muchas demoras. Cada diorama incitaba críticas....²¹⁷

²¹⁶ Ramírez Vázquez and Iannini, *Charlas de Pedro Ramirez Vazquez*, 65–66.

²¹⁷ Ramírez Vázquez, *Arquitectura*, 95–100. Translation: To the historical continuity of the story (synthesis of the life of our people, from the Independency to the Constitution of 1917). the material continuity of the itinerary of those who would like to follow it in order should correspond. Two persuasive interpreters would accompany the visitor on his journey: the voice - recorded - of the invisible tour guide who explained each diorama, and the sky of the valley over the extension of Chapultepec. Pedro had to fight with multiple adversaries. The first was time, too short for an effort of such considerable magnitude. To it were added others: the irony of certain historians, who described my decision as absurd; the slowness of some administrative bodies and, above all, the difficulty of summarizing in clear scenes with small figures historical events that happened in large sized plazas, wide avenues or deep and majestic rooms. More than those adversaries bothered him – to be honest - my impatience. The construction was very fast, certainly. But many delays began. Each diorama initiated criticism.

In the galleries of the museum, a presentation of identity and history with a primitivist perspective, in a modernist designed space was put in show, elements that were characteristic of Ramirez Vazquez architecture since he became the official architect of the regimen.²¹⁸ (Fig.7)

The combined experiences of the promotional architecture of the pavilions on one hand, and on the other the indoctrination project of the museums of history, led to Pedro Ramírez Vázquez complex role as the architect of the official image of Mexico's single-party state.²¹⁹ More than making buildings, architecture's strong relationship to public education informed by ideological agendas of the governments was used as a cultural hegemonizing and economic emergence tool. At the time the government clearly understood architecture's cultural work as central to the identity-building efforts of "developing" countries.²²⁰ Concentrating in one space contemporary and historical forms, exhibitions of cultural objects and representations of traditions²²¹ was a very important formula that Ramírez Vázquez learned from these projects, and that according to historian Luis Castañeda "embody the dialogue between ancient and modern that the structure as a whole advertised as national patrimony."²²²

²¹⁸ Castañeda, "Pre-Columbian Skins, Developmentalist Souls," 110.

²¹⁹ Castañeda, 93.

²²⁰ Castañeda, 93.

²²¹ For the 1964 New York World's Fair pavilion, Pedro Ramírez Vázquez included in the main façade a pole for the voladores de papantla, a mesoamericana ritualistic dance where 5 dancers climb a 30mt pole, one stands on top of it, dancing and playing the drums and the flute, while the others descend to the ground hanging from their feet and in constant rotation.

²²² Luis Castañeda cited in Carranza and Lara, *Modern Architecture in Latin America*, 229.

PRONAF: The watchtowers of national identity
Pedro Ramírez Vázquez's museums for Tijuana, Ciudad Juárez and Matamoros

PRONAF's seed idea of "raising the standard of living in the borderlands," implied urban renewal projects that beautified the image of the cities, and the creation of job opportunities to level the economic differences not only between both sides of the border, but also with the rest of México. Out of the ten objectives that PRONAF set for itself, and from those that alluded directly to culture and tourism, to "stimulate to a maximum degree the foreign tourist travel flow toward our border cities, creating the necessary conditions for the increase, in particular of family travel," and to "stress the values of our history, folklore, language, culture and arts, in order to attract students from abroad interested in these subjects," were translated in Pani's master plan as the creation of cultural infrastructure such as museums.²²³

In the eight masterplans developed for the border cities by Mario Pani, the inclusion of museums and spaces where cultural activities could happen occupied a very central and important place. The first plan for Matamoros shows the museum located right next to the avenue that connects the PRONAF complex with the international border crossing. In the proto-masterplans²²⁴ that Pani designed for all the cities, he laid out all the architectural pieces that needed to be included, but there was no actual development

²²³ Programa Nacional Fronterizo, *Programa Nacional Fronterizo*, vol. 1 (México: Programa Nacional Fronterizo, 1962), 4.

²²⁴ I will be using this term to differentiate from later schemes. Many of the drawings don't have dates so they are difficult to locate in a timeline. The first drawings presented were the urban schemes presented in the pamphlets, that were no more than colored shapes, then the proto-masterplans have much more detail of the architectural layout, and later come the iterations, to finalize with the plans of the sections that were actually built.

of the architectural projects in their land plots. Mario Pani's museum for Matamoros was never developed, but from the drawing it can be intuited as a paraboloid concrete shell roof though this also could have been drawn just as a placeholder. As the later master plans show²²⁵, the museum changes location, and the other proposal appears in plazas left for the museums so they could stand alone as sculptural architectural pieces where they appear to be connected to the rest of the complex just by sidewalks and passageways. Later plans signed by Pani's office show the final museum projects fully integrated into the complex, landscaped areas were designed around them, pavements and features integrate the plaza of the museum to the rest of the composition. A descriptive report of the project at the Archivo General de la Nación mention sculpture gardens that continued the exhibitions from the museums throughout the complex, as means of integration.²²⁶ Details for planters, railways, illumination, and their locations are given, making the projects feel fully integrated. (Fig.8)

It is not clear how Pedro Ramírez Vázquez came to join PRONAF's team, but it can be inferred that with his success at the 1958 Brussels World's Fair pavilion, for which he won the Golden Star, the good reception of the Museo del Caracol or Galería de Historia Nacional in Chapultepec, and his close ties to the governing sphere, president López Mateos recommended his inclusion and expertise for these projects. To design the

²²⁵ Mario Pani and Hilario Galguera, *Plano de Conjunto*, 1964, 1964, UNAM, Ciudad de México, Archivo de Arquitectos Mexicanos A-1.

²²⁶ Secretaría Particular SHCP - Secretaría de Hacienda y Crédito Público, "ANEXO C-82" (AGN - Archivo General de la Nación, n.d.), MEX.SIGLO XX, ADM.PUB.FEDERAL, SHCP-SRIA. PARTICULAR SHCP, Archivo General de La Nación.

museological component of Mario Pani's master plans for the border cities cemented his position as architect of the state, and new *favorito* of the succeeding PRI governments.

In collaboration with Rafael Mijares, he designed the Museos de Arte e Historia for Tijuana, Cd. Juárez and Matamoros. The three cities, prioritized for their importance in the national scene because of their high border-crossing traffic, were the experimental sites selected for these first museums/pavilions. Starting with the design and construction of the museum in Cd. Juárez, days later he received the commission to design the museum in Matamoros, leaving Tijuana for last.²²⁷ Ramírez Vázquez pairs the museums for PRONAF, with the pavilions for the Brussels, 1958, Seattle (1962) and New York (1964) World's Fairs, in the matter that the objective is to present knowledge that encourages further investigations. In his words,

A algunos museos los he llamado 'promocionales' porque se acercan más a las características de un pabellón de exposiciones, creado con el propósito de mostrar en forma sintética, y en una visita breve, el panorama de un país o de algún tema determinado; la intención es de dar promoción a una imagen, de transmitir condensadamente un mensaje.²²⁸

The image to be presented was of México as a "young and vigorous country with deep old roots,"²²⁹ a formulation that had been concocted since the post-revolutionary

²²⁷ In Pedro Ramírez Vázquez archive, the first sketch for the Ciudad Juárez museum is dated September 6, 1961. A letter from Mario Pani's office to Ramírez Vázquez soliciting the project for the museum in Matamoros arrived in September 21 of the same year, referring to conversations held a couple of days before about the museums. For Tijuana, the first mention in the archival material comes later, as March 7, 1962, in a series of tickets and notes on payments.

²²⁸ Ramírez Vázquez, *Ramírez Vázquez en la arquitectura.*, 101. Translation: I have called some of the museums "promotional" because they are closer to the characteristics of an exposition pavilion, created with the purpose to show in a synthetic way and in a brief visit, the panorama of a country or an specific topic, the intention is to promote an *image*, to transmit a message in a condensed manner.

²²⁹ Castañeda, *Spectacular Mexico*, 2.

days. With the inclusion of tropes like pre-Columbian inspired forms and shapes in their architecture, the exhibition of either authentic or replicas of Aztec, Mayan, Olmec or other pre-Hispanic objects -passing through the colonial period religious paintings and sculptures of saints and martyrs -to the inclusion of the world-famous Mexican murals in the exhibitions, the Mexican pavilions started to cover the cultural aspect of that image. Tezontle, a volcanic stone endemic to México, was used to cover walls both interior and exterior, and to make floor patterns, combined with marbles in the same way as in many historical buildings in Ciudad de México.

But with the modernization of the country, the other half needed to be covered to show the ‘young and vigorous’ country, especially from Brussels Fair in ‘58 on. For the fair’s pavilion Ramírez Vázquez made masterful use of prefabricated steel-frame structures and concrete panels, allowing for cheap and fast construction. Used in combination with the wooden screen with blocks of colored glass, the style started to give way to a technified Mexican architecture that would characterize the later museum projects. Each exhibition always manages to show the progression that the country has gone through, from the pre-Columbian period to the modern city. With large scale images of the new urbanizations in Ciudad de México, the works of Luis Barragán, and Mario Pani, and the newly finished and praised UNAM’s campus, the exhibition crafted an image of advancement and development - an advancement and development, of course, in Ciudad de México

For the Cd. Juárez museum, i.e., the use of traditional materials like tezontle and canteras, combined with the prefabricated technified materials like the fiberglass dome

(20mts in diameter, the largest built at the time)²³⁰, and the use of forms, shapes and volumes that exalted modern construction methods, were some of the visible elements that conformed the new image that the program wanted to transmit to the visitor. But this image was not only on the outside. The exhibition, although small, showed in a few pieces, reproductions, photographs, and some originals of the most representative cultural productions of the country, from the pre-Columbian period to the achievements of modern México.

The PRONAF museums had the intention to show visitors a broad perspective of Mexican culture, and to arouse interest to travel further into the country, countering the image of the “depressing suburbs” that the majority of the border cities presented. The museums wanted to let the visitor know that there was something more valuable and of interest in the interior of the territory.²³¹ Bermúdez, mentions in the *Museum of Arts and History of Ciudad Juárez Official Guide* “we are building museums of History, where the visitor may obtain in a short time a panoramic view, real and exciting, of the admirable and varied culture which is ours. There, we hope, the foreigner shall acquire an unsuspected insight into what we really are.”²³² He stresses in the opening page of the guide:

There are institutions which rejuvenate as society gains in maturity. Perhaps no other institution is younger, more alive, or richer in promise of a future in the cultural activity of the Mexican nation than the museums. President López Mateos, in his desire to exalt our national virtues has sponsored a musicological program of

²³⁰ Ramírez Vázquez, *Ramirez Vazquez en la arquitectura.*, 103.

²³¹ Ramírez Vázquez, 102.

²³² Antonio J Bermúdez, *Addresses Delivered by Mr. Antonio J. Bermúdez, Director General of Mexico's National Border Program, at the Society of Pan American Culture, Los Angeles, California [and] at the 40th Institute of World Affairs, University of Southern California, Pasadena, Calif.* (n.p., 1963), 10.

undreamt- magnitude, charging the National Border Program with the erection in Ciudad Juárez of the Museum of Art and History, which answers a need for spiritual assertion, serving as a precious communication link between local and national achievements. The foreign visitor will find therein a faithful image of our historical and cultural heritage.²³³

Insisting on the idea of beautification of the border cities, but also the intention of converting it in a “show window” that exhibits Mexican culture and provide a glimpse of the “real and authentic México, the museums tried to divert the tourists from the image of shantytowns, slums and vice centers, that the border towns have been infamous for.²³⁴ A newspaper’s article described the museum’s design process as²³⁵:

Se tuvo en cuenta en forma simultanea la sensibilidad norteamericana hacia la publicidad espectacular y la sensibilidad plástica mexicana, para que los museos, siendo interesantes y comprensibles para el turista hagan sentir al mexicano que son expresión propia.²³⁶

Their design took into account both “the tourists’ predilection for the genuine regional expressions of the country which he visits, and the deeply-rooted sentiment of Mexicans for his own country.”²³⁷

²³³ Museo de Arte e Historia, *Museo de Arte e Historia de Ciudad Juárez, Chihuahua; [Guía Oficial] Museum of Arts and History; [Official Guide].*, 8.

²³⁴ Bermúdez, *Addresses Delivered by Mr. Antonio J. Bermúdez, Director General of Mexico’s National Border Program, at the Society of Pan American Culture, Los Angeles, California [and] at the 40th Institute of World Affairs, University of Southern California, Pasadena, Calif.*, 11.

²³⁵ Pedro Ramírez Vázquez, “3 Museos Para Llevar La Realidad de México a Las Ciudades de Sus Límites Fronterizos,” *Novedades*, October 14, 1962.

²³⁶ Translation: Having taken into account simultaneously both the North American sensibility towards spectacular publicity and the Mexican towards the plastic, so that the museums, being interesting and understandable for tourists, make the Mexican feel that they are an expression of their own.

²³⁷ Museo de Arte e Historia, *Museo de Arte e Historia de Ciudad Juárez, Chihuahua; [Guía Oficial] Museum of Arts and History; [Official Guide].*, 31.

Ciudad Juárez/ El Paso

Cd. Juárez described in the guide *Museo de Arte e Historia de Ciudad Juárez* as:

...a historic frontier city and a bulwark of the nation in the north. It is a city in which our national character, traditions and folklore are deeply rooted. It has played a decisive part in all important events in Mexico's history: it was the last refuge of the Republic under the guidance of President Juárez during the French invasion and Maximilian's empire from 1862 to 1867, and here it was that the treaties ending the Porfirio Díaz dictatorship were signed in 1911.”²³⁸

Juárez is exalted as an important gate to the nation, where American tourists visit on a regular basis -well connected with Ciudad de México, via railway, highways and airlines, and with the capacity to act as a point of entrance to the country.

The Museum of Cd. Juárez, in collaboration with Rafael Mijares and with museography by Felipe Lacouture was the first of PRONAF's projects to be designed and built. It had the purpose of showing in a small space a synthesized image of the country with a promotional purpose for the American visitor. Inviting them to spend at least a night in the city, it also wanted to lure them into the interior of the country. Still considered not Mexican enough, and in need of strengthening their pride in their heritage,²³⁹ for the inhabitants of Cd. Juárez, it was a reminder of the Mexican cultural traditions so they would not feel at a disadvantaged with their neighbor whom they visited so frequently.²⁴⁰

²³⁸ Museo de Arte e Historia, 17.

²³⁹ Museo de Arte e Historia, 5.

²⁴⁰ Ramírez Vázquez, *Ramirez Vazquez en la arquitectura.*, 102.

For the first three iterations for a museum plan, a different site was considered. Referring to the evolution of PRONAF's master plan by Pani, these museum versions were located in an island between heavy traffic on inbound and outbound México/US roads. Keeping mostly a rectangular plan -except for the last iteration "D," where the plan is considered circular for the first time- the museum was surrounded by a water feature with connective walkways and included a platform for a model of Tenochtitlán (the future Ciudad de México).²⁴¹ Elements that would become prevalent in the design process. (Fig.9)

In the first sketch of the museum at its built location, dated September 8, 1961, the project is titled Museo Ambiental (Environmental Museum) and somehow follows the orthogonality dictated by Pani's latest master plan, the museum plan consisting of nine hexagons randomly arranged with what appear to be faceted folded-plate roofs. With some of the volumes pushing into the water feature, and an island-like platform for the Tenochtitlán model, that was connected to both the museum and the commercial areas, the museum landscaped surroundings appear to allude more directly to the museum's mission.²⁴² (Fig.10)

After this scheme, the rest of the iterations always considered a circular plan encircled by water for the main volume of the museum. (Fig.11) The secondary volume, a bar bent to a semi-circular shape that corresponds with the circumference of the main

²⁴¹ Pedro Ramírez Vázquez and Rafael Mijares, "Ciudad Juárez. Arreglo Para Museo. A(Non Existent)/B/C/ D/," n.d., Archivo Pedro Ramírez Vázquez.

²⁴² Pedro Ramírez Vázquez and Rafael Mijares, "PRONAF-Cd. Juárez. Museo Ambiental," September 8, 1961, Archivo Pedro Ramírez Vázquez.

volume, offset by the encircling water feature appears on a plan dated November 1961,²⁴³ as well as several other undated drawings. (Fig.12) In one of these undated drawings, titled *PRONAF 1. Ciudad Juárez, Mex.*,²⁴⁴ the museum annex is rendered to have a roof of successive barrel vaults, a characteristic that didn't make it into the final constructed building. (Fig.13)

The prevalence of the idea during the design process of a museum surrounded by water in proximity to a large-scale model of the islet of Tenochtitlán, suggests Ramírez Vázquez's intentions to reclaim the borderland's territory for México through culture. The constant reminder to *fronterizos* of their 'mother culture', either by the shape of the building, or the exhibition inside it was one of the 'secondary' goals of the border museums. For Ramírez Vázquez the border museums, "tienen el propósito de informar, de promover, de recordar a la población Mexicana sus propios valores culturales," so that in front of a border culture "se refuerce el orgullo nacional..."²⁴⁵. Ramírez Vázquez, as an architect coming from Ciudad de México, felt the need to exert his centralist perspective in his design process. Although it can be argued that the model of the circular plan connected by a bridge that crosses a water feature was already seen in Saarinen's MIT Chapel (1955-56) (Fig.14), the formal decisions for the museum in Cd. Juárez can be said to have a deeper connection with Mexican culture.

²⁴³ Pedro Ramírez Vázquez and Rafael Mijares, "PRONAF. Museo En Ciudad Juárez Chih. Modificación A-3," November 1961, Archivo Pedro Ramírez Vázquez.

²⁴⁴ "PRONAF 1. Ciudad Juárez, Mex.," n.d., Archivo Pedro Ramírez Vázquez.

²⁴⁵ Translation: have to purpose to inform, promote and remind the Mexican population of their own cultural values... national pride would be reinforced.

The connection between the formal attributes of the museum and the urban/architectural origins of Ciudad de México, reinforced by the museum exhibition, created an ideological link between this cultural center and México's center of culture. The bridge also, corresponds to the north-south axis, reinforcing the act of crossing the border/river, but in the museum case, reversing it, crossing to the north meant entering the depths of Mexican culture. The idea of an architectural model of Tenochtitlán can also be seen to add another layer of pride, or reminder of *Mexicanidad*. Known for its engineering and architectural marvels, the manmade island-city of Tenochtitlán, as described by Hernán Cortéz presented advancements unparalleled in Europe; the same way that the modern architecture at the borderlands was meant to exemplify then prompt more modern construction in the area.

The museum as built consists of a cylindrical volume clad with tezontle, with a plan of 400 sqm, encircled by a water feature. The roof-like structure is formed by two elements, a truncated thin-concrete-slab cone envelope, intended to resemble the palm roofs of México's indigenous houses,²⁴⁶ and a dome-like 20 mt diameter spherical-cap made out of translucent plastic resin that represented a huge innovation in the Mexican construction industry. Later becoming, somehow, a signature in his future projects,²⁴⁷ the dome is intended to give a diffuse natural lighting that reduces the costs that an artificial illumination generates; a prevailing problem in public buildings.²⁴⁸ (Fig.15)

²⁴⁶ Ramírez Vázquez, *Arquitectura*, 107.

²⁴⁷ Museo de Arte e Historia, *Museo de Arte e Historia de Ciudad Juárez, Chihuahua; [Guía Oficial] Museum of Arts and History; [Official Guide]*, 31.

²⁴⁸ Ramírez Vázquez, *Ramírez Vázquez en la arquitectura.*, 103.

The whole volume is only completely perforated on two sides; the entrance, oriented to the south, with a large glass covered surface; and a corresponding glass pane on the northern side of the circular plan. Positioned to be admired from the entrance, a replica of a monumental Mexican sculpture was to be positioned in the window axis so it could be admired with the desert landscape as a background. This gesture, later repeated in the MNAH in Ciudad de México, where the surrounding landscape of the Chapultepec park functions not only as a background for the exhibited pieces but also as a visual connection with the city, can be interpreted in the case of Juárez's museum in a different way. Coming in from the south (México) the visitor is able to admire a sculpture that represent the height of Mexican history with the background of the northern mountains of El Paso (USA). The museum when built depended on the desert landscape background, an element that would disappear soon after to urban sprawl. (Fig.16)

Luis M. Castañeda in *Spectacular Mexico: Design, Propaganda, and the 1968 Olympics*, compares the main building of the museum with Oscar Niemeyer's presidential chapel in Brasilia (1958-60),²⁴⁹ but also states that the museum's centralized domed exhibition space has an "American" feeling to it, providing as examples the National Gallery of Art (1937), and the Library of Congress (1897), and also mid-century references like Saarinen's General Motors Technical Center's dome in Warren, Michigan (1948-1956), and Johnson's museum for the Bliss Collection (1959-1961). At the same time, he makes the argument that the Roman Pantheon and Schinkel's Altesmuseum in Berlin (1830) were architectural tropes of the late nineteen and early twentieth centuries

²⁴⁹ Castañeda, *Spectacular Mexico*, 66.

for cultural spaces.²⁵⁰ For Castañeda the domes in Mexican museums respond to this Euro-American idea of the classical conception of the domed space as the point of origin where “universal” culture radiated to the world.

But as previously suggested, for Ramírez Vázquez, the circular shape of the plan for the exhibition space responds mainly to pre-Columbian referents, and also to the technical daring of designing a space covered by the largest resin dome, which at least until 1989 was said to be the largest ever built.²⁵¹ Ramírez Vázquez’s dome-like cap responds formally to a surface generated by the “revolution of a parabolic arc,” an idea that is closer to the midcentury examples that Castañeda gives, and that in México architects like Felix Cándela had been mastering for a couple of decades. Iñaki Herranz in his book, makes reference to the tipi’s of the northeast/southwestern indigenous pueblos of the area as possible formal references to the use of the circular shape and volume in the design of the museum, but also mentions the a more mundane element as a possibility, the *coscomate*.²⁵²

Having worked for many years in CAPFCE, and in his position having the opportunity to travel and work in the country’s rural areas, Ramírez Vázquez gained deep knowledge of regionalist building methods, materials and typologies. For the Ciudad Juárez museum, the *coscomate*²⁵³ is mentioned as a formal reference for the volumetric solution. The *coscomate* or *cuezcomate*, is a type of traditional grain silo of

²⁵⁰ Castañeda, 69.

²⁵¹ Ramírez Vázquez, *Ramírez Vázquez en la arquitectura.*, 103.

²⁵² Pedro Ramírez Vázquez and Museo de Arte Moderno (Mexico), *Pedro Ramírez Vázquez, inédito y funcional.*, 2014, 45.

²⁵³ Also known as *cuezcomate* or *cuexcomate*.

Mesoamerican origin, versions of which were found to be in use in the Valle de México, as well as on the coast of the Golfo de México and in the western region of the state of Chihuahua.²⁵⁴ (Fig.17) The rather ‘mundane’ reference of a corn silo as a container for art and culture, deserves a deeper investigation in the architect’s archives, but in the boxes dedicated to the museum there is no direct reference to it. Iñaki Herranz’s mention comes perhaps from observations or conversations with the architect. But an argument can be made in favor of the container of corn, an element of high value for the Mesoamerican cultures, and the museum adopting this shape. The creational myths of the Mexicas mention that corn ‘the plant of the gods’ was a direct gift from Quetzalcoatl, the god sun, and main god in the Aztec pantheon.²⁵⁵ But Octavio Paz recognizes in maize an invention product of human ingenuity since, maize is not a wild plant but a hybrid, and calls it “una hazaña mas sorprendente que la construccion de sus pirámides y la creación de sus mitos y poemas”²⁵⁶. For Paz it is just a logical consequence its deification, and even more marvelous is that this god can be eaten. Then perhaps a place where to store it, might not be as simple and mundane as it appears.

²⁵⁴ With an egg or vase-like form the cuezcomate is composed of three sections: the first, a circular base made out of boulders; the second section, an adobe “pot” to hold the grain; and the third section, a cone-shaped roof, made out of an interlaced framework of sticks and branches that supports a thatched covering that resembles a palapa. To the main roof structure, an often-square entrance door to deposit the grains, with a smaller thatched roof supported by wooden rods connected to the main framework, is attached in the lower section, elements that seem to repeat formally in the decision of the roof for the museum. For more see Óscar Alpuche Garcés, *El Saber Tradicional Del Cuezcomate En Morelos*, 2nd ed. (Morelos, Edo. México: Universidad Autónoma del Estado de Morelos, 2015), 10.

²⁵⁵ Cardoza y Aragón Luis, Heart of Corn in Margarita de Orellana et al., “The Mythology of Corn,” *Artes de México*, no. 79 (2006): 66.

²⁵⁶ Obras Maestras de México en París in Octavio Paz, *Los Privilegios de La Vista : Arte de México*, 1a ed. (México, D.F., 1987), 59–60, <http://hdl.handle.net/2027/mdp.39015017438667>.

The second volume of the museum complex, is a single-story rectangular bar of 441 sqm, curved to correspond with the circumference of the main volume, located east of the main volume in the direction of the commercial center. The volume was separated by a water feature that made reference to the lacustrine landscape of Tenochtitlán, an element that has always been criticized for its lack of awareness of the desert climate in which the museum is built and hence its expensive maintenance. With both the interior and exterior curved-walls of the volume covered by floor to ceiling windowpanes, vertical brushed aluminum brise-soleils were added to control the entry of the harsh sunlight of the desert. Connected by a covered glass passageway that bridged the water feature, the museum offered a different ambience, brightly illuminated by natural sunlight during the day and with a correspondent artificial illumination by night. In a more traditional exhibition space, that allowed for a flexible setup of partitions and pedestals for freestanding pieces, an exhibition of Mexican handcrafts, customs, folklore and landscapes, and a display of the industrial and commercial development in modern México was set up on each side of the building. (Fig 18)

Once finished, but before its inauguration, dedication and formal opening to the public Antonio J. Bermúdez's book *Al Rescate del Mercado Fronterizo*, mentions the different cultural promotions that were organized in this structure as part of the inauguration events. It stands an exhibition titled *México Construye*²⁵⁷ that consisted of

²⁵⁷ According to Isabel Silvia Oseguera Pizaña, the antecedent of the *México Construye* exhibition can be found in the MoMa's 1943 *Brazil Builds: Architecture New and Old 1652-1942*, and the *Latin American architecture since 1945*. Inaugurated in Monterrey, Nuevo León, México on November 1st 1962, the exhibition traveled to cities like Milán, Brasilia, Tokio, Paris, and Washington.

more than two hundred large format images documenting thirty years of construction projects across México on July 12, 1963.²⁵⁸ Organized by the Cámara Nacional de la Industria de la Construcción (National Chamber of the Construction Industry) in 1962, with the intention of being presented internationally, the exhibition showed in photos the housing, healthcare, and cultural projects that the government had sponsored in the previous thirty years, as well as, with the input of the Colegio de Arquitectos (College of Architects), private projects of varied scales.²⁵⁹

The Grand Opening

On September 25, 1963 Presidente Antonio López Mateos, visited the PRONAF grounds accompanied by authorities and dignitaries of the U.S., and dedicated to the public the Museo de Arte e Historia de Ciudad Juárez. The exhibition that opened for the occasion was a *Mexican Textile Exposition and Style Show* showing the Mexican textile industry growth. Intended as cultural events that exalted Mexico's capacity to enter the global economy, PRONAF was being set up as hybrid cultural/commercial center at the border. Five months later, on March 8th, 1964, the museum opened its doors to foreign and local visitors.²⁶⁰

²⁵⁸ Bermúdez, *El rescate del mercado fronterizo: una obra al servicio de México*, 91.

²⁵⁹ Isaura Silvia Oseguera Pizaña, "Fotografía y vanguardia. Dos ejemplos de fotografía de arquitectura de Nacho López: La Capilla abierta de Cuernavaca (1958) Y la Exposición Internacional 'México Construye' (1962)" (Master's Thesis, Mexico, D.F., Universidad Nacional Autónoma de México, 2007), 31–35, UNAM- Dirección General de Bibliotecas. Tesis Digitales.

²⁶⁰ Unknown, "Fue Abierto al Público El Museo Fronterizo, Ayer."

Under the main dome, and organized chronologically in a clockwise order, the permanent exhibition started with a section of the most representative pre-Hispanic cultures that were situated in the Valley of Mexico. Following with the colonial period, the post-revolutionary period, and ended with modern México. (Fig.19) The exhibition consisted of free-standing replicas and originals of sculptures and paintings, and large-scale photographs of pieces of great importance from each period. The display of the pieces was set up in low platforms and partitions that allowed the exhibition and hanging of the pieces. Some of the partitions were designed with a height that allowed the user to have a general view of the room, while others came higher to block certain views, creating a controlled circulation around the main room. It is important to mention that the walls of the main gallery were covered in marble and did not allow any hanging. All the exhibition display was done through partitions and platforms. (Fig. 20)

The museum utilized replicas of famous pieces like the Guerreros de Tula and the Piedra del Sol, previously used in the Brussels (1958) and Seattle (1962) pavilions.²⁶¹ Following the educational intention of the museum, but also the interest in showing the cultural richness of the country, reveals a thread of features that can be traced back to the original cultures of the Mexican territory. The Olmec culture of the Gulf of México was represented with objects and a replica of the great monumental Olmec head, and even though they didn't leave any architectural remains, the museum guide identifies them, as “the inventors of sculpture in America.”²⁶² This section of the exhibition exalted the

²⁶¹ Castañeda, *Spectacular Mexico*, 67.

²⁶² Museo de Arte e Historia, *Museo de Arte e Historia de Ciudad Juárez, Chihuahua; [Guía Oficial] Museum of Arts and History; [Official Guide].*, 40.

world-renowned archeological zone of Teotihuacán, the first one to open to the public in America in September 10, 1910²⁶³, where images of the Calzada de los Muertos (Avenue of the Dead) and the Sun and Moon pyramids accompanied with ceramics and figurines was represented.

Following a chronological order, the Mexica culture is shown as the culmination of the pre-Columbian section, ending the historical and geographical travel in Tenochtitlán, the rich metropolis whose urban planning is shown to have competed with many European cities of the era. Showing objects, garments, adornments and architecture that is said, marveled not only Cortez and his soldiers, but also with the shipments arriving from the New Spain to the court of Charles V, the other courts of Europe at the height of the Renaissance.²⁶⁴

The exhibition then continued with the colonial period, but yet again it continues stressing the thread of the cultural features. The guide mentions: “The European conquest interrupted, in the first third of the 15th century, the autonomous development of the indigenous art and culture of Mexico, but neither its characteristic artistic elements nor its creative sensitivity disappeared.”²⁶⁵ New Spain’s arts and architecture is always represented in ways that the indigenous manual work is recognizable, and how its evolution into a “mestizo” or hybrid art was a result of the “transplanting of European forms and concepts and their adaptation to the geographic and cultural milieu of the

²⁶³ Christina Bueno, “Teotihuacán. Showcase for the Centennial,” in *Holiday in Mexico: Critical Reflections on Tourism and Tourist Encounters*, ed. Dina Berger and Andrew Grant Wood (Durham: Duke University Press, 2010), 71.

²⁶⁴ Museo de Arte e Historia, *Museo de Arte e Historia de Ciudad Juárez, Chihuahua; [Guía Oficial] Museum of Arts and History; [Official Guide]*, 44.

²⁶⁵ Museo de Arte e Historia, 65.

recently conquered lands.”²⁶⁶ The particularities of the Mexican Baroque are presented as the culmination of the mestizaje project, because it is in the baroque expressions that the indigenous colors and ornamentation of the pyramids are reinterpreted becoming an important feature of the new catholic temples. A replica of the 16th century Cruz del Cementerio de Cuatitlán (Cuatitlan’s cemetery cross) and large sized images of the San Agustin de Acolman and the Zacatecas cathedral facades and details serve as background of one of the staged displays. Models of temples, replicas of saints and virgins, and of course a replica of the Virgin de Guadalupe image complete the section. (Fig.21)

As a consequence of the enlightenment and the European artistic education at the Academia de San Carlos, founded in Ciudad de México in 1783 as the first arts academy in America by Carlos III²⁶⁷, Mexico’s artistic expressions evolved to the Neoclassical, represented by images of civic and religious buildings as well as portraiture painting and sculpture, taking the spectator to one of the most important historical events that the current government wanted to emphasize, the Revolution. Showing illustrations by Jose Guadalupe Posadas, the creator of the Catrina, the elegantly dressed women-death figure, and landscape paintings by Jose Maria Velasco, the exhibition evolved then to the post-revolutionary artistic expressions of the muralists. Modern art was section was started with images of the murals by Diego Rivera, Jose Clemente Orozco and David Alfaro Siqueiros on the walls of the new government’s institutions buildings. Nineteenth century architecture is represented by the Palacio de Bellas Artes (Palace of Fine Arts) art nouveau

²⁶⁶ Museo de Arte e Historia, 65.

²⁶⁷ Anda, *Historia de La Arquitectura Mexicana*, 137.

style, where also other eclectic edifications are shown. (Fig.22)

World-famed modern Mexican architecture become an important feature of the exhibition, using the museum as a great example of the different tendencies that were at play in México. Works by Felix Candela, Mario Pani, and Luis Barragán among others represented these tendencies. Functionalist and traditionalist architecture being the extremes, Pedro Ramírez Vázquez's museum stands in the middle, with an architecture that was structurally experimental, advanced in its technological solutions, but at the same time included in many different ways traditional symbolisms, motifs and abstractions. (Fig.23)

On the secondary building's the right wing, and organized in three sections that represented the north, center and southern regions of México (physically placed in that order), traditional Oaxaca's barro negro, anthropomorphic and zoomorphic figurines, multicolored ceramics, decorative and functional clay pots and jugs, wooden polychromed boxes, and indigenous clothing, rebozos and other textiles alternated with images of its makers, traditional folklore, landscape and festivities of the varied areas of the country. On the left wing, organized in the same manner, an exhibition of the current advancements of México's industry and commerce, and a demonstration of the richness of natural resources was mounted. This second volume of the museum was also planned to allow temporary exhibitions. (Fig.24)

El Paso Museum of Art

In the city of El Paso, Texas, the twin city²⁶⁸ of Ciudad. Juárez, an art museum opened its doors in 1961. El Paso Museum of Art origins goes back to the early 1900s when members of the Woman's Club of El Paso, presented a small exhibition in a building in downtown El Paso, and started to teach art in local schools. After moving locations several times, in 1930 the El Paso International Museum was incorporated in order to apply for a state charter with the intention of finding a permanent building to house the small collection of rare books, textiles, and archeological artifacts.

In 1940 they moved to the Turney mansion, formerly owned by state senator W.W. Turney and wife, the house designed by Henry C. Trost, a student of Louis Sullivan and Frank Lloyd Wright in 1909, was donated by Turney's widow to the association. Opening its doors in 1947 but functioning mostly as a cultural center and historical museum, it was in 1957 that, with the donation of a major collection of European art from the Samuel H. Kress collection, the museum solidified its reputation.²⁶⁹

Operated by the city of El Paso, an expansion was planned. Adding two wings on each side of the mansion, the project by local firm Carrol and Daeuble and Associates

²⁶⁸ Twin city is a phenomenon particular to the México / US border, born out the 1848 war and delineation of the borderline. With the separation of territories cities like Paso del Norte (Cd. Juárez / El Paso) were divided in two and grew separated but together. To this pair, Tijuana / San Diego and Matamoros / Brownsville can be added as the historical first, later cities on either side of the border started to flourish as a direct competition-compliment to border settlements. For more see Milo Kearney, *Border Cuates : A History of the U.S.-Mexican Twin Cities*, 1st ed (Austin, Tex., 1995), <http://hdl.handle.net/2027/mdp.39015041355747>.

²⁶⁹ William R. Thompson, "El Paso Museum of Art," *American Art Review*., December 2001.

maintained the neoclassical façade of the house with its front colonnade. The addition, according to renderings and drawings presented in newspapers²⁷⁰, consisted of two rectangular volumes that were connected by a glass passageway that passed through the portico, creating a new updated entrance. Both volumes were clad with brick and cornices that resembled the mansion's originals, a plinth and a baseboard positioned the volumes at the same level that the house.

The front facades of the new volumes included niches for sculptures. (Fig.25) The new museum opened its doors in 1961 (one year before than the PRONAF museum in Cd. Juárez), exhibiting European art of the Kress collection consisting of paintings and sculptures, ranging from the thirteen to the eighteen centuries, from masters like Bellini, Botticelli, Crespi, Tiepolo, Ribera, and Van Dyck.²⁷¹ In 1963 the museum received a donation from the Roderick's, El Paso Times publishers, four important paintings of Colonial Mexican art, expanding the museum's interests. Later in 1969, from the same family, the museum received more than 300 Mexican retablos. The museum continued expanding its collection of Mexican colonial art, with various donations of locals, begin the largest the donation of 30 works in 1972 by Mr. and Mrs. Frenton McCreery Davison.

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With two very different architectural styles, the El Paso museum tending to the neo-classical, and the Cd. Juárez museum with a clearer modernist vision, were designed,

²⁷⁰ "International Museum Wings," *The El Paso Times*, October 14, 1958, sec. Home.

²⁷¹ Paula Eyrych Tyler and Ronnie C. Tyler, *Texas Museums: A Guidebook*, 1st ed (Austin: University of Texas Press, 1983), 80.

²⁷² Thompson, "El Paso Museum of Art," 145.

built and opened their doors in a similar timeline. With different purposes and from different origins their opening exhibitions widely diverged from each other. While the new El Paso museum had its origins in a private donation of a European collection, the Cd. Juárez museum collection consisted mainly of replicas, photographs and a few originals of Mexican arts & crafts. The Juárez museum was intended as a promotional tool: its container, the building itself, was part of the imagery that the federal government, the orchestrator, was setting up at the Mexican borders. El Paso's, on the other hand, was a local museum, that grew thanks to the donation of a department store-fortune family, that intended to legitimize themselves and their wealth, as cultural patrons.

Despite their different origins, purposes, and even iconographies, there are similarities worth noting in both museums -design solutions that, whether because of the climate, landscape, or the spirit of the times, are shared in both spaces. For the El Paso museum expansion Carrol and Daeuble Associates maintained the front symmetry of the early 1900s neoclassical mansion façade with the addition of the two new wings. Ramírez Vázquez's projects often followed orthogonal grids both in plan and elevation that resulted in symmetrical volumes, the Cd. Juárez museum volume is symmetrical at first glance. But in detailed analysis of the plan, it can be noted that the location of the entrance gives away some design strategies; the apertures for the entrance and the back window are not of the same dimensions, and the secondary volume of the museum is not aligned with the entrance-window axis, having it rather shifted on a concentric path to the right of the main façade, changing the flow of space and giving the project movement.

One of the stronger similarities between the two museums is the relationship between walled surfaces vs. large stretches of glazing. While in the El Paso museum both new wings additions are entirely clad with brick, and the main volume in the Cd. Juárez is clad with tezontle; the connecting element between both wings of el El Pasos' is a long-glazed volume from side to side passing through the house's old portico, similarly to the Juárez's secondary curved glazed on both sides volume that concentrically follows parallel to the water feature surrounding the main 'hut'. Both architects taking different solutions to protect from the harsh desert sun these volumes, on the renovation of the neoclassical house having it pass inside the portico the glazed passage is covered from the sun, while in Juárez, Ramírez Vázquez designed a system of aluminum brise soleil-like elements that by their repetition through the facades controlled the entrance of light and heat, this solution would be repeated in a more 'sculptural' way in the MNAH in Ciudad de México.

Matamoros / Brownsville

The project for the Matamoros museum maintained some of the features explored during the process for the Ciudad. Juárez project. Having been designed basically in parallel it is interesting to note what carries from one to the other and what is completely new for the Matamoros museum. The site for the Matamoros museum was a privileged one, having been selected for Matamoros's PRONAF: an estuary with lush vegetation normal for the semi-tropical weather of the city. The museum solution needed necessarily to be different. (Fig.26)

In a series of undated sketches found at the Pedro Ramírez Vázquez Archives, the initial ideas seem to have parted from a similar concept for Juárez's museum, a circular plan volume, and a bar connected by a passageway. The sketches show several iterations for the circular piece, going from a perfect circular plan with several different roof types, from domed roofs hanging from arches that go from side to side of the plan, circus tent-like roofs, small drawings of structures that resemble Pier Luigi Nervi's Sport Palace in Rome (1958) or De la Mora and Candela's Iglesia de San Jose Obrero (1959), to star-like faceted folded plate structures that in some iterations going all the way down to the floor to self-support, modify the circular plan to an eight point star. (Fig.27 - 28)

For the bar-like building, the process followed a different path, maintaining its linearity, it changes positions on the site in relation to the natural water volume at the site. Appearing to bend and curve in one of its ends to "embrace" the main circular volume in one of the drawings, the rest of the drawings present it oriented north-south and in close proximity to the water. In this volume too, several types of roofs appeared to have been tried, like in the Juárez museum, successive barrel-vaults, continuous concrete slabs that in occasions allow skylights sometimes covered by domes, to what was maintained to the final version, a folded plate roofline. (Fig.29) One singularity that appears in the first drawings of the museum is a third volume with circular plan that penetrates the lake behind the museum and that in one of the iteration "floats" in the water connected by a bridged walkway. (Fig.30)

The first draft for the museum was composed of three volumes: the main exhibition space, an octagonal plan of approximately 380 sqm with a star-like faceted folded plate self-structured roof connected by a covered walkway to the first third of the

left side of a rectangular bar-like volume with a folded plate roof that also defines the walls of approximately 73.5 mts long, by 10mts wide, oriented north-south. A third exhibition space, a domed volume with a circular plan of 285 sqm, floats on a platform over the lake, allowing a surrounding walkway anchored to the ground with a two arched structure that, meeting in the middle of the dome, forms a triangular frame connected by a walkway to a landscaped area on the back of the bar-like part of the museum.²⁷³

Although the draft doesn't offer detailed information, from the drawings several things can be implied about the distribution and the museography of the complex. Arranged in a similar way to the Juárez museum, the main octagonal plan exhibition room, appears to be designed to house an exhibition organized in a circular clockwise manner, screens positioned radial to the center bathroom-storage cell. The second volume houses in an open plan two exhibition rooms. Arriving from the covered walkway to a resting area located one third from the left end, two rooms of similar dimensions are located on each side, room two on the left and three on the right. At the end of room three, an open-air garden with a water pond (most likely for the Tenochtitlán model) and space for an exterior exhibition is located at the center, allowing covered walkways on its sides. At the very end and functioning as a connective lobby between the museum and the hotel, a resting area is located. On the back of the rest area where the bar-like volume connects with the main exhibition space, the museum opens to a back garden/plaza that allows a closer view to the lake, but also where a walkway that connects it to the

²⁷³ Pedro Ramírez Vázquez and Rafael Mijares, "1. PRONAF Matamoros. Museo Conjunto 1:400," n.d., Archivo Pedro Ramírez Vázquez.

“floating” fourth exhibition space is located. Without any further indication besides that, here is exhibiting room four - an interesting addition to this plan which doesn’t seem to have an assigned specific purpose. (Fig.31)

From this first draft, a major change occurred to the project. The museum design concept was severely transformed to a structure that recalls the prefab units given by the organizers for the 1962 Seattle World’s Fair, a project that was being developed in his office around the same time, but that were also used in his future project for the MNAH in Ciudad de México (1964). The whole complex was positioned differently on the site, losing its clear north-south axis, but gaining a parallel lake side proximity of the secondary volume. In PRONAF’s official plans in Pani’s archive, an intermediate version, where the position varies from the last version, exists, but still the general project stays the same.²⁷⁴ (Fig.32)

Now oriented on an east-west axis approximately thirty degrees south, the main exhibition room was housed in an elevated ‘boxy’ volume with a plan of 36 mts long and 20 mts wide and a height of almost 10 mts supported by a metal frame structure perforated by a rectangular skylight and covered resin dome that corresponded in plan to the circulation nucleus. (Fig.33) The main exhibition room presented large surfaces covered with textured gypsum panels on the inside and local grey *cantera* stone on the facades.

The architectonic strategy that responded to the need of the chronologically

²⁷⁴ Mario Pani, Pedro Ramírez Vázquez, and Rafael Mijares, “Centro Comercial. Plaza Del Museo” (PRONAF, February 1962), Archivo de Arquitectos Mexicanos. Mario Pani.

ordered museography was solved in section. This room, devoted to history and the arts, was projected on different levels that forced the visitor on a circulation through the historical process and ethnic roots in their correct order.²⁷⁵ On the right side of the main exhibition room, the architect added a gardened terrace at the same height, sectioned off by a floor to ceiling glass wall providing access from the exhibition room. Meanwhile on the left side, and with no other indication on the drawings that it had a purpose beyond just to be admired from the floor to ceiling window, an almost 2 mt sunken red clay floored terrace where the model of Tenochtitlán was to be located. (Fig.33)

Connected by a concrete-slab covered walkway surrounded by a water feature, the second volume maintained its bar-like proportions, only growing approximately 10mts on its length. The second volume, like in the Juárez museum, was also destined to be an exhibition of the local and national developments in commerce and tourism, and folklore, customs and landscape, underwent minimal modifications. The resting areas were condensed into one, and in proximity to the restrooms where a stone garden was located to welcome the visitor that came from the covered walkway. The last iteration of the roof line design process was also maintained: the volume is formed by the self-structure folded triangular plate roof, that functions in section as frames made out of concrete, successively giving form to the exhibition space.²⁷⁶ (Fig.34)

²⁷⁵ Ramírez Vázquez, “3 Museos Para Llevar La Realidad de México a Las Ciudades de Sus Límites Fronterizos.”

²⁷⁶ Pedro Ramírez Vázquez and Rafael Mijares, “A3, A6, A8 & D3 (Plans/Facades/Sections and Details/ for Matamoros PRONAF Museum),” n.d., Archivo Pedro Ramírez Vázquez.

The building designed by Ramírez Vázquez and Mijares for Matamoros museum was never built; however, this previously described version was kept as the final project in the architect's archives with some details comments to the plan. (Fig.35) The project was publicized as the final version in local newspapers on both sides of the border, with the authors of these articles emphasizing the use of traditional materials commonly used in the history of Mexican architecture but in modern form. It was also mentioned that in the design it was always sought to keep alive the memory of their traditional characteristics, transcribing the architect's descriptions of the buildings into the article.²⁷⁷ (Fig.36)

From the notes that appear in the documents at the archive, the use of traditional materials in Ramírez Vázquez's project was consistent not only throughout the border museums but also later in his career. For the Matamoros project the main volume was set into a recessed plinth cladded with pebble-stones, a material that more than alluding to historical references in Mexican architecture, was appropriate for a project that was located right next to the Rio Bravo. But the covering for the main building did reference a historical tradition, the use of *cantera*; an igneous stone extensively found in México and in use since pre-Columbian times, but that thanks to technology it could be extracted in larger slabs allowing for larger dimension sectioning, and that by cladding them in drystack a non-traditional use of the traditional material, technifying its use, thereby reinvigorating it and bringing it to 20th century architecture. The use and technification of

²⁷⁷ Ramírez Vázquez, "3 Museos Para Llevar La Realidad de México a Las Ciudades de Sus Límites Fronterizos."

other cladding materials like tezontle, another volcanic stone endemic to México and a signature of Ramírez Vázquez projects, was used to enhance volumes like the stairs, the landing and exhibition platform. Woods in intricate patterns resembling pre-Columbian stonework was also suggested for some interior walls. (Fig. 35)

The Museum of Fine Arts in Brownsville

The Museum of Fine Arts in Brownsville, Texas, has a very similar story to the El Paso Museum of Art. Having its origins in the meetings of eight Brownsville women; Octavia Arneson, Thelma Buckley, Clara Lily Ely, Hallie M. Kennedy, Calla Lilly Magil, Ruth Young McGonigle, Frances Ray and Bernice L. Worthington, that attracted by the prospect of sharing their interest in art in the mid 1930s, formed the Brownsville Art League.²⁷⁸ Having received from the county the historic Naele House during the 1950s for their meetings, the group hosted art classes, exhibitions and lectures by visiting artists.

After lobbying for more land, and hosting several fundraisers, in January 19, 1969 the new “annex” was inaugurated next to the old Naele house, later becoming the Brownsville Museum of Fine Arts. The new building, advertised as fire-proof and airconditioned,²⁷⁹ a single-story concrete structure rectangular volume, that due to budget and security concerns was not allowed to have grand windowpanes, was designed by the first practicing female architect in the Rio Grande Valley, founder Ruth Young

²⁷⁸ Gary Long, “Brownsville Museum of Fine Art to Celebrate 80th Anniversary,” *Brownsville Herald*, July 5, 2015, https://www.brownsvilleherald.com/premium/brownsville-museum-of-fine-art-to-celebrate-the-anniversary/article_2d43ea8a-238d-11e5-af2c-c775bbfb0602.html.

²⁷⁹ “Art League Sets Sunday Ceremony,” *Brownsville Herald*, January 17, 1969.

McGonigle. Designed with a neo-colonial California style, the 4000 sqf building offered large exhibiting spaces with a central lobby naturally illuminated by skylight. The permanent collection of the Brownsville Art League, comprised of over 100 historic pieces created by the founders and their contemporaries, has been enlarged to over 500 pieces, including paintings, prints, drawings, sculptures and photographs of “regional, national and international significance”, including works by Chagall, and Alexander Calder.²⁸⁰ (Fig.37)

Tijuana/San Diego

In a series of notes regarding payments from PRONAF – from Mario Pani’s office- for the museum projects in Pedro Ramírez Vázquez archives, it is clear that the project for Tijuana started to be developed a few months later than the Ciudad. Juárez and Matamoros’s. Having experimented in the process of the aforementioned projects, the sketches present iterations where the main exhibition volume mostly maintains its circular plan.

With a couple of exceptions of seed ideas, not developed enough to consider them iterations, where a concaved-walled triangular-like shaped plan with what appears to be a shell roof-like structure, and one other composed of two displaced overlapping semicircle walls that grow in opposite directions²⁸¹ -this museum had a much clearer connection

²⁸⁰ “Brownsville Museum Of Fine Art | Art Exhibitions, Classes, & Special Events,” accessed January 26, 2020, <https://bmfa.us/>.

²⁸¹ Pedro Ramírez Vázquez and Rafael Mijares, “Tijuana. 1, 2, Tijuana,” n.d., Archivo Pedro Ramírez Vázquez.

with the precedent that Castañeda mentioned for the Ciudad. Juárez museum, namely the presidential chapel in Brasilia (1958-60) by Niemeyer.

The museum project attempted only two main solutions. (Fig.38-39) The main exhibition was conceived as a volume with a circular plan, like in Cd. Juárez, and one where the main exhibition space, in the same manner that the final project for Matamoros, was housed in a rectangular building. Presented in the PRONAF's pamphlets developed by Pani's team in a completely different shape, the museum maintained somehow its position on the site next a peripheric slow traffic road.²⁸² (Fig. 40) It is not clear the order in which both projects were developed but, in the desire to follow the descriptive narrative and the design process towards the final project, the rectangular project will be described first.²⁸³

Following the formula of the project for Matamoros, the museum for Tijuana was comprised of two main volumes. A squarish boxy main exhibition room volume with a skylight, and a bar-like volume connected by a covered walkway. A couple of new added elements worth mentioning due their prevalence in the final project are: the sunken front plaza that, like in the other projects, was to be located the model of the city of Tenochtitlán, the ever present reminder of the origins of *Mexicanidad*; the second element, that although varying in place of origin or cultural reference, a replica of a pre-

²⁸² Programa Nacional Fronterizo, *National Border Program / Programa Nacional Fronterizo. Tijuana, B.C.*, vol. 4 (México: Programa Nacional Fronterizo, 1961), 27.

²⁸³ On one site plan in the archives (n.d.), where the rectangular project appears to be inserted in the site there is an indication of the transformation of a circular primary volume to a square one, even though the logic would tell that the process was the inverse so that the final project would fit the narrative.

Columbian sculpture positioned in a platform that being on the street level over a water feature presented itself as a pedestal for México's Mesoamerican sculpture. (Fig.41)

For this project iteration, the main volume, instead of being just a boxy extrusion of the 25 by 25 mts square plan, had slightly tapered-in side walls that created a trapezoidal front façade completely made out of glass, with a thin concrete slab rooftop interrupted by a central dome that, as might be inferred from the previous projects, was made out of resin. The bar-like secondary building, located in this project on the right side, like a parallel arm, had a peculiar volumetric shape. With the short façade walls tapering-in and a curved roofline the building had a naval ship-like quality. The building, completely closed to the main exhibition space, was connected through a walkway surrounded by a water feature. Without any indications on the drawings of paneling or covering for the facades, but actually just colored in white, it appeared that the architects, even though staying within the composition language that they had set up for themselves, were experimenting with the volumetric design of the museum.²⁸⁴ (Fig.42)

For the main exhibition room, the plan appeared to have a much simpler arrangement.²⁸⁵ Using an open plan, the scattered circular display stands, screens, and showcases, and the elevated large rectangular platform surrounded by water, the much-pursued chronological museographic layout was much more difficult to achieve. So much, that in the documents that conform this proposal, a circulation layout was

²⁸⁴ Pedro Ramírez Vázquez and Rafael Mijares, "Tijuana. Untitled Sketch Drawings (Perspective/Facades/Site Plan)," n.d., Archivo Pedro Ramírez Vázquez.

²⁸⁵ Pedro Ramírez Vázquez and Rafael Mijares, "Museo Tijuana. Planta 1:100," n.d., Archivo Pedro Ramírez Vázquez.

included.²⁸⁶ (Fig. 43) On the secondary volume, the office, restrooms, and warehouse were located. Opening itself completely to an external patio that connected with the commercial area, the building housed two exhibition spaces, only defined by movable screens and display stands.²⁸⁷ (Fig. 44)

From the previously described proposal to the final presented project, several iterations from the same concept appeared to have been sketched.²⁸⁸ The main exhibition building turned into a slightly tapered cylindrical volume positioned over what appeared to be a base that followed the site form, because of the sunken quality of the front entrance plaza. It was after a couple of untitled sketches, but interestingly the only one signed. Though still unidentified by the architect's office, it could be attributed to the associate architect Rafael Mijares. In it the volume moved from the base to be positioned as if it was floating over the plaza. (Fig. 45) This change, that was preserved until the final project, gave the project a new dynamism, that can be seen in the different sketched proposals. This dynamism manifests in stairwells that approached the center of the volume from underneath, to ramps that float over water or the sunken plaza reached up to the cantilevered cylinder, to the final idea of the sloping entrance plaza that leads to a lower-level entrance were experimented with.

In the final project the visitor was received by six concrete *estelas*, an abstraction of the sculptural elements that were found in Mayan archeological sites that were thought

²⁸⁶ Pedro Ramírez Vázquez and Rafael Mijares, "Museo Tijuana. Circulaciones 1:100," n.d., Archivo Pedro Ramírez Vázquez.

²⁸⁷ Pedro Ramírez Vázquez and Rafael Mijares, "Museo En Tijuana B.C. (First Floor Plan/Facades, Perspective, Section) Esc 1:200," n.d., Archivo Pedro Ramírez Vázquez.

²⁸⁸ More than 10 different sketches of options for the project exist in the Archivo Pedro Ramírez Vázquez

to function as banners, located in a plaza that slopping down from the sidewalk level, offered in the way to the main entrance a view of the model of Tenochtitlán. The museum's main volume, a slightly conical two-story disc, was resting over a stone wall that served to cover the service areas leaving to the visitor with the view of a pure volume. (Fig. 46-47

Inside, the main exhibition room with walls covered by tezontle, was a circular plan with a central circular double height space with a helicoidal staircase that communicated with the second received light from the translucent dome that covered the skylight, giving the space a sense of ceremonial importance. Although the sketches, drawings and plans of this final iteration do not give any indication of the museography, it can be implied from the experiences in Cd. Juárez, and Matamoros that the historical exhibition would be located on the first floor in a similar manner to the previous museums, clockwise starting from the pre-Columbian and finishing with modern art in México. Around the main exhibition space whose walls were covered with tezontle the general services of the museum were located, toilets, storage space, a workshop, and the employee offices. On the opposite side of the main entrance, two doors offered a view of an external garden, where a water feature and an external exhibition was described to have been designed. (Fig.48)

The second floor of the building, following the goals for the museography for these projects, must have been dedicated to the folklore, landscape and industrial advancements exhibition. Having the visitor in a windowless space with the only source of natural illumination being the central dome, the museum presented no other openings,

but the walkway that connected this second floor of the museum with the commercial areas of PRONAF.²⁸⁹

Like the Matamoros project, the project for Tijuana never materialized because of lack of federal funding. It was years later, under another presidency, but with the same intention as PRONAF -to present a modern México for the American tourist- that in 1982 in collaboration with Manuel Rosen, Ramírez Vázquez would build a cultural center in Tijuana. The Centro Cultural Tijuana – CECUT (Tijuana Cultural Center), is a cultural complex that includes the Museo de las Californias, a performance hall, showrooms and galleries, a movie theater, an aquarium, a library, classrooms, and an IMAX Dome, the most prominent volume of the complex. Reminiscent of the cenotaph by Etienne-Louise Boullée, the prominent sphere-like-dome dominates the urban landscape of Tijuana. (Fig.49)

San Diego's Timken Museum of Art

The case of the American side of the border is much more complex. Bordering the city of Tijuana is San Ysidro California, but in close proximity is San Diego, a large metropolitan area of the U.S. With a strong array of cultural institutions located mainly in the Balboa Park complex, San Diego's cultural offer was vast, and having been built, the PRONAF museum would've had much competition.

²⁸⁹ Ramón Vargas and Pedro Ramírez Vázquez, *Pabellones y Museos de Pedro Ramírez Vázquez*, 1. ed (México, D.F: Noriega Editores, 1995), 34.

During our period of interest, the Timken Museum of Art opened its doors in 1965 in a building designed by architect John Mock for Frank L. Hope and Associates. The museum started with a collection donated by the Putnam sisters', heiresses of a bottled spring water fortune, consisting of European art with pieces by Rembrandt and Rubens, and other Netherlandish artists, and the donation of the Timken family for the construction of the building. Designed by local architect John Mock, the modernist building was located on a platform, where the Pan-Pacific, Café of the World and the American Legion buildings for the 1915 Panama-California Exposition once stood.

Up on the platform so as to be appreciated from the park grounds the museum was built, in bronze, glass and travertine marble. Structurally, the museum resembles Mies van der Rohe's Crown Hall in Chicago's IIT. With panes of marble instead of glass, the exposed structural frame gives the museum a regulated rhythm to its symmetrical façade. Its project intended it to make it symmetrical, orthogonal and with simple lines, and "a 'see-through' museum where boundaries are blurred, and gardens and sky are visible from many points inside."²⁹⁰

The building formally diverges from any other structure in the Balboa Park. With its modernist design and material palette it makes a stark contrast with the neo-Spanish Colonial structures built for the 1915 Panama-California Exposition. Still the museum's simplicity and travertine panels manage to blend into the complex in a very elegant way –

²⁹⁰ Richard Schulte, "Architecture and Light at Timken Museum of Art.," *Cool San Diego Sights!* (blog), March 26, 2018, <https://coolsandiegosights.com/2018/03/26/architecture-and-light-at-timken-museum-of-art/>.

good, since its “main design feature was to embrace Balboa park from within the building.”²⁹¹

Inside, the museum galleries allow for views of small gardens, and the lily pond and the Plaza de Panama park features. Richard Kelly, who worked as a lighting designer for Mies van der Rohe and Philip Johnson, was invited to participate as the designer of the museum’s lighting scheme. Highly regarded for his work in Kahn’s Yale Art Gallery, and Johnson’s projects of the era, his proposal for a system of day-long consistent filtered-sunlight skylights at the perimeter of the galleries, and exterior lighting was carried out for the project.²⁹² The museum is considered by docomomo U.S. “the second most important midcentury building in San Diego, after Louis Khan’s iconic Salk Institute.”²⁹³ (Fig.50)

It is mentioned that the project was finished by the end of 1961, beginning of 1962 with its final H shape plan. Yet, it’s interesting to note that there is in circulation on the internet an image of previous iterations for the museum’s plan, one in which the museum’s design concept includes a circular gallery.²⁹⁴ Further investigations into the museum’s archives are indeed necessary since there is a clear similarity to the project for the Cd. Juárez Museum, which by then was already being published in American media, as was the project for the museum for Tijuana, under development. (Fig.51) Still a

²⁹¹ “Architecture | Timken Museum,” accessed January 17, 2021, <https://www.timkenmuseum.org/art/architecture/>.

²⁹² “Modernism On Display: The Timken Museum of Art,” Modern San Diego, accessed January 17, 2021, <https://www.modernsandiego.com/article/the-timken-dead-sexy-or-cheap-and-boxlike>.

²⁹³ “Timken Museum of Art,” accessed January 26, 2020, <http://docomomo-us.org/register/timken-museum-of-art>.

²⁹⁴ Schulte, “Architecture and Light at Timken Museum of Art.”

comparison of the built Timken museum to the project by Ramírez Vázquez for the Tijuana museum brings up interesting points. Yet again, we can see that symmetry as a design concept was a value in which both architects were interested. Both projects elevate the main gallery to be appreciated from a plaza, while the Timken does it in a platform where the demolished buildings were located, the Tijuana museum created a sunken plaza hence elevating the main gallery and providing access to it underneath it.

Ramírez Vázquez was working in a *tabula rasa* and his references were not immediate neighbors, his palette of materials referenced the Spanish colonial buildings of Ciudad de México, while Mock at the Timken had its references as re-interpretations of the same precedents but right near him as neighbors. The use of *cantera* or travertine marble, both porous stones with a quality to reflect and catch the light, but both in dimensions that in previous eras were not available is another similarity worth noting.

For both architects it appears to be important to make clear their interest in the advancements of technology in construction systems, on the one hand the Timken displaying a simple but prefabricated structural frame, and on the other the Tijuana museum flaunting the capabilities of concrete, with its column-less floating disc like gallery. Having been built, the Ramírez Vázquez museum in Tijuana would have been without a doubt one of his best museum projects, where the elements needed for the ‘promotional museums,’ as he called them, are synthesized in a very elegant manner.

Museo Nacional de Antropología e Historia-MNAH

The promotional campaign that was carried out through the construction of a

network of museums and exhibitions of a national culture came to its apex with the Museo Nacional de Antropología e Historia in Ciudad de México, solidifying Ramírez Vázquez's career as the architect of the state. But Ramírez Vázquez's role was not just limited to design and building schools and museums. His involvement in concretizing the use of the pre-Columbian heritage, colonial past, and modern artistic expressions -all connected in a successive line- as a political tool, made his role as the architect of the official image of Mexico's single-party state even more complex.²⁹⁵ So reliable was he to the government that in 1968 President Gustavo Díaz Ordaz entrusted in him, and his managerial capacities, the organization of the Olympic Games in Ciudad de México.

Sponsored by CAPFCE and the Instituto Nacional de Antropología – INAH (Institute of Anthropology and History), the museum continued to serve the narrative of the state and functioned as the completion of the creation of the myth. The location for the MNAH was strategically selected by Ramírez Vázquez and Secretary Torres Bodet. Its location inside the recently renewed Bosque de Chapultepec (that in direct translation would be Chapultepec Forest, but commonly translated as Park), a wooded park of almost 700 ha that had served as retreat grounds for pre-Columbian mandarines and later for the colonial authorities, responded to the large influx of visitors that the park received in the recent years of its renewal.²⁹⁶

The museum is organized around a central patio that serves as a great circulating lobby from which the visitor has access to the different "museum rooms". The patio,

²⁹⁵ Castañeda, "Pre-Columbian Skins, Developmentalist Souls," 93.

²⁹⁶ In Ramírez Vázquez, *Ramírez Vázquez en la arquitectura.*, 42 The architect mentions that in a holiday, more than 250 thousand persons visited the park on a day.

more than inspired by the Mediterranean and colonial architecture, is inspired by the Mayan Cuadrángulo de las Monjas (Nuns' Quadrangle) in the Uxmal ceremonial center in the Yucatán peninsula, in the way that maintains openings at the four corners. Making the buildings surrounding plaza to stand alone, it allows a visual connection to the surroundings, a feature that he started to experiment with in PRONAF's museums for the border towns. (Fig.55)

Another element of the design which was constantly experimented with was a feature in the courtyard. Dominating as a common trope in the descriptions of the museum's courtyard, the great umbrella/fountain supported by a bronze column carved by Chávez Morado with symbols of episodes of Mexico's pre-Columbian and modern history, outshine the other very interesting but rarely mentioned element, the water pond. The rectangular shallow pond is located in the opposite direction of to the umbrella in the central patio and in direct relation to the Mexica room, the room dedicated to the dwellers of Tenochtitlán, the great city constructed over the lake. The pond responds to the representation that the architect wanted to make of the religious and cosmological vision of the Mexica culture; the four elements are present, the water, the earth symbolized by the ocher stone flooring on the surrounding area, the air symbolized by Iker Larrauri's seashell sculpture, and the fire, by the grill that in ceremonies is used to burn copal. Documentation even mentions the intention to bring the water into the room, though for humidity control reasons this proved infeasible. Once again, Ramírez Vázquez as with the model of Tenochtitlán floating in a water feature constantly present in the PRONAF projects, the connection to Tenochtitlán as the center of México was stressed. (Fig.53)

Each of the four surrounding buildings were treated as pavilions. The entrance had a correspondent opposing floor-to-ceiling window that ensured the connection to the surrounding, a theme also recurrent in the border museums. In these pavilions twenty-six exhibition rooms were distributed, divided in half. Thirteen were didactic displays of Mexico's pre-Columbian cultures, and the other half, displays of contemporary ethnography.

The use of materials like marble and recinto -a native volcanic stone profusely used in colonial and pre-colonial buildings- to cover surfaces and courtyards, was one of Ramírez Vázquez's way to allude to the cultural mestizaje in architecture, but the museum's architecture had many other formal elements that referenced directly the pre-Columbian world. The ground level of the museum is very sober consisting in large planes with only openings for the entrances, also inspired by Uxmal's Cuadrángulo de las Monjas, where the large stone planes of the base of the buildings are only interrupted by the openings for the entrance. The upper part, in contrast, is extraordinarily ornamented giving a light and shadow texture to the pane. Ramírez Vázquez sought for the museum the same sculptural effect, with other materials but the same proportions that in Uxmal, a vertical alternating geometric grill suggesting a modern version of a schematized serpent screen designed by Manuel Felguerez functions as a shading device for the floor-to-ceiling windows of façade that sees to the central plaza.²⁹⁷ (Fig.54)

²⁹⁷ Pedro Ramírez Vázquez, *The National Museum of Anthropology, Mexico: Art, Architecture, Archaeology, Anthropology* / (New York,: Abrams, 1968), 29.

Other architectural elements considered by then traditional in modern Mexican architecture were included. A series of murals by living Mexican artists covered many walls in the museum with one theme in common. Based on the idea of mestizaje and hybridity that José Vasconcelos presented in his 1925 essay *La Raza Cósmica*, Jorge González Camarena and Rufino Tamayo's murals, among the others showed in two different styles show the mestizaje, the fusion of the people into a single race. *Las razas y la cultura* (the races and the culture) by González Camarena show in the style of the Mexican muralists (Diego Rivera, Jose Clemente Orozco, and David Alfaro Siqueiros) surrounded by architectural elements of different cultures, fifteen stereotyped women - Greece, Egypt, 'Africa', China, Japan, Middle Eastern, etc- that by uniting forces are giving birth to a mestizo baby. Rufino Tamayo's *Dualidad* represents the battle of pre-Columbian gods Quetzalcoatl and Tezcatlipoca suspended in the middle of their confrontation, this image of confrontation repurposed an ancient myth of creation into "the birth of modern Mexican national identity".²⁹⁸

Bringing Ramírez Vázquez's reflection on the museum, he mentions that the architecture must communicate the values that express the different cultures and civilizations. For him, every architectural work capable of enduring is, at the same time, an act of communication. If every architectural work is a communicative act, then the museum is the one that best fits that purpose, born as an idea, conceived, developed and installed for that purpose.²⁹⁹ The museum is then, not just a collection of objects, but a

²⁹⁸ Castañeda, "Pre-Columbian Skins, Developmentalist Souls," 104.

²⁹⁹ Ramírez Vázquez, *Arquitectura*, 87.

didactic spectacle. A dramatization of the place of origin, and an exaltation of the past and the heritage of the Mexican culture.

As Susan Dussel notes, the museum was problematized early on by Octavio Paz in his description of the museum:

Entrar en el Museo de Antropología es penetrar en una arquitectura hecha de la materia solemne del mito. Hay un inmenso patio rectangular y en el patio hay un gran parasol de piedra por el que escurren el agua y la luz con un rumor de calendarios rotos, cántaros de siglos y años que se derraman sobre la piedra gris y verde. El parasol está sostenido por una alta columna que sería prodigiosa si no estuviese recubierta por relieves con los motivos de la retórica oficial. Pero no es la estética sino la ética lo que me mueve a hablar del Museo: allí la antropología se ha puesto al servicio de una idea de la historia de México y esa idea es el cimiento, la base enterrada e inmovible que sustenta nuestras concepciones del Estado, el poder político y el orden social....³⁰⁰

At odds with the fact that the museum is a materialization of the myth with constant reminders of a political agenda, he mentions that is not the aesthetics that motivate his critique, but the ethics. Because it is there that anthropology is put to the service of the

³⁰⁰ Dussel and Morales-Saravia, "Architecture and the Discourses on Identity in 20th Century Mexico," 125. Translated by the authors: *To enter the Museum of Anthropology is to penetrate an architecture built of the solemn matter of myth. There is an enormous rectangular patio, and in that patio, there is a great parasol from which light and waterfall with a sound of broken calendars — a rain of years and centuries splashing on the grey-green stones. The parasol is supported by a stone column that would be impressive if it were not covered with reliefs that repeat the themes of the official rhetoric. But it is ethics, not aesthetics that prompts me to speak of the museum: in it, anthropology and history have been made to serve an idea about Mexico's history, and that idea is the foundation, the buried and immovable base, that sustains our conceptions of the state, of political power, and of social order.*

I barely have to mention, that from the point of view of science and history, the image that the Museum of Anthropology about our pre-Columbian past is false. The Aztec do not represent the culmination of the precedent cultures. Rather the truth would be otherwise, their version of the Mesoamerican civilizations is simplified on the one hand and on the other exaggerated, in any way it diminishes both.

The authors: *This exaltation and glorification of México-Tenochtitlán transforms the Museum of Anthropology into a temple. The cult propagated within its walls is the same one that inspires our schoolbooks on Mexican history and the speeches of our leaders: the stepped pyramid and the sacrificial platform.*

politician as a tool for controlling the masses. Paz continues by describing a normal tour of the museum, but stops to make another important point:

Apenas si debo señalar que, desde el punto de vista de la ciencia y la historia, la imagen que nos ofrece el Museo de Antropología de nuestro pasado precolombino es falsa. Los aztecas no representan en modo alguno la culminación de las diversas culturas que los precedieron. Mas bien lo cierto seria lo contrario: su versión de la civilización mesoamericana la simplifica por una parte y, por la otra, la exagera: de ambas maneras la empobrece. La exaltación y glorificación de México-Tenochtitlán transforma el Museo de Antropología en un templo. El culto que se propaga entre sus muros es el mismo que inspira a los libros escolares de historia nacional y a los discursos de nuestros dirigentes: la pirámide escalonada y la plataforma del sacrificio.³⁰¹

He concludes by saying that there is no scientific or historical truth to what is presented in the museum, merely the construction of a myth, where the Aztec is glorified as the culmination of all the precedent groups. For him, this just diminishes in value not only the Aztec heritage but that of all the other groups. The museum is seen as a temple where Tenochtitlán as the place of origin of México is exalted and glorified.

The narrative was completed and the MNAH was the tool that consecrated it. For the PRI governments it was the culmination of the work started after the Revolution. With the positive intention of the Mexican intelligentsia of creating cultural elements and narratives that unified a territory as vast and diverse as the Mexican, the museums along with those at the borders fulfilled their mission. But they also erased other narratives, not only those pointed out by Paz when he puts the myth of the Aztec into question, it erased the cultures and pueblos of the north in the case of the México – U.S. borderlands. These

³⁰¹ Octavio Paz, *The Labyrinth of Solitude, the Other Mexico, and Other Essays* (New York: Grove Press, 1985), 444–45.

were cultures that had existed long before the Mexican-American war and that inhabited those territories divided after the resolution of it. Cultures architects like Pani and Ramírez Vázquez, either instructed by the government, or by a historical correction could have been included, not only in the narratives of the exhibitions, but in the forms of their architecture, and urban configurations of their settlements.

Conclusion

What these museums and exhibitions undertook was a *monumentalization* of a national culture. They were an exceptional example of a Latin-American effort to combine traditional aesthetics with avant-garde modernist architecture. But like García-Canclini asserts for the MNAH, in a way that can also apply to the border museums, the architecture supports, and some cases even strengthens the centralist project of the government, “the complex insertion of the traditional patrimony ...is at once and open and a centralized structure.”³⁰² This formula, Lomnitz says, where tradition is the country’s spiritual dimension, and modernity the country’s present, but more than that, the future, combined to form a particular nationalism, leaves areas like the borders (which he includes in what he coins as zones of transnational contact) very vulnerable for a state control of the narrative. The tourists, either just passing by the border towns, or actually visiting them, are rarely interested in such connection, and instead show a greater

³⁰² Néstor García Canclini, *Hybrid Cultures: Strategies for Entering and Leaving Modernity* (Minneapolis: University of Minnesota Press, 1995), 126–27.

interest to Mexico's "backward" areas being suspicious of those that were promoted as "progressive."³⁰³

Architecturally the work that Ramírez Vázquez did in the matter of museums and exhibitions is important, for he devised the future of modernity in México as a nation that without losing its essence could occupy an important place in the global economy."³⁰⁴ His designs attempted to recuperate the heritage of the Mesoamerican cultures bringing them to the modern discourse of architecture and as a means of reflecting a sense of national identity, while at the same time harmonizing functionality and an integration in the landscape. His attempt to generate a formal language characteristic of the national architecture was not in the manner of an aspiration for an expression with archaic or historicist formulations. In his words:

El respeto a la tradición, y en consecuencia al país mismo, consiste en conservar tales constantes culturales mediante soluciones contemporáneas propias, apoyadas en técnicas modernas para satisfacer las necesidades presentes en los espacios que viven los mexicanos. Este propósito de expresión propia y auténtica no representa de manera alguna un nacionalismo exagera y a ultranza, que resultaría incongruente con nuestra época. Nuestro nacionalismo debe basarse en el hecho de sabernos iguales a los demás hombres, con las mismas características, con la misma capacidad de aportar, de servir y de ser útiles.³⁰⁵

As a creator of abstract forms, he was interested in responding truthfully to their function

³⁰³ Lomnitz-Adler, *Deep Mexico, Silent Mexico*, 132.

³⁰⁴ Preface by Giuliana Zolla López Mateos in Fundación Universidad Autónoma del Estado de México (México), *Adolfo López Mateos : la cultura como política de estado.*, 17.

³⁰⁵ Ramírez Vázquez, *Ramírez Vázquez en la arquitectura.*, 16. Translation: Respect for tradition, and consequently for the country itself, consists in preserving such cultural constants by means of their own contemporary solutions, supported by modern techniques, in order to satisfy the present needs of the spaces in which Mexicans live. This intention of self-expression and authenticity does not represent in any way an exaggerated and extreme nationalism, which would be inconsistent of our time. Our nationalism must be based on the acknowledgement of our equal standing among our international peers, with the same characteristics, with the same capacity to contribute, serve and be useful.

and technique, since that is what brings architecture to the level of the arts, this truth as a result of function and technique as means to generate useful objects. For him this was the social function of architecture and how he connected the field with politics for “being useful is the aspiration of all human beings. That’s how the artist fulfills his social responsibilities, with its political duty, because politics is precisely the art of being useful.”³⁰⁶

As an architect working on these topics he was not alone; Enrique Del Moral had been writing about the integration of local into the general, the regional into the international, and the traditional into the modern in architecture a couple of decades before Ramírez Vázquez undertook the governmental museum project. In an attempt to respond the question of what is modern and what is Mexican? Del Moral speaks about how style (architectural) responds to a general trend that is given by the epoch, by the present, its zeitgeist. But, at the same time that general style of the time/period is locally altered and adapted by the diversity of people who live in that time, that is, a local “interpretation” of the epoch, and that this locality depends less on geographical and political borders but on the affinity of character, ideas, beliefs and ways of living of the diverse collectivities. Less of the physical and material than of the spiritual and cultural.³⁰⁷

Del Moral also comments that “our (the Mexican)” interpretation of the epoch is closer to that of Spain or Peru (finding the reason to this comparison in the fact that is

³⁰⁶ Ramírez Vázquez, 18.

³⁰⁷ Enrique Del Moral, *El hombre y la arquitectura: ensayos y testimonios* (México: UNAM, Facultad de Arquitectura, Centro de Investigaciones Arquitectónicas, 1983), 39–43.

another country with a long history of a civilization that built), than that to the US not regarding our physical proximity, arguing that colonialism affects architecture less when it is economic and military than cultural and spiritual. Showing, a very centralistic view (very common in those days, even today) in which the border zones, closer spiritually and culturally to their “twin towns,” are completely relegated from the “national” discourse of modern architecture.

Like Dussel mentions, “the ancient Mexican past, the tradition, was being used as the foundation for a strong feeling of national unity and for the legitimization of state authoritarianism.”³⁰⁸ As much as the discussion of tradition and modernity in certain circles was pointing to an understanding of the conditions in other regions of the country, it also pointed to the alleged superiority of Ciudad de México because of its level of modernization, but at the same time critiquing it for losing its identity, like Del Moral’s later diatribe published in Pani’s *Arquitectura México* in 1954 titled *Tradición vs. Modernidad. ¿Integración?*, where he explains:

Es indudable, por lo tanto, que la ciudad de México no representa cabalmente a la nación mexicana; mas aún, que se halla en gran parte divorciada del resto del país, que sus problemas y su manera de ser son diversos; en otras palabras, que el ‘*capitalino*’ es menos mexicano y en cierto sentido ‘mas moderno’. Nada de extraño tiene que muchos de sus problemas y, en consecuencia, la resolución formal de ellos, parezcan incongruentes con la manera de ser del resto del país. Se ve, pues, que “lo local” se podrá expresar mejor en aquellos lugares del país que hayan sido menos afectados por la manera de ser general, o bien en los programas en donde el “hombre” cuenta íntegramente como tal: la habitación. Así mismo, “lo local” casi no se manifiesta en aquellos programas en que el hombre, como ente diferenciado, prácticamente desaparece, por ejemplo: una fabrica, un aeropuerto, un hangar,

³⁰⁸ Dussel and Morales-Saravia, “Architecture and the Discourses on Identity in 20th Century Mexico,” 123.

etcétera.³⁰⁹

What was being discussed in Ciudad de México, both at the governmental spheres and the architecture circles, and the conjunction of these discussions, was what permeated in PRONAF's general planning and architecture. A centralist agenda that, convinced of the "barbaric" nature of the inhabitants of the border, and the historical superiority of the center, wanted to culturize and remind (more likely to impose) an idea of nationalism. As Rick Anthony López notes in his book *Crafting Mexico*, "in the end, what Mexican cultural nationalists searched for was not a balm for over-modernization but a way to accelerate their modernization."³¹⁰ This intention was even clearer in the treatment of the border towns.

While the national (centralist) discourse in architecture conveyed nationalism onto the design and construction of the Mexican museums in the border, the American towns were not interested in an exhibition of their national identity or nationalism in their museums of art and history. While several museums in the American border towns existed prior to the PRONAF museums, most of them were about regional or local

³⁰⁹ Enrique Del Moral, "Tradición vs. Modernidad. ¿Integración?," in *Cultura Arquitectónica de La Modernidad Mexicana : Antología de Textos, 1922-1963*, ed. Salvador Lizárraga Sánchez and Enrique X. de Anda (Mexico: Universidad Nacional Autónoma de México, 2010).

Translation: Therefore without a doubt, Mexico City does not fully represent the Mexican nation; moreover, that it is largely divorced from the rest of the country, that its problems and its way of being are diverse; in other words, that the 'capitalino' is less Mexican and in a sense "more modern." It is not surprising that many of their problems and, consequently, their formal resolution, seem inconsistent with the way of being of the rest of the country. It is seen, then, that "local" can be better expressed in those places of the country that have been less affected by the general way of being, or in programs where the "man" fully counts as such: the room. Likewise, "the local" almost does not manifest itself in those programs in which man, as a distinct entity, practically disappears, for example: a factory, an airport, a hangar, and so on.

³¹⁰ Rick Anthony López, *Crafting Mexico : Intellectuals, Artisans, and the State after the Revolution* (Durham: Duke University Press, 2010), 19.

history, houses turned into museums, showing material culture of the history of the city.

It is also interesting to note that American museums were more interested in showing their connection with Europe and the West, than with creating a discourse of what American art was.

In an article by Thomas B. Hess published in *ARTNews* magazine titled “Culture as the Great American Dream” in relation to a Kress collection exhibition at the National Gallery, the author makes an interesting argument about American cultural heritage and its construction.

This tipsy first impression is consistent with the Kress's jamboree spirit: what a pell-mell heterogeneity of taste ("appetites" would be a better word). Objects of every size, quality, ambition, scale are hung deadpan on the expensive walls. The megalomaniac squirrel instinct associated with American millionaire collectors of the Hearst generation- the craving for any tangibles of power and glory that made them eat up whole chapels and palaces and workshops of forgers-now, in our cooler period of estate management and team research, is tidied up, as if, all along, there was a system, a science, even a philosophy, at work to inform just this eclectic process.³¹¹

As is the case in many of the museums in the border, but also for other major important museums in the U.S., the collections are made out of donations of these self-made millionaires, that in order to consolidate their power turned to art, and specifically to European art, as the source for validation.

Other than the WPA Federal Art Project under the New Deal program there hasn't been a governmental program of PRONAF's scale. The art produced under such program didn't reach the borders of the country, leaving the regional and local governments, and

³¹¹ Thomas B. Hess, “Culture as the Great American Dream,” *ARTNews*, December 1961.

the private sectors looking mainly to Europe when trying to generate a discourse on art in the museums and exhibitions.

In contrast, for the Mexican government's idea of culture, "everything foreign is chauvinistically denied or disregarded" but like Monsivais mentioned "in a world progressively subjected to the media, this is nothing less than suicidal."³¹² What becomes even more important to define during this period is the concept of foreign and local, and especially when speaking about borders. For Monsivais, the Mexican renaissance of the fifties, which was the origin of the 1960s governmental policies, "the search for 'the own', had led into a narrow end."³¹³ The Mexican government defined as foreign anything outside the metropolitan area of Ciudad de México by creating the discourse of the nation's origin in the Aztec culture. This dramatization of the origin as a founding substance, and with which people should identify in the present is for García Canclini the basis for the authoritarian cultural policies.³¹⁴

The museums at the Mexican border were then another real space of *Mexicanidad*, as perfect and meticulously crafted as the border was messy, ill constructed and jumbled. These heterotopias not of illusion, but of compensation, are "colonized" spaces, in this case, by the centralist view of *Mexicanidad*.³¹⁵ What were considered the best examples of Mexican architecture for the borders, was in reality those examples of the constructed *Mexicanidad* that came from the center, from Ciudad de México; the shell

³¹² Monsivais, "The Culture of the Frontier," 56.

³¹³ Dussel and Morales-Saravia, "Architecture and the Discourses on Identity in 20th Century Mexico," 119–22.

³¹⁴ García Canclini, *Hybrid Cultures*, 110.

forms of Félix Candela, the modern multifamiliares by Mario Pani, the modern nationalist architecture of Rármirez Vázquez that combined Mayan and Aztec styles with technified construction processes.

Mexican scholars have discussed this idea of *mestizaje* as a process of de-Indianization claiming that the post-revolutionary idea of a one-race México, tends to erase the rest of indigenous cultures, the Tarahumaras, the Yaquis, or the Tohono O'odham, that inhabit the borderlands i.e. For López this interpretation excludes intellectuals like Gamio, “that viewed indigenusness and mestizaje not as absolute but as degrees,” a concept that the historian of India Gyan Prakash has termed “unity in diversity.”³¹⁶

The border generally has a connotation of difference and contrast, among each country with its border regions, and between each side of the border.³¹⁷ These “contact zones” in Lomnitz terms, are part of a larger “region” where the national identity is produced -those areas where state institutions define the rights and obligations for citizens, produce local and class identifications, and produce the images and narratives of nationality.³¹⁸ If the border population, that of these ‘contact zones’, was a result of the hybridization of various Mexican groups from the poor southern states of Oaxaca, Chiapas and Veracruz in the Golfo de México, and the regions of el Bajío³¹⁹ and

³¹⁶ López, *Crafting Mexico*, 10.

³¹⁷ Alarcón, *Estructura Urbana En Ciudades Fronterizas: Nuevo Laredo-Laredo, Reynosa-McAllen, Matamoros-Brownsville*, 8.

³¹⁸ Lomnitz-Adler, *Deep Mexico, Silent Mexico*, 130.

³¹⁹ A region composed by the states of: Aguascalientes, Guanajuato, Querétaro, San Luis Potosí, and Zacatecas.

Occidente.³²⁰ Those bracero families reunited in the border towns- to either cross back to the U.S., or just to relocate in a region that was more understanding of the “American practical approach to life, the ideal of citizenship as form of business, and the belief in commerce as a builder of nationality,”³²¹- brought with them expressions of their regional cultures. Thinking of an alternative idea of national identity, one that includes the cultural expressions of the large vastness of the Mexican territory, the border regions can then be considered then as truly Mexican, as united in their diversity.

³²⁰ A region composed by the states of: Nayarit, Jalisco, Colima, and Michoacán.

³²¹ Monsivais, “The Culture of the Frontier,” 65.

CHAPTER 4

Border as Symbol / Passage

The idea of the border is precious; it must be defended, we must show that the border is the antithesis of the barrier. We should dream not of a world without borders, but of a world where all borders are respected and unobstructed. What is education if not the bridge that allows one to truly connect to others while holding on to a sense of personal identity?³²²

Marc Augé

Introduction

The first idea carried out from PRONAF projects was the construction of the Puertas de México. It was the first effort to improve the general environment and physical appearance of the border cities so they would fulfill their functions as gates of entrance to the country and be representatives of the national prestige.³²³ The Puertas were the first point of contact with the Mexican cities, the gateways of entrance “which to the Mexican, mean a pleasant impression when he returns to his own country; and to a foreigner, mean a surprising sight, that of the Mexico of today.”³²⁴

From the perspective of governmental services, the only buildings needed at the border were for customs and immigrations. However, such a simple program wouldn't

³²² Marc Augé, “The Symbolism of the Border,” in *Of Bridges & Borders Vol. II*, ed. Sigismond de Vajay, Flavia Costa, and Pedro Donoso, 1. Aufl (Zürich: JRP Ringier Kunstverlag, 2013), 11.

³²³ Programa Nacional Fronterizo, *National Border Program*, 2:5.

³²⁴ Antonio J. Bermúdez, “Addresses Delivered by Mr. Antonio J. Bermúdez. Director General of Mexico's National Border Program. At the 40th Institute of World Affairs University of Southern California Pasadena, California,” December 3, 1963, 23.

have achieved their mission. The Puertas were a set architectural and infrastructural constructions that, in addition to fulfilling their programmatic functions also served as demarcations and gateways to the country. They were the real front face of the Mexican territory, the display that PRONAF wanted to create at the borderlands. The intention was in Bermúdez words, “to make a show window of the Mexican side of the line, and present Mexico’s best to the eye of the foreign visitor. In the past, it is not Mexico’s best that you have seen on our border.”³²⁵

This chapter will primarily deal with the Puertas de México component of PRONAF, projects that were designed for the new immigration and customs buildings for four of the major border cities. The projects were intended as a grand point of arrival and welcome. Their design was imagined from the vantage point of the automobile, and the projects creatively integrated traffic, public transportation, and pedestrian crossings. Simultaneously, they were connected to the recently constructed road systems that lead to the modern PRONAF centers. They will be contrasted with the instrumental bureaucratic efficiency in which the U.S. Border Customs offices were designed. Lastly, the chapter will investigate some other projects done on the American side of the border, mostly freeway and highway connective infrastructure.

Built in four of the most visited border cities, their symbolic spectacular³²⁶ architecture made use of the most modern forms available in the Mexican modern vocabulary. The Puertas accommodated their varied programatic functions under

³²⁵ Bermúdez, 22.

³²⁶ In the Merriam-Webster’s meaning of relating to, or being a spectacle. Something exhibited to view as unusual, notable, or entertaining specially; an eye-catching or dramatic public display.

hyperbolic paraboloid shells, suspended braced arch bridges, and butterfly-wing concrete roofs. But aside from their administrative and symbolic functions, in the midst of the Cold War the Mexican government saw in these structures an opportunity to reaffirm one of the goals of PRONAF. Their design also showed that México was aware that it held the key to the relations of the U.S. with the rest of Latin America. (Fig.1) Landscaped plazas where the flags of the American continent flew, sent the message to Americans that “when we [they] watch the flags of our sister Republics to the north and to the south, proudly flying, we [they] will always be reminded of the highly significant fact that the Mexican border is, in reality, the beginning of the Latin-American frontier.”³²⁷

This chapter begins with the definition of the border from the historical, political and geographical perspectives, from the tracing of the borderline resulting from the 1836 Texan independence, and the 1848 Guadalupe Hidalgo Treaty, to the final settling of the actual borderline in 1963 when the territory of El Chamizal was returned to México, and the Río Grande or Bravo river was channeled. By a decolonial revision of the dominant narrative of key events of the history of the politics of the México/U.S. Border, from the Texan independence, to the Mexican-American War with its treaties and agreements, it will provide a backdrop to the climate that surrounded the 1960’s projects. It will provide an understanding of the 100-year-old problem and resolution of the El Chamizal territory, a territory of 177 hectares returned to México via diplomacy, and its importance in the

³²⁷ Antonio J. Bermúdez, “Addresses Delivered by Mr. Antonio J. Bermúdez. Director General of Mexico’s National Border Program. At the Society of Pan American Culture Los Angeles, California,” December 2, 1963, 9.

geopolitical environment of the Cold War. More importantly, it will discuss its importance in relation to the projects of PRONAF, and to the borderlands in general.

López Mateos visited Juárez to inaugurate the “Gran Puerta de Mexico,” located on El Chamizal on September 25th, 1963, according to the *Fort Worth Star-Telegram*. The project was described with “new customs and government buildings and other public works.”³²⁸ It comprised, parks, museums, exhibitions areas, botanical gardens, schools of all levels of preparation, all sorts of sports facilities. It was supposed to have provided the services that the commercial and cultural areas of PRONAF didn’t, but that were considered in PRONAF’s goals.

Although Bermúdez mentioned the plans for a project in a speech he gave for the inauguration of the Puerta de México in Matamoros, Tamaulipas in January 1963, the project, nevertheless, ended only as a description, no plans or drawings were presented.³²⁹ Although one can relate some of the images that the initial promotional pamphlets used to illustrate the goals and means of action to the projects described by Bermúdez in his 1963 speech..³³⁰ The project at El Chamizal would’ve represented an opportunity to send a message of the triumph of international law, justice, and international friendship that symbolized “el triunfo de nuestra soberanía, el respeto a nuestro derecho y el triunfo jurídico, moral y espiritual de México.”³³¹ Cd. Juárez, however, didn’t receive a *Puerta de México* project.

³²⁸ Fort Worth Star-Telegram, “Gateway to Mexico,” *Fort Worth Star-Telegram*, September 13, 1963.

³²⁹ Bermúdez, *El rescate del mercado fronterizo: una obra al servicio de México*, 124.

³³⁰ Programa Nacional Fronterizo, *National Border Program*.

³³¹ Bermúdez, *El rescate del mercado fronterizo: una obra al servicio de México*, 123. Translation: the triumph of our sovereignty, the respect to our rights and the legal, moral and spiritual triumph of Mexico.

The Puertas de México were to remind in the memory of “the Mexican...[as] a pleasant impression when he returns to his own country; and to a foreigner, ...[as] a surprising sight, that of the Mexico of today.”³³² For years, the projects were held in great esteem among the citizens of the border cities. In the short story *Domingo* by Oscar Cásares, one of his characters climbs onto the roof of a house in Brownsville, “from where he was perched, he could see the red arches on the Matamoros side of the bridge.... Seeing this little bit of his country made him think of his home....”³³³ The four Puertas built fulfilled Bermúdez’s dream that they,

shall be a permanent and constant invitation to friendship, and offering of hospitality, and an important valuable element of cooperation towards the success of Good Neighbor Policy. Mexico’s Gateways are a standing invitation for you to know us better. You will find that life in Mexico has a pattern and a contents [sic] that are unmistakably those of a people with a natural vocation towards peace and work for in peace and work we see the fruit of liberty, social justice and prosperity.³³⁴

³³² Bermúdez, “Addresses Delivered by Mr. Antonio J. Bermúdez. Director General of Mexico’s National Border Program. At the 40th Institute of World Affairs University of Southern California Pasadena, California.,” 23.

³³³ Cásares in Stephen Fox, “The Question of Modern Heritage: Mid-Twentieth Century Architecture of the Texas-Tamaulipas Border” (Bridging Cultures: Assessing the Cultural Heritage of the Río Grande/río Bravo Borderland, University of Texas at San Antonio. San Antonio, Tx., 2012), 17.

³³⁴ Bermúdez, “Addresses Delivered by Mr. Antonio J. Bermúdez. Director General of Mexico’s National Border Program. At the Society of Pan American Culture Los Angeles, California.,” 10.

The México / US Border

Redefining the Borderline / El Chamizal - Solving a century old problem

La geografía nos ha hecho vecinos. De nosotros depende que seamos magníficos amigos. Los mexicanos deseamos y buscamos la amistad del pueblo de Estados Unidos. Los mexicanos deseamos y buscamos la comprensión del pueblo norteamericano. Estamos unidos por 2,595 kilómetros de frontera y hemos de hacer de ella la mas distinguida por todos los conceptos.³³⁵

Antonio J. Bermúdez

From the Golfo de México to the Pacific Ocean, the México / U.S. border stretches over almost 2000 miles. Four states lie on the American Side: from east to west, Texas, New Mexico, Arizona, and California; and five on the Mexican side: also, from east to west, Tamaulipas, Coahuila, Chihuahua, Sonora, and Baja California. It represents the combination of one of the longest international boundaries in the world with the starkest degree of economic inequality between the nations. The geopolitical history of the México/U.S. borderland can be traced from Texas's Independence in 1836, the 1848 Guadalupe Hidalgo Treaty that resulted from the Mexican American war, to its final settling in 1963 when the contested territory of El Chamizal was returned to México, and the project for the re-channeling of the Río Grande or Bravo was initiated.

From the rebellion of Texas against the Mexican government in 1836, to it's annexation by the United States in 1845 the borderline between México and the United States became a fragile one. The expansionist efforts of the American government proved México's fears right after losing Texas when in April 1846 the United States provoked a

³³⁵ Adrian Vilalta, "El Programa Fronterizo Traerá La Industrialización de Nogales, Son.," *Excelsior*, May 18, 1962.

full-scale war with México invading the territory that today is New Mexico, heading further toward Chihuahua and Paso del Norte (Cd. Juárez). After almost two years of fighting in February 1848 México reluctantly settled for \$18 million for what amounted to half of its territory with the signing of the Treaty of Guadalupe Hidalgo.³³⁶ The Río Bravo or Grande became the international border, together with an artificial line cutting through several ecosystems with a few scarce communities sprinkled around it. Since El Paso del Norte remained in México, but the three main agricultural villages that were connected economically and socially to it, Ysleta, Socorro, and San Elizario, were situated in an “island” delimited by two channels of the Rio Grande or Bravo (the northern channel was the “original” river and the southern was the “new” riverbed, which had been carved by the overflowing river in the 1820s, *Paseños* fought for the northern channel as the rightful international boundary. The United States insisted, backed by its military strength, that the new channel, which by the time carried more water, should remain the boundary. A problem that would continue for years to come.

The Treaty of Guadalupe Hidalgo, officially titled the *Treaty of Peace, Friendship, Limits and Settlement between the United States of America and the Mexican Republic*, was ambiguous in that it stipulated that the international limit between México and the United States be organized according to two contradictory frameworks: first, a natural element, the river; second, a mathematical scientific tool, a map. The boundary, according to the treaty, would be delimited by the “the middle of the river, following the deepest channel, where it has more than one, where it strikes the southern boundary

³³⁶ Martínez, *Ciudad Juárez Saga of A Legendary Border City*, 11–12.

of New Mexico...”³³⁷ (the natural element); but also relied on a map entitled “Map of the United Mexican States, as organized and defined by various acts of the Congress of said Republic, and constructed according to the best authorities. Revised Edition published at New York in 1847 by J. Disturnell.”³³⁸ . This map included a drawing of the river in 1847 and was added to the treaty bearing the signatures and seals of the undersigned Plenipotentiaries (diplomats) – a mathematical scientific tool. (Fig.2)

The treaty mandated that before a year passed, both countries should appoint a Commissioner and a Surveyor who would meet at the port of San Diego and would mark, with obelisk-like monuments, the border up to the Río Bravo del Norte. As early as 1852 surveys to mark both sides of the Río Bravo or Grande were indeed carried out. From 1852 to 1864 the river moved to the south in a slow and gradual manner, but between 1864 to 1868, due to heavy rains and inundations, the river drastically changed its course, now surrounding the area known as El Chamizal.³³⁹ (Fig.3) The 177-acre territory of El Chamizal, north of Paso del Norte belonging to México, was then accounted to the United States beginning a diplomatic problem that would last for almost a century.

In 1866 México began diplomatic efforts to correct the borderline affected by the movement of the riverbed. In 1889 the International Boundary and Water Commission was created between México and the United States, and by June 24, 1910 the Convention for the Arbitration of the Chamizal Case decided that the solution of the problem should

³³⁷ “Treaty of Guadalupe-Hidalgo [Exchange Copy],” February 1848, Perfected Treaties, 1778 -1945, General Records of the United States Government.

³³⁸ “Treaty of Guadalupe-Hidalgo [Exchange Copy].”

³³⁹ Senado de la República, “México Conmemora Los 50 Años de La Devolución Del Territorio Del Chamizal,” *Centro de Estudios Internacionales Gilberto Bosques*, October 13, 2014, 2.

be left to an international mixed commission.³⁴⁰ The arbitration awarded on May 15, 1911 to México by a majority of votes and determined “that the eminent domain over that part of the territory of El Chamizal that lies between the middle line of the channel of the Río Grande or Bravo surveyed by Emory and Salazar in 1852 and the line of the channel of the same River as it existed in 1864, before the flooding of that same year, belong to the United States of America, and that the domain of the rest of the mentioned territory belongs to the United States of Mexico.”³⁴¹ The US Commissioner refused the arbitration pleading that it was impossible to determine the location the river channel as it was in 1864.

From Presidents Taft, Harding, Coolidge, Hoover, Truman, and Eisenhower, on the American side, and Díaz, Madero, and Huerta on the Mexican side, several heads of state tried to resolve the dispute. Either through legal efforts -international courts- or through self-serving deals, like Hoover’s offer to buy the El Chamizal by waving a debt of 1.4 million dollars that the Mexican government had with the Roman Catholic Church of California – all efforts were unsuccessful.³⁴² It was not until President López Mateos, motivated by his nationalist ideals, took into his mandate to resolve the one-hundred-

³⁴⁰ The commission was integrated by Eugéne Lafleur (Canadian), Anson Mills (United States), and Fernando Beltrán y Puga (México). The representative agents from México and the United States were Joaquín D. Casasús, and William C. Dennis. Senado de la República, 2.

³⁴¹ Ismael Reyes Retana, “El Chamizal: Una historia de perseverancia y... ¡éxito!,” *Nexos*, September 8, 2014, <https://www.nexos.com.mx/?p=22471>. Translation: That the eminent domain over that part of the territory of El Chamizal that lies between the middle line of the channel of the Río Grande or Bravo surveyed by Emory and Salazar in 1852 and the line of the channel of the same River as it existed in 1864, before the flooding of that same year, belong to the United States of America, and that the domain of the rest of the mentioned territory belongs to the United States of Mexico.

³⁴² National Park Service, “The Chamizal Dispute 1911-1963 - Chamizal National Memorial (U.S. National Park Service),” accessed January 29, 2021, <https://www.nps.gov/cham/learn/historyculture/chamizal-history-1911-1963.htm>.

year-old conflict between México and the U.S.

The controversy of the return of the territory, an unapproachable issue for U.S. diplomacy, even qualified by the Mexican diplomacy as “an act of foolish provocation”, was undertaken by President López Mateos with a fine diplomatic touch eliminating the previously imposed barriers and carrying on the negotiation with President Kennedy for the rightful ownership of the piece of land.³⁴³ During Kennedy’s visit to Ciudad de México on June 30, 1962, President López Mateos presented to him the details of the El Chamizal case, including the arbitrations and awards to México in 1911. (Fig.4) The United States recognized the legitimacy of the arbitration, and both governments prepared an appeal in international courts to finally procede with the return of the 177 hectares territory of El Chamizal. On August 29, 1963 Kennedy and López Mateos signed the *Convention Between The United States Of America And The United Mexican States For The Solution Of The Problem Of The Chamizal*, which was later approved by the Senate of both countries.

The final agreement transferred the entirety of the 177 hectares that made up El Chamizal. The exchange involved 78 hectares from American territory that passed to México, and 78 hectares of Mexican territory that passed to the United States according to the new location of the riverbed, which would be done in the Mexican northern side of the Corte de Córdova / Cordova Island, and on the American eastern side.

Es así como tendremos, sin solución de continuidad, 333 hectáreas que se integran de la siguiente forma:

³⁴³ Adolfo López Mateos Pres. Mexico, 1910-, *Presencia Internacional de Adolfo López Mateos* (México, 1963), 11.

156 hectáreas, que son la superficie actual del Corte de Cordova, mas 177 hectáreas que son la superficie del El Chamizal mexicano.

Por otra parte, el canje de 78 hectáreas de territorio mexicano por 78 hectáreas de territorio norteamericano, consecuencia obligada de la nueva localización fluvial, tiene un precedente de capital importancia y que se ha sido para México de grandes beneficios.³⁴⁴

It was not until February 25, 1964 that President Lyndon B. Johnson finished what President Kennedy started, and physically visited the territory of El Chamizal.³⁴⁵ (Fig.5) In an act of choreographed symbolism the short ceremony happened before the media in front of a highly polished chrome obelisk monument on the international line, with a map of “the Rio Grande River with dotted lines and labels land as ‘To Mexico’ and ‘To United States,’ signifying, with the abstract clarity of a diagram, the latest division of the international limits.”³⁴⁶ During this ceremony, President López Mateos said:

El asunto de El Chamizal es un litigio de principios, no pueden fortalecerse las relaciones bilaterales en tanto no se reconozca la vigencia del derecho internacional, ni tampoco podemos aceptar o probar comportamientos inapropiados de nuestros amigos, que el día de hoy intentan comenzar con una etapa de reconciliación entre nuestros países basada en la justicia y la legalidad. México ya no es la misma nación que la del año 1847.³⁴⁷

³⁴⁴ López Mateos, 632. Translation: This is how we will have a solution, 333 hectares that are integrated in the following way: 156 hectares, which are the current surface of the Corte de Cordova, plus 177 hectares that are the surface of the Mexican El Chamizal. On the other hand, the exchange of 78 hectares of Mexican territory for 78 hectares of North American territory, an obligatory consequence of the new fluvial location, a precedent of capital importance and that has been of great benefits for Mexico.

³⁴⁵ Senado de la República, “México Conmemora Los 50 Años de La Devolución Del Territorio Del Chamizal,” 3.

³⁴⁶ Nathan Friedman, “Political Props: Territorial Performance and the Chamizal Dispute,” *MAS Context*, no. 27 (Fall’15): 170.

³⁴⁷ Arellano, *Adolfo López Mateos*, 155.

President López Mateos' attitude towards the agreement, supports President's Benito Juárez (1858-1872) diplomacy principles of resorting to peaceful means to resolve international conflicts with tangible facts. For López Mateos the ceremony symbolized not only the correction of a historical injustice, but also an opportunity for urban development of the northern border of México through PRONAF.³⁴⁸ For the United States, in the midst of the Cold War and just after the disaster of Bay of Pigs and the assassination of Kennedy, like Nathan Friedman writes the event symbolized in Johnson's words "to all the world that the most troublesome of problems can yield to the tools of peace."³⁴⁹ The message directed to the Soviet Union was that Mexico and the larger frontier of Latin America was cooperating with the United States.

With the Cold War as a background, and the conflicts over territories in other parts of the world, the interchange of a seemingly insignificant amount of land between México and the United States as simple as it seemed, had international repercussions. The land involved in the exchange was adjacent to an important part of the fast-growing international metropolitan area of Cd. Juárez/El Paso. The development opportunities for the territory of El Chamizal were vast for both sides of the border and represented a "challenge to the highest skill, imagination and forward vision for civic planners" as architect Edward Mok put it in a 1965 article in the *Texas Architect* dedicated to the border; he continued: "In the particular case of the Chamizal, city planning becomes a vast and encompassing project presenting the first opportunity in our history for

³⁴⁸ Friedman, "Political Props: Territorial Performance and the Chamizal Dispute," 177–78.

³⁴⁹ Lyndon B. Johnson in Friedman, 177.

international metropolitan creativeness.”³⁵⁰

J. Roy Carroll Jr., then president of the American Institute of Architects, made similar remarks at the 1963 Pacific Rim Conference, outlining the challenges and opportunities that the settlement of the Chamizal conflict would bring to architects from both sides of the border. Considering it a great opportunity to set an international example on how borders could be managed, he said:

This settlement offers one of the most remarkable opportunities for collaborative planning between two cities and two nations that has ever occurred in the Western Hemisphere... The world may soon have a demonstration of what diplomacy, common sense and the art of environmental design can accomplish in the amicable settlement of the age-old border disputes.³⁵¹

Aware of the diplomatic efforts that an international urban redevelopment plan of this magnitude could entail, he urged the Mexican and American architects to show “determination, persuasion, patience and professionalism” in order to cooperate in the new projects that would properly memorialize such a historical event. (Fig.6)

As a result of this exchange of land, the construction of new transnational infrastructure such as highways, road and railroad bridges, as well as the relocation of interchange yards, new irrigation canals, schools, recreational facilities and other public buildings, a border highway system, and border inspection stations were all being planned. Particularly for the American side of the border at EL Chamizal, they were

³⁵⁰ Edward Mok et al., “The Texas National Border,” *The Texas Architect*, March 1966, 33.

³⁵¹ Edwin W. Carroll and Jonathan R. Cunningham, “US-Mexican Border Treaty,” *AIA Journal* XLII, no. 3 (September 1964).

planning a national monument park, a cultural center, and the general beautification and development of the entire area .³⁵²

Channeling the Río Bravo

Works of infrastructure have an underlying utility; they do the dirty work that tends to distance them from the aesthetic realm. Rarely is the beauty of the great viaducts explicitly acknowledged. In truth, the concrete and steel ramps incite a painful beauty, either because they connote the grittiness of their function or because they introduce offensive byproducts into daily life.³⁵³

Richard Ingresoll, *Sprawltown: Looking for the City on its Edges*

By August 28, 1963, before Presidents López Mateos and Kennedy made the public announcement, the Comisión Internacional de Límites y Aguas (CILA) and its American counterpart, the International Boundary and Water Commission, (IBWC) met in the Mexican section offices in Cd. Juárez to consider the engineering criteria and plans required to put into effect the relocation of the channel of the Río Bravo at the Cd. Juárez / El Paso border. The relocation was agreed to happen by using a new concrete riverbed to change the course and maintain it in the selected location permanently. According to the meeting minutes, considerations for the new location, and its passing through

³⁵² Mok et al., “The Texas National Border,” 15.

³⁵³ Richard Ingresoll, *Sprawltown: Looking for the City on Its Edges*, 1st ed (New York: Princeton Architectural Press, 2006), 101.

urbanized areas, constrained the angles and concrete covering of the riverbed. It was agreed, among other aspects, that:

2)The new channel of the Rio Grande as shown on the exhibit would be concrete lined, with cross-section as narrow as compatible with the capacity require to carry the design flood.

3)The new channel would provide a high degree of flood protection and a stable channel which could be properly operated maintained by the two Governments through their respective Sections of the Commission. The new lined channel would provide a stable international boundary, would permit a more effective sanitary control of the river, and would contribute to improvement and beautification of the border between the two countries at El Paso-Ciudad Juárez.

The minutes followed with other technical recommendations for topographic surveys for the new demarcation of the boundary, and preparation of the engineering and detail plans. It also recommended the equal division of costs between the two countries, and that the materials, implements, equipment and operation should be tax exempt. It finished with the recommendation that in order to undertake at the earliest practicable date the construction of the project, the personnel involved in the project directly or indirectly should be permitted to pass freely from one country to the other.³⁵⁴ (Fig.7)

The final concrete section of the river was 4.35-miles long, and had a trapezoidal section, 167-feet at the top, and 116.2 feet at the bottom, with a maximum depth of 19.7 feet. At the bottom a 60-foot-wide and 4-feet deep trapezoidal low-flow channel was added for the drier months. The total cost was \$86.7 million dollars which was divided equally between both countries, but the channel was named after former Mexican

³⁵⁴ Comision Internacional de Limites y Aguas / International Boundary and Water Comission, "Minuta/Minute No. 214. Consideraciones de Ingenieria Sobre El Cambio Del Cauce Del Rio Bravo En Ciudad Juárez, Chihuahua, y El Paso, Texas. / Engineering Considerations Relating to Relocation of the Rio Grande at El Paso, Texas, and Ciudad Juárez, Chihuahua.," August 28, 1963, IBWC Internet Archive.

President López Mateos. According to C.J Alvarez “After nearly a century of concern about the river’s location, and after over thirty years of river building projects in that region, the Rio Grande was finally shortened, straightened, canalized, channelized, and immobilized to the specifications of border builders.”³⁵⁵

In an attempt to control nature, the river, now channeled in concrete, would appear safe, non- threatening. The river would not be running free through the poorer areas of both cities, putting the lives of those who use to swim in it safe from its dangerous currents.³⁵⁶ The channeling, rerouting, and managing of the river as a borderline, turned the nature of the river from a natural system to political system instead.³⁵⁷ Nowadays its water flow has been controlled by the American Elephant Butte and Caballo dams; and has been severely reduced between El Paso and Ojinaga. Downstream from Ojinaga the Amistad reservoir, controlled by both the IBWC and the CILA, administer the water flow generating scarcity of supply for the few communities that are still engaged in agriculture around the river.³⁵⁸

However, the project for the channeling of the Río Bravo or Grande was more than a mere infrastructure project, the project lined up with PRONAF’s ambition of the beautification of the border. (Fig.8) Aligned with the Mexican government’s desires to control the shift of the border, by setting the course of the river in concrete the borderline was no longer indeterminate. The hundred-year dispute would no longer be repeated, and

³⁵⁵ C. J. Alvarez, *Border Land, Border Water: A History of Construction on the US-Mexico Divide*, First edition (Austin: University of Texas Press, 2019), 156.

³⁵⁶ Alvarez, 153.

³⁵⁷ Mary Kelly, Arturo Solfs, and George Kourous, “The Border’s Troubled Waters” (Interhemispheric Resource Center, 2001), 2.

³⁵⁸ Kelly, Solfs, and Kourous, 2.

the Mexican American friendship secured. President Johnson said, “the international boundary of Mexico and the United States was changed without a shot being fired, without the massing of troops on frontiers, without an exchange of threats through respective embassies.”³⁵⁹ And that’s how the Mexican government intended it to stay.

Although the channeling of the river in later years would prove environmentally problematic, the spirit of project was not to create division but to define and open points of entrance. By 1968, in the words of President Johnson “The finest thing I know to say about both countries, both Presidents and both peoples, is that we have no armies patrolling our borders, we have confidence in each other and peace with one another.” And continued,

We have confidence in each other and peace with one another. Together we have shown that borders between nations are not just lines across which men shake their fists in anger. They are also lines across which men may clasp hands in common purpose and friendship -and we have done so.³⁶⁰

It is in that spirit that the projects for the Puertas de México were created. Unfortunately, the future would prove the words of President Johnson to be wrong, compromised by the control and management of water, immigration policies, and xenophobic rhetoric.

³⁵⁹ Neil Sheenan, “Johnson and Diaz Ordaz Shift Rio Grande Into a Concrete-Lined Channel,” *New York Times*, December 4, 1968.

³⁶⁰ UPI, “U.S., Mexico End Long Dispute Over Border,” *The Cumberland News*, December 14, 1968.

“Amigos. Welcome to our City” (Fig. 9)
PRONAF’s Puertas de México projects

What is a door? A flat surface with hinges and a lock, constituting a hard terrifying borderline? When you pass through a door like that are you not divided? Split into two-perhaps you no longer notice! Just think of it: a rectangle two inches thick and six feet high! What hair-raising poverty -a guillotine is kinder! Is that the reality of a door?³⁶¹

Aldo Van Eyck

PRONAF’s component Puertas de México was born out of the idea of “cambiar la mala impresión, ya sea del mexicano que regresa a la patria, así como la del extranjero que nos visita, desapareciendo los contrastes penosos y deprimentes que han existido por tantos años al cruzar la línea divisoria por una diferencia tan grande como desfavorable para nosotros.”³⁶² With the intention of creating a receiving front face, the “show window” for the Mexican territories, these projects were strategically located at the points of entrance of the country and functioned as bridges, custom offices, and many times incorporating other functions.

Four cities were granted by PRONAF the construction of the Puertas projects. Matamoros, Piedras Negras, Nogales, and Tijuana. For Bermúdez, the director of PRONAF, these projects were an opportunity to show the best of Mexican architecture, a message of progress, and the resilient character of the “new” border towns.³⁶³ According

³⁶¹ Aldo van Eyck, *The Child, the City and the Artist : An Essay on Architecture : The in-between Realm* (Amsterdam: SUN, 2008), 62.

³⁶² Bermúdez, *El rescate del mercado fronterizo: una obra al servicio de México*, 45. Translation: to change the bad impression, either of the Mexican who returns to the homeland, or that of the those who visits us, making the stark and depressing contrasts that have existed for so many years at the moment of crossing the dividing line disappear by the great difference that has been so unfavorable to us.

³⁶³ Bermúdez, 136.

to Méndez, for Pani and his team they were the greatest ground for experimentation with a transborder International Style. An architecture that had the intention to attract tourists, to present itself more modern than that of its American neighbor, but at the same time recognizably Mexican.³⁶⁴ The architectural language used was the concrete shells, widely used by Félix Candela, suspended bridge-like volumes, with which Pani had been experimenting with, and light-weight concrete wing-like slab roofs; a catalogue of international architectural indeed, but forms with which the Mexican modernist had been experimenting since the early 50s, and they had already adopted as part of their formal vocabulary.

For Bermúdez, the Puertas signified “un aliento, un estímulo y un asombro para quienes cruzan nuestras fronteras y para quienes radican en ellas. En estos edificios se plasma no solo una belleza arquitectónica y una técnica funcional de servicio, sino que son un reflejo del México actual, del México moderno, progresista, evolucionado e industrial del que todos estamos tan orgullosos.”³⁶⁵ The Puertas were moments of transition from one side to the other, points of entrance to the ‘new’ México. This crossing was characterized at the time by going from the new – so-called the first world, to the old -third world;³⁶⁶ but the Puertas changed the game. Once completed, the

³⁶⁴ Eloy Méndez, *Arquitectura Nacionalista : El Proyecto de La Revolución Mexicana En El Noroeste, 1915-1962*, 1. ed. (México: Plaza y Valdés, 2004), 104–5.

³⁶⁵ Carlos Dillmann, “Las Puertas de México. Radical Transformación de Nuestras Fronteras,” *Todo*, June 5, 1963. Translation: an encouragement, a stimulus and an astonishment for those who cross our borders and for those who live there. In these buildings not only an architectural beauty and a functional service technique are reflected, but they are a reflection of the current México, of the modern, progressive, evolved and industrial México of which we are all so proud.

³⁶⁶ First World, Third World, are used as they were terminologies used at the moment the projects were built. In the height of the Cold War, when the Capitalist Bloc and the Communist Bloc were in fight to control the world.

American border cities represented architectural backwardness, it was then the transition from the old north to the new south (or something). If there were spaces of liminality to be considered in the design of PRONAF, the Puertas epitomized them.

Alejandro Grimson, in *Liminality, Interculturality* writes about the work of Van Gennep, the first anthropologist to talk about liminality, in his book *Rites of Passage*.³⁶⁷ He describes liminality as the moments by which we are removed from one world to enter another (i.e., non-adult, adult). In order to go through this process of passing from one territory to another, he says one passes through markers “that indicate the existence of a neutral zone,” where one “floats between two worlds.”³⁶⁸ The margins, and those spatial markers can be found in a city, a neighborhood, a house of worship, and had to be designed in such way that the “rite of entry” is pleasant, enjoyable, and very noticeable for those going through them. But also, they were meant to not be forgotten easily, to leave a strong mark in the memory of those who cross. Grimson, citing Gennep’s writes that it is common that after passing a rite for the first time, the repetition of the act generates a decreasing of importance, “it marks the beginning of habituation.”³⁶⁹

But that “bridge” that connects those two spaces, that liminal space, must be designed to generate the illusion of more new encounters. As David Leatherbarrow writes in *Building time: architecture, event, and experience*, about Rafael Moneo’s project for the Museo Nacional de Arte Romano de Mérida, in citing Kierkegaard’s observation about

³⁶⁷ Alejandro Grimson, “Liminality, Interculturality,” in *Of Bridges & Borders Vol. II*, ed. Sigismond de Vajay, Flavia Costa, and Pedro Donoso, 1. Aufl (Zürich: JRP Ringier Kunstverlag, 2013).

³⁶⁸ Grimson, 243.

³⁶⁹ Grimson, 244.

repetition; Is it possible to return to the same person, event, architectural object in this case? Is one even the same, when one returns? “Can pleasure, can aesthetic experience, also result from going back?” ...he writes “The difficulty is to know how a return, revisiting, or recounting can discover the engagement and passion that defined the initial act.”³⁷⁰

The Puertas as urban pieces, or to be clearer the whole design of the plazas where the Puertas were located functioned as what Aldo Van Eyck has termed “in-between places.”³⁷¹ As architectural pieces, the Puertas had functions — sometimes they were mere arches that marked the crossing of the international line, and in other cases they were customs and immigration offices. The experience of them was instants, they had a brief temporal dimension, as you passed by you experienced them and you left them behind. When they had a programmatic function, the architectural object now had a longer temporal frame and became a space where administrative and commercial activities happen. But their time was to be limited, short, since they were designed to invite tourists to continue their way into the city, into the country. This experience, was to be repeated, enjoyed, and most importantly engraved in the memory of the tourist, so they would come back. They articulated through various elements -signs and symbols- the transition, from the U.S. to México -and vice versa- inducing a simultaneous awareness of what was significant on either side.”³⁷²

³⁷⁰ David Leatherbarrow, *Building Time : Architecture, Event, and Experience*, First edition. (London [England]: Bloomsbury Visual Arts, 2020), 197.

³⁷¹ Eyck, *The Child, the City and the Artist*, 74–75.

³⁷² Eyck, 63.

The Puertas de México projects were the first to put the border towns in the international eye. Their architecture appeared in important magazines and newspapers, like *L'Architecture d'Aujourd'hui*, and *The New York Times*' traveling section, and were used as symbols of México's development. Historians like Arreola have written that "border towns are not always taken seriously as legitimate places but, rather, are considered poor relations of their interior Mexico siblings," and that "This caricature and the many exploited qualities without doubt say more about American perversions than about Mexican prevarications."³⁷³ For the first time the border towns were representing México to the US, and they were not only holding up to the central government standards, but the American opinion too.

Matamoros/Brownsville

The Plan Regulador for Matamoros developed by Taller de Urbanismo established the urgency to dignify the place of entry to the country.³⁷⁴ The work demanded the regeneration of the immediate area to the bridge, erecting customs buildings and a place for commerce.³⁷⁵ The surrounding area had turned into an informal-trade commercial area with buildings of low-quality construction, providing a bad impression to the incoming visitors and tourists. (Fig.10)

³⁷³ Daniel D. Arreola, "Border-City Idee Fixe," *Geographical Review* 86, no. 3 (1996): 364.

³⁷⁴ Mario Pani et al., "Plano Regulador de La H. Ciudad de Matamoros, Tamaulipas México.," *Arquitectura México*, June 1970.

³⁷⁵ Pani et al., 81.

Matamoros received only 12% of the total allocated budget.³⁷⁶ Although unfortunately only a few parts of the total project for the city was completed, the urbanization of the land and the circulatory system were finished, and a section of the commercial area was built in what today is a curved section of Avenida Alvaro Obregón (further discussed in chapter 5). The Matamoros Puerta de México was the only fully completed project of the program and was widely published in national and international media.³⁷⁷

In the study and thesis presented by Taller de Urbanismo for the Plan Regulador de Matamoros, a very small but emblematic section was dedicated to the Puerta de México. In it, several considerations point to the later project of PRONAF and the completed Puerta de México project. Mentioning the necessity to dignify the entrance to the country, the cleaning up of the area, the creation of commercial-cultural center that cater for the automobile tourist, the study shows a couple of rendering views and a plan. The project drawings differ significantly from the constructed Puerta. Presenting a series of concentrically arrayed curved buildings, circular ramps, and curved walls that divert and control the traffic, the project still managed to create a sense of a central plaza in which the tourist was received and greeted. Indeed, the sense and idea of crossing a gateway was missing, but the initial idea of creating a place to receive the visitor was there.³⁷⁸ (Fig.11)

³⁷⁶ In Bermúdez, *El rescate del mercado fronterizo: una obra al servicio de México*, 35 it is stated that Ciudad Juárez was the city to receive more technical and financial attention with more than 30%.

³⁷⁷ Mario Pani, "Programme National Des Villes Frontieres," *L'Architecture d'Aujourd'Hui*, September 1963, 1310844315, Periodicals Index Online.

³⁷⁸ Pani et al., "Plano Regulador de La H. Ciudad de Matamoros, Tamaulipas México.," 81.

The Puerta de México complex was developed on a land plot of approximately 4.5 hectares located in the northern part of the city, right at the border with the city of Brownsville. The project consisted of two main buildings, a maneuver plaza, and a separate bus and taxi station, with a small cafeteria building. The main building was designed as a bridge-like structure suspended over seven incoming traffic lanes that were a continuation of the commercial avenue of the neighboring city of Brownsville. The project was intended as a grand point of arrival and welcome. As the design was imagined through the vantage point of the automobile, the project creatively integrated heavy traffic, public transportation, and pedestrian crossings that connected its users thorough the newly built road system to the principal historical commercial and cultural center. Simultaneously, it was connected to the recently constructed road system that led to the modern PRONAF center.

Several landscape features accompanied the Puerta de México de Matamoros Project. Coming from the US side, one met a landscaped plaza with circular garden area, where the flags of all the Latin American countries were located, the Mexican flag emphasized by its height. On the other side of the Puerta, once automobile crossed customs and immigration a water mirror feature was located at the end of the secondary volume building, in it an island in the shape of Mexican Republic and the rest of the American continent complemented the flags plaza and completed the complex reinforcing the set of symbols. The last component of the project mentioned in both the

articles in *L'architecture d'Aujourd'hui*³⁷⁹ and *Arquitectura México*³⁸⁰ is the bus and taxi station; although not built, and possibly planned to be taken over by the private companies running the transportation lines. (Fig.12)

With Hilario Galguera, a longtime collaborator of Mario Pani Arquitectos Asociados, Pani's architecture firm, Pani designed the new immigration and customs offices buildings. They would house also the health, tourism, insurance, and banking offices in over 15,000 sqm. The program was divided into two volumes: the more architecturally daring and theatrical bridge-like building, and a simpler perpendicular rectangular volume by its side.

The decision of Pani to use that particular form for the Puerta de México in Matamoros has a genealogy in his own experimentation with a structure and its capacity to symbolize passage and entrance. (Fig.13) This arch was a type of structure that was not new in Pani's architectural language. The arch can be found very early on in his projects, and its evolution always related to the gateway. In the Centro Urbano Presidente Juárez in collaboration with Salvador Ortega, a project that came after what he considers the very successful experiment of the Centro Urbano President Alemán, their decisions were made with "absoluto rigor para superar, en todos sus aspectos, los logros del primero," and continues "su solución arquitectónica [es] más estudiada, muestra menos agresividad en su conjunto."³⁸¹

³⁷⁹ Pani, "Programme National Des Villes Frontieres," September 1963.

³⁸⁰ Mario Pani and Asociados, "Puerta de México En Matamoros," *Arquitectura México*, March 1963.

³⁸¹ Mario Pani and Salvador Ortega, "El Centro Urbano 'Presidente Juárez,'" *Arquitectura. México* IV, no. 40 (December 1952): 375.

For the Centro Urbano Presidente Juárez, Pani expands on the betterment of the treatment of the placement of the buildings in the *supermanzana*, and how in this project the façade is not aligned or related to the street. This aspect is important since it is here, in the façade and its relation to the space where he makes use of the arch. The arch makes its appearance supporting the floating concrete roof canopy that marks the main entrance to the building type A. (Fig.14) The type A building is the most important of the ensemble. It is the largest and has 13 floors and 190 apartments. The arch spans 16.5mts and its 9.5mts high, separated one structural module from the building and acts both structurally - supporting the concrete roof- and as a sculptural element that demarcates and signals the entrance. (Fig.15) To pass underneath it is to enter the great building.³⁸²

Pani makes use of the arch again not much later the same year, but now in a closer form to what he would later do in Matamoros, in the project for the Hotel Club de Pesca and Bungalows in Acapulco. Built in collaboration with Enrique Del Moral, with whom he collaborated for the design of the master plan of UNAM's campus, as a two-part project, the hotel and fishing club, built in 1952, faced the beach, providing the clientele with swimming pools, restaurants, and a fishing boat dock. Two years later a bungalow section was added in the back of the hotel. The coastal road traversed and bisected the plot. The automobile access of the project was resolved but the pedestrian connection needed a solution. Pani decided on a braced tied arch bridge consisting of two concrete arches, from which a concrete slab was suspended by cables, as the solution. (Fig.16) The

³⁸² For the other buildings of the ensemble, of a different scale and different importance Pani decides to use a different set system of symbols to demarcate their entrance, symbols that belong in a residential scale such as stairs, and balconies, i.e.

bridge connected the second level of the hotel to the ground level of the bungalow area and allowed a 4-lane road to pass underneath. The bridge was a functional solution needed to transport the tourists and guests from one part of the complex of the hotel to another, but became a landmark for visitors to Acapulco driving through La Costera Avenue. The bridge is indeed such a landmark that although the Hotel Club de Pesca has been demolished, the bridge still stands still as a monument of the old Acapulco.

It is also worth mentioning the strong connection that Pani had to the work of Le Corbusier. The city that Pani planned for México, Miquel Adrià describes it as the platonic representation that combines Haussmann's Paris, and Le Corbusier's Ville Radieuse.³⁸³ Pani's multifamiliares, he writes, were a realization of Le Corbusier's *Unités a-la-mexicana*, and his ideas took up the modern postulates and constructed them. He was the first to build an international hotel, the first to build a multifamiliar, the first to build a supermanzana in México. Later, he will again, inspired by Le Corbusier's Plan Voisin of 1925 solution to the overcrowding of Paris, be the first to build a city within the city, Nonoalco-Tlatelolco. A project that conforming to Le Corbusier's ideas offered space for 1,000 inhabitants per hectare, 75% of gardens, and all services needed included, in three macromananzas, that came to eradicate an area of slums in the center of Ciudad de México.³⁸⁴ (Fig. 17) As an educator and the director of *Arquitectura México* magazine, and although Le Corbusier never visited México, Pani was the promoter and publicist of

³⁸³ Miquel Adrià, *La sombra del Cuervo: arquitectos mexicanos tras la senda de Le Corbusier* (Ciudad de México: Arquine, 2016), 83.

³⁸⁴ Adrià, 106–7.

Le Corbusier's work in the country.³⁸⁵

Given the affinity of Pani for Le Corbusier's work, the latter's project for the Palace of the Soviets (1928-1931) could be seen as an inspiration for the tied-arch. Here, the grand arch appears holding the roof of the major assembly hall, it stands in the middle between the 15,000 members of the collective society, and the speakers, representatives of the Council, or performers. (Fig.18) Even from the outside the grand arch signals the positions of the different characters of the spectacle, the performers and the spectators. But for some authors crossing the arch dilutes that distinction, making the spectators the main actors, and the performers just mere observers.

Yet at the same time, the platform was a state on itself, and could accommodate 'theatrical demonstrations' which often took place during the revolutionary years. The crowd became an actor and circulated along ramps linking the street level to the platform and then along ramps leading up to the state inside the great hall. The masses would then exit on the opposite side, thereby enabling great diversification of the performance area."³⁸⁶

That building, specifically that great hall was a great mise-en-scene according to Josefina González Cubero in her article Strands of Theatre: Le Corbusier's Staging of the Palace of the Soviets, 1931.³⁸⁷

Pani decided to hang the main building between two parabolic arches spanning 64-mts. It housed the immigration offices, more as a symbolic gesture, than for a

³⁸⁵ Having even confessed in an interview that when invited to be a juror for the First International Architecture Biennale in São Paulo, being among Gideon, friend and promoter, Junzo Sakakura, a disciple, and him "that I was also a supporter of what Le Corbusier did." voted for him, even though they ended up awarding Pier Luigi Nervi. For more see Pani and Garay, *Mario Pani*, 99–100.

³⁸⁶ Josefina González Cubero, "Strands of Theatre: Le Corbusier's Staging of the Palace of the Soviets, 1931," in *Massilia. Annuaire d'études Corbuséennes. La Boîte à Miracles-Le Corbusier et Le Théâtre*, vol. 7, 2012, 138.

³⁸⁷ González Cubero, "Strands of Theatre."

functional reason, since the offices of the leading staff were located in the secondary building, overlooking the general operation. (Fig.19) This main building housed the tourism and visa processing offices. The 54 by ≈ 12 mts concrete volume was completely enclosed; its lighting was ensured by plastic domes located in the ceiling and by electric lighting. With no other external ornamentation, the box only had on the side facing the US, the national emblem, as it can be appreciated in (Fig.20).

The side volume, the secondary, housed the Customs, Tourism, and the Banco de México offices, and it was the space through which any pedestrian obligatorily had to pass by. The volume's first floor presents large floor to ceiling glazed areas its long sides, while its shorter sides are totally enclosed by walls. The program³⁸⁸ included spaces for the Customs offices area: (Fig. 21) Officer's booths and waiting area for 350 persons, offices for interviews, weighing room for small imports, a small warehouse for contraband, office for *permisos de internecion vehicular*, a head of customs guard office, and showers, dressing rooms and restrooms for personnel and visitors. In its interior the office of tourism would also offer information and promote the best touristic spots of the country, providing information such as pamphlets, maps, and even illustrating them with great scale photographic murals on their walls.³⁸⁹

The Health and Sanitation offices were located on the mezzanine level. In addition, the Immigration's chief office and a control booth were located in a privileged position that dominated the views and allowed for control of the whole Puerta operation.

³⁸⁸ Pani and Asociados, "Puerta de México En Matamoros," 47–54.

³⁸⁹ Editorial, "Frío Polar En La Inauguración de Matamoros," *Ovaciones*, January 29, 1963.

The stairs that allowed access to the mezzanine level also allowed access to the runway that passing over the traffic, connected this building with the main immigration offices 'hanged' building. Outside was a platform for 12-14 passenger buses, a platform for automobile inspection covered by a canopy, and booths for cargo inspection. (Fig. 22)

According to *Arquitectura México*³⁹⁰ only two main materials were used. But they are described as glass, and aluminum to delineate it. Having no access to plans or construction documents in the architect's archives, from photographs it can be assumed that the other material is concrete. Pictures show that the main volumes facades are completely solid, with a uniform texture. And current pictures, although scarce because of the nature of the buildings, show alterations to the façade having added a strip of color at the top both volumes, it appears that the facades are painted concrete. (Fig. 23)

On January 28th, 1963 President López Mateos inaugurated the new immigration and customs facilities in Matamoros. The dedication event was advertised hugely by both Brownsville and Matamoros newspapers, with the motto "Mexico... Host to the World."³⁹¹ The Puerta de México for Matamoros was especially important for the federal government. Matamoros is the border in closer proximity to Ciudad de México, and the one where the east-coast Americans used to cross into México. It was thus, necessary to build a very dignified entrance gate to the Mexican Republic.

The Puertas de México projects by Pani had a very strong sense of monumentality that contrasted with the instrumental bureaucratic efficiency in which the U.S. Border

³⁹⁰ Pani and Asociados, "Puerta de México En Matamoros."

³⁹¹ The Brownsville Herald, "Brownsville Joins Matamoros," *The Brownsville Herald*, January 27, 1963.

Customs offices were designed. Pani and Galguera used architecture to prioritize and heighten the experience of automobile transportation. Yet they designed the *Puerta de México* to operate as an urban rather than a suburban complex.³⁹² From the moment tourists crossed the border, they were received in a memorable way, presented with the image of a modern and progressive México.

Piedras Negras/Eagle Pass

The project of the *Puerta de México* for Piedras Negras was presented for the first time to the general public on Dec 13, 1962 in the local newspaper.³⁹³ The drawing attributed to architect F. Rivas C presents a butterfly roof-like thin concrete structure covering the span of at least two inbound and two outbound traffic lanes, a small central office building, and, attached to the sides of the folded concrete supports, two small chambers for customs and immigration officers. (Fig. 24)

In the plans published in the *L'Architecture d'Aujourd'hui*³⁹⁴ article dedicated to PRONAF, a small section is dedicated to the Piedras Negras project. In the section, a rendering of a perspective of the *Puerta de México* project, a front and back facades and general plan of the PRONAF complex are presented. The general plan allows us to recognize that the plan for the *Puerta* project is an inverted V shape, a boomerang-like plan pointing its angle to México. The façade labeled as C, appears to be the one that the

³⁹² Fox, "PRONAF: Constructing a New Mexico on the U.S. Border, 1961-69," 7.

³⁹³ "Concepción Artística," *El Día*, December 13, 1962.

³⁹⁴ Mario Pani, "Programme National Des Villes Frontieres," *L'Architecture d'aujourd'hui*. 34, no. 109 (1963): 22.

visitor coming from the US is presented with, it completely closed with a wall that does not reach the roofline. At the center, a glass floor to ceiling entrance, and on one side, according to the rendering the national emblem. The façade labeled as B, is on the contrary completely open, with what appears to be a floor to ceiling glass façade. (Fig.25)

From all the projects for the Puertas de México, Piedras Negras is the least advertised and published. Considering the lack of information already existing at Mario Pani's archives about specific projects for the Puertas, Piedras Negras was only presented through one rendering - always the same one - as part of the PRONAF general layout plan, and the two facades that appear in the *L'Architecture d'Aujourd'hui* article. (Fig.25)

Analyzing photographs of the Puerta de México in Piedras Negras at the time of its construction, more information can be obtained about the materiality of its facades. What appears as a closed façade in the drawings, is revealed in photographs to be a brick lattice screen wall positioned about half a meter from the floor to ceiling glass façade of the building. (Fig.26) It can be implied that the building appears to have a wall in between the glass façade and the lattice wall, that is protruding on both sides of the building but punctured and left as a frame at the front and back entrances. The glass box inside follows the roofline when it starts to elevate, generating varied interior heights which are visible from the outside. The concrete wings of the gate present railings for lighting underneath, and under its roof is a booth for the inspection agent on each side. (Fig. 27) The concrete roof appears to be self-supporting, folding its ends and landing into the floor on two points creating V shaped openings where inspection booths were built on the outer sides.

Done in collaboration with Hilario Galguera, this building appears to be the most

out of character in Pani's repertoire. Revising his work's 'catalogue' there is nothing similar in terms of experimentations with 'butterfly-concrete-roof' buildings. The other architectural solutions for the walls and placing of the building are easily traceable, and even repeated from the other projects for the Puertas. The brick lattice solution is something he had been experimenting with since his projects in humid and hot climates like Acapulco, but also appears again in works that Galguera collaborated on with another collaborator of Pani, Enrique de la Mora, in the Mercado de la Merced façade. Brickwork lattice was a vernacular and very common practice in México that modernist architects re-worked and included in modern projects.

The Puerta de México in Piedras Negras appears as a simpler structure than its counterparts in Matamoros, Nogales, and Tijuana. The complex origami-like folding of its roof structure is in itself intriguing, and the project has a complexity that the plans and drawings could help to unveil. Unfortunately, because Piedras Negras is a small city the project information has fallen into neglect, and little information has been recuperated. Perhaps, however, being in a small city has also been a determinant for its conservation, its provincial quality and no further development of modern architectural projects made the Puerta remain as an iconic piece —while the Puerta de Tijuana was demolished, this one still stands.

On September 25, 1963 President López Mateos traveled to Piedras Negras to inaugurate the Piedras Negras Puerta de México. Accompanied by Bermúdez and General Raul Madero, governor of the state of Coahuila, they toured the city and arrived at the new site of the customs and immigration offices. President López Mateos, now accompanied by state and local authorities greeted the American dignitaries that attended:

The mayor of Eagle Pass, Dan McDuff, county judge, Harvey Seymore, executive of the Eagle Pass Chamber of Commerce, Juan Cornejo, and mayor and city manager of Crystal City.³⁹⁵ (Fig. 28)

It was not the first project of the kind that he dedicated, and certainly not the last. But it was one that marks very specially the “mystique”³⁹⁶ of the border culture. Greeted by teenagers from México and the Texans of Mexican descent, one of them Alma Contreras of Kinney County, reached the president to kiss him on the right cheek and told him, “We were born in Texas, land which we love but we also have great esteem for Mexico, land of our ancestors.” The President “visibly touched by the gesture... blushed, smiled, and answered, ‘And we in Mexico, young lady, have Texas and Texans very close to our hearts.’”³⁹⁷

The Puerta opened for traffic and rapidly became a space of great esteem and pride for the citizens of Piedras Negras. Later, in an interview the director of PRONAF commented, “this great Gateway to Mexico is an invitation to friendship and stands for the self-respecting and the same time cordial hospitality traditional of every Mexican. Piedras Negras is proud to present to the visitor today the true appearance of our nationality.”³⁹⁸ The Puerta’s architecture symbolized the image of a thriving country, the image that López Mateos government was decided to build as part of the narrative of the national identity.

³⁹⁵ M. Ruiz Ibanez, “Gateway Opened,” *San Antonio Express*, September 26, 1963.

³⁹⁶ Antonio J. Bermúdez in his book *El Rescate del Mercado Fronterizo*, refers to “la mística de la frontera” – the mystique of the border as a will of “overcoming, of permanent and dynamic desire, to improve constantly the aspects of moral and material order in an always improving plan.”

³⁹⁷ Ruiz Ibanez, “Gateway Opened.”

³⁹⁸ Antonio J. Bermúdez in Ruiz Ibanez.

Nogales/Nogales

Nogales, Sonora and Nogales, Arizona were among the first twin towns that emerged after 1880 as a result of the Gadsden purchase³⁹⁹, and as a result of the productive landscape that the railways generated. The twin cities developed around the linking of the New México and Arizona Railroad and the Sonora Railroad in 1882. Both cities developed around the buildings for immigration offices, shops, and switching yards built by the railroad companies.⁴⁰⁰ (Fig.29)

Of all the border cities Nogales presents one of the most particular forms of border. Ambos Nogales, Nogales Sonora and Nogales Arizona, have “continuous border fencing, storefronts, and homes that crowd as close to the international line as law permits.”⁴⁰¹ (Fig. 30) Growing together yet developing differently, these two cities share a borderline that extends into the desert. The two cities also occupy the territory of the Tohono O’odham, a binational indigenous community. Although the borderland received great attention from both countries’ governments during the 1960s modernization projects, the story was not the same for the Tohono O’odham Nation.⁴⁰²

Nogales, of all the border cities, was the city with the second highest per-capita

³⁹⁹ The Gadsden Purchase, or Treaty, was an agreement between the United States and Mexico, finalized in 1854, in which the United States agreed to pay Mexico \$10 million for a 29,670 square mile portion of México that later became part of Arizona and New Mexico. Gadsden’s Purchase provided the land necessary for a southern transcontinental railroad and attempted to resolve conflicts that lingered after the Mexican-American War.

⁴⁰⁰ Rachel St. John, *Line in the Sand: A History of the Western U.S.-Mexico Border*, America in the World (Princeton: Princeton University Press, 2011), 83–84.

⁴⁰¹ Geraldo L. Cadava, “Borderlands of Modernity and Abandonment: The Lines within Ambos Nogales and the Tohono O’odham Nation,” *The Journal of American History* 98, no. 2 (2011): 362.

⁴⁰² Cadava, 362.

expenditure in the US, exceeding bigger cities like Cd. Juárez. To ensure a circulation and return of that capital and considering the urgent necessity to overturn the disparity and urban renovations, Nogales received a larger budget than Tijuana from PRONAF.⁴⁰³

The urban renovations undertaken by the Mexican government were translated into the new PRONAF complex. A large traffic renewal was planned to meet the needs of the essentially linear city which had developed on a cliff. A commercial and urban center, with its hotels, motel, office buildings, commercial buildings and public places, was planned to boost the social and economic development of the city.⁴⁰⁴ The city was equipped with much needed infrastructural projects, a new telephone building and telephone grid built by Teléfonos de México, the national cooperative communications system; a new pediatrics and maternity hospital, a joint venture of the federal and the municipal governments; and a new “ultra-modern” railroad station.⁴⁰⁵ Located right next to the border crossing line, the old train station and maneuver park didn’t belong in the plan for the new image that PRONAF wanted to portray at the border cities, so it had to be moved. The project for the Puerta de México would take its place and a building where the tourists would be able to take care of all their needs before entering the country that included the immigration and customs offices, health and sanitation services, and a Bank of México branch for currency exchange.

⁴⁰³ By 1960, Nogales, Sonora was a city of only less than 40,000 inhabitants and received 60 million pesos, while Tijuana with almost 170,000, only received 37 million pesos. See Bermúdez, 1968 for budget and populations.

⁴⁰⁴ Pani, “Programme National Des Villes Frontieres,” September 1963, 23.

⁴⁰⁵ Cadava, “Borderlands of Modernity and Abandonment,” 370.

The site selected for the PRONAF commercial and cultural center was the historic plaza Trece de Julio that was renovated for the new development. Perpendicular to it, the monumental white concrete double shell canopy was built on the main crossing line to serve as the crossing gate or passing arches. The project was designed by Pani in collaboration with Galguera and consisted of two concrete-shell vaulted arches. The traffic lanes were widened to include four inbound from the US, and three outbound. In the *L'architecture d'Aujourd'hui*⁴⁰⁶ article, the arches are mentioned as covering for one a span of 70mts and for the other 30mts, but the project as built differs from the one presented in the publication. (Fig. 31)

According to information provided on internet sites and newspapers, since very scarce plans and documentation exist at the architect's archives, the two arches were both 14mts high, and one covered a span of 58mts, while the smaller one a span of 34mts separating incoming and outgoing traffics.⁴⁰⁷ Where the arches met, at the groin, an island covered in glass was left for an observation office, where the Mexican emblem adorned the white arches as the only ornament of the structure. (Fig. 32) Underneath these arches, inspection booths were built for the customs agents as shelters from the desert climate. A new building primarily for immigration and customs offices was built. It housed other public facilities replacing the old inspection station described to have an "atmosphere and size of a small city jail."⁴⁰⁸ (Fig. 33)

⁴⁰⁶ Pani, "Programme National Des Villes Frontieres," September 1963.

⁴⁰⁷ RUBEN RUIZ Dron, Música, Noticias y Vida Frontera, *Los Arcos de Nogales, Sonora, México*, 2019, <https://www.youtube.com/watch?app=desktop&v=4EjtVIY3IC4>.

⁴⁰⁸ Jerry Eaton, "Towns Trade Quaintness For Culture, Sophistication," *The Arizona Republic*, November 20, 1963.

In the project as presented in the French magazine, the larger spanning arch was supposed to be embrace this building, but one can suppose that for structural and cost reasons the arch was cut shorter and made to land right at the entrance of the building, creating an arched portal for it. (Fig. 34) The customs and immigration building consisted of a barrel vault of approximately 50mts arched on its sides that the façade. Underneath a slightly shorter two-story building housed the offices of customs and immigration, revision rooms, detention areas, public restrooms and waiting areas, and the bank branch, with open facades to the north and south, on the shorter side, four commercial spaces on the northern façade, and a lobby on the southern. (Fig. 35) The front of the building, where the automobiles arrived after crossing the arches, had seven parking spaces covered by a cantilevered concrete canopy, supported by sculptural concrete supports. (Fig. 36) The building had four access points located on the longer sides at the extremities, and through bridges that crossed the reflecting pool that surrounded the building.⁴⁰⁹

It is interesting to pause and consider the decision of the designers to include a water-pond surrounding the main customs and immigration building, in a desert climate such as Nogales. Indeed, a covered feature like that with the right calculation for cross ventilation could provide a passive cooling system for the building. The plans indicate it does not entirely rely on this strategy, as ducts for air conditioning appear to be hand drawn into it, but the decision could be more a symbolic than a money saving one. The

⁴⁰⁹ Mario Pani, Arquitectos Asociados, and Hilario Galguera, “Plano de Equipo de Oficinas. Migración y Aduanas. Nogales, Sonora” (PRONAF, n.d.), T1, Archivo de Arquitectos Mexicanos. Mario Pani.

border in Nogales was marked by an invisible line that resulted from the Gadsden purchase, and delineated by a fence. While more than half of the Mexican border is divided by the Río Bravo or Grande, and the act of crossing into the U.S. or from the U.S. to México is the act of crossing that river, in Nogales that is not true. Pani might have been thinking about this when he designed the experience of entering the customs and immigration building through a bridge that crossed a water pond, reinforcing in the user the sensation of crossing the border.

In a small oval shaped landscaped plaza in front of the double arch crossing, the Mexican, American, Canadian flags and that of the other twenty-one Latin American countries (including the U.S. enemy's Cuba) were placed, a common feature of the Puertas projects. As part of the infrastructure projects that accompanied the Puerta project, three important arteries were built to control and relieve the transit in the city. Avenida López Mateos, Sonora, and Ruíz Cortines, avenues connecting to the international bridge, made the pass of the tourist through the city easier, and their connection to the main highway leading to Ciudad de México faster and straightforward.

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On November 12, 1964 President López Mateos visited Nogales to inaugurate the *Puerta de México* and do several other dedications.⁴¹¹ While the United States authorities sent to the event the Arizona's governor elect Sam Goddard, México's highest-ranking

⁴¹⁰ Daniel D. Arreola, "Across the Street Is Mexico: Invention and Persistence of the Border Town Curio Landscape," *Yearbook of the Association of Pacific Coast Geographers* 61 (1999): 31.

⁴¹¹ Ted Turpin, "Mexicans Turn Out For Chief," *Tucson Daily Citizen*, November 12, 1964, Evening edition.

authorities attended the event, signaling the difference of agendas that the border projects represented for each nation. But this difference could not only be noted in the attendance to the inauguration events. More importantly, the project for the Nogales, AZ customs facility was notably less monumental.

The construction of the US border building coincided with the celebration of the 175th anniversary of the construction of the US Customs Service first established in 1789 by Congress and signed into law by George Washington.⁴¹² It was used by the Arizona government to link President Johnson's 1964 "United States Customs Year" to the "U.S. Customs Month in Arizona," for the month of November. They organized lectures by officials and businessmen on the importance of collecting, regulating, and protecting customs, commerce, agriculture, industry, and labor, and aggrandized the narrative of Arizona's first customs collector arrival to the territory where there was "no fence between the two countries, and the town of Nogales had not yet been incorporated"⁴¹³.

The border projects for Nogales, Arizona have also been said to "lead the biggest building boom in the history of Nogales."⁴¹⁴ Although with a lesser budget, from the government and primarily led by the private sector, in addition to the international customs office, there were plans to build a \$2 million motel, and a park. The street department reported an increase in building permits for commercial buildings, the completion of office buildings, the Inter-state highway, and numerous homes.⁴¹⁵

⁴¹² Cadava, "Borderlands of Modernity and Abandonment," 371.

⁴¹³ Polly Benn, "Dedication of Station Recalls Start in 1890," *The Arizona Republic*, November 19, 1964.

⁴¹⁴ Martha Guerrero, "Border Project Leads Nogales Plans for '63," *The Arizona Republic*, December 31, 1962.

⁴¹⁵ Guerrero.

The US customs and immigration building was described in American newspapers to be a “rectangular, nondescript, and functional two-story, steel-frame building with exterior walls made of blue mosaic tiles. The ground level was for automobile and pedestrian inspection facilities, while the second housed offices of the Immigration and Naturalization Service, Public Health Service, U.S. Customs.”⁴¹⁶ At ground level, stairs and ramps were built for pedestrian access. Nine traffic lanes in total incoming and outgoing for vehicles were made available, six for incoming traffic, and three for cars returning to México.⁴¹⁷ Five inspection booths with sliding windows, air conditioning and heating units, were installed, for the officers;⁴¹⁸ a vast improvement over their previous situation, considering the climatic conditions of the desert. (Fig. 37)

Designed by Tucson Architect Emerson Scholer, who projected local hospitals, libraries and schools, the project cost \$1.9 million. While México spent \$12 million on its border project and was undertaken by one of the main and most prominent architects in the country; the American project was assigned through the bid system of public works in the US. No special competition, by invitation, for architects was held for any of the border customs offices at the time. Emerson’s work for the government was later praised, but not the one at the border. As Cadava writes, at the time for *The Nogales Herald* the project in Nogales Sonora was “more elaborate” than the one in Arizona.⁴¹⁹

The threshold that marks the entrance to the Mexican Nogales, has frequently

⁴¹⁶ Cadava, “Borderlands of Modernity and Abandonment,” 368.

⁴¹⁷ Polly Benn, “New Border Gateway Open for Business,” *The Arizona Republic*, November 11, 1964.

⁴¹⁸ Polly Benn, “Construction of Gateway on Schedule,” *The Arizona Republic*, May 1, 1964.

⁴¹⁹ Cadava, “Borderlands of Modernity and Abandonment,” 370.

been described as a bird opening its wings and flying north, or more recently as an airplane.⁴²⁰ The volume's origin although never explained by Pani or his collaborators, shows the tendency to use concrete shells in modern architecture in México at the time. Candela had been working with similar structures since 1952 at UNAM, a project that Pani directed and where they both met. Candela even collaborated with a pavilion in Pani's Unidad Habitacional Santa Fé, in 1957, although with a project that didn't resemble at all the one in Nogales. (Fig. 38) By 1962 when the project for Nogales was being developed Candela's architectural language was already well established in México. But more importantly, these were shapes and volumes that were already in Pani's architectural language.

Pani had experimented with concrete shells in the project for the Acapulco airport in collaboration with Enrique Del Moral in 1952. The project consisted of a great hall formed by two parallel elliptical arches that support a concrete-shell vault, where the walls were substituted by a concrete lattice that permitted a cross ventilation. The arches that supported the vault were sturdier and acted as visible beams that landed on columns, but still the result was quite elegant. (Fig. 39) Pani continued experimenting in collaboration with Salvador Ortega with the concrete shells like in the roof of the kindergarten for the Multifamiliar Presidente Juárez in 1950-52 (Fig. 40) and came full circle with the project for a shopping mall in Cuernavaca in 1963, that is very similar to the one projected for the city of Nogales. (Fig.41)

⁴²⁰ Cadava, 368.

Train Station and Warehouse

As part of the displacements for the development of the projects for the new border crossing, the old train station had to be relocated. Owned by the Ferrocarril del Pacífico, a private company, the project for the building was not part of the federal PRONAF budget. In any case it was promoted as part of the development that PRONAF had brought to the city. The project was designed by the Autónoma de Arquitectos office, a Ciudad de México based firm composed of Pascual Broid, Benjamín Méndez Savage, and Carlos Ortega Viramontes.⁴²¹ The train station needed to solve the problem of the displacement of the passengers and cargo stations and patios from their location right next to the border, to its new location outside of the commercial area south of the ‘linear’ city.⁴²² In order to solve the problem of passengers needing to get to the border crossing travelers arriving by train to the City of Nogales would be transported by shuttle to the newly built international crossing complex.

The new passenger railway station featured modern architecture in the same manner as PRONAF’s commercial center and Puerta de México. The programs were organized under two similar paraboloid concrete shell canopies for the passenger and freight buildings in order to create cohesion between the buildings despite the kilometer separating one from the other. (Fig. 42) The terrain where the passenger building was

⁴²¹ The firm will maintain a close relationship with railroad companies, having proposed and projected for Ferrocarriles Nacionales de México, the national subsidiary, a 60-bed hospital in the city of Chihuahua, and their national headquarters in México City. And built the train stations of Zacatecas, Morelia, and Fortín de las Flores.

⁴²² Autónoma de Arquitectos, “Estación de Pasajeros y Carga En Nogales, Sonora,” *Calli. Revista Analítica de Arquitectura Contemporanea*, April 1964.

located presented a depth parallel to the railways that was taken advantage of to create a two-story structure, that kept the automobile parking, and access at the ground level.

(Fig.43) At the train level, the waiting areas, ticket booths, customs offices, cafeteria and restrooms. The variations of the hyperbolic paraboloid roof structure pointed and more protruding to the west- the ‘train’ façade- and rounder and more contained on the east responds to solar protection. (Fig. 44) The architect’s need to have a glazed open façade in the desert landscape, called for the need of a system of a brise soleil- wall system that coincides with the generating lines of the curved roofline. (Fig. 45)

For the cargo and warehouse building, the solution was much simpler. Still maintaining a triangulation of the roofline that facilitated interior divisions for the warehouse, the building’s walls are made of brick blocks. The concrete structure is left visible leaving even the beams supporting the roof visible from the outside. The architects mention that the volume of the building is aesthetically pleasant and is connected formally to the passenger station, about the visibility of the beams they mention that “este levantar la techumbre en forma tan útil responde física y psicológicamente al hecho y a la necesidad de almacenar. Es decir, la forma misma, levantada, indica este almacenamiento aun a primera vista.”⁴²³ The truth is that the images shown in the magazine article, its perspectives in relation to the train station, show the structural ‘clarity’ of the building in comparison to the main station, making the buildings appear to be part of well composed ensemble. (Fig. 46)

⁴²³ Autónoma de Arquitectos, 48. Translation: This raising the roof so visibly in such a utilitarian way responds physically and psychologically to the fact and to the need of storage. That is, the shape itself, raised, indicates this storage at first glance.

Tijuana/San Ysidro-San Diego

Tijuana's transition from mainly wooden constructions to an industrialized concrete and stone modernist Mexican style architecture was clearly noticeable until the post 1960s period.⁴²⁴ Due to the early 1950s population growth, new neighborhoods at the southern edges of the town were built. They were typically Mexican in their architectural design, but clearly influenced by the American suburb's urban structure; mainly pedestrian, with corner stores, patios, and porches behind fences and walls. The new middle class neighborhoods' houses in an attempt to follow the trends in San Diego and Los Angeles offered a wide display of the International Style trends of the era, from Frank Lloyd Wright's horizontalism, German Expressionism, to Le Corbusier's white box functionalism.⁴²⁵ (Fig. 47) But it wasn't until the mid 1960s that modernism made an appearance in Tijuana's public buildings with the Puerta de México project.

The project for the Puerta de México Tijuana solved one of the greatest urban problems of Tijuana. With the increasing number of tourists arriving by car to the city, an average of eighteen million a year, the problem of incoming automobile traffic needed to be addressed. The six-lane highway that connects Tijuana with San Diego, Los Angeles, Las Vegas, and San Francisco led directly to the international border crossing. The old structure proved insufficient when tourists wanting to cross into México, these delays discouraged them from crossing generating a loss of income to the city. (Fig. 48)

⁴²⁴ Lawrence A. Herzog, *From Aztec to High Tech :Architecture and Landscape across the Mexico-United States Border* (Baltimore, Md., 1999), 82.

⁴²⁵ Herzog, 80–81.

The new international crossing was moved south from the original one, in order to accommodate a larger capacity and to connect it with the PRONAF complex.⁴²⁶ Land had to be acquired and more than six hundred families and two schools were moved in order to build the project.

This time the project was not designed in Pani's office, although in the public's memory it has always been treated and considered as such. The design of the Puerta de México in Tijuana was designed by architect Guillermo Rossell, in collaboration with Manuel Larrosa with whom for years kept a close friendship and had collaborated in various projects. (Fig.49) At the time Rossell was the acting director of the DUIA, had developed the fourteen *Guiding Principles of Technique and Action for the Border and Port Cities*⁴²⁷, which were used as the base for the Planos Reguladores, and was heading along with Pani the COMDUF, responsible for the *Charter of El Paso*.

Even though Rossell maintained a very active career as a politician, his career as an architect was also prolific. By then, as a recent graduate from UNAM's architecture program, he had designed in collaboration with Yañez and Enrique Guerrero the Escuela Nacional de Ciencias Químicas for the new UNAM's campus (1952)⁴²⁸, (Fig. 50) for which Félix Candela designed the auditorium; (Fig. 51) the headquarters for Automex in Ciudad de México (1953),⁴²⁹ (Fig. 52) collaborated along with Larrosa and Candela on several projects for housing developments outside Ciudad de México, among them: the

⁴²⁶ Editorial, "Proyecto de Una Entrada al País," *Novedades*, January 28, 1963.

⁴²⁷ Rossell, "Principios Rectores de Técnica y Acción de Las Ciudades Fronterizas y Portuarias."

⁴²⁸ Mario Pani, "Número Dedicado a La Ciudad Universitaria," *Arquitectura México*, September 1952, 122.

⁴²⁹ Guillermo Rossell and Lorenzo Carrasco, "El Nuevo Edificio de Auto-MEX," *Espacios*, February 1954.

entrance sculpture to Tequesquitengo Lomas Tropicales(1957) (Fig. 53), a fountain called Plaza de los Abanicos (1958) (Fig.54), and the Chapel for Lomas de Cuernavaca (1958);⁴³⁰ (Fig. 55) and other residential projects.

Their collaborations with Candela are worth mentioning because of the inclusion in the project of shapes that are very characteristic of his work, although it is not mentioned in any of the scarce documentation found for the project. Comments denote that Candela acted as an advisor for the project. Attributed in publications only to the Rossell-Larrosa duo,⁴³¹ the project also counted on the collaboration for the structural design by Ricardo Laso. The design of the project consisted of three parts, the central – a bent tridimensional truss bridge-like structure- and two concrete conoid structures at each end.⁴³²

The bridge-like building made out of steel trusses and supported by concrete columns at its extremes, covers a span of 51.2 mts and arcs to a height of 13.3mts to allow the pass of nineteen traffic lanes below. (Fig. 56) The building was designed to house the immigration and customs offices. As described in the *Proyecto de Entrada al País*⁴³³ newspaper article, in section consists of three levels that respond to the hierarchies of the governmental positions; at the top overseeing the functions of the staff,

⁴³⁰ Enrique X. de Anda and Peter Gössel, *Félix Candela, 1910-1997: The Mastering of Boundaries* (Hong Kong: Los Angeles, Calif: Taschen, 2008).

⁴³¹ Ruth Rivera, “Tendencias de la Arquitectura Mexicana,” *Cuadernos de arquitectura y conservacion del patrimonio artistico.*, no. 18 (1965): 77–79.

⁴³² Comité Científico de Arquitectura del Siglo XX de ICOMOS Mexicano A.C., “Inicia La Demolición de La Puerta México En Tijuana,” *PROTECCION DEL PATRIMONIO ARQUITECTONICO SIGLO XX* (blog), February 2015, <http://agresionespatrimoniosigloxx.blogspot.com/2015/02/inicia-la-demolicion-de-puerta-mexico.html>.

⁴³³ Editorial, “Proyecto de Una Entrada al País.”

the heads of customs and immigration, the second level, the seconds-in-command and administration and at the third level, employees that provide general services, archives, etc. Access for visitors was located in the middle of the volume, covered by a platform that served as a balcony for the upper floor. (Fig. 57) Pedestrian access was through two cantilevered ramps that also bridge the western and eastern parts of the city. Each ramp carried foot traffic from México to the US, and vice versa, organizing the flow of pedestrians. The building's façade was composed of a forty-five-degree rotated square grid of aluminum trimmed glass, with some of the pieces that encountered the bottom curve clad with concrete, providing the volume with dynamic movement matching the angles of the structure. (Fig. 58) The ceiling was made out of wood plafonds made out of small pieces of beams, and wood-boards reclaimed from the falsework used during the construction of the concrete conoids.⁴³⁴

On each side, at the bottom, the concrete-shell conoid structures served the functions directly linked with automotive traffic, merchandise crossing, imports and exports. They were designed to house small warehouses, offices for customs, the petroleum branch, health and agriculture, and customer service, as well as break rooms for the customs officers. The facades of these volumes were enclosed with glass to provide an open face to the visitor and user. These buildings were not connected to the main building. In order to go to the immigration and customs offices, it was necessary to go outside and use the ramps to access the main building. (Fig. 58)

⁴³⁴ Alfredo Plazola Cisneros, Alfredo Plazola Anguiano, and Guillermo Plazola Anguiano, *Enciclopedia de arquitectura Plazola. Vol. 1: A* (Mexico, D. F: Plazola, 1995), 33.

Described as “a capricious border funnel intriguing as a nautilus chamber”⁴³⁵, or an eagle taking flight, the project has also been compared formally to Saarinen’s TWA terminal at JFK airport.⁴³⁶ (Fig. 59) The comparison could stand as valid in several ways: the project for the TWA was entrusted to Saarinen in 1955 and completed by 1958, the terminal was inaugurated by 1962, a couple of years after the project of the Puerta de México in Tijuana even started to take shape; both of them were places of arrival and departure, one by automobile, the other by airplane; both were meant to be “distinctive and memorable,”⁴³⁷ and symbolize adaptability to the postwar world.

However, the genealogies and circumstances of both projects must be taken in consideration for such comparison. In a very quick revision, Saarinen’s project was clearly influenced by Le Corbusier’s widely publicized Ronchamp (1950-1955), by Minoru Yamasaki’s Terminal for St Louis Airport (1956), and by Jorn Utzon’s Sydney Opera House (1957-1965),⁴³⁸ for which he juried, and in Saarinen’s own evaluation his work for the Ingalls Hockey Rink at Yale (1953-1959) is the direct precursor of the terminal.⁴³⁹

For Rossell and Larrosa, the story of the genealogy begins with their collaboration with Candela. Rossell collaborated with Candela as a recent graduate in one of the greatest public projects ever seen in México, and probably Latin America, the UNAM

⁴³⁵ Britton, James in Herzog, *From Aztec to High Tech*, 83.

⁴³⁶ Castañeda, *Spectacular Mexico*, 72. Luis Castañeda mentions that the gate was a clear response to Saarinen’s TWA terminal by Pani and Candela. Both claims, proven to be wrong.

⁴³⁷ Ezra Stoller, *The TWA Terminal*, 1st ed, The Building Blocks Series (New York: Princeton Architectural Press, 1999), 2.

⁴³⁸ Stoller, 7.

⁴³⁹ Stoller, 9.

campus in 1952. Later, Rossell and Larrossa would collaborate with Candela on various projects previously mentioned. What is important to note here as point of departure, is the different approach to formality for both sets architects'-genealogies. According to Enrique X. de Anda for Candela "his forms unfolded in space, developed from figures and surfaces, and respected a mathematical and construction principles in which points, parallels, and sections formed an abiding law."⁴⁴⁰ He criticized his contemporaries', Utzon, Saarinen, Niemeyer, concrete-membrane designs "on the argument that they evolved purely from a gesture of their creator's will."⁴⁴¹

As a remarkable mathematician he designed and created his first roof-shell building with hyperbolic paraboloids for the Cosmic Rays Pavillion at UNAM in 1952, which launched his 30-year career as an architect/engineer. (Fig. 60) The industrialization of the country helped Candela to disseminate his work, for not only were concrete and steel easily available, but economic stability allowed for more construction. His company Cubiertas Ala benefited greatly from this economic boom, since his work offered two "commodities: production speed and reduced material expenditure".⁴⁴² But Cubiertas Ala, and Candela's work came with a social price. Claims of labor exploitation, poorly paid and non-registered into the social security workers, were part of his pass through México.⁴⁴³ This exploitative practices made up for the claim that they sometimes "charged double for the shells because sometimes, they fall."⁴⁴⁴

⁴⁴⁰ Anda and Gössel, *Félix Candela, 1910-1997*, 1.

⁴⁴¹ Anda and Gössel, 1.

⁴⁴² Anda and Gössel, 11.

⁴⁴³ María González Pendás, "Fifty Cents a Foot, 14,500 Buckets: Concrete Numbers and the Illusory Shells of Mexican Economy," *Grey Room* 71 (June 1, 2018): 15, https://doi.org/10.1162/grey_a_00240.

⁴⁴⁴ Candela in Pendás, 15.

The daring theatrical display of the structure for the main building in conjunction with the Candela-esque conoids were symbols of that Mexican economic and cultural development. The project was clearly, as all of the others Puertas, designed to be used, admired, and experienced mainly by the automobile user. It was never designed as an inspection point, since the inspection booths were located at a distance and their design was not particular at all. It was meant to signify the crossing from one place to another, from one culture to another. It was supposed to be part of a larger urban project, that connected to PRONAF, and would make of Tijuana a modern city. In an advertisement for the project, the Puerta appears as the first stage of that bigger project in which the automobile was prioritized. Highways, cloverleaves, trumpets, and interchanges along glass facade towers were the symbols of progress. (Fig. 61)

The construction of the project for the Puerta de México in Tijuana started early in 1963. In press conferences, Bermúdez announced that the project would be finished by June or July of 1964, a date later postponed to the end of the year.⁴⁴⁵ The project was not finished in time for the president's term, which ended in November 1964, and López Mateos could not dedicate the Puerta de Tijuana before ending his time in office. Some sources indicate that the project was opened around May 1965 without any grand ceremony by President Gustavo Díaz Ordaz, signaling what would be the end of PRONAF in López Mateos successor's period.

Despite the efforts of architects and Tijuana's historical preservation societies, the Puerta de México was demolished in January 2015, replaced by a freeway that would

⁴⁴⁵ Juan Balbuena, "Balance Positivo Del Programa Nacional Fronterizo," *La Aficion*, January 21, 1963.

connect the city to the new crossing point the Cruce Fronterizo El Chaparral.⁴⁴⁶ An uninteresting bureaucratic immigration and customs building now stands on the site, befitting the dry and harsh current state of migratory policies between the US and México. (Fig. 62)

The monorail project

Only one mention of a monorail project for the city of Tijuana exists in the PRONAF booklet. In the master plan project presented for the Nueva Tijuana, marked in one plan appears a monorail station.⁴⁴⁷ (Fig.63) In this document, the station appears in close vicinity but not completely linked to the Puerta de México project. In material found in the Mario Pani archive at ITESM, the monorail project appears to have been of greater importance.⁴⁴⁸

Pani had shown interest in a reorganization of traffic and fast public transit since his thesis for the regeneration of Ciudad de México's downtown and the Planos Reguladores (1950s-1960s) A study and research for the monorail system, can be seen in issue 81, 1963 of *Arquitectura México* magazine,⁴⁴⁹ titled *El Monorriel de Seattle Inicia*

⁴⁴⁶ Infobaja, "Fin de la Puerta México," *Infobaja de BC* (blog), December 13, 2014, <https://www.infobaja.info/fin-de-la-puerta-mexico/>.

⁴⁴⁷ Programa Nacional Fronterizo, *National Border Program / Programa Nacional Fronterizo. Tijuana, B.C.*, 4:17.

⁴⁴⁸ Mario Pani, "12 Tesis Tijuana Monorriel Alweg" (PRONAF, n.d.), 1–12.

⁴⁴⁹ In March 1963, year 2, Volume XX, Issue 81. The editorial announces a new direction for the magazine. Accompanied with the new 'surname' México, *Arquitectura México*, the editorial letter advises that it would now center its efforts in a "critical and selective examination that shows the most positive values of our architecture production. It is the purpose of the magazine "Arquitectura" to show the current Mexican architectural movement, in the place that corresponds for its technical-aesthetic quality and give it national and international diffusion."

su Operación (pp. 41-46) by Eng. Vicente S. Pedrero. In the same issue Pani presents an article titled *Renovación Urbana* in which he discusses the phenomena of “urbanificación,”⁴⁵⁰ what he describes as the growth of cities at the expense of rural populations, and presents the monorail as a possible solutions for the densely growing city. The importance placed on an article on the monorail in his magazine, and precisely during the time when the projects for PRONAF were being designed is quite significant to the project proposed in Tijuana. (Fig. 64)

In this article, the author describes the advantages of the ALWEG system, along with the history of its creator, and some technical specifications. The article centers on a recent example, the monorail that opened March 3rd, 1962 at the Seattle World’s Fair, but also lists several other parts of the world where the system has been successful: Cologne, Germany; Nara, Japan; Turin, Italy, and even Disneyland in California. Making reference to the simple concrete structure needed to support the rails, the flexibility of the column heights and small footprint, the author praises its adaptability to different landscapes. The article mentions technical data of speed and braking times, capacity of transportation, and voltage needed for its functioning, presenting diagrams of the cars and structure. Near the end it mentions that one of the greatest advantages is that during construction, it didn’t interrupt traffic in Seattle. He finishes with a final praise “efectivamente, el sistema ALWEG, es hoy el transporte del mañana.”⁴⁵¹

To solve the problem of mass public transportation, Pani’s proposal was to use the

⁴⁵⁰ For more see Mario Pani, “Renovación Urbana,” *Arquitectura México*, March 1963, 5–10.

⁴⁵¹ Vicente S. Pedrero, “El Monorriel de Seattle Inicia Su Operación,” *Arquitectura México*, March 1963, 46. Translation: Indeed, the ALWEG system is today the public transit of tomorrow.

monorail. His studies of it had shown that in México, it would be cheaper and easier to deal with, since the construction wouldn't require tunneling machinery that the country couldn't afford. (Fig. 65) His recommendation extends to the outer ring of the historical downtown where for aesthetic and preservationist reasons, he recommends subterranean train. With the use of a monorail, he adds, the growth of the city can also be controlled, once the extension of the rails is set, the city will grow around it.⁴⁵² The monorail was, in that way, for him not only a solution for public transportation, but also a method to control urban growth. An aspect of it that is present in the Tijuana project.

For Tijuana, Pani's office generated research diagrams, that cross-referenced the information obtained previously for the development of the Planos Reguladores and the PRONAF projects, with the studies for the implementation of the monorail system in Ciudad de México, and the ALWEG system. With that information he was able to produce diagrams, plans, and maps that prove not only the need but the feasibility of the project for the city of Tijuana.⁴⁵³ From the economic standpoint, the graphics show that with the number of users and with the intended fees, construction costs would be covered, as well as maintenance and operation—even making some profit, indicating that the project construction, running, and administration was intended to be granted to a private company.⁴⁵⁴ (Fig. 66)

The urban analysis is done on four scales: international, national, regional, and local. Although found at the archive in dispersed slides, these could indicate Pani's

⁴⁵² Larrosa and Noelle, *Mario Pani, Arquitecto de Su Época*, 109.

⁴⁵³ Pani, "12 Tesis Tijuana Monorriel Alweg."

⁴⁵⁴ Mario Pani, "Conclusion," Circa 1963, T1, Fondo Mario Pani Darqui.

office's process to design the various elements for PRONAF. The *Internacional, Nacional Y Regional*⁴⁵⁵ slide presents us with the clear vision of the understanding of Tijuana in connection not only to Mexican cities like Calexico and Ensenada, but San Isidro and San Diego, and Los Angeles in California, (Fig. 67) how this physical proximity could become a network with the use of the monorail system. *Solucion Vial de la "Gran Tijuana" y Linea del ALWEG* allows to see the solutions that Pani devised previously as a thesis for Ciudad de México, how the line of the monorail is used to mark and follow the growth of the city, running along the newly designed *macromanzanas* and new traffic system. (Fig. 68) It also shows how the monorail line passes through the PRONAF development and arrives at the border crossing point. Finally, an untitled slide present us the plan of PRONAF with the monorail line, its stops and stations at different points; commercial and civic center, Mexican Pueblo, hotels and motels, denoting their various distances from the border crossing. It also allows us to see how the line continues over the international line, although it ends in the middle of nowhere. (Fig. 69)

The project was never presented to the public. It can be surmised that this material was prepared for the government and possible investors. The renderings created complement the presentation of the project beautifully, allowing the viewer to see how the monorail passed through the streets of Tijuana. (Fig. 70) would have stopped at the new civic center, (Fig. 71) passed through the bridge over the channeled Río Tijuana,⁴⁵⁶ (Fig. 72) and connected to the new *Puerta de México*. (Fig. 73) Many more details of the

⁴⁵⁵ Mario Pani and Arquitectos Asociados, "Internacional Nacional Y Regional," Circa 1963, T1, Fondo Mario Pani Darqui.

⁴⁵⁶ The specifics of the project will be explored in Chapter 5.

projects were given, the forms and shapes of their stations, structure, and the detail of their cars. The project remains as a possible solution for Tijuana's current mass public transportation problem.

Connecting the Borderlands The Border Highways

The ties between the AIA and CAMSAM resulting from the Charter of El Paso meetings and the Committee on Border Planning were strengthened even more after the Chamizal agreement. The director of Planning of the City of El Paso in an article with the FAIA Chairman Edwin W. Carroll emphasized that "the peaceful settlement of the long-standing Chamizal dispute will promote and strengthen the ties of freedom, culture and commerce with all the Americas at the gateway cities of El Paso and Juárez,"⁴⁵⁷ devising a development program. The city of El Paso and El Paso County proposed a four-point Federal program to ensure satisfactory treatment of the lands directly affected by the El Chamizal exchange and return of land, and in lieu of the tax revenues for the 437-acre loss, that went as follows:⁴⁵⁸

- 1) Adequate compensation to displaced US property owners to avoid loss or hardship in acquisition of the approximately 600 private properties and displacement of more than 3,500 people in El Paso. There is needed reimbursement to the private property owners as well as to the city of reasonable and just identifiable costs of relocation and re-establishment and indemnity.

⁴⁵⁷ Carroll and Cunningham, "US-Mexican Border Treaty," 33.

⁴⁵⁸ Carroll and Cunningham, 36.

2) A border highway along the new river location to provide the needed south loop main artery for traffic around the city in connection with the Federal and state highway system, which loop has not been possible because of the Chamizal dispute. It is needed to replace two of the streets in the downtown section of El Paso which will be lost by the settlement. Secondly, to improve and beautify the strip along the US bank of the new river channel and boundary location as a part of the coordinated plan with Mexico for a similar highway on its bank of the new channel.

3) A national monument park on the 193 acres of land which pass to the US from Mexico and on a strip of land along the new channel as a permanent monument and cultural center to commemorate the peace and good will reflected by the Chamizal settlement in this historic "Pass of the North" and to match the similar border improvement program on the Mexican side.

4) Federal irrigation canal relocation and improvement which has long been needed but not possible because of the Chamizal dispute. This canal should be placed underground in order to protect against further loss of life and unsanitary conditions in the old canal built in 1915. This improvement is needed to assure full use in the US of waters reserved to this country by the 1906 Water Treaty.

As of Point 2 of the program, with the channeling of the Río Bravo and the construction of new crossing infrastructure, a new highway that ran along the new border was urged to be built. In addition, the creation of PRONAF brought trans-border urban connections to El Paso, prompting city officials to seek the extension of their road connection network. All of the major freeways that connected El Paso with the major cities of the US were built after the return of the El Chamizal and the construction of PRONAF in Cd. Juárez. (Fig. 74) Built with city and state funds in addition to federal funds, Interstate-10 (I-10) was built in 1967 and completed in 1968, and the Interstate-

110 (I-110) in 1971. The North-South freeway, Highway 54 (Patriot Freeway) in 1968 and the El Chamizal Border Highway in 1972 were built entirely with Federal funds.⁴⁵⁹

The I-10 stretches from Los Angeles, California, to Jacksonville, Florida, passing through major cities like Phoenix, Tucson, San Antonio, Houston, Baton Rouge, New Orleans, and Tallahassee.⁴⁶⁰ The construction of the whole network started in 1956, and it was completed in 1990 at a total cost of more than \$100 billion.⁴⁶¹ The I-10 stretched over 63-miles in the city of El Paso, and it cost a total of \$59 million.⁴⁶² Its layout divided the city in two, established a class line across the city, and was a significant factor in the creation of the suburbs. (Fig. 75) During its construction, the properties between I-10 and the border lost their value and were cheaper than those northern of the I-10.⁴⁶³ During the process of relocation, a lack of affordable housing became apparent, but the city could not face the problem on its own. President Johnson announced the creation of The Committee to Rebuild America's Slums, whose goal was to develop plans for the future of cities in America, creating the Model Cities Program. Johnson's committee influenced the Housing and Urban development Act of 1968, allowing for federal subsidies for low to moderate income housing.⁴⁶⁴

The Interstate-110 (I-110), was a short .89-mile spur extending from the I-10

⁴⁵⁹ Miguel Juárez, "From Concordia to Lincoln Park, An Urban History of Highway Building in El Paso, Texas," *Open Access Theses & Dissertations*, January 1, 2018, 138, https://scholarworks.utep.edu/open_etd/1459.

⁴⁶⁰ Interstate 10 Guide, "Interstate 10," Interstate-Guide.com, accessed January 30, 2021, <https://www.interstate-guide.com/i-010/>.

⁴⁶¹ National Museum of American History, "Interstate 10," National Museum of American History, February 28, 2017, <https://americanhistory.si.edu/america-on-the-move/interstate-10>.

⁴⁶² "Intertwining Freeways Set for 21st Century," *El Paso Herald-Post*, April 26, 1971.

⁴⁶³ Juárez, "From Concordia to Lincoln Park, An Urban History of Highway Building in El Paso, Texas," 158.

⁴⁶⁴ Juárez, 165.

provided direct access to the Puente Internacional de Cordova.⁴⁶⁵ The Cordova bridge, or Puente Libre (free bridge) as it was commonly known in Cd. Juárez, was built as a result of the El Chamizal treaty in 1967. Once crossing the Río Bravo, it turned into Avenida Abraham Lincoln which passed through Chamizal Park, and continued to the PRONAF complex, first diverging into Avenida de las Américas which crossed the whole city turning into the Mexican Federal Highway 45, which connects Cd. Juárez to Ciudad de México. The I-110 has not been given the importance that it has in the interconnectivity of the border cities, but it is a crucial piece. It is the shortest piece of highway constructed during the period, but the one that connects if traced in a map, Ciudad de México with the I-10. It allowed to create the road network that the PIF⁴⁶⁶, and the Tratado de Libre Comercio (NAFTA) would later benefit on.

The El Chamizal Freeway or the Border freeway was financed with federal funds but was coordinated by the Texas Highway Department of the U.S. Department of Transportation project. As in the case of the I-10 massive relocations were necessary. The land where the project was to be built was part of the El Chamizal exchange where abuses had already taken place. Negotiations were practically inexistent, and landowners were forced to take whatever they were offered. The population living in these territories was mainly Mexican and didn't speak English. Since the federal and state departments lacked bilingual agents, a 15-page Spanish booklet titled *La Compra del Derecho de*

⁴⁶⁵ Texas Department of Transportation, "INTERSTATE HIGHWAY NO. 110," accessed January 30, 2021, <https://www.dot.state.tx.us/tpp/hwy/IH/IH0110.htm>.

⁴⁶⁶ The Programa de Industrialización de la Frontera, or Border Industrialization Program, was launched in 1965 by Antonio J. Bermúdez once he resigned from his position as director of PRONAF. Foreseeing that the cultural and commercial activities at the border would not bring the financial benefits expected, he ventures into the industrialization of the border, bringing the maquiladora program to the zone.

*Via*⁴⁶⁷, (Fig. 76) explaining the right-of-way concept was prepared for distribution. The booklet detailed the negotiations and explained how the freeways, a new concept for the dwellers of the zone, were going to bring benefits to their lives, but also explained in the last page the process of *Dominio Eminente*⁴⁶⁸ for those who refuse to sell.⁴⁶⁹

The El Chamizal-Border Highway consisting of 12.6 miles paralleling the Río Bravo and passing through the newly annexed territory of El Chamizal in El Paso opened “with neither fanfare nor grand opening ceremony,”⁴⁷⁰ in the summer of 1976. (Fig 77). With an estimated cost of \$25 million the authorities started to plan its connection to a larger urban project, a circular street system around the city, the Loop 375. Although initially the new Border Freeway was born with the intention to be more than an infrastructural piece, that fit into the sprawling plans of the city planners. The El Chamizal-Border Highway was planned to be a scenic river road. It was part of the border beautification program, and it was planned to be a highway along the Río Bravo that went from El Paso to the Big Bend National Park, with a route of approximately 275 miles. It was also part of the larger plans of connecting the borderlands. In the initial project there were also plans for an extension of this highway along the international boundary to Douglas, Arizona, and on to San Diego in order to connect the border cities.⁴⁷¹

⁴⁶⁷ Translation: The Purchase of Right-of-Way

⁴⁶⁸ Translation: Eminent Domain

⁴⁶⁹ Juárez, “From Concordia to Lincoln Park, An Urban History of Highway Building in El Paso, Texas,” 196.

⁴⁷⁰ “New Border Highway Racing Ahead of Planned Traffic,” *El Paso Times*, November 11, 1976.

⁴⁷¹ “Ready Push for Roads In EP Area,” *El Paso Times*, June 7, 1966.

But by 1976, some El Pasoans were already not that convinced of the friendship that President Johnson had praised in a visit to their city back in 1968. In rejection of the border highway, and foreshadowing the type of infrastructure construction to come to the borderlands, and with a rhetoric that resembles that which affected the current state of immigration laws, Elsie Voigt wrote a letter to the editor of the *El Paso Times* that said:

Congressman White's proposal to construct a highway along the U.S.-Mexico border from Brownsville to San Diego is meaningless to the alien problem unless it were to include the provision to run the highway atop a high concrete wall. I hope he wasn't serious about it, without a wall, that is. Those "chickens" would just continue crossing rivers, fields and roads for the same reason they did in the old joke – to get to the other side. And we'll be suffering hordes of them in the future.⁴⁷²

Conclusion

Since 1848 the México-US border has been modified tremendously. It has evolved from a line drawn on a map, the result of the signing of the Treaty of Guadalupe Hidalgo, that signaled the end of the U.S. invasion to México;⁴⁷³ to the sale by force of the almost 30,000-square-mile territory of La Mesilla in the 1854 Gadsden Purchase; to the days when the first precarious fences were built in sister cities like Nogales, Sonora and Nogales, Arizona. As Anne Boddington summarizes these events:

The [México-US Border's] transformation of site to map has had a reciprocal impact upon the appearance and experience of landscape. The spatial narrative has been retold in plan alone. The division of territory is no longer a direct response to the experiential topography of the land but is instead inscribed upon the map's surface as land.⁴⁷⁴

⁴⁷² Elsie Voigt, "Border Highway," *El Paso Times*, February 16, 1976, sec. Speaking The Public Mind.

⁴⁷³ Mike Davis and Alessandra Moctezuma, "Policing The Third Border," *Architecture of the Borderlands*, *Architecture Design*, 69 (8 1999): 34.

⁴⁷⁴ Anne Boddington, "Editorial," *Architecture of the Borderlands*, *Architecture Design*, 69 (8 1999): 5.

But it was after the 100-year litigations that with the return of the territory of El Chamizal in 1963 that final settlement of the border aligned both documentations -maps and landscape, with the channeled river. As Boddington, in the editorial of *Architecture of the Borderlands* writes the border became manifest as cartographic, legislative line upon a map and as a physical device of separation. The spaces they define, the borderlands, are “...formed and defined by the social practices and perceptions of identity, as much as the objects and spaces within them.”⁴⁷⁵

Architects are inherently border-making agents: building the primitive hut meant to define the space of what was for human activities as opposed to those belonging to nature, to set the boundaries between the interior and the exterior. In time, villages, cities, and nations were established by these divisions, leading to the necessity to redefine borders as shared spaces. Spatial objects in urban landscapes - buildings, walls, highways, bridges, portals, etc. - represent both physical and imaginary borders⁴⁷⁶ – clean philosophical demarcations in Koolhaas terms⁴⁷⁷ – and function as both isolating barriers and unifying seams that affect the everyday life of the dwellers in these liminal spaces.

Borders have different meanings in different contexts, and they always relate to the experience of the border crosser. From the color of their skin, to documentation, to

⁴⁷⁵ Boddington, 5.

⁴⁷⁶ Lynch, “The City Image and Its Elements.”

⁴⁷⁷ Rem Koolhaas, O.M.A., and Bruce Mau, “Field Trip,” in *Small, Medium, Large, Extra-Large : Office for Metropolitan Architecture*, 2d ed. (New York, N.Y.: Monacelli Press, 1998), 215–33.

biocontrol elements, agents change the experience of border-crossing. In Etienne Balibar's words,

the idea of a simple definition of what constitutes a border is, by definition, absurd: to mark out a border is, precisely, to define a territory, to limit it, and so to register the identity of that territory, or confer upon it. Conversely, however, to define or identify in general is nothing other than to trace a border, to assign boundaries or borders (in Greek, *horos*; in Latin, *finis* or *terminus*; in German, *Grenze*, in French, *borne*).⁴⁷⁸

Discussions of borders relate to the definition of identities, national or otherwise.

Active or passive, voluntary or imposed, individual or collective. Thus, reducing the border to a single concept, is to abstract into a simple meaning a complex relation of meanings. Openly defying, or hiding under such borders, identities impossible to define - as Balibar commented- emerge and are regarded as non-identities. Since the origins of states, lines or zones, strips of land, the borderlands, which are places of separation and contact or confrontation, areas of blockage and passage, have existed. With the pre-WWII tendency of states to own their nationals, repudiating dual or multiple nationalities, and excluding the foreign, such appropriation became an essential reference of the collective communal sense, their identity.

But, by the postwar period, the world was starting to become what we would today call globalized. The relations of citizenship were changing. With the advent of mass communications, mass global tourism, and the imminent accessibility of commercial air travel the conditions under which individuals belonged to states were

⁴⁷⁸ Etienne Balibar, *Politics and the Other Scene*, Reprint edition (London Brooklyn, New York: Verso, 2012), 76.

about to be contested. With the borderless ideologies of the spiritual and social movements of the 1960s, border territories presented grounds of contestation, everchanging, international, inner, invisible, situated everywhere and nowhere.

The Puertas de México with their modern architecture can find historical precedents in Mexican traditions dating back to pre-Columbian times. In one way or another, it has always been a human necessity to mark and define the entrance to spaces, sacred or civic. The Nahuatl community that built the sacred city of Teotenango in the Valle de Toluca in Estado de México, built the Plaza del Jaguar, which constituted the main entrance to the ceremonial center. Located in a sunken part of the valley, a staircase that ascends on platform with an engraved jaguar figure – sacred representation of their god- gives access to the ceremonial space. Its signs, symbols, and paths marked the transition from the outer world to the ceremonial site.⁴⁷⁹ Simpler markers have been found to be used in the Mesoamerican cultures in the maps commissioned by the Spanish colonizers that appear in codices made during the colonial occupation. Symbols for mountains -tepetls- have been recently discovered to have been more likely have been mounds that actually existed, not in the landscape, but in the mapped territories as markers of their boundaries. A practice that the church will later replicate by making small rock platforms topped by a Christian cross to demarcate the already evangelized territories.⁴⁸⁰

⁴⁷⁹ Instituto Nacional de Antropología e Historia, “Zona Arqueológica de Teotenango,” accessed March 13, 2021, <https://www.inah.gob.mx/zonas/44-zona-arqueologica-de-teotenango>.

⁴⁸⁰ For more see Barbara E. Mundy, “Mesoamerican Cartography,” in *Cartography in the Traditional African, American, Arctic, Australian, and Pacific Societies*, ed. David Woodward and G. Malcolm Lewis, *The History of Cartography*, v. 2, bk. 3 (Chicago: University of Chicago Press, 1998).

Of the few PRONAF projects built, the Puertas de México were the most iconic. They were profusely photographed and used for postcards and promotional materials for the cities for which they were built. (Fig. 78) They are the projects that have better endured the passing of time and have not suffered the same fate as their contemporary commercial buildings from PRONAF. They represent still today the entrance to that dreamt-of México of the 1960s.

Una y otra vez, las arcadas de los cascarones de concreto cortan el aire de las aduanas mexicanas precisando la metáfora: son la amplia puerta de libre flujo, donde todo cabe, y la transparencia plena de las siluetas nítidas no deja duda alguna. Son también el marco de observación de un horizonte abierto que no esconde llaga ninguna (el desafío es, sin duda, riesgoso). Son además la respuesta a los fortines pertrechados de la desconfianza erguidos en las aduanas vecinas. Son, en todo caso, la invitación, al consumo, el ocio, y la inversión dolarizada. A estos mensajes y ligereza de formas les vienen por demás ajenos los pesados símbolos patrios, que ya no admiten la ecléctica sobreposición de significados.⁴⁸¹

Although the current imposition of razor-wire fence, video monitoring, and lately the construction of the failed Trump wall, the México / U.S. border is today one of the most permeable borders in the world. Its fourteen sister-cities constitute one of the most dynamic bi-national, bi-cultural, socio-political communities that share more than an economy and an environment. Bernardo Ponce, an editorialist in the *Excelsior* newspaper mentioned, “it frequently has been written that our country, for its geographic location, is

⁴⁸¹ Méndez, *Arquitectura Nacionalista*, 105. Translation: Again and again, the arcades of the concrete shells cut the air of the Mexican custom offices, rectifying the metaphor: they are the wide free-flowing door where everything fits, and the full transparency of the clear silhouettes leaves no doubt. They are also the window to observe an open horizon that does not hide any sore (the challenge is, without a doubt, risky). They are also the answer to the forts equipped with mistrust erected in the neighboring custom buildings. They are, in any case, the invitation to consumption, leisure, and dollarized investment. To the lightness of form and message, the heavy national symbols feel alien, they no longer admit the eclectic superposition of meanings.

a bridge-nation between two lifestyles; the one that has been forming in the United states, and that which is product of the hybridization of the old pre-Columbian cultures into the robust Hispanic ones.”⁴⁸²

The borders in the 1960s were the gateways to that bridge. The emphasis put on the gateways back in the 1960s as the receiving elements, as the first step was in words of Bermúdez “because we’re looking for the psychological effect. That the first impression that travelers receive is all-important.”⁴⁸³ Davis and Moctezuma say that, “all borders are acts of state violence inscribed in landscape.” that “Every wall and fence, checkpoint and pillbox, is a sundering of the integrity of nature and the right of man. The very existence of exclusionary borders, as all great radical thinkers have understood, constitutes a permanent crisis of human liberty.”⁴⁸⁴ But the gateways were not exclusionary borders, they were open, receiving and welcoming. Borders are more complex and messier than our comforting image of precise black lines on maps.

As messy as borders are, their organization and urbanization responded to that, and PRONAF wasn’t exempt from it. In a conference in California, Bermúdez couldn’t have been more candid about the intentions of PRONAF. He asked the attendants:

Now, I would like to ask a question: How important is Mexico to you Americans, from a strictly business-like point of view?

Well, from 1952 up to and including 1963, we have spent in purchases in the United States over 14 billion dollars, including purchases made by the Mexican border

⁴⁸² Bernardo Ponce, “Perspectiva,” *Excelsior*, January 30, 1963.

⁴⁸³ Antonio J. Bermúdez in Martha Cole, “U.S. Promotes City-to-City Mexican Border Projects,” *Fort Worth Star-Telegram*, June 22, 1963.

⁴⁸⁴ Davis and Moctezuma, “Policing The Third Border,” 34.

residents in the American side of the line. This figure show that we have been your customer number one in Latin America and the third in the world.⁴⁸⁵

He continued by explaining how, after the war of Independence the country underwent a process of finding its own identity and has been in a constant process of modernization.

Now, he said “We are in a second war of independence, an economic independence.”⁴⁸⁶

And like President Johnson has urged Americans to consume American, ‘we want Mexicans to consume Mexican. But we also want Americans to consume Mexican as much as we consume American.’ PRONAF and its gateways were about national identity, urban development, but also economic growth. They were to welcome tourists, and their capital. Bermúdez finished his speech by saying, “above the economic, social, cultural and urban changes that will take place [at the borders], to me the most important achievement is of an intangible nature, that is the fostering and strengthening of our international relations and friendship. To me that is the most important task that we have to achieve.”⁴⁸⁷

PRONAF and its Puertas program also helped to reconnect the borders with the center. Not only it provides the infrastructure, but psychologically the citizens felt they were being taken into account for the first time. The constant visits by the first level authorities to small towns like Piedras Negras, had an effect. The municipal president of

⁴⁸⁵ Bermúdez, “Addresses Delivered by Mr. Antonio J. Bermúdez. Director General of Mexico’s National Border Program. At the 40th Institute of World Affairs University of Southern California Pasadena, California,” 20.

⁴⁸⁶ Bermúdez, “Addresses Delivered by Mr. Antonio J. Bermúdez. Director General of Mexico’s National Border Program. At the Society of Pan American Culture Los Angeles, California,” 5.

⁴⁸⁷ Bermúdez, “Addresses Delivered by Mr. Antonio J. Bermúdez. Director General of Mexico’s National Border Program. At the 40th Institute of World Affairs University of Southern California Pasadena, California,” 23.

Piedras Negras, mentioned that PRONAF, makes [Piedras Negras/the border] to the central government.”⁴⁸⁸ Providing a possible reason why the Puerta de México still stands in that border city.

In other cities like Tijuana, maybe what Augé described about the spaces of transfer and transit is what ended happening at the Puerta de México, and so they didn’t care to conserve it as a monument. This space where people move in and through, was destined to oblivion, to destruction. Users left no trace of their pace. They didn’t find any traces of former users either. The “traveler [was] in constant dialogue with signs and symbols, yet no interaction takes place.”⁴⁸⁹ These non-places, to use Augé’s terminology, having lost all contact with history didn’t generate place-related identities. To continue with an Augean reading of the phenomenon of the Puerta de México in Tijuana, in the effort to attract tourists promoted the construction of a “localism,” promoting it and celebrating it constructing a cultural difference with rest of the city.⁴⁹⁰

⁴⁸⁸ Ruiz Ibanez, “Gateway Opened.”

⁴⁸⁹ Stephanus Schmitz, “Identity in Architecture? - A Construction?,” in *Constructing Identity in Contemporary Architecture: Case Studies from the South*, ed. Peter Herrle and Stephanus Schmitz (LIT Verlag Münster, 2009), 19.

⁴⁹⁰ Schmitz, 19.

CHAPTER 5

Border as Intersection / Hybridity

The contemporary architect, along with other artists, does not deny the treasure of the past, so rich, and richer than any other. They admire it but continue forward. And what happens? The newest international experiences get launched in Mexico but, without specifically intending to, the architects convert internationalism into a typical Mexican manifestation. On the other hand, those individuals who want conscientiously to follow the formal traditions will arrive, in spite of themselves, to utilize the forms and embellishments which are either popular or ancient, resulting again in something typically Mexican.⁴⁹¹

Mathias Goeritz

Introduction

With the end of World War II, the United States had not only become a feared military force in the world, but also an exporting force of democracy and consumerism in the forms of the Marshall Plan, the International Monetary Fund, the World Bank, tariff and trade agreements, Hollywood movies, Coca-Cola, Ford, and Wrigley's chewing gum.⁴⁹² According to Alexis McCrossen the, "dramatic innovations in U.S. manufacturing and marketing during the 1950s fortified this ideological linkage of

⁴⁹¹ Mathias Goeritz in Hans Beacham, *The Architecture of Mexico Yesterday and Today*. (New York: Architectural Book Pub. Co., 1969), 9.

⁴⁹² Alexis McCrossen, "Disrupting Boundaries: Consumer Capitalism and Culture in the U.S.-Mexico Borderlands, 1940-2008," in *Land of Necessity: Consumer Culture in the United States-Mexico Borderlands* (Durham: Duke University Press, 2009), 51–52.

capitalism with democracy.”⁴⁹³ The Cold-War “Kitchen Debates” completed the positioning of the US as the land of plenty and the land of choice.

México’s protectionist economy during the “Desarrollo Estabilizador” era (1940-1970) encouraged drives to nationalize consuming habits built on a sense of *Mexicanidad*. By the 1950s and 60s, ill prepared and with an underdeveloped mass production industry, the government encouraged Mexicans to consume Mexican, in order to protect the economy from dependency on the US. The government “encouraged the use of indigenous design for consumer goods, hoping to cash in on *indigenismo*, a Latin American nation-building strategy reaching back to the nineteenth and early twentieth centuries.”⁴⁹⁴ At the México-US borderlands these two economic programs separated two different worlds, generating the striking inequalities that would characterize the zone for years to come.

In 1961, attempting to remedy the disparity at the borderlands, President López Mateos launched the Programa Nacional Fronterizo- PRONAF. PRONAF was created with the main objective to promote the economic and social development of the borderlands, without forgetting the important task of centralization, of “compl[iance] to the mission of building a Mexico attached to the appreciation and reflection of its own genuine values.”⁴⁹⁵ Under the nationalistic discourse and hoping to at least balance the

⁴⁹³ McCrossen, 52.

⁴⁹⁴ Alexis McCrossen, *Land of Necessity: Consumer Culture in the United States-Mexico Borderlands* (Durham [NC: Duke University Press, 2009), 53, <http://public.eblib.com/choice/publicfullrecord.aspx?p=1170613>.

⁴⁹⁵ Programa Nacional Fronterizo, *National Border Program*, 2:3.

equation PRONAF wanted to attract as much American capital through tourism as possible. The program's fourth objective was

To transform the environment of the border towns creating cultural and recreational attractions with the idea of stimulating to its maximum the flow of tourism, in particular of families, which could only be achieved in the midst of order and morality.⁴⁹⁶

Recognizing that tourism was historically one of México's major sources of income, PRONAF used this to its advantage by promoting the consumption of Mexican products in its shopping centers. With Pani's design for the shopping centers, PRONAF becomes a space where three intentions converge: the economic, the cultural, and the aesthetic-architectural. Pani's buildings and planning become symbols and signs of a developed México that is not yet - but will be, what he had always designed for; an iteration of an "international architecture" that in his hands becomes Mexican. The first shopping centers for the borderlands were examples of typology being tried for the first time in México.

In this chapter I first explore how México became a tourist destination, and the role that architecture played in its construction as such -how architects and their active participation shaped place and space, giving identity to the Mexican nation. The historical "tour" starts with the Mexican American War, since the narrative focuses on American tourism and their preferences, finally arriving at the complicated history of tourism in the borderlands. Also, the chapter examines how its negative history contributed to the mis-

⁴⁹⁶ Bermúdez, *El rescate del mercado fronterizo: una obra al servicio de México*, 25.

constructed image that the centralist governments had of the borders, which was reflected in their intentions to clean-up the borderlands during the 1960s.

I will then continue to analyze and explain the implications and extents of PRONAF's project for the borderlands -their economic and cultural dimensions, and how they were translated into architecture by Mario Pani and his office. I make a pause to comment on the architectural debate about modernity vs. tradition in Mexican architectural discourse at the time, analyzing how Pani and his architecture responded to it. Continuing, I use the concepts of traditional architecture and modern-international architecture to analyze two typologies relevant to Pani's projects for the borderlands, the *Mercado*, and the *Shopping Center*. By tracing their histories, and presence in the borderlands I continue to explore their hybridization in Pani's projects for the shopping center for PRONAF, in which he designed shopping centers to sell Mexican products, culture, and identity. Let then the first section of this chapter serve as an introduction to the history of American tourism in México and the repercussions that it brought to constructing an image of the borderlands for both sides of the border.

México: A tourist destination.

The over 110,000 Americans soldiers who went to México during the 1846-1848 Mexican American War were at awe with the landscape, different lifestyles, and the rich history they found in the territory to which they brought violence. These experiences were reported back and became part of the American imagination of México for decades to come. By the mid-1880s, when two international railroad lines connected Mexico City

with El Paso, and Laredo, TX, American tourists began to travel to México. In just a few decades, the sites that marveled these tourist-soldiers became must-see places. President Porfirio Díaz seeing the potential for touristic destinations, dedicated efforts to their development.⁴⁹⁷

The first tourist maps available for American use were war maps produced by soldiers and war correspondents. Maps published early in the war by the *New York Herald Post* and *Weekly Tribune* in the form of battlegrounds were later adapted to orient readers to the country.⁴⁹⁸ (Fig.1) These maps guided American tourists, mostly former soldiers and their families back to México to visit certain places that appeared as “patterns of interest” in those reports written by soldiers between battles. Xalapa, between Veracruz and Mexico City (both sites of important battles) offered a lush tropical climate, but also it was described through “the imperial gaze, the male gaze, and the tourist gaze,”⁴⁹⁹ as a place with ladies that are “beautiful -strikingly so; and their manners are most agreeable and pleasing,” and men that “... are superior to those that we had met before with; more industrious and enterprising.”⁵⁰⁰ The area was appreciated also for its volcanoes, and nature. The next stop was Puebla, known for its colonial architecture, and textile industry, but also, it was an exotic stop for ice-cream made from ice collected from the Popocatepetl volcano. Cholula was next in the itinerary, and the

⁴⁹⁷ Andrea Boardman, “The U.S.-Mexican War and the Beginnings of American Tourism in Mexico,” in *Holiday in Mexico. Critical Reflections on Tourism and Tourist Encounters*, ed. Dina Berger and Andrew Grant Wood (Durham: Duke University Press, 2010), 22.

⁴⁹⁸ Boardman, 29.

⁴⁹⁹ Boardman, 27.

⁵⁰⁰ Andrea Boardman, “The U.S.-Mexican War and the Beginnings of American Tourism in Mexico,” in *Holiday in Mexico. Critical Reflections on Tourism and Tourist Encounters*, ed. Dina Berger and Andrew Grant Wood (Durham: Duke University Press, 2010), 37.

main attraction was the Virgen de los Remedios chapel built on the top of a pyramid.

Tenochtitlán and Mexico City were the last stops, described as

the great Plaza, the Cathedral, the Palace, and the noble streets which communicate with them, we were forced to confess not only that Humboldt's praises did not exceed the truth, but that amongst the various Capitals of Europe, there were few that could support with any advance a comparison with Mexico.⁵⁰¹

Americans had their preferred sites, and president Díaz added one to their list. In 1910, as part of the celebrations of the Independence centennial, the Teotihuacán pyramid site was opened to the public. He used the event “to bolster the national image, ... in order to present Mexico as a unified and modern nation with ancient and prestigious roots.”⁵⁰² (Fig.2) It was during the Díaz government that the so-called “Indian” antiquity became equated with Mexican identity. But not all “Indians” were considered equal; Díaz “continued the long-standing ideological tradition of exalting the Aztecs as the nation's founding culture, the people of Mexico City, and the historical seat of power.”⁵⁰³ Although the Porfiriato⁵⁰⁴ was one of the periods when indigenous communities were treated worst and were stripped of their lands, the government used “the sophisticated Indian past to dazzle and impress, to put Mexico on par with those in the canon of the world's great civilizations: with ancient Egypt, Greece, and Rome.”⁵⁰⁵

After the Revolution, governments put forth grand efforts in order to welcome tourists. As early as 1925 President Calles inaugurated a highways system in order to

⁵⁰¹ H.G. Ward in Boardman, “The U.S.-Mexican War and the Beginnings of American Tourism in Mexico,” 2010, 40.

⁵⁰² Bueno, “Teotihuacán. Showcase for the Centennial,” 54.

⁵⁰³ Bueno, 55.

⁵⁰⁴ Porfiriato is called the period during which Porfirio Díaz was president. It consisted of 1877-1910.

⁵⁰⁵ Bueno, “Teotihuacán. Showcase for the Centennial,” 55.

connect the country. Decades after Mexico's road commission took part in building the first major highway from Laredo, Texas, to Mexico City that was inaugurated in 1936 as part of the Pan-American Highway, they also continued building the network of modern highways from Mexico City to central tourist destinations like Acapulco, Guanajuato, Morelia, Oaxaca, Taxco, and Veracruz. An important factor to secure automobile travel was the collaboration with Petróleos Mexicanos (PEMEX), and their construction of a network of gas stations.⁵⁰⁶

México's golden age of tourism coincided with the 'Mexican Miracle,' (1940-1970). Miguel Alemán Valdez laid the foundations for the shift in tourism. Once México was making profit of its advantages of a temperate climate, pyramids, colonial architecture, coasts and their proximity with the US, Alemán introduced the concept of "sun and fun" shifting the gaze of the tourist. Acapulco became a focus for development, and an important international touristic destination. By the mid 1940s hotels were being built all along the Acapulco coast, and later important hotel projects by Pani (1952), Sordo Madaleno (1959) and others were developed. (Fig.3) Pani's project of the new airport (1954-55) was crucial for this growth. After WWII

Mexico also updated its image, marketing itself in tourism guides as a nation offering sleek, new hotels with all the modern amenities in addition to a land of the "exotic," featuring rustic getaways, indigenous culture, and folklore. Tourists could visit ancient pyramids and historic cathedrals one day and enjoy elite golf courses, fine dining, and luxurious hotels the next.⁵⁰⁷

⁵⁰⁶ Dina Berger and Andrew Grant Wood, eds., *Holiday in Mexico: Critical Reflections on Tourism and Tourist Encounters* (Durham: Duke University Press, 2010), 7.

⁵⁰⁷ Witherspoon, *Before the Eyes of the World*, 15.

Although the intention was still to impress the tourist with the offer of a blend of traditional and modern culture, marketed in the 1960s with the slogan “So foreign... yet so near,”⁵⁰⁸ the tourism at the borders, the nearest points to the US, took a different direction. “American tourists visited Mexico’s border cities expect[ed] risqué entertainment, sizzling-hot floor shows, glitzy casinos, and colorful racing culture.”⁵⁰⁹ Even risk-averse visitors frequented Spanish cultural attractions like bullfights and jai-alai matches. (Fig. 4) Red-light sectors had become magnets for predominantly male tourism, mainly soldiers visiting the border cities. Women, despite a bad-publicity campaign to dissuade tourist from cities like Tijuana, “frequented casinos and the horse and dog races, leading to the consumerist charge in buying *curiosidades de los mexicanos*, as well as high-end imports.”⁵¹⁰

PRONAF’s director Antonio J. Bermúdez, with the strong intention of changing this type of tourism, spoke candidly at a conference in California about PRONAF’s projects. Addressing the attendees, he asked:

Now, I would like to ask a question: How important is Mexico to you Americans, from a strictly business-like point of view?

Well, from 1952 up to and including 1963, we have spent in purchases in the United States over 14 billion dollars, including purchases made by the Mexican border residents in the American side of the line. This figure show that we have been your customer number one in Latin America and the third in the world.⁵¹¹

⁵⁰⁸ Witherspoon, 15.

⁵⁰⁹ Eric M. Schantz in Berger and Wood, *Holiday in Mexico*, 131.

⁵¹⁰ Eric M. Schantz in Berger and Wood, 131.

⁵¹¹ Bermúdez, “Addresses Delivered by Mr. Antonio J. Bermúdez. Director General of Mexico’s National Border Program. At the 40th Institute of World Affairs University of Southern California Pasadena, California,” 20.

Continuing, he explained how after the war of Independence the country underwent a process of finding its own identity and had been in a constant process of modernization. Now, he said ‘We are in a second war of independence, an economic independence.’ He implied that as President Johnson had urged Americans to consume American, ‘we want Mexicans to consume Mexican. But we also want Americans to consume Mexican as much as we consume American.’⁵¹² PRONAF projects were more than just about national identity, and urban development: a very important factor was concomitant economic growth. PRONAF was a program to welcome tourists, and their capital.

**PRONAF/
The Shopping Center to sell Artesanías Mexicanas**

The program’s initial economic analysis showed that in 1960, income derived from tourism in the border zone amounted to \$520 million compared to the only \$150 million received for the rest of the country. Municipalities like Mexicali, Tijuana, and Cd. Juárez, recorded a general internal income of \$160 million during that year. The same study showed that these numbers had no significant repercussions on the standard of living in the borderland cities, therefore actions were to be taken...

However, the fact that Mexico has this great show window sixteen hundred miles long, facing the country with the highest economic potential in the world urges us to transform it into a great commercial, recreational and cultural avenue. Through it we must display what Mexico and Latin America really are; it should be taken as an example of friendship, of good neighbor intentions, and cooperation in every respect, and having therefore, unthought of international designs.⁵¹³

⁵¹² Bermúdez, 20.

⁵¹³ Programa Nacional Fronterizo, *National Border Program*, 2:3.

It is interesting to note that the Spanish version of this text does not mention anything about such “unthought of international designs.” The inclusion of the “unthought of” designs for the borderland in relation to friendship, good neighbor intentions and “coordination” -as it would directly translate from Spanish – in the English version could suggest that it was modern architecture that would herald a new type of relationship between México and the US. Architecture was considered crucial and one of the means of action that PRONAF considered on behalf of México interest’s vis-a-vis the U.S. In order to achieve the program’s goals, it was relevant to:

Acquire land, construct buildings, create open spaces, parks and gardens; operate, rent, sell and in general manage real state property of the National Border Program. An important aspect of this concept is the establishment of the necessary facilities for storing, displaying and distributing Mexican and Latin American goods.⁵¹⁴

Architecture would take an important place in representing México in the borderlands. Modern architecture in particular was seen as a way to beautify the border cities built environment, to make their physical appearance more attractive for tourism, so it acts as one of the unifying elements that joined regions together: the borderlands with the center of México, but also the borderlands with the U.S.

As mentioned in Chapter 1 – *Border as Urban Artifact / Display*, PRONAF had ten main objectives that could be grouped in three categories that corresponded to particular actions to be carried out in the border zones: Those that reflected the establishment and development of new industrial enterprises to increase Mexican exports,

⁵¹⁴ Programa Nacional Fronterizo, 2:6.

those that emphasized the development of a new type of tourism, and lastly those that in conjunction with the first two sought the betterment of the standards of living of the border cities.

PRONAF's booklet carefully lists the means of action to meet the objectives of the program. It was considered relevant to,

acquire land, construct buildings, create open spaces, parks and gardens; operate, rent, sell and in general manage the real state property of the National Border Program. An important aspect of this concept is the establishment of the necessary material facilities for storing, displaying and distributing Mexican and Latin American goods.⁵¹⁵

Antonio J. Bermúdez furthers into the topic of the facilities for selling Mexican and Latin American goods in his book *El Rescate del Mercado Fronterizo*. By mentioning the urgent necessity of economic independence in the borderlands, he advises and urges the need for a change in the presentation of national products at such sale points.

Speaking about the “modern competition” that exists for sales points, he mentions that “la mejor mercancía del mundo será un fracaso si no se exhibe debidamente ante los ojos del cliente, de acuerdo con las técnicas mas avanzadas en material comercial.”⁵¹⁶ Henceforth, in order to break the habit of Mexicans necessarily going to the US to shop, and to attract more clients, he proceeds to describe what the shopping centers at the border should look like...

...de tal forma que agraden y atraigan al cliente, y que en estos establecimientos se encuentre un ambiente por todos conceptos amento y atractivo:

⁵¹⁵ Programa Nacional Fronterizo, 2:6.

⁵¹⁶ Bermúdez, *El rescate del mercado fronterizo: una obra al servicio de México*, 46. Translation: the best merchandise in the world would be a failure if it is not properly exhibited in the eyes of the client, according to the most advanced techniques in commercial matter

estacionamientos para automóviles, limpieza y amplitud en los comercios, empleados bien entrenados que sepan atender bien a la clientela, mercancías que puedan competir con cualquiera en calidad, en precio y buena presentación, y además abastecimientos amplios y oportunos.⁵¹⁷

Bermúdez's mention of the importance of parking lots, and the enjoyable aspect of the shopping center, but also its functional and operational aspects, is reminiscent of Gruen's book *Shopping Towns USA. The Planning of Shopping Centers*, which dedicates several chapters to the formal, functional, and operational aspects of the shopping center. His efforts and hand in the design of the shopping centers for the borderlands are strongly inspired by similar philosophies.

Modernidad vs. Tradición ¿Integración? / An architectural debate.

In 1953 Enrique Del Moral addressed the Colegio de Arquitectos after a series of lectures that discussed the 'crisis' of contemporary architecture and/or 'nuestra arquitectura,' questioning them "sería conveniente, por lo tanto tratar de precisar qué es lo que podemos considerar por 'moderno' y qué por 'nuestro' inquiriendo asimismo, por las implicaciones que estos términos encierran."⁵¹⁸ Del Moral's questioning to his colleagues carried the weight of being one of the most influential figures of functionalism

⁵¹⁷ Bermúdez, 46. Translation: in such a way that they please and attract the customer, and that in these establishments there is an environment for all concepts that is enjoyable and attractive: automobile parking, cleanliness and spaciousness shops, well-trained employees who know how to serve customers well, merchandise that can compete with anyone in quality, price and good presentation, and also ample and timely supplies.

⁵¹⁸ Enrique Del Moral, "Tradición Contra Modernidad," in *El hombre y la arquitectura: ensayos y testimonios* (México: Universidad Nacional Autónoma de México, 1983), 69. Translation: It would therefore be advisable to try to specify what we can consider by 'modern' and what by 'ours', also inquiring about the implications that these terms contain.

in the country alongside Carlos Obregón Santacilia, Juan O’Gorman, and José Villagrán García,⁵¹⁹ a former head of the National School of Architecture,⁵²⁰ and one of the head designers of the architecturally game-changing UNAMs Campus in Mexico City (1952). (Fig. 5) Before addressing any response to his questioning, del Moral offered a synthesis of the history of México from the “discovery of the Americas” to the present times, considering it crucial to understanding the circumstances of architecture in México at that moment.

Del Moral mentions in his speech that México was (is) still in the process of integrating the *modern world* that had collided with the local cultures during Colonization. In that painful process, the modern world of logic, science and reason, disintegrating “man” of “his” spiritual self, had created a division between the *popular* expressions of the uneducated, and the *modern* expressions of the educated, he explained.⁵²¹ For architecture, being an applied art, the expression of the architect already restricted by the economic, its collectivity, and the program, the limitations for expressivity were greater.⁵²² Either way, he mentions

En nuestro país, en multitud de ocasiones empleamos formas de la arquitectura llamada internacional, llevándola a sus últimos extremos expresivos. Pero el proceso creativo y la finalidad última, en gran medida, más pertenecen al mundo de la pasión y la fantasía que al de la lógica y la razón. ⁵²³

⁵¹⁹ Fernanda Canales, “La Modernidad Arquitectónica En México; Una Mirada a Través Del Arte y Los Medios Impresos” (Dissertation, Madrid, Spain, Universidad Politécnica de Madrid. Escuela Técnica Superior de Arquitectura de Madrid, 2013), 49–50.

⁵²⁰ Enrique Del Moral was head of the National School of Architecture from 1944-1949. See Fernanda Canales.

⁵²¹ Del Moral, “Tradición Contra Modernidad,” 75–76.

⁵²² Del Moral, 76.

⁵²³ Del Moral, 77. Translation: In our country, on many occasions we use forms of the so-called international architecture, taking it to its last expressive extremes. But the creative process and the ultimate goal, to a great extent, belongs more to the world of passion and fantasy than to that of logic and reason.

In essence, aesthetic considerations have been made to prevail over and despite others of a more purely logical character.

Likewise, del Moral delves into the contradictions into which Mexican architecture falls in order to follow the modern trends. The *zeitgeist*, he explains, had moved architecture to open and adapt to collective public life of modern times. Instead, in México spaces tended to be closed off the exterior by great blind walls – a feature eschewed by international architecture for its associations of privacy and reclusion, which have no place in the modern world. Although Mexicans have an ancient attraction to rough finishes, he adds, smooth and polished finishes had proliferated in Mexican architecture, making it more in-tune with the pulchritude and clean lines of modernity.⁵²⁴

For Del Moral, examples like the above demonstrate the conflict between modernity and tradition that exists in countries like México, a country where reason and logic lead to modernity, and the subconscious and passion to tradition. Arriving at a conclusion, del Moral writes:

Es por ello que las manifestaciones de nuestra arquitectura moderna, que algunos consideran como mas auténticamente representativas de nuestra mexicanidad, contienen arrastres -mas o menos conscientes, pero no por ello menos manifiestos-tradicionales, siendo por esto menos modernos. Estos “ingredientes”, que hacen que esas manifestaciones se vuelvan nuestras y se arraiguen a nuestro suelo -que no pueden trasplantarse y aparecer en otro sitio-, representan nuestro espíritu diverso, nuestra distinta manera de ser, sin que para lograrlo tengan que usarse formas pretéritas.⁵²⁵

⁵²⁴ Del Moral, 77–78.

⁵²⁵ Del Moral, 78. Translation: That is why the manifestations of our modern architecture, which some consider as more authentically representative of our Mexicanness, contain traits - more or less conscious, but not for that reason less manifest – of the traditional, not being for this reason less modern. These “ingredients”, which make these manifestations become ours and take root in our soil - which cannot be transplanted and appear elsewhere - represent our diverse spirit, our different way of being, without having to use forms of the past to achieve this.

He mentions that for him it was more important what spirit and logic inspires the creation of those works of architecture that represent the country, than those supposedly special conditions shaped by the environment, climate, location, etc. Indeed, the house made by a European and an indigenous person in the same place would be different, and both would respond to the environment, indicating that is not the materials or the medium what is important, but who and how they dominate them to respond to the environment.⁵²⁶

A version of this speech was published in Pani's *Arquitectura México* magazine in 1954,⁵²⁷ where Del Moral was part of the editorial board. Pani and Del Moral were close collaborators since 1947 when they started drafting the project for UNAM's campus and continued participating in multiple projects together until 1977.⁵²⁸ While Del Moral's preoccupations always resided in the architectural scale, Pani's were focused on the urban, and this is where the success of their collaborations came from. For UNAM's Campus Pani and Del Moral hybridized the international and the traditional. (Fig. 6) They hybridized, the tenets of modern urbanism -the functional city- with the monumental quadrangles and processional axis of the pre-Columbian cities of the Mexican valley; and architecturally, a fourteen-stories glass rectangular prism standing over pilotis and a rectangular glazed base, with the rock-made platforms, alabaster windows, and large-scaled murals on its facades.⁵²⁹ (Fig. 7)

⁵²⁶ Del Moral, 78.

⁵²⁷ Enrique Del Moral, "Modernidad vs. Tradición ¿Integración?," *Arquitectura México*, March 1954.

⁵²⁸ Larrosa and Noelle, *Mario Pani, Arquitecto de Su Época*, 174.

⁵²⁹ Mario Pani, and Enrique Del Moral designed the Torre de Rectoría for the UNAM Campus in 1952.

In other writings, Del Moral sharply exposes the case of stylistic *colonialism*, claiming that México cannot escape and negate the cultural imports and influence of Western Europe, the same way that Italians imported the gothic, the Spanish the renaissance, the Germans the baroque.⁵³⁰ But instead of considering this as a negative, what should be a preoccupation for architects is the authentic expression and interpretation of the zeitgeist through the Mexican way of being and understanding time and space, for it is the only way to imprint in the work “our” time and peculiarities.⁵³¹

Del Moral’s preoccupation with style, the general and its local variants, or the international and the traditional as he would later refer to them, started early in his career. Although the discussion arrived late in México due to the intellectual isolation that existed in the 1940s, he started to introduce into the discourse concepts from thinkers like Carl Gebhardt, José Ortega y Gasset, and Martin Heidegger into the architecture discourse.⁵³² His *Notas sobre el estilo* written in 1946,⁵³³ started to delve into the contradictions that he later explored in *Lo general y lo local* in 1948⁵³⁴, and the previously discussed *Tradición vs Modernidad ¿Integración?* His later work, both alone and in collaboration with Pani, and a series of other articles and public addresses continued his explorations around the topic.

⁵³⁰ Enrique Del Moral, “Notas Sobre El Estilo,” in *El Hombre y La Arquitectura: Ensayos y Testimonios* (México: Universidad Nacional Autónoma de México, 1983), 33.

⁵³¹ Del Moral, 33.

⁵³² Enrique Del Moral, “El Estilo,” in *El Hombre y La Arquitectura: Ensayos y Testimonios* (México: Universidad Nacional Autónoma de México, 1983), 129–38.

⁵³³ Del Moral, “Notas Sobre El Estilo.”

⁵³⁴ Enrique Del Moral, “Lo General y Lo Local,” in *El Hombre y La Arquitectura: Ensayos y Testimonios* (México: Universidad Nacional Autónoma de México, 1983), 39–44. First published in *Espacios* magazine. Issue 2. October 1948.

Del Moral explored the topic of the local, the general, the international, the traditional, and his historical accounts of the churrigüesco, colonial, neo-colonial, and neoclassic, in order to write about style. In particular his explorations on the topic were directed at finding a historical evolution of what was a Mexican style, and the particularities of it. In my reading of his work, Del Moral never arrived at a single conclusion, at the contrary he found that the mestizaje and modernization process that México was still undergoing were two of the causing factors of this ever-evolving style. He championed a style that changed according to the zone, and not because of climate or natural factors, but because of cultural ones; México being still very rich in different indigenous communities. The new programs required *general* solutions never attempted in the country, but to solve the problem of housing for Mexican families, like in the case of the multifamiliares, Mexican modern architecture was constantly evolving.

In reading Pani's architecture while analyzing with Del Moral's arguments, although it was considered by many of his detractors purely international and not Mexican enough, new interpretations can be taken out of it in relation to the projects that Pani designed for the borderlands to represent *Mexicanidad*. They contain traits of the traditional, although the traits might not read entirely as "manifest". These "ingredients," as he called them, could only have been the result of Pani's long work in México, for Mexican clients, in a Mexican context, and with Mexican programs, and "represent our diverse spirit, our different way of being:" a way of being that is changing, evolving, and undergoing a modernization. This way of being, especially at the borderlands, was about to meet an even more interesting challenge, the direct encounter of another culture. Even

though they don't use "forms of the past to achieve this," Pani's commercial and cultural centers at the borderlands were designed to represent México.

The Traditional / The Mexican Mercado

Mexico City underwent a major urban infrastructure reformation from 1952 to 1966. During the period of Ernesto P. Uruchurtu, *regente*⁵³⁵ of the Distrito Federal, many of the museums, parks, and major public buildings in the city were designed and built.⁵³⁶ It was also in this period that the grand mercado reformation project took place. Architects like José Villagrán García, Enrique Del Moral, Pedro Ramírez Vázquez, and Félix Candela among others, designed the new mercado buildings that would function as urban regenerators for the city; and that would also be the model for the mercado typology for the rest of the country for the years to come.

To speak about the mercado and its role in Mexican urban history, it is necessary to go back to its origins. The mercado as a set of spatial relationships, is an architectural construct that dates back to the pre-Columbian period. The mercado as a permanent space, an institutionalized place for commerce, within an urban environment has existed in parallel with the tianguis since the pre-Columbian period. The tianguis, according to the narrations of the colonial chroniclers, was a market or a mercado that was held every

⁵³⁵ From 1928 to 1997, Mexico City's government fell into the hands of the Departamento del Distrito Federal. Its director was named by the President of the Republic under the title of Jefe del Departamento del Distrito Federal, known as the regente.

⁵³⁶ Canales, "La Modernidad Arquitectónica En México; Una Mirada a Través Del Arte y Los Medios Impresos," 92.

five days, although not necessarily in the same place. It can be said that the tianguis was a periodical mercado. The main difference between both of them is that the mercado is primarily organized by local sellers, while the tianguis tended to be for traveling merchants. What brought these two systems of commerce into existence was the necessity of bringing necessary agricultural products, fish, and craft items to the city from more rural environments.⁵³⁷

The mercado and the tianguis concepts were colonized and forced to change, being hybridized under Spanish occupation. Constraints on their temporality, localization, and hierarchy were determined. These rules continued during the independent period, and with the advent of industrialization they were modified and codified as an architectural typology. The modernization of the city that came at the turn of the century brought new typologies like the department store, pushing the mercados to decentralize and expand to the streets, although the tianguis was still in existence. Later, the response of the government during the mid-century was to re-centralize them, providing with the help of architecture/engineering advancements, new infrastructure under which their activities could take place.

When the Mexicas decided to establish in the islet where they founded the city of Tenochtitlán in 1325, an expansionist project was set in motion. By 1372 The Mexicas came to control militarily and economically most of the pueblos in the vast region of

⁵³⁷ Maria de la Luz del Refugio Velázquez Rodríguez, “Evolución Histórico Urbana de Los Mercados En La Ciudad de México Hasta 1850” (Master en Arquitectura, México, D. F, Universidad Nacional Autónoma de México. Facultad de Arquitectura, 1992), 4, TESIUNAM - Tesis del Sistema Bibliotecario de la UNAM.

what it is today central México. As a highly hierarchical society, the Mexicas had a system of guilds that ran the markets. The *pochteca* was at the top of the rank, they were the traders of luxury goods, and raw materials; the *tlanecuilo* specialized in ceramics, gourd containers, and textiles; and the *tlacôcoalnamacac* were the common merchant of small goods, who also operated as peddlers.⁵³⁸ (Fig. 8) Tenochtitlán as the center of the empire had two major central mercados, Tlatelolco and the one in the central “plaza” of Tenochtitlán. Smaller mercados or tianguis happened in the barrios (neighborhoods) with different frequencies, and other specialized mercados were located outside the city. For gemstones and jewelry, the Mercado de Cholula; clothing and gourds at the Mercado de Texcoco; a mercado specializing in dogs was located in Acolman; and the slave market known as the Mercado de la Sal (salt market). All of these markets were open-air spaces, usually located in front of temples, sometimes with a portico structure. The merchandise was displayed in demountable ‘puestos’ (stalls), that formed rows and streets.⁵³⁹ (Fig. 9)

The contemporary name of the space where the mercados were held, in case of the tianguis, or located like with the permanent ones, is still unknown. The commonly used term “plaza” comes from the descriptions that the Spanish chroniclers, including the letters that Hernan Cortez sent to emperor Carlos V, where they use the words within their constructs to define the open space, similar to a Spanish plaza, where the mercados were located. Only friar Bernardino de Sahagún in his descriptions of the mercado leaves

⁵³⁸ Kenneth Hirth and Deborah L. Nichols, “The Structure of Aztec Commerce,” *The Oxford Handbook of the Aztecs*, January 26, 2017, <https://doi.org/10.1093/oxfordhb/9780199341962.013.11>.

⁵³⁹ Velázquez Rodríguez, “Evolución Histórico Urbana de Los Mercados En La Ciudad de México Hasta 1850,” 5.

out the word “plaza”, only making reference to the description of the tianguis’ organization and their activities.⁵⁴⁰

In several descriptions of the mercados, a common theme was their extreme cleanliness and the existence of a porticoed perimeter, the one similarity that they encountered with the medieval plazas where the European markets were commonly located. The Mercado de Tlatelolco was described by Cortéz as a place where:

Hay cotidianamente arriba de sesenta mil animas comprando y vendiendo donde hay todos los géneros de mercaderías que en todas las tierras se hallan, así como de mantenimientos de vituallas, joyas de oro y plata, plomo, de laton, ... Vendase cal, piedra labrada... Cada genero de mercadería se vende en su calle sin que se entremeta otra mercadería ninguna.⁵⁴¹

The mercado de Tlatelolco was erased, dismantled and dispersed after the fall of Tenochtitlán.

With Cortez’s new grid for the city, the main mercado was relocated to the former central open space of Tenochtitlán, which he re-named Plaza Mayor. The mercado was reserved for Spanish merchants only, and it functioned as the center of commerce for the whole Nueva España.⁵⁴² The Mercado de Tlateloco was divided into the Tianguis de San Juan, located in the southwest extreme outside of the grid where an original pre-colonial market was located, and the newly ‘built’ Tianguis de Juan Velazquez at the east side,

⁵⁴⁰ Velázquez Rodríguez, 7–8.

⁵⁴¹ Hernán Cortéz in Velázquez Rodríguez, 9. Translation: There are daily over sixty thousand “souls” buying and selling where there are all kinds of merchandise found in all lands, as well as maintenance of supplies, gold and silver, lead, brass jewelry ... [They] Sell lime, carved stone ... Each genre of merchandise is sold on its street without any other merchandise getting in the way.

⁵⁴² Jorge Olvera Ramos, “Introducción,” in *Los Mercados de La Plaza Mayor En La Ciudad de México*, Historia (Mexico: Centro de estudios mexicanos y centroamericanos, 2013), 3, <http://books.openedition.org/cemca/546>.

both left for the provision of indigenous people. The markets and tianguis outside the grid used the infrastructure of the aqueduct and bridge system as a scaffolding, while the ones inside were also organized according to the aqueduct and irrigation ditch system (which will later become the streets and avenues of the ‘modern’ city), since they were used as canals for the merchandise transportation network.⁵⁴³ According to the chroniclers descriptions each stall had a type of umbrella covering made out of braided palm tree over a wooden structure supported on a tripod-like wood stick structure. (Fig. 10)

After the failed indigenous uprising of 1692 and the burning of the central market, plans for the first ‘masonry’ mercado were started. During construction of the Mercado del Parían, (1695) several other open markets were relocated. Small mercados that had started to proliferate in private lots where the owners charged rent were dismantled by the city council. The centralization of the mercados was a measure of spatial control, since any open plaza represented the threat of revolt for the Spanish empire. By concentrating the markets not only could more control be exerted over taxes, but the concentrated markets could also function as policing outposts.⁵⁴⁴ The Mercado del Parían⁵⁴⁵ built in the middle of the Plaza Mayor was finished in 1703, and it consisted of two rectangular buildings, one within the other, so forming streets with ‘shops’ at each side. (Fig. 11) In the center was an open plaza with a fountain. The outer building had two floors and it was used to sell luxury products that arrived from China and the Philippines through

⁵⁴³ Velázquez Rodríguez, “Evolución Histórico Urbana de Los Mercados En La Ciudad de México Hasta 1850,” 14.

⁵⁴⁴ Velázquez Rodríguez, 20–21.

⁵⁴⁵ Mercado del Parían was named after the Philippines common name for this type of markets.

Acapulco via Manila.⁵⁴⁶ By 1776 around eighteen mercados with some number of masonry shops existed in Mexico City.⁵⁴⁷

The greatest transformation of the city during the Spanish colony happened during the viceroyalty of the Conde de Revillagigedo between 1789 and 1794. Among one of his biggest reforms was the Reglamento para el Mercado Principal,⁵⁴⁸ which established the guidelines for the location of the mercados in a capital city like Mexico City. It ordered that a central market located closest to downtown should exist, in addition to satellite smaller markets where only groceries should be offered. That organization persisted until the mid-century. It was also during this period that the Plaza del Volador became the second ‘built’ mercado in Mexico City. (Fig. 12) With a project by Ignacio Castera, row-sections of wooden shops were built, creating internal streets with eight entrances around the plaza. This time no central open-space or plaza was left -- instead, the shops continued in concentric rows, leaving a dominating fountain in the center of the space. The project by Castera exemplified the empire’s goals, a higher tax collection and a tighter control of the space. The model was used to convert other plazas into mercados. In plazas on plots of land owned by the city, the projects were built of masonry.⁵⁴⁹

⁵⁴⁶ “La historia del gran motín del Parián,” *MXCity / Guía de la Ciudad de México* (blog), December 11, 2016, <https://mxcity.mx/2016/12/motin-del-parian/>.

⁵⁴⁷ Velázquez Rodríguez, “Evolución Histórico Urbana de Los Mercados En La Ciudad de México Hasta 1850,” 25.

⁵⁴⁸ The Regulation for the Main Market, also ordered the removal of any other seller from the Plaza Mayor, leaving the plaza open for military and civic ceremonies. The plaza got paved with stone and four fountains were installed symmetrically at each corner.

⁵⁴⁹ Velázquez Rodríguez, “Evolución Histórico Urbana de Los Mercados En La Ciudad de México Hasta 1850,” 76–77.

It is important to consider that the Spanish used the mercados during the colonial period for more than their economic function. They were in addition tools of control. They served as a mechanism to control the merchandise that was distributed among the inhabitants, and of the ‘socialization’ of the indigenous communities. Like the open chapels in the earlier times of the Spanish conquest had functioned as spaces for the Great Conversion, they were places of gathering and engagement.⁵⁵⁰ The mercados, now were used as catalyzers of the mestizaje, since they promoted sociability and encounters between the different castas.⁵⁵¹

After the independence movement⁵⁵² the urban chaos that Mexico City was immersed in was a reflection of the political situation of the country during the first fifty years of the Republic. Most of the main mercados in the city were ratified and institutionalized as early as 1827. After the attack at the Spanish controlled Mercado de El Parián in 1828 most of the stores were left vacant and on June 27, 1843 President Antonio López de Santa Anna ordered its demolition to build a monument to commemorate the independence.⁵⁵³ From that monument only the zócalo⁵⁵⁴ was built. (Fig. 13)

Modernization and industrialization of the country have been credited to the efforts of President Porfirio Díaz, who stayed in power for over thirty-one years. When

⁵⁵⁰ John McAndrew, *The Open-Air Churches of Sixteenth-Century Mexico : Atrios, Posas, Open Chapels, and Other Studies*. (Cambridge, Mass.: Harvard University Press, 1965), 348.

⁵⁵¹ Olvera Ramos, “Introducción,” 7.

⁵⁵² The Mexican Independence movement started in September 16, 1810 and the war ended in September 27, 1821 with the entrance of the Ejército Trigarante to Mexico City.

⁵⁵³ “La historia del gran motín del Parián.”

⁵⁵⁴ The direct translation of zócalo is plinth or baseboard but is also the name with which the Plaza Mayor has been known since.

Díaz became president (1877), few public mercados were covered, most of them were wooden structures: highly flammable and in very poor shape. According to the architectural historian Israel Katzman, the first mercado in Mexico City built with an iron structure was the Mercado de Guerrero in 1870, of which there is no architectural documentation. Roberta Vasallo in her article *La construcción de los mercados públicos de estructura metálica en la Ciudad de México durante el Porfiriato*,⁵⁵⁵ presents two projects for mercados of metal structure with Polonceu⁵⁵⁶ trusses, signed by architect Antonio Torres Torrija, the Mercado Principal (formerly the Mercado del Volador) from 1873, (Fig. 14) and the Mercado de San Lucas in 1880.

In 1880, Torres Torrija also projected one of the most important mercados in the city, the Mercado de la Merced which was designed with a mixed structure of masonry columns and a metal-truss roof. The building had to be remodeled shortly after it was built, and in 1890 it was reconstructed with a complete metal structure. Blanco built three other mercados in Mexico City between 1887 and 1888.

As part of Porfirio Díaz's efforts to regulate life in Mexico City, he formed the Comisión de Mejoras y Construcción de Mercados⁵⁵⁷ in 1901, directed by the engineer Miguel Ángel de Quevedo.⁵⁵⁸ With the modernization and 'frenchification' that Porfirio

⁵⁵⁵ Roberta Vasallo, "La Construcción de Los Mercados Públicos de Estructura Metálica En La Ciudad de México Durante El Porfiriato," *Boletín de Monumentos Históricos*, no. 38 (2016): 78–99.

⁵⁵⁶ The Polonceu truss takes its name from its creator Camille Polonceu. It is a truss roof construction method invented in 1839 that combined wood elements with iron braces.

⁵⁵⁷ Commission of Market Improvement and Construction.

⁵⁵⁸ Mario Barbosa Cruz, "Rumbos de Comercio En Las Calles: Fragmentación Espacial En La Ciudad de México a Comienzos Del Siglo XX," *Scripta Nova. Revista Electrónica de Geografía y Ciencias Sociales* X, no. 218 (August 1, 2006), http://www.ub.edu/geocrit/sn/sn-218-84.htm?fbclid=IwAR15_80nNhhN6zFPBnAm2cBWzH2bT50rUzjHrNHHdj-_lwpNrVjHtjxtXIU.

Díaz intended for the country, railroad stations, banks, circuses, cemeteries, gardens, and *grand magasins*-like stores started to proliferate. During this period in Mexico City the Mercado Siglo XX in 1901 in Azcapotzalco, and the Mercado de La Lagunilla also called de Santa Catarina in 1905 were built; (Fig. 15) the Mercado Dos de Abril in 1903, and the Martínez de la Torre in 1908 were renewed; and the Mercado de San Cosme in 1902 was extended.⁵⁵⁹ At the same time many other mercados were built in the rest of the Republic with the same construction methods.

By the early 1950s the areas surrounding the main mercados in downtown Mexico City were invaded by street sellers. The existing mercados were proving insufficient for the growing needs of the modern city, and the merchants refused to leave the commerce zones, setting their stalls on the outsides of the existing structures. In the case of the Mercado de la Merced, located around six blocks from el Zócalo, the street stalls came all the way up to the Palacio Nacional⁵⁶⁰ building that fronted el Zócalo. Ernesto P. Uruchurtu, “el regente de hierro,”⁵⁶¹ ordered the recuperation of the public roads of the Centro Histórico⁵⁶² of Mexico City and devised a program, el Programa de Rescate, for the re-ordering of the city through the construction of urban infrastructure. During his fourteen-year term more than one hundred and fifty markets were built in the city for

⁵⁵⁹ Vasallo, “La Construcción de Los Mercados Públicos de Estructura Metálica En La Ciudad de México Durante El Porfiriato,” 90.

⁵⁶⁰ Palacio Nacional was built for the viceroy during the Spanish colonization over the rubbles of Moctezuma’s palace, the ruling house of the Aztec empire. It fronted the main plaza in Tenochtitlán, where the Spanish destroyed the temples that surrounded it, and built their palaces and the cathedral.

⁵⁶¹ Ernesto P. Uruchurtu’s methods to beautify the city often included the use of police force to evict and prevent the relocation of the street sellers. The “regent of steel” nickname refers to the strong control that he exerted over the city during his period.

⁵⁶² Centro Histórico refers to the area in downtown Mexico City where the Spanish laid out their first grid and where most of the colonial buildings are located.

50,000 selling posts where open.⁵⁶³ (Fig. 16) Although his methods to evict the street sellers have been criticized for the brutal use of violence and harassment, in 1955-1958 alone sixty-nine markets with space for more than 29,000 vendors were opened.⁵⁶⁴

The Programa de Rescate (the rescue program) involved most of the architects that were aligned with the party in power, PRI. Pedro Ramírez Vázquez and Rafael Mijares in collaboration with Félix Candela designed and build fifteen mercados in two years, among them: La Lagunilla, Coyoacán, Tepito, and Balbuena. Enrique Del Moral did the Mercado de la Merced (1956). Mario Pani's Mercado de Cuernavaca (1963), and Alejandro Zohn's Mercado Libertad in Guadalajara (1959), were the product of the positive reaction that the mercado building program received for the beautification of Mexico City's downtown area.

Del Moral designed the Mercado de la Merced following a deep analysis of the existing mercado and its surroundings. After evaluating the type of sellers and number of stalls inside and out and following a 'depuration' that purged more than 2,000 stalls, the project required 60,000 sqm area for 5,525 vendors. The program was divided into six different buildings. (Fig.17) The two main buildings, connected through an overpass, housed the stalls for fruits, vegetables and groceries. One was destined for food service, serving 1,000 diners at the same time. Two were used for clothing, footwear, and other articles, and the rest for household products and flower stalls. The two main buildings

⁵⁶³ John C. Cross and Marcela Pineda Camacho, "El Desalojo de Los Vendedores Ambulantes: Paralelismos Históricos En La Ciudad de México," *Revista Mexicana de Sociología* 58, no. 2 (1996): 95–115, <https://doi.org/10.2307/3540970>.

⁵⁶⁴ Ingrid Bleynat, "The Business of Governing: Corruption and Informal Politics in Mexico City's Markets, 1946–1958," *Journal of Latin American Studies* 50, no. 2 (May 2018): 355–81, <https://doi.org/10.1017/S0022216X17000785>.

were shaped by a set of opposing curved concrete-shell roof that ran through the length of the shopping stall lanes. The difference in height allowed for indirect lighting and cross ventilation. The other buildings consisted of a series of metal structure frames, with laminated tin roofs.⁵⁶⁵ (Fig. 18)

The new market structures were made possible thanks to the technical innovations of Candela's paraboloid structural systems. Since Candela first introduction of light concrete-shell structures in the early 1950s, the design and construction of large open-space buildings was made affordable and fast. Even considering that Candela charged double for the concrete shells in case "they fall" but that his company Cubiertas Ala made up with poorly paid, social security unprotected, exploited labor.⁵⁶⁶ The mercados required halls with large spans of open flexible space, covered with roofing solutions ideally requiring minimal structural supports, and Candela's structures offered a "not only cheap but handsome"⁵⁶⁷ solution.

Ramírez Vázquez, recognizing the aesthetic values in the inverted umbrella structures, invited Candela to collaborate on the design of the mercado de Coyoacán. For Ramírez Vázquez the concrete inverted umbrella resembled the use of traditional palm umbrellas, and tianguis stalls around the country that are commonly covered with inverted umbrella-shaped fabric ceilings.⁵⁶⁸ (Fig. 19) The structural solution resolved between Ramírez Vázquez and Candela was not within budget and technically adequate, it

⁵⁶⁵ Enrique Del Moral, "Mercado de La Merced," *Arquitectura México*, December 1963.

⁵⁶⁶ For more see Pendás, "Fifty Cents a Foot, 14,500 Buckets."

⁵⁶⁷ Candela in Pendás, 17.

⁵⁶⁸ Ramírez Vázquez, *Ramirez Vazquez en la arquitectura.*, 218–19.

was also a solution that took into account the traditional and vernacular forms of organization and covering aesthetics that the tianguis presented.⁵⁶⁹ For Ramírez Vázquez this last factor was as important as the functional, since it provided an element of historical reference and architectural identity. The solution proved to be a success. The mercado de Coyoacán gained the acceptance of the merchants and shoppers as well, and the operation was repeated for the rest of the mercados built under their collaboration. (Fig. 20 & 21)

The architectural solutions devised by Del Moral, and the Ramírez Vázquez-Mijares-Candela collaborations, became an architectural language adopted for the mercados in México City, and in the rest of the country. Minor adaptations related to climate and location were made to the models, but the roofing structure solution became a staple element.

The International / Victor Gruen's Shopping Centers

In 1960, Victor Gruen published one of the most influential books that contributed to the suburbanization culture of the United States, *Shopping Towns USA. The Planning of Shopping Centers*. In it, he presented the shopping mall, which emerged as one of the few new postwar typologies. The book, he warns, has been written by an architect, himself, and an economist, Larry Smith. The shopping mall, he says, “also represents one of the rare instances in which a number of individual business enterprises,

⁵⁶⁹ Pedro Ramírez Vázquez, *Ramírez Vázquez*, ed. Javier Pizarro (México: García Valdés, 1990), 42.

in banding together, are ready to submit certain over-all rules in order to further their common welfare.”⁵⁷⁰ Because of this cooperative spirit, the grouping of structures, and the service that they provide to a multitude of human beings, he considers it necessary to designate shopping towns.

The book centers its analytical work and its principles for planning in the U.S. It recognizes that many other centers had been built in Canada and Latin America in the previous decade, the period of study, but claims that they were designed under principles from the U.S.A. Of the book’s three parts, Part I deals with the prerequisites of a mall, Part II, their planning, and Part III, their operation. Anticipating the development of the shopping center as a typology, the authors mention:

inasmuch as this book deals with “planning” our observations and discussions are restricted to the “controlled” or “planned” shopping center. We have, of course, expressed our personal views concerning the philosophical foundation of planning, and the direction that planning and design procedures should, in our opinion take. Thus, the views expressed are necessary subjective. ⁵⁷¹

Gruen provides a quick introduction to the history of the market square plaza in Europe and its arrival in the United States. Tracing it back to the Greek agora and the Roman forum, he stops to describe the medieval market square as the social, commercial, religious, cultural, and usually geographical center of the city.⁵⁷² The City Hall, Guild Halls, Cathedral, merchants, and craftsmen surrounded the plaza, and it became the center for the fairground, entertainment, and marketplace. This was the model that the

⁵⁷⁰ Victor Gruen, *Shopping Towns USA; the Planning of Shopping Centers*, (New York: Reinhold Pub. Corp., 1960), 11.

⁵⁷¹ Gruen, 14.

⁵⁷² Gruen, 18.

settlers brought to towns in the Midwest and New England, which persisted until the Industrial Revolution changed the character of the city. With the construction of factories, and the proliferation of industrial slums, life in the inner cities became more difficult to endure and the exodus to the suburbs begun.⁵⁷³ It is important to note that for the borderland's cities, the model of the market square plaza in the oldest cities was that of the Spanish, since the territory was part of New Spain, then Mexican land, before becoming the United States.

Giving a quick summary of the evolution of the American city, and the need for the shopping mall, he explains: As the cities grew, and sprawled thanks to the easy accessibility of the automobile as a means of transportation, modern suburbia was born. "Stores, which followed their customers into the suburbs, were no longer provided with the obvious predetermined locations such as near railway stations. For the customers no longer emerged at defined points; he and his automobile were everywhere."⁵⁷⁴ The relocation of the stores happened as a consequence, highway stores started to appear, and with them curb parking, parking meters, and traffic. A new urban relocation was provoked leaving these areas, once again, like when people fled from the downtown of the cities, alone, deteriorated, and undesirable. "Planning, [he says] is needed to bring order, stability and meaning to chaotic suburbia;" And concludes with a recommendation for the optimal planned space for suburban commerce.

The basic need of the suburban shopper is for a conveniently accessible, amply stocked shopping area with plentiful and free parking. This is the purely practical

⁵⁷³ Gruen, 19.

⁵⁷⁴ Gruen, 22.

need of which the shopping center was originally conceived and which many centers most adequately fulfill.⁵⁷⁵

But for Gruen, the shopping center should also accommodate other activities. His initial ideas included the incorporation of civic and social activities for the communities that surrounded them. They would be the modern-suburban space for community life that the “Greek Agora, the Medieval Market Place and our own Town Squares provided in the past,”⁵⁷⁶ he wrote. At the same time that they provide services, and fulfill consumer needs, they should serve their civic, cultural, social community needs, in order to enrich their communities’ lives.

For the 1960s book Gruen had already written about, experimented, and designed a great number of shopping centers. The first mention of the shopping center as a concept was in an article for *The Architectural Forum* in May 1943, titled *New Buildings for 194X*, in which the magazine prompted a prominent group of architects to come up with projects for different building typologies that would help to create better communities in a hypothetical postwar town of 70,000 inhabitants. (Fig. 22) One of the main stipulations for the proposals, which directly affected the concept for the shopping center, was that “commercial structures for stable, long-term, investment will, in the postwar period, show greater emphasis on light, air and similar amenities as factors tending to reduce turnover and retard obsolescence.” This came alongside “the requirement that all

⁵⁷⁵ Gruen, 23.

⁵⁷⁶ Gruen, 24.

structures be provided with adequate off-street parking.”⁵⁷⁷ These two factors defined the shopping center.

For the magazine, Victor Gruenbaum⁵⁷⁸ and associate Elsie Krummeck (wife) proposed a U-shaped open-air (unenclosed) shopping center, with the possibility of expansion (which would make a rectangular shaped building with a central patio), with room for parking on both short ends. (Fig. 23) Although inserted into an urban environment, (Fig. 24) the shopping center presented features of the future sub-urban shopping center. Their proposal read:

Shops could be grouped in one building surrounding a landscaped area, as in this scheme. [Fig.23] With the exception of the main entrance the outside is modes in character... Each end of the block has parking space and loading and unloading are carried behind screen walls. For the shoppers there is a covered walk connecting all stores, a restful atmosphere and protection from automobile traffic.⁵⁷⁹

For their proposal they include the use of “new” materials, transparent plastic used in air-warfare for showcases, opaque plastics to cover columns and walls, and translucent plastic for the entrance pylons. Anticipating concerns about loss of individuality for the shops, their system offers a common shell, wherein the shopfronts have more liberty of design. The roof extends to form the covered walkway resting on the columns that surround the patio, the element that gives the complex its cohesive identity. (Fig. 25) They also predict that “larger centers could be built on the same principle, covering

⁵⁷⁷ “New Buildings for 194X,” *The Architectural Forum*, May 1943, 69–70, [//catalog.hathitrust.org/Record/000599981](http://catalog.hathitrust.org/Record/000599981).

⁵⁷⁸ Victor Gruen, née Gruenbaum arrived in the US in 1938 after escaping Hitler’s invasion to Vienna.

⁵⁷⁹ “New Buildings for 194X,” 101.

several blocks. [And that] automobile traffic could be diverted around such centers or if necessary, under them.”⁵⁸⁰

Their concept would not come to reality until the spring of 1954 when the Northland Shopping Center in suburban Detroit opened its doors. In 1948 Gruen earnestly pursued Oscar Webber, the president of Detroit’s landmark shop J.L. Hudson, after a visit to city during a flight layover. After a convoluted process, his Jewish background being one complicating factor, he convinced Webber to be the leader of the “planning of suburban branch stores around his own ‘shopping towns.’”⁵⁸¹ The Northland Shopping Center was built on an 80 acre plot and consisted of “sixty different types of merchandising and service facilities, ranging from dress shops to cigar kiosks, with parking space for 5500 customers’ cars and 900 employee cars.”⁵⁸² 100 more acres were left for expansion, both for the shops and parking lots, and as a buffer against the residential area. A green belt was introduced between the public road and the inner roads of the shopping center, separating high and low speed traffic. In the horizontal sense pedestrian and car traffic was separated, and in the vertical, clientele and merchandise.⁵⁸³ The shopping center was clearly designed for and “completely dependent on private automobile traffic”⁵⁸⁴ as its main customer. (Fig. 26)

⁵⁸⁰ “New Buildings for 194X,” 101.

⁵⁸¹ Jan Logemann, Gary Cross, and Ingo Köhler, *Consumer Engineering, 1920s-1970s: Marketing Between Expert Planning and Consumer Responsiveness* (Cham, SWITZERLAND: Springer International Publishing AG, 2019), 85, <http://ebookcentral.proquest.com/lib/upenn-ebooks/detail.action?docID=5781066>.

⁵⁸² Logemann, Cross, and Köhler, 85.

⁵⁸³ Victor Gruen, *Centers for the Urban Environment; Survival of the Cities*. (New York: Van Nostrand Reinhold Co., 1973), 27.

⁵⁸⁴ Gruen, 24.

In contrast to the ideas of the *Architectural Forum* 1943 proposal, Northland was organized not around a central landscaped patio, but around the 470,000 sqft four-story Hudson's store – the largest built at the time, at the insistence of Oscar Webber.⁵⁸⁵ Three of its sides were surrounded by tenant buildings. (Fig. 26) The cohesive image of the center was guaranteed by design controls, such as standard lettering type for all signs, set in 'Mondrian-like frames,' designed by Alvin Lustig.⁵⁸⁶ The covered colonnades provided protection from the weather and guided the shoppers around the public spaces between buildings where landscaped parks, courts, and plazas modeled after European cities were located. (Fig. 27) Gruen's wish for the shopping center to become a community point is shown in his intention of including club rooms, meeting halls, a public auditorium, a common kitchen, public toilets, and a daycare.⁵⁸⁷

With the great success of Northland Shopping Center by the fall of 1954, (now separated from Krummeck both personally and professionally) the newly founded VGA office had already designed fifteen shopping centers. With much experimentation in the meantime, the project for the Southdale Shopping Center in the Minneapolis suburb of Edina, Minnesota arrived to change the game. At the recommendation of Oscar Webber, Gruen met the Dayton brothers, the heirs of the Dayton company, to work on several projects. A couple of years before Gruen's involvement, Donald D. Dayton announced his plans for a \$10 million shopping center and residential area project for the Edina suburb. The project was very much aligned with Gruen's ideals of a shopping center that

⁵⁸⁵ Gruen, 23.

⁵⁸⁶ Gruen, 30.

⁵⁸⁷ Logemann, Cross, and Köhler, *Consumer Engineering, 1920s-1970s*, 85.

promoted social and cultural integration of the community and included a school, a park, a playground, an amusement center, restaurants, nurseries, office buildings, a medical center, an auto service station, and a fire station, all of these in an 86-acre section of a 500-acre plot of land. The Dayton company had planned to leave a big buffer zone to control future development.⁵⁸⁸

The extreme weather of Minnesota only allowed for 126 ‘ideal weather shopping days’ per year, thus the open-air shopping center model that Gruen had been trying on would not be an adequate solution for the Dayton’s shopping center. But yet another complication was added to the project. Dayton’s, in contrast to J.L. Hudson in Detroit, had a great competitor: Allied Stores Incorporated, who were also planning on developing their own shopping center in close proximity. Gruen found himself playing the role of “matchmaker” between the two rival companies.⁵⁸⁹ Two magnet stores were proposed for the shopping center and, Gruen proposed what he called an ‘introvert’ design, a center where the courts and public areas were covered and climatized. (Fig. 28) The shopfronts would face glass enclosed malls and courts, illuminated and climatized “to give the visitors the illusion of being out-of-doors in a paradise of ‘perpetual spring,’”⁵⁹⁰ where even the central market square would be lined with trees. Gruen compared his solution to European precedents, “the Galleria Vittorio Emanuele in Milan, and many of the nineteenth-century arcades.”⁵⁹¹ Meanwhile in the media, *Architectural*

⁵⁸⁸ Logemann, Cross, and Köhler, 87.

⁵⁸⁹ Gruen, *Centers for the Urban Environment; Survival of the Cities.*, 33–34.

⁵⁹⁰ Logemann, Cross, and Köhler, *Consumer Engineering, 1920s-1970s*, 88.

⁵⁹¹ Gruen, *Centers for the Urban Environment; Survival of the Cities.*, 33.

Forum praised his “‘imaginative distillation’ of downtown’s magnetic elements – the variety, the lights, and color, the business and bustle,”⁵⁹² but with an improved and ‘manufactured’ metropolitan atmosphere without the dirt and the chaos. (Fig. 29)

Though Gruen was not alone in evangelizing shopping centers throughout the US, it was he who presented the most articulate ideas, and who acted as “the spokesman of a movement for a ‘truly new building type.’”⁵⁹³ Morris Ketchum, former colleague of Gruen was also designing shopping centers, and had built the Shopper’s World center outside Boston by 1951. (Fig. 30) John Graham also opened a shopping center before Gruen, the Northgate in Seattle with the Bon Marché as the magnet store, that opened in 1951. (Fig. 31) Later came projects like the Gulfgate Mall in Houston, 1956; the Northshore Mall in Peabody, Massachusetts, 1958; the Ala Moana Center in Honolulu, 1959; and the College Grove Shopping Center, in 1960, an outdoor shopping center with a three-story department store in San Diego, in the México-US borderland with Tijuana.⁵⁹⁴

⁵⁹² Logemann, Cross, and Köhler, *Consumer Engineering, 1920s-1970s*, 89.

⁵⁹³ Logemann, Cross, and Köhler, 86.

⁵⁹⁴ “PCAD - Graham, John and Company, Architects and Engineers,” accessed February 7, 2021, <http://pcad.lib.washington.edu/firm/476/>.

The Shopping Center at the Borderlands / The U.S. Case vs. México

Brownsville, TX

By the early 1960s the Brownsville community still didn't have a shopping center nearby. They had to resort to other options until their own shopping center, the Amigoland mall, opened its doors in 1974.⁵⁹⁵ Only 30 miles away, in the city of Harlingen, Texas the first shopping center in the vicinity opened in 1968. The Sun Valley Mall was located on a 27-acre plot of land it consisted of a 500 by 40 feet enclosed concourse lined with stores on both sides, with 326,000 sqft leasable area, and a parking lot for 2,600 automobiles.⁵⁹⁶ One more option came later just 60 miles from Brownsville in the McAllen-Pharr, Texas area. The El Centro shopping center opened its doors in 1972, but by then the plans for Amigoland were already advertised in Brownsville newspapers, and The Sun Valley Mall was definitely closer in distance.

Matamoros, Tamps.

Mario Pani addresses the problem of the shopping centers by following very similar guidelines to Gruen. In trying to trace Gruen's work presence and relevance in México, there is only one trail to be followed. In David J. Azrieli's thesis, *The Architect*

⁵⁹⁵ J.C.Penney, "Advertisement. Penney's Downtown Brownsville Is Closing January 5yh." (The Brownsvile Herald, January 2, 1974).

⁵⁹⁶ "Sun Valley Mall Shopping Center Opens Wednesday," *Valley Morning Star*, November 19, 1968.

as Creator of Environments: Victor Gruen, Visionary Pioneer of Urban Rehabilitations,

he mentions a list of exhibitions where his work was presented in México in 1952.⁵⁹⁷

During that year the VIII Congreso Panamericano de Arquitectura en México was visited by delegations from various parts of the continent. The congress topic was urban planning: “En búsqueda y planeamiento de la doctrina de la planificación y en los problemas sociales de América....”⁵⁹⁸ Walter Gropius and Frank Lloyd Wright were invited as guests of honor.

For such event México prepared several exhibitions at UNAM’s new campus, using it as the central piece of the architectural tours. Other exhibitions consisted of works from the participant countries, the U.S. had two exhibits, the main one dedicated to Frank Lloyd Wright’s work and a secondary one curated and hung by Morris Ketchum.⁵⁹⁹ It was in this second exhibit in which Gruen’s work was presented, but there is no record of which projects. In any case, by 1952 Gruen’s work on shopping centers was not yet fully developed.

The book *Shopping Towns USA. The Planning of Shopping Centers* (1960) was never reviewed in *Arquitectura México*, or any of the other well-known Mexican architecture magazines, and the book has never been published in Spanish. But it is also worth mentioning that by the 1960s, when PRONAF was being designed, the Northland Shopping Center in Detroit and the Southgate in Minnesota were both already huge

⁵⁹⁷ David J. Azrieli, “The Architect as Creator of Environments: Victor Gruen, Visionary Pioneer of Urban Rehabilitations” (Master of Architecture Thesis, Ottawa, Ontario, Carleton University, 1997), 133.

⁵⁹⁸ Carlos Lazo, “VIII Congreso Panamericano de Arquitectos,” *Espacios*, January 1953, 20. Translation: In search and planning of the doctrine of planning and in the social problems of America this congress meets.

⁵⁹⁹ Julian Levi, “Pan American Congress,” *Oculus. American Institute of Architects, New York Chapter. Journal* XV, no. 2 (November 1952).

successes.

Matamoros was considered by PRONAF one of the most important Mexican border towns since it provided easy access to the eastern coast of the United States, and as such was the first city to be developed by Pani. Its population by the date the article *Programme National des Villes Frontieres*⁶⁰⁰ was published was over 100,000, and for that reason, the article mentions, PRONAF decided to focus particular efforts in terms of planning and investment.

The previous analysis carried out by PRONAF in the last months of 1960 showed that in an economic comparison between Matamoros and Cameron County, where Brownsville is located, the difference in the income per-capita between the two communities could be estimated in a ratio of 3 to 1 favoring the Americans. When adding the population factor the numbers tend to equalize since the population in Matamoros is larger, meaning that “the Brownsville market is made up of a small number of buyers having a high individual purchasing power, [while] Matamoros has triple the number of buyers, but their purchasing power is low.”⁶⁰¹ Under this realization, and with the knowledge that no shopping center existed in the vicinities, PRONAF urged the establishment of commerce in Matamoros that could offer services and products to the inhabitants of Cameron County, attracting capital that would make the city’s economy grow.

⁶⁰⁰ Pani, “Programme National Des Villes Frontieres,” September 1963, 108.

⁶⁰¹ Programa Nacional Fronterizo, *National Border Program / Programa Nacional Fronterizo. Matamoros, Tamps.*, vol. 5 (México: Programa Nacional Fronterizo, 1961), 29.

Matamoros was the first master plan designed for PRONAF. For the city, three different versions for a commercial, cultural and civic center were presented. The first one was part of Mario Pani, Domingo Garcia Ramos, Victor Vila y Miguel de La Torre's *Plano Regulador de la H. Ciudad de Matamoros*⁶⁰² presented in *Arquitectura México* in June, 1960 as *El Centro Metropolitano*. This first plan, although schematic, contained seeds of some of the ideas for the later PRONAF master plan's projects. (Fig. 32) The project was a multifunctional center distributed over a 25-hectare land plot. In this urban diagram, we see how Pani is using the ideas he had vastly experimented with in the Multifamiliares and the UNAM Campus. The project was designed to be the 'new center' of the city and was located within the new grid that Pani had superimposed to the existing traditional grid of the city, south from the international border entrance in the new center. (Fig. 33)

The buildings are laid out in the middle of a *macromanzana* surrounded by a vast parking lot and interconnected by the Herrey road system. (Fig. 32) Several elements in this project are eye-catching, for they either disappear in future iterations, or are incorporated into future projects. 1; In addition to the civic and commercial elements present in future projects, this plan contains areas for housing. 2; The program seems to include several spaces for 'Mexican' traditional activities and sports, like the multiple Plazas, the Palenque, and the Lienzo Charro. 3; The center, although not yet fully integrated through architecture (*mat-building* concept, discussed in Chapter 2) feels

⁶⁰² Pani et al., "Plano Regulador de La H. Ciudad de Matamoros, Tamaulipas México.," 62–82.

connected through the landscaping, trellis, passageways, and paving. Mario Pani describes the project's goal as

La finalidad de este Centro será fomentar el desarrollo del nuevo Matamoros en cuanto a las funciones cívico-administrativas, recreativo-culturales, comerciales-turísticas y de habitación y constituye un elemento para la satisfacción de las necesidades de la población, tanto físicas como espirituales, arraigándola en el aprecio de sus auténticos valores.⁶⁰³

4; The project's description and its goals foreshadow his later project for Nonoalco-Tlatelolco (1964), where he basically intended to build a "city within a city."⁶⁰⁴

From the information provided by the preliminary study, the government recognized that the population immediately across the border was not large enough to make the investment profitable. The offer of goods and services needed to be extraordinary in order to attract visitors and clients from a larger radius and lure them into crossing into Mexican territory. The model used by private investors that were attracting visitors from the northern parts of the US to Padre Island near Brownsville was taken into account since they were "bringing in sizeable tourist trade ... and could work to the advantage of Mexican tourist activities if the latter are properly developed."⁶⁰⁵ For

⁶⁰³ Pani et al., 82. Translation: The purpose of this Center will be to promote the development of the new Matamoros in terms of civic-administrative, recreational-cultural, commercial-tourist and housing functions and constitutes an element for the satisfaction of the needs of the population, both physical and spiritual.

rooting it in an appreciation of its true values.

⁶⁰⁴ Mario Pani, "Tlatelolco," *Arquitectura México*, September 1966, 82.

⁶⁰⁵ Programa Nacional Fronterizo, *National Border Program / Programa Nacional Fronterizo. Matamoros, Tamps.*, 5:31.

this reason PRONAF's authorities realized that the cooperation of private investment, with the support of local, state and federal authorities, was of crucial importance to the success of the program.⁶⁰⁶

In the article "Programme National des Villes Frontieres", Matamoros is the project that gets the most attention and page spreads. The schematic plan for the *Centro Metropolitano de Matamoros*, appears in a second iteration now titled *Centre Civique, Culturel et Commercial de Matamoros*. (Fig. 34) In this plan, the buildings appear to have been compacted to the center of the plot, the *mat-building* typology (discussed in Chapter 2) appears clearer since the weaving between different building's stories, heights, and openings was, making it more integrated, a detail that could be appreciated in the accompanying rendering. (Fig. 35) The plan, though, had lost its housing area, the library, the government offices, the casino, the restaurant, the school, the plazas, and the palenque and lienzo charro were replaced for an open-air theater.⁶⁰⁷ Appealing to a more 'cosmopolitan' tourism, the scheme appears to have lost many of the 'Mexican' elements, appearing to assimilate to the more ascetic traditional shopping center program.

Furthermore, a third plan completely different from the previously two presented appears in the spread. This new master plan, the first project developed for a shopping center (Feb 1962), delineates an area of commerce and tourism located on two plots of land, one larger than the other, connected via a pedestrian crossing bridge. (Fig. 36) The Herrey double circulation road system surrounds both teardrop shaped blocks, and areas

⁶⁰⁶ Programa Nacional Fronterizo, 5:33.

⁶⁰⁷ Pani, "Programme National Des Villes Frontieres," September 1963, 19.

for parking lots are visible -the article claims that they cover 40% of the surface. The larger plot of land features a 8,500 sqm lake with commercial, cultural, educational, and hospitality buildings surrounding it.⁶⁰⁸ The article, written by Pani, and still without the involvement of Pedro Ramírez Vázquez for the museum project, understandably mentions

L'élément essentiel de la seconde unité est la salle d'exposition particulièrement intéressante par son architecture. Elle s'inscrit dans un espace dégagé à proximité du vaste parking; en retrait se développe un bâtiment de forme sinueuse qui abrite des commerces.⁶⁰⁹

The structure of the exhibition hall is characterized by its light concrete saddle-like roof composed of two parabolic steel arches. This solution allowed the facades to be curtain walls, allowing maximum transparency and a more open interior. With an architectural language both reminiscent of the arches from the Puerta de México in the city and redolent of the International Style, the project sat in a water feature connected to a paved plaza. (Fig. 37)

The project was a collaboration of Pani with Galguera. Plans show that on the front façade, the main entrance was connected to the plaza by two bridges, and to the back by two smaller bridges where the undulant commerce building stood in a sunken platform.⁶¹⁰ (Fig 38) An undated model of the building clarifies the placement of the

⁶⁰⁸ Pani, 21.

⁶⁰⁹ Pani, 21. Translation: The essential element of the second unit is the showroom particularly interesting for its architecture. It is part of an open space near the large parking lot; set back, is a winding shaped building which houses shops.

⁶¹⁰ Mario Pani, Arquitectos Asociados, and Hilario Galguera, "Centro Comercial. Plaza Sala de Exposiciones. Co - 15. Matamoros, Tamps" (PRONAF, 02/62), Archivo de Arquitectos Mexicanos. Mario Pani.

building on the site and gives details about its interior. In the center, a canopy covers what appears to a ticket booth, and on the sides two curved ramps pass over the water pond, then give access to the interior of the building. (Fig. 39) These ramps are connected inside with a bridge-like mezzanine that stands supported by columns in the middle of the space. Interior stairs appear to provide access to the bottom floor.⁶¹¹ Another view of the same model allows us to see that the back bridges provide access to the commerce building rooftop, where gardens, trellises, and concrete covered stalls could probably provide refreshment services.⁶¹² (Fig. 40)

In the Master Plan's project, connecting the Exhibition Hall with the Hotel-Motel area was Pedro Ramírez Vázquez's museum project (developed in Chapter 3), and a building for "productos" located on the east section of the project. (Fig. 41) Although not yet designed and inserted in the models and plans presented in this chapter, the project starts to give hints to some of the hybridization operations performed in certain aspects of the program. The Hotel-Motel, and building for "productos," as it appears labeled in Pani's drawings, were not further developed, or plans do not exist in the archives, though the model shows us a distinct curtain glass box tower for the hotel,⁶¹³ and a lower rise long bended-bar glazed façade volume for the "productos" building.⁶¹⁴ (Fig. 42)

Definitely similar to his tower projects in Mexico City, these buildings present the

⁶¹¹ Mario Pani and Arquitectos Asociados, "Vista Frontal Centro de Exposiciones PRONAF Matamoros. Maqueta" (PRONAF, n.d.), Fondo Mario Pani Darqui.

⁶¹² Mario Pani and Arquitectos Asociados, "Vista Aerea de Centro de Exposiciones PRONAF Matamoros. Maqueta" (PRONAF, n.d.), Fondo Mario Pani Darqui.

⁶¹³ Pani and Arquitectos Asociados, "Hotel PRONAF Matamoros. Maqueta" (PRONAF, n.d.), Fondo Mario Pani Darqui.

⁶¹⁴ Mario Pani and Arquitectos Asociados, "PRONAF Centro Comercial En Matamoros. Maqueta" (PRONAF, n.d.), Fondo Mario Pani Darqui.

modern International Style that Mario Pani is credited with disseminating in México. (Fig43)

It is in the handicrafts market, the commercial areas, where the architectural hybridization project carried on at PRONAF can be more clearly identified. Located in the second section, the shopping center for “comercio nacional,” a supermarket, a cinema-theater-auditorium, and a building office, show traces of a more distinctive, regional modern architecture. (Fig. 44) Four handicraft-shop buildings were designed and distributed along the long curve of the plot of land fronting Avenida Álvaro Obregón, the road that dissected the complex. Grouping two or three shops, the four row-buildings presented a double façade, one oriented to the automobile driver, and the other one inside to the plaza. A fifth building located further south of the block with a similar architecture was destined for the supermarket. It had a main façade fronting the street and its own parking lot, with access to the backside plaza. The drawings show the project in two stages,⁶¹⁵ the stores fronting the street in the first one, leaving a central plaza like in the traditional American shopping center, with a row of stores mirroring the first stage, and the cinema-theater-auditorium egg-like buildings completing the second part of the project.⁶¹⁶ (Fig. 44) Out of character, and in the infrastructural category also located in this section, hidden in a wooded area there was a water treatment plant. (Fig. 45)

⁶¹⁵ Mario Pani, Arquitectos Asociados, and Hilario Galguera, “Centro Comercial. Localización Edificios Zona 2. Ca-4. Matamoros, Tamps” (PRONAF, February 1962), Archivo de Arquitectos Mexicanos. Mario Pani.

⁶¹⁶ Mario Pani and Arquitectos Asociados, “PRONAF Centro Comercial En Matamoros. Maqueta. Vista Norte” (PRONAF, n.d.), Fondo Mario Pani Darqui.

Pani and Galguera made use of Ramirez Vazquez's lightweight concrete umbrellas developed in the early 1950s, for the mercado. The stalls for the shopping areas are turned in Pani and Galguera's project into a module two-story shops, with double sided open facades that display the merchandise to the automobile and the pedestrian patron. (Fig. 46) The glazed floor to roof façade is protected on the second floor by a clay-brick screen, similar to the solution used by Del Moral at the Mercado de la Merced, and the whole module is covered by a two inverted concrete-shell umbrella system.⁶¹⁷ The shop-stalls, in contrast to the Mexico City mercados, appear in a shopping center configuration surrounding a central patio, and with a parking area that separates pedestrian and automobile traffic.

The supermarket building can be read to be the magnet store of the ensemble, since access from the plaza is also provided. However, its architecture references traditional mercado architecture. Its concrete shell zig-zag roof intersected by a curved semi vault, speaks of an understanding of the image that the architects wanted to portray. (Fig. 47) The building, in fact has a striking resemblance to the project by Horst Hartung for the Mercado Alcalde in Guadalajara designed around the same time (1962).⁶¹⁸ (Fig. 48)

Matamoros' PRONAF received 12% of the total budget, with 30% of the funding designated for the projects in this city.⁶¹⁹ According to Bermúdez it was in Matamoros

⁶¹⁷ Del Moral, "Mercado de La Merced."

⁶¹⁸ Horst Hartung, "Marché 'Alcalde' a Guadalajara," *L'Architecture d'Aujourd'hui* 34, no. 109 (September 1, 1963): 61.

⁶¹⁹ Bermúdez, *El rescate del mercado fronterizo: una obra al servicio de México*.

where the private sector cooperation was most needed and expected. The lack of optimism prevalent in the city was a result of the natural phenomena that had affected the city widely, due to flooding caused by the river overflow, and resultant destruction of crops, a big part of the economy. Industrialization and the building of the shopping and touristic center offered a way to economic salvation.⁶²⁰ The private sector participation was not as expected and because of this, only a very small section of the Matamoros project was finished. However, both the urbanization of the land and the road system were successfully completed, and a section of the commercial area was built in what is today a curved section of Avenida Alvaro Obregón. (Fig. 49) To this day the project has been drastically altered, sections of it demolished and are only recognizable in aerial (google) views. (Fig. 50)

El Paso, TX

El Paso's history with shopping centers started early. The first shopping center was built on a 23-acre parcel, in northeast El Paso. The project was developed by local DeWitt & Rearick Realty, and designed by Nesmith & Lane Associates, a local architect's firm.⁶²¹ The Northgate Shopping Center Shopping Center consisted of a single level, open-air central concourse, flanked by tenant shops, and with two magnet stores at the ends. (Fig. 51) When it opened in April 1960, only three shops opened their doors, a drugstore, a supermarket, and an apparel store. Later that summer a one-level 30,000 sqft

⁶²⁰ Bermúdez, 77.

⁶²¹ "Northgate Celebrates Anniversary," *El Paso Times*, April 13, 1961.

J.C. Penney, and a 21,800 sqft S.S. Kresge⁶²² opened. By April 1963, the shopping center had thirty-two shops and comprised about 300,000 leasable square feet. During the summer of 1966 a movie theater, and one-level 52,500 sqft El Paso's Popular Dry Goods opened. By then the shopping center totaled around 390,000 leasable sqft.⁶²³ A greatly advertised feature of the mall was its 100-foot sign that displayed the name of the center, time, and temperature.⁶²⁴

Before Northgate, by the end of 1955 the joint venture of the Charles Bassett Corporation (a prominent El Paso civic leader), the Home Mortgage Company of El Paso, and the Northwestern Mutual Life Insurance Company (Milwaukee, Wisconsin) started to plan the first suburban shopping center. The shopping center was to be located 4 miles northeast of El Paso's Central Business District. It was designed by San Antonio's Bartlett Cockle & Associates, El Paso's Nesmith & Lane Associates, and the Burke, Kober & Nichols firm, of Los Angeles. It consisted of a 705 by 50-foot open-air landscaped concourse, with 444,411 sqft for tenants divided on each side, and a parking lot for 4,500 automobiles. But the construction of the project didn't start until February 1961, and a year later by March 1st of 1962, Bassett Center opened its doors. With two El Paso based magnet stores, the shopping center was being advertised as "the largest between Dallas and Los Angeles."⁶²⁵ (Fig. 52) The two magnet stores were located at

⁶²² S.S. Kresge was a dime store, that would later become K-mart.

⁶²³ "MALL HALL OF FAME," accessed February 10, 2021, <http://mall-hall-of-fame.blogspot.com/search?q=northgate+center>.

⁶²⁴ "Northgate Celebrates Anniversary."

⁶²⁵ Trish Long, "Several Years of Planning Led to Bassett Center, El Paso's First Mall," *El Paso Times*, April 6, 2020, <https://www.elpasotimes.com/story/news/local/el-paso/2020/04/06/bassett-center-bassett-place-el-paso-first-mall/5108541002/>.

each end of the long side; the two-level 90,000 sqft Popular Dry Goods, and the 101,300 sqft The White House. On the sides, eighteen other stores. By the end of 1962, a supermarket, a cafeteria, a drugstore and a total of forty stores were operating in the shopping center. In 1965, the first movie house opened at Bassett Center, the National General Corporation Fox Theatre. In 1973, in order to compete with the other shopping centers, the concourse was enclosed and climatized, and the magnet store the Popular was enlarged to 194,400 sqft.⁶²⁶

Fronting the Interstate-10 highway, the shopping center was less than 4 miles from the bridge of the Americas, although the bridge would not be open until later in 1967 after the complete resolution of the El Chamizal conflict and the channeling of the Rio Bravo; but less than seven miles from the Puente Paso del Norte, the bridge that connects both cities' downtowns. More importantly, the shopping center proudly announced in its opening advertisements that it would be served by El Paso's three bus lines, even mentioning in newspaper articles the connection to the San Jacinto Plaza in downtown El Paso, where the bus line that connects with Juárez arrives.⁶²⁷ Together, this clearly made an invitation to *Juarense* shoppers.

For more than a decade El Paso only had two shopping centers, Northgate and Bassett Center. During the 1970s, a big shopping center construction boom occurred. El Paso opened what it claimed was their first fully enclosed mall on November 25th, 1974;

⁶²⁶ "MALL HALL OF FAME," accessed February 8, 2021, <http://mall-hall-of-fame.blogspot.com/2008/07/bassett-center-gateway-boulevard-and.html>.

⁶²⁷ "3 Bus Firms to Serve Center," *El Paso Herald-Post*, March 1, 1962.

Cielo Vista Mall, a two-level 1.1million sqft center, with four magnet stores.⁶²⁸ Months before, a smaller shopping mall opened its doors on May 1st 1974,⁶²⁹ also fully enclosed, with forty specialty shops, but only 115,000 sqft; Morningside Mall didn't receive as much attention due to the strong advertisement campaign that Cielo Vista Mall was already running. In reaction to the enclosed mall construction, Bassett Center started its process to become totally enclosed the same year and by the end of 1974 the shopping center became fully enclosed.⁶³⁰ Northgate failed to do so, and the mall began its decline. By August 1988, the west side of the city had grown so much that a new shopping mall opened its doors, Sunland Park Mall.

Cd. Juárez, Chih.

It is worth beginning this section, by mentioning that Cd. Juárez was the city with the greatest investment of the entire program, with a total of more than 114 million pesos. Of that amount, about a quarter was used for land acquisition.⁶³¹ The process of land acquisition in Cd. Juárez was progressive: first only 100 hectares were acquired and were earmarked for the PRONAF project. Later in 1964, 50 hectares more were acquired for a social housing project, and by 1965, 350 hectares more were acquired to build an

⁶²⁸ "Cielo Vista Mall. Grand Opening," *El Paso Times*, November 24, 1974, sec. Cielo Vista Mall.

⁶²⁹ "Modern Concept," *El Paso Herald-Post*, July 31, 1974.

⁶³⁰ "Bassett Center Looks Proudly Back on 13-Year History," *El Paso Times*, February 27, 1975.

⁶³¹ Bermúdez, *El rescate del mercado fronterizo: una obra al servicio de México*, 70.

industrial park, as part of the Border Industrialization Program, the program that came to continue the efforts of development at the border.⁶³²

For this chapter and study, only the first 100 hectares of the acquired land will be relevant since that was the land used to build Mario Pani's project for which Enrique Molinar closely collaborated. Enrique Molinar was an architect that participated in the initial proposals for UNAM Campus along with Teodoro González de León, and Armando Franco.⁶³³ Molinar, in collaboration with Ignacio López Bancalari and Félix T. Nuncio, designed the pools for the UNAM Campus in 1951.⁶³⁴ A long collaborator of Taller de Urbanismo, Molinar designed the bungalows along Jose Luis Arteche for Pani's Hotel "Club de Pesca"⁶³⁵ (discussed in Chapter 4 in relation with the Puerta de México in Matamoros); and was responsible for Mario Pani's projects for Bank branch and apartment tower, and a housing unit for 12,000 in Venezuela in 1959.⁶³⁶

In PRONAF's booklet dedicated to Cd. Juárez, the analysis clearly shows the interrelation of the economic activity between the two sister cities. With a roughly similar population of around 300,000 inhabitants by 1960, El Paso, Texas income per-capita exceeded threefold the income of Cd. Juárez. The high frequency of local crossing was accounted for as an important factor, crediting El Paso as an important source for capital

⁶³² Bermúdez, 40.

⁶³³ Canales, "La Modernidad Arquitectónica En México; Una Mirada a Través Del Arte y Los Medios Impresos," 140.

⁶³⁴ Enrique Molinar, Ignacio López Bancalari, and Félix T. Nuncio M., "Las Albercas," *Arquitectura México*, December 1951, 23–28.

⁶³⁵ Jose Luis Arteche and Enrique Molinar, "Bungalows Del Hotel 'Club de Pesca,'" *Arquitectura México*, June 1954, 98–100.

⁶³⁶ Enrique Molinar, "Obras de Mario Pani En Venezuela," *Arquitectura México*, September 1959.

for the city.⁶³⁷ Cd. Juárez, the study mentions, due to “high purchase costs, no quality control, inadequate display and sales systems; financial incapacity to attract customers by extending credit and finally, high consumer prices resulting from the need to obtain a higher profit per unit in order to continue in business,”⁶³⁸ was incapable of sustaining adequate business models. Through PRONAF’s commercial, entertainment, and cultural activities, the growth of the city could be secured.

The Cd. Juárez case is striking for its multiple differences. Being the city with the most capital invested, and the one with the most buildings constructed, it’s also the least published. In opposition to the publication of the “Plano Regulador de la H. Ciudad de Matamoros ”⁶³⁹ in *Arquitectura México*, the publication of the Plano “Regulador de Ciudad Juárez,”⁶⁴⁰ does not contain a design proposal for a commercial center. Having been generated at Pani’s Taller de Urbanismo office, the project contains a very complete analysis and urban proposal but lacks the commercial center design. Two factors are to be considered for this difference, first (and I consider) least important, the did not included Pani in the design; and second, the *Plano Regulador* (1958), although close in time to the early stage of President López Mateos’s project to reform the borderlands, it was designed before the formation of PRONAF. What is more surprising is that although Pani had already worked out the design of master plans for PRONAF, the project was not

⁶³⁷ Programa Nacional Fronterizo, *National Border Program / Programa Nacional Fronterizo*. Cd. Juárez, Chih, vol. 3 (México: Programa Nacional Fronterizo, 1961), 23.

⁶³⁸ Programa Nacional Fronterizo, 3:26.

⁶³⁹ Pani et al., “Plano Regulador de La H. Ciudad de Matamoros, Tamaulipas México.,” 62–82.

⁶⁴⁰ Garcia Ramos, Villa, and De La Torre, “Plano Regulador de Ciudad Juárez.”

featured in the article *Programme National des Villes Frontieres* in *L'architecture d'Aujourd'Hui*.⁶⁴¹

The PRONAF plan for Cd. Juárez, also used one of the projected *macromanzanas* as the morphological urban cell base, for the commercial and cultural center. Located south of the Corte de Cordoba area, the project anticipated the return of El Chamizal, in order to generate a direct connection with the new international border crossing. (Fig. 53) In PRONAF's booklet a photograph of the model for the "most modern Commercial Center in Latin-America being constructed in Ciudad Juárez Chih." appears to illustrate the general project. (Fig. 54) No description or key to the project particularities is provided. The ensemble is laid out in a three-armed plan that extends into two different plots of land, and a set of buildings on a third smaller plot. The main one, a larger square with rounded corners, is adjacent to the other two sections, one larger than the other, both have a flattened teardrop shape. Towers crown two of the arms, while the third consists of three consecutive lower-rise towers. The model, in a similar way to the Matamoros (Feb 1962), and Tijuana projects (Aug-Sep 1962), has a sort of mat-building interconnective network quality to it, but it is hybridized. Its continuous weaving system of different scaled buildings, plazas, gardens, and corridor streets -sometimes covered, provides one of the elements that Alison Smithson in her article *Mat-Building: How to recognize and read*, writes about.⁶⁴² The project is organized in a grid, but this grid is not connected to the old city, like in the projects she describes. Instead, the grid is inserted in

⁶⁴¹ Pani, "Programme National Des Villes Frontieres," September 1963.

⁶⁴² Alison Margaret Smithson, "How to Recognize and Read Mat-Building," *Architectural Design* 44, no. 9 (1974): 573–90.

the macromanzana, and since it did not have historical city landmarks to link to - like the mosques in the Kuwait project, Pani designed towers to have those functions. The project offers different and varied programs, where the patterns of use overlay “and the individual gains freedoms of action, through a new and shuffled order, based on interconnection, close-knit patterns of association.”⁶⁴³

Two different plans of the Cd. Juárez project survive in the Pedro Ramírez Vázquez archive. The first one, a plan representation of the model photographed for the booklet, allow us to see more clearly the composition of the plan. (Fig. 55) Ramírez Vázquez museum was supposed to be located in the third completely detached plot of land.⁶⁴⁴ After several iterations of the museum project (discussed in Chapter 3), the museum was inserted into the ensamble located in the main body of land, morphing its shape. The rounded square urban cell in which Pani locate the shopping center adapts to the project to create an organic bean-like shaped plot of land where the project sits more comfortably, only spilling into a secondary small roundabout where the iconic tower was to be located.⁶⁴⁵ (Fig.56)

A breakdown of the areas in the drawing indicates that of the total of 131,455 sqm, 80,833 sqm were designated for a 1,640-automobile parking lot, information that is relevant considering the shopping center aspect of the project. Other data that stands out is the 20,809 sqm destined for internal gardens, patios and porticos; the 18,700 sqm for

⁶⁴³ Smithson, 1.

⁶⁴⁴ Mario Pani and Arquitectos Asociados, “PRONAF Ciudad Juárez Master Plan. Untitled,” n.d., Archivo Pedro Ramírez Vázquez.

⁶⁴⁵ Mario Pani and Arquitectos Asociados, “PRONAF Ante Proyecto Centro Comercial Ciudad Juárez” (PRONAF, n.d.), Archivo Pedro Ramírez Vázquez.

commerce, and the 3,830 for the exhibition area. The museum covers an area of 3,000 sqm. The remaining 5,624 were dedicated to the office building, the hotel, movie theater and conventions center.⁶⁴⁶

The project consisted of three arms that radiated from the ensemble center, the exhibition hall. The north-south arm consisted of mainly commercial areas conformed by shops and a department store and ended in a “professional center building” located in a detached roundabout connected by an overpass. The east-west arm was formed by the supermarket, shops, and featured the Ramírez Vázquez project for the Museo de Historia de Cd. Juárez, diagonally linking the north-south with the east-west arms on the lower-level shops, with three office towers equally spaced along its length. The third arm ran diagonally from the center to the north-east, it was the widest since it was designed to have a central plaza with surrounding buildings, and it was topped with the hotel/motel complex. On the south side there were shops, on the northern, restaurants and a convention center.

Detail renderings for some areas are presented in an inset panel.⁶⁴⁷ (Fig. 57) The commercial areas had two story shops with overhanging roofs that allow the pedestrian a covered walkway. The rendering of this section bears a striking similarity with the perspective drawings of Gruen’s shopping centers, with the difference that in Pani’s drawing the hotel tower lures the eye from the back of the shopping area. Judging from the plan and general perspective, the other shops were designed to have a barrel-vaulted

⁶⁴⁶ Pani and Arquitectos Asociados.

⁶⁴⁷ Mario Pani and Arquitectos Asociados, “Centro Comercial. Cd. Juárez Chih. Presentation Panel” (PRONAF, n.d.), Fondo Mario Pani Darqui.

roofline. The interiors appear ascetic and ultra-modern, with clean lines, square thin columns, shiny floors, wooden cladded surfaces, and modern product displays completing the scene. The “exposición comercial” area was a futuristic domed area with helicoidal stairs that take the user to a mezzanine, an area that appears to be taken out of the 1939 New York World’s fair, and that as Mario Ballesteros suggests, looks like a lost pavilion from the Futurama expo⁶⁴⁸- a pavilion that got lost in desertic Cd. Juárez, and that is surrounded by luscious, almost tropical, vegetation.

Other renderings exist, although their locations are not labeled on the plan, still, it is not that difficult to assume their locations. (Fig. 58) A simple observation exercise by reading the buildings surrounding, and the perspective master plan rendering, allows one to locate them into the ensemble plan (the only general plan of the project existing in the archives). The drawings confirm several of Pani’s intentions: To create shopping centers with lusciously landscaped great plazas where the shopper could rest and enjoy a good time while shopping; the use of ultra-modern architecture to display and sell Mexican products and arts & crafts to elevate those products to a higher category; And finally, the insistent use of the many different roof-types available in the best examples of Mexican modern architecture, either those of his own invention or those from other authors. (Fig. 59 & 60)

The project as it appears in these renderings didn’t get built, but some sections of it, mainly the shopping areas for handicrafts, got almost built exactly to plan. The

⁶⁴⁸ Mario Ballesteros Arias, “Política, Arquitectura, Mística, Consumismo. El Programa Nacional Fronterizo (1961-1971): Antes, Durante y Después.” (Bachelors in International Relations Thesis, México, D.F., El Colegio de México, 2008).

futuristic “exposición comercial” area got replaced by a no less interesting four-point paraboloid concrete shell convention center designed by Pani and Molinar. The hotel-motel project, although fully developed by Pani’s office,⁶⁴⁹ was replaced with Ricardo Legorreta’s project for the Camino Real Hotel. Ramírez Vázquez museum got built as planned. (Fig. 61)

In addition, they built the Supermercado Del Real, the first supermarket in the city that functioned as a magnet for the shopping center. Most probably designed by Mario Pani and Enrique Molinar, it is described to be made out of two concrete shell paraboloids and two half paraboloid surfaces, supported by four concrete pillars, with floor to roof glazed facades.⁶⁵⁰ No further information, or drawings are provided.

From photographs and a descriptive report of the project, the barrel-vaulted shops, located in the same position as in the master plan, were mostly used for local shops that ranged from arts & crafts to curios, eyeglasses, and a cafeteria. (Fig. 62) The general plan was of rectangular shape, with a small mezzanine level for an office, and a basement used as a warehouse.⁶⁵¹ The façade consisted of a double layer glazed floor to roof, and a clay brick screen for sun protection. In addition, a thin-concrete canopy was provided to demarcate the entrance and provide extra solar protection. (Fig. 63) This shop typology

⁶⁴⁹ In the Fondo Archivo Mario Pani at Tec de Monterrey exist scattered fully developed plans ranging from room’s chimneys details, built-in woodwork, bungalow type plans, facades, sections, and amenities like restaurants, terraces, etc.

⁶⁵⁰ Secretaría Particular SHCP - Secretaría de Hacienda y Crédito Público, “ANEXO C-71” (AGN - Archivo General de la Nación, n.d.), MEX.SIGLO XX, ADM.PUB.FEDERAL, SHCP-SRIA. PARTICULAR SHCP, Archivo General de La Nación.

⁶⁵¹ Secretaría Particular SHCP - Secretaría de Hacienda y Crédito Público, “ANEXO C-73” (AGN - Archivo General de la Nación, n.d.), MEX.SIGLO XX, ADM.PUB.FEDERAL, SHCP-SRIA. PARTICULAR SHCP, Archivo General de La Nación.

building strip was formed by two groups of 4 shops, barrel-vaulted, divided by a flat roof covered space, a module equivalent to two shops. Between the two rows of shops was to be a landscaped area with trees. At each of the ends, the flat roof module was repeated, creating a very interesting roofline rhythm. (Fig. 64)

The second typology of shops consisted of a bar building located at the “arm” of the ensemble that traversed from the hotel, (Camino Real) connecting with the convention center and the barrel-vaulted shops. (Fig. 65) With a similar module of groups of four shops, a space in the middle and another group of four shops, the bar was ‘broken’ in the middle by the arrangement of four of the squared-plan shops placed diagonally and offset from the axis. This movement created a stepped recession that fronted the parking and that functioned as a main-gate entrance. (Fig. 66) As mentioned above, each module had a square plan that was divided in the middle so shops could front both sides of the strip. The building consisted of two-story shops, sometimes allotted to distinct tenants, with access provided by stairwells located every module. Photographs show a glazed façade from floor to roof, with a suspended concrete canopy running along the façade for solar protection, only to be interrupted by concrete sections of the façade that divide every shop module. (Fig. 65) This modularity of the strip allowed for different types of shops -in it, there have existed government offices, bars and restaurants, and also arts & crafts, wine and liquors shops, and Mexican products shops.

The convention center roof, clearly inspired by Candela’s paraboloid, “peaks in

the middle and then folds up to the corners, which are infilled with glazing,”⁶⁵² covering a lobby and a circular amphitheater-like auditorium. It is supported by four main sculptural columns with secondary columns that serve to connect the supporting structural beam.⁶⁵³ (Fig. 67) The auditorium accommodates 1,250 persons, and had a liftable 8 mts-diameter platform, one of the most modern features for an auditorium in the northern part of México and the south of the US at the time. It is interesting to mention the existence of the convention center in this chapter, since it was located in Pani’s conception of the shopping center for the borderlands. Also, considering Gruen’s conception of the shopping center providing what the “Greek Agora, the Medieval Market Place and our own Town Squares provided in the past,”⁶⁵⁴ the convention center fits into this description. For Bermúdez the convention center was a place for “the reunion of individuals of the same specialization, or of divergent ideas which must be debated, or concerned over problems which together they seek to resolve.”⁶⁵⁵

El Hotel Camino Real

Although not in the category of a shopping center, not even in Gruen’s conception, the Hotel Camino Real needs to be at least mentioned as an example of

⁶⁵² Edward R. (Edward Rudolf) Burian, *The Architecture and Cities of Northern Mexico from Independence to the Present: Tamaulipas, Nuevo León, Coahuila, Chihuahua, Durango, Sonora, Sinaloa*, First edition., 2015, 135.

⁶⁵³ Antonio J. Bermúdez, “Sala de Exposiciones y Convenciones. Convention and Exposition Hall. Ciudad Juárez, Chih.” (PRONAF, n.d.), 1, Biblioteca Municipal de Ciudad Juárez.

⁶⁵⁴ Gruen, *Shopping Towns USA; the Planning of Shopping Centers*, 24.

⁶⁵⁵ Bermúdez, “Sala de Exposiciones y Convenciones. Convention and Exposition Hall. Ciudad Juárez, Chih.,” 1.

hybrid architecture at the border. Not only it was a great attraction for the PRONAF project in Cd. Juárez when it came to complete the ensemble late in 1965, but it was a landmark in Ricardo Legorreta's career. (Fig. 68)

Ricardo Legorreta started his career working for one of México's most staunch defenders of functionalism, José Villagrán García. Villagrán García started teaching Composition and Theory of Architecture courses in 1925 in the Academia de San Carlos in Mexico City.⁶⁵⁶ As a professor, he proposed a rebellious stance against the pervasive academicism by teaching what he thought were the "principles that should govern the work of the architect: profound understanding of the needs to be satisfied by the building; intelligent use of the methods and materials of construction; application of forms corresponding to the function which the architectural elements must discharge and to the construction possibilities."⁶⁵⁷ His ideas opposed the old academicism that advocated for a faithful copy of Colonial forms in search for a truly "Mexican architecture." He urged his students to begin with systematic logical analysis of the problematics and particularities of the climate and diverse customs in order to provide the best solutions.⁶⁵⁸

Villagrán's theories were based on the study of the German theoreticians, mostly Gropius; and of Le Corbusier. They promoted a sociological, technical, functional, and formal approach to architecture.⁶⁵⁹ In an office guided by such principles Legorreta

⁶⁵⁶ The Academia de San Carlos was the first art and architecture school in the Americas, it was founded in 1781 during the Spanish occupation in México.

⁶⁵⁷ Summarized in I. E. Myers, *Mexico's Modern Architecture; in Cooperation with the National Institute of Fine Arts of Mexico*. (New York: Architectural book Co., 1952), 11. Esther Born provides a more comprehensive description of Villagrán's theory in, *The New Architecture in Mexico*, 1937, 32.

⁶⁵⁸ Enrique Yáñez, Foreword in Myers, 12.

⁶⁵⁹ Max Cetto, *Modern Architecture in Mexico. Arquitectura Moderna En México*. (New York: Praeger, 1961), 26.

developed his first projects. After twelve years in Villagrán's office, and after his final collaboration project for the SF Facilities Factory in 1963, Legorreta opened his solo practice, with his first project being the Smith, Klein and French headquarters in Mexico City. (Fig. 69) From the last project where Legorreta appears as a collaborator with Villagrán to his first solo project, a change of style can be observed. Legorreta's architecture started to show an interest in a different formality: bolder volumes, thicker and more expressive structures; and the use of language other than the functionalist started to appear in his work. (Fig. 70)

By his second project, we see yet another iteration of the hybridization of the International Style language, with the more expressive "emotional architecture"⁶⁶⁰ with which he would later be associated with. The project for the Fábrica Automex (1964), an automobile factory complex, was designed like a ranch, as he mentioned in an interview.⁶⁶¹ For this project, he shows in a large-scale complex his interest for expansive solid walls with few perforations, a special attention to gardens and patios, and the use of simple natural materials. Legorreta and artist Mathías Goeritz together designed two monumental concrete cones that completed the access plaza. The larger housed an elevated water tank and an auditorium on the ground level, and the second was intended to serve as a cistern.⁶⁶² (Fig. 71) This collaboration marked the beginning of a signature

⁶⁶⁰ In 1953 Mathias Goeritz inaugurated the Museo Experimental el Eco with the reading of *El Manifiesto de la Arquitectura Emocional* (the emotional architecture manifesto), in which he appealed for an architecture that was able "to create, once again within modern architecture, psychic emotions to man without falling into empty and theatrical decorativism."

⁶⁶¹ Yukio Futagawa, ed., *Ricardo Legorreta*, Ga document extra 14 (Tokyo: A.D.A. Edita, 2000), 25.

⁶⁶² "FÁBRICA AUTOMEX | PROYECTOS | Legorreta Arquitectos," accessed February 17, 2021, <https://www.legorreta.mx/es/proyecto-fabrica-automex>.

in his projects, namely the inclusion of various artists' work as important design elements.

The Camino Real Motor Hotel was designed in 1964,⁶⁶³ and opened to the public in 1965.⁶⁶⁴ It was designed with the intention to mainly attract American tourists into Juárez that otherwise just passed by the city on their way into México. (Fig. 72) Considering the extreme arid climatic zone of the city, Legorreta designed the hotel from the inside out, paying special attention to interior elements such as patios, gardens, and passageways, leaving the perimeters enclosed by high walls with very few openings. (Fig. 73) The hotel complex consisted of three main blocks, one for public services with the lobby, restaurants and bars, the second one a two-story building with an interior patio for 100 rooms, and the third a five-story tower for 40 rooms. In Legorreta's words

The attractive feeling which is achieved by using characteristic elements of the Mexican environment doesn't go to the extreme of vulgar and old-fashioned folklore. The arch, for example, is repeated in various dimensions throughout the hotel combined with large, closed walls and with concrete elements designed especially for solar protection.⁶⁶⁵

The newspapers highly praised the hotel for its "true Mexican styling,"⁶⁶⁶ where others mentioned its "Spanish style."⁶⁶⁷ Legorreta's architecture served as a container for Western International Hotels',⁶⁶⁸ idea of *Mexicanidad*. (Fig. 74) The American

⁶⁶³ Ricardo Legorreta, "Hotel Camino Real. Fachadas" (PRONAF, March 1964), Colección Legorreta.

⁶⁶⁴ "Camino Real Motor Hotel Opens," *El Paso Times*, June 27, 1965, El Paso Public Library. In the article the authorship is wrongly attributed to Juan Worner Baz.

⁶⁶⁵ Ricardo Legorreta, "Hotel Camino Real En Ciudad Juárez. México. Hotel Camino Real in Ciudad Juárez, Mexico.," *Adem. Arquitectos de México*, August 1967, 52.

⁶⁶⁶ "Camino Real Motor Hotel Opens."

⁶⁶⁷ "New Juárez Motel Will Be Border's First," *El Paso Herald-Post*, March 11, 1965, sec. D.

⁶⁶⁸ Western International Hotels changed its name into Westin Hotel & Resorts in 1981.

corporation hired Juan Wörner Baz,⁶⁶⁹ a Mexican born architect living in Tucson. The hotel was described to be furnished in “contemporary Mexican tradition”, and bathrooms tiled in ceramic from the “provinces,” a term that recalled the colonial division of the country. Three “modern” dining areas -night club, dining room, and coffee shop- were available to the public and were described to have “different silver and china appointments.”⁶⁷⁰ As for Legorreta’s interior features, arches, patios, walkways, halls, sculptures, pools and waterfalls; they were distributed amongst open modern, airconditioned spaces with “purified-heated-water,” amenities attractive to the American tourist. (Fig. 75)

With Juan O’Gorman’s rejection of functionalist architecture, and his experimentation with organic architecture in his cave-like house, and Goeritz Museo Experimental El Eco, both in 1952, a new era in Mexican architecture opened. Luis Barragán and Goeritz’s collaboration on the Torres de Satélite for Pani in 1957 positioned more publicly an architecture whose main intention was to generate emotions. Words like ambient, feeling, effect started to become part of the language of architects.⁶⁷¹ By the 1960s Barragán’s Pedregal was a pole of expansion for México City, and with it his architecture, recognizably different for its regional, popular, large walled panes, colored surfaces, and interior gardens.

⁶⁶⁹ “Camino Real Serves You in Charming Mexican Manner,” *El Paso Herald-Post*, June 25, 1965, El Paso Public Library.

⁶⁷⁰ “Camino Real Motor Hotel Opens.”

⁶⁷¹ Canales, “La Modernidad Arquitectónica En México; Una Mirada a Través Del Arte y Los Medios Impresos,” 79.

The early 1960s was a moment of change, and Juárez's PRONAF became a clear battleground. The Mexican Internationalism characterized by Pani's work, a nationalist modernism characterized by Ramírez Vázquez's, and the new in-transition to "emotional" architecture of Legorreta's Camino Real. Both Pani and Legorreta intended to represent México and display its culture to an American tourist in their own ways. Both were concerned with the primacy of the automobile, and both projects aimed to provide the most comfort through the newest technology. They differed in the architectural language used, while Pani resorted to his modern functionalist catalogue, Legorreta experimented with a neo-colonial modern architecture. Pani's architecture opened to the outside, while Legorreta's in the way of the old haciendas closed itself to the inside. Despite the stylistic battle at play, these two languages in point in the project found a way to coexist. (Fig.76)

San Diego, CA

The shopping center first arrival in the borderlands was way before the 1960s. Evidently it was in the metropolitan area of San Diego, California, a well developed area since the end of World War II, where the first shopping centers were built. The Linda Vista Shopping Center in San Diego was built by the Department of the Treasury as part of the government defense housing project for the Consolidated Aircraft workers during WWII. A total of 3000 low-cost modern housing units were built in 300 days following an assembly line mass production method, on a plot of land of 30,000 acres. Its landscaping allowed for the separation between automobiles and pedestrians. The project

included “schools, hospitals, parks, stores and services of all kinds...”⁶⁷² Construction began in 1941 and the construction of the Linda Vista community was finished by 1942. In 1943 the shopping center, that would also act as the town center, was finished.⁶⁷³ The shopping center closed in 1974, was demolished and rebuilt. (Fig. 77)

With a plan that dramatically resembles the one presented by Gruen in the *Architectural Forum* article in the same year, the 82,000 sqft center was designed around a patio, it included 12 stores and services that included a department store and a supermarket, and a parking lot for 216 automobiles. Similar shopping centers would be developed during WWII for defense housing projects, such as Willow Run near Detroit, and McLoughlin Heights near Portland, Oregon.⁶⁷⁴

The Linda Vista community and shopping center were not that far from the México international border crossing. Only 20 miles away from the border line, the shopping center area was connected since 1909 through the paving of EL Camino Real, later Montgomery Freeway (1943), and finally the Interstate 5 (1951).⁶⁷⁵ The distance was more ideological, for the community was majority white and for aircraft workers. Meanwhile, anti-Mexican sentiments in California by the 1940s were still a big concern for border crossers⁶⁷⁶. Later in 1955, and just 11 miles from the international border

⁶⁷² Mary Taschner, “Boomerang Boom: San Diego 1941-1942,” *The Journal of San Diego History* 28, no. 1 (Winter 1982), <https://sandiegohistory.org/journal/1982/january/boom/>.

⁶⁷³ Richard W. Longstreth, *City Center to Regional Mall Architecture, the Automobile, and Retailing in Los Angeles, 1920-1950* (Cambridge, Mass.: MIT Press, 1998), 289–93.

⁶⁷⁴ Longstreth, 293.

⁶⁷⁵ Steven E. Schoenherr, “Freeways of the South Bay - South Bay Historical Society,” accessed February 9, 2021, <http://sunnycv.com/history/exhibits/freeways.html>.

⁶⁷⁶ For more see “The Border Crossed Us.” Anti-Mexican Racism and Anti-Indianism in Roberto D. Hernández, *Coloniality of the US/Mexico Border: Power, Violence, and the Decolonial Imperative* (Tucson, UNITED STATES: University of Arizona Press, 2018), <http://ebookcentral.proquest.com/lib/upenn-ebooks/detail.action?docID=5501846>.

crossing, The South Bay Plaza shopping center opened its doors. The shopping center had a very simple plan, it consisted of two parallel lines of store separated by a landscaped plaza.

Considered as the first regional shopping center, College Grove Center, designed by architect John Graham Jr., first opened its doors in early 1960. Designed on a 70-acre plot of land, the 650,000 sqft center had an open-air plan with a total of sixty stores (of which only a third were open at first,) and a three-level 160,000 sqft magnet store. The rest of the stores started to open by the summer of 1960. The shopping center scheme was divided over two levels, a basement and an upper level, resulting from an adaptation to the hillside where it was built. (Fig.78) The design included a 6,000-car parking lot, landscaped areas, pergolas, and overhangs to protect the clientele from the sun, plus a “park-a-tot” nursery for mothers. The center also provided a helicopter pad so a service could be established between the major airports and the center.⁶⁷⁷ The shopping center was also only 20 miles from the international border crossing in Tijuana. By 1961, Mexican shoppers going to American shopping centers were a more common phenomenon, especially from the upper-middle and upper classes of Tijuana and the close region.

Several shopping centers came later to the greater San Diego area. By 1961 the Mission Valley Center had opened early in the year, and later the Grossmont Center. Of

⁶⁷⁷ Merrie Monteagudo, “From the Archives: College Grove Shopping Center Opened 60 Years Ago Today,” *San Diego Union-Tribune*, July 28, 2020, sec. Local History, <https://www.sandiegouniontribune.com/news/local-history/story/2020-07-28/college-grove-shopping-center-opened-60-years-ago-today>.

these two, the Grossmont Center had the particularity of being located adjacent to the Mission Valley Freeway or Interstate-8. Opening for traffic shortly before in 1958, the freeway gave easy access to the shopping center from the Tijuana international crossing, again located only 20 miles away. The Escondido Village center claims to be the first fully enclosed shopping center in the greater San Diego area, built in 1964, while the 1969 Plaza Camino Real claims the title of the first fully enclosed, regional-class shopping center in the metro area.

The closest shopping center built next to the México border was the Chula Vista Shopping Center. Chula Vista, a suburb of San Diego, had been tightly connected to Tijuana and San Diego since its foundation. Since the late 1800s a railroad that connecting the three cities was built in order to serve the growing citrus production of Chula Vista. Chula Vista continued growing thanks to its lemon orchards even during the Great Depression, and WWII brought lasting changes to the city. After the bombing of Pearl Harbor, Rohr Aircraft Corporation moved to Chula Vista and with it 9,000 job positions were created. Housing was needed, and as a result the Vista Square defense housing project was built in 1943.⁶⁷⁸ After the war, the city council received permission to demolish a section and by 1959 a plot of land of 40 acres was left open for the Chula Vista shopping center to be built, with the idea of it also becoming a community center.⁶⁷⁹ In 1961 a one-level open-air 425,000 sqft shopping center with only a supermarket

⁶⁷⁸ “History | City of Chula Vista,” accessed February 9, 2021, <https://www.chulavistaca.gov/residents/about-chula-vista/history#early>.

⁶⁷⁹ “Chula Vista Shopping Center,” accessed February 9, 2021, <http://sunnycv.com/history/exhibits/shopping.html>.

opened its doors. By the winter of 1962, the four-level anchor Marston's opened its doors, officially dedicating the shopping center. (Fig. 79) The center continued growing and by the end of 1964 the shopping center had twenty-six tenants and three magnet stores. In 1965 a 15-acre section was added, completing the footprint that would exist for over 20 years. The shopping center landscaped areas were ample and lush, for the weather in the area allowed it. The focal point of the plaza was the Juárez fountain located in the Plaza de la Paz court, a reproduction of a fountain in the Alhambra in Spain.⁶⁸⁰ (Fig. 80)

Tijuana, B.C.

By the 1940s Tijuana was not the city of grand casinos anymore. After president Lazaro Cárdenas had dismantled the game industry in 1935, declaring gambling illegal, the infamous Casino Agua Caliente resort, designed by two San Diego architects Wayne and Corinne McAllister, was expropriated and turned into a public school. A group of nationalists advocated later for its complete demolition, as a way to erase Tijuana's negative history.⁶⁸¹ Unfortunately, despite its architectural value, the project was destroyed and replaced with buildings of no aesthetic or historical value. The resort had been built on a natural thermal water bathing site, as its name implies it 'agua caliente,'

⁶⁸⁰ "MALL HALL OF FAME," accessed February 9, 2021, <http://mall-hall-of-fame.blogspot.com/search?q=chula+vista>.

⁶⁸¹ In 1927 the former president Abelardo Rodríguez partnering with American investors, arranged for their purchasing of the land and pushed the construction of the project

where a hotel had existed since the 1880s. With the new road and buildings built over, the natural landscape, vegetation and fauna, ended up dying or fleeing.⁶⁸²

Tijuana offered its tourists from 1916 until the early 1930s, “everything you would expect of a bawdy Roaring Twenties town: elegant casinos, La Ballena (the whale,) prompted as the world’s longest bar, wineries, distilleries, and houses of prostitution.”⁶⁸³ There was even a reproduction of the Moulin Rouge, with its miniature red mill on the façade, and “women of all races on the inside.” The operations of this adult playground were financed, run, administered, and patronized principally by Americans that were trying to get away from the moral hold of their government during the era. It was revived once again during WWII for the soldiers’ ‘rest and relaxation.’ Like Herzog mentions, even though the architecture was temporary, the damage was lasting. The campaign both to attract clientele, and to warn of Tijuana as a center of vice and sex carried out in the US, stereotyped Tijuana until the late 1960s.⁶⁸⁴

During the postwar period the city of Tijuana grew to the south-east. New middle-class neighborhoods started to populate the southern edges of the city, leaving the downtown for more strictly commercial activities. As the population in Tijuana started to grow, and housing was insufficient, the poorer communities were forced to squat, one of the more important settlement was the bed of the Rio Tijuana -the river that dissected the city- in an area called Cartolândia.⁶⁸⁵

⁶⁸² Herzog, *From Aztec to High Tech*, 62–63.

⁶⁸³ Herzog, 69.

⁶⁸⁴ Herzog, 69–70.

⁶⁸⁵ The area was called Cartolândia because their shacks were build many times of nothing more than cartón – cardboard.

Of all the border cities, Tijuana had the greatest potential for economic growth. It was one of the most visited cities in the borderlands, fronting a region of 10 million inhabitants up to the borderline to Los Angeles, with the highest income and living standards. In their peak days, more than 10,000 vehicles crossed the border to México even though conditions in the city were not the best.⁶⁸⁶

On July 13, 1961 an agreement between the Secretaría de Hacienda y Crédito Público,⁶⁸⁷ the Secretaría del Patrimonio Nacional,⁶⁸⁸ and the president of the JFMM of Tijuana, was signed to initiate the works of construction of the Puerta de México, the canalization of the ~~Rio~~ Tijuana, and the urbanization of the land adjacent to it.⁶⁸⁹ (Fig. 81)

As discussed in the previous chapter, the project for the Puerta de México in Tijuana was completed and was a big success. The channeling of the Río Tijuana, an important project that PRONAF needed to urgently undertake, was postponed for a couple years. However, Pani's master plan for the city of Tijuana prioritized channeling the river, aiming to convert it into a central connective highway, where on its sides the *macromanzanas* would replicate as urban cells. In these *macromanzanas*, the projects for shopping centers, supermarkets, hotels, motels, movie theaters, auditoriums, office buildings, restaurants and bars, and their connective system were to be developed.⁶⁹⁰ (Fig. 82)

The project for "Nueva Tijuana," as it was named by the newspapers, was

⁶⁸⁶ Bermúdez, *El rescate del mercado fronterizo: una obra al servicio de México*, 121.

⁶⁸⁷ Secretaría de Hacienda y Crédito Público – SHCP. The equivalent of the IRS in the US.

⁶⁸⁸ Secretaría del Patrimonio Nacional – SPN. The National Patrimony Secretary, was created during the López Mateos period in 1958 and dissolved in 1976.

⁶⁸⁹ Bermúdez, *El rescate del mercado fronterizo: una obra al servicio de México*, 64.

⁶⁹⁰ Pani, "Programme National Des Villes Frontières," September 1963.

connected to the ‘old’ city by Pani’s use of the modern Herrey road system. The channeling of the river project was started by 1962 with the eviction 600 families living in the riverbed, and their relocation to federal land in the Colonia Buenavista.⁶⁹¹ This allowed the recuperation of 3 million sqm for urbanization and infrastructure for the city. The riverbed was planned to have a width of 250 mts for 4km, opening to 400 mts for 70mts before getting to the international line. The approximate cost of the infrastructural project would be 80 million pesos.⁶⁹² The project represented an enormous change for the city of Tijuana. Around it, the old city would connect with its existing grid, integrating the new *macromanzanas* more naturally. (Fig.82)

One of these *macromanzanas*, located next to the riverbed, and very close to the international border crossing, was to be dedicated to the shopping and civic center. It was directly connected by a bridge to the city’s central park across the river. From the information presented in the elevated monorail section in the previous chapter, we can infer that this area was located over 1km from the international crossing area, the Puerta de México, and that a stop for the monorail was planned. (Fig. 83) The *macromanzana* was divided into four sections, the two largest interconnected through a building overpassed by a highway, the third one and closest to the border only accessible by automobile, and a fourth, the smallest of them all, connected through a pedestrian bridge. All of them were surrounded by a vast parking lot. (Fig. 84)

The two smallest sections at the extremes of the ensemble were the only ones with

⁶⁹¹ Telegrama para El Universal, “Iniciarán Obras En El Río Tijuana,” *El Universal*, August 30, 1961.

⁶⁹² Enrique Novelo G., “Formidable Impulso Recibirá Tijuana Del Gobierno Federal,” *Diario de México*, April 2, 1962.

a ‘singular’ function. The one at the north of the *macromanzana*, closest to the international border line was destined for a “boite,” a restaurant or night club, and the one furthest south was a designed to be a hotel with bungalows. The two central sections were more multifunctional. The largest section consisted of a series of interconnected buildings (*mat-building* – concept explained in Chapter 2). Two office towers, a supermarket, a bowling alley, a large department store, a theater, a cinema, and a municipal-state building and consular offices were interconnected by a linear shopping building. Unfortunately, no drawings of the projects can be found in the archives of the architect, but a photograph of a model shows the volumetric composition and the International Style architecture of the towers can be appreciated. (Fig. 85)

The shopping center was located in the middle section. Following American standards for shopping centers, it was surrounded by large parking lots, and a circling roadway provided access to the rest of the ensemble. (Fig 84) A bar building of shops connected the shopping center on the south side with other elements. Passing underneath a highway, it connected it to the business area located south-east on the section previously described. Also, the shops connected it to a small department store and “exposition hall” located directly to the south, and to the museum on the southwest side. On the north side of the long axis, there was a “Super Market” that functioned as a magnet store.

Pani’s commercial and civic center project surrounded by a parking lot, and with a circling roadway, comes as no surprise. Somehow these are also tenets of Pani’s *macromananzas* projects and helped his intentions to separate pedestrian and automobile traffic, although they do coincide with one of the basic elements of the shopping center of

the era. They are the elements that bring Pani's project closer to that of the American shopping center, and at the same time make it unique. The project is organized in a linear layout with two magnets 'stores' at each end. There are shops at each side, and a sunken paved plaza in the center. On the north side, a supermarket connects with the stores, and on the south side there is a small department store. From the general plan we can infer that the supermarket structure is different from the rest of the shopping area, but unfortunately there are no plans to either confirm or deny it. The shop module consisted of a hexagonal plan of approximately 110 sqm.⁶⁹³ Six different modules existed according to their location in the plan, and the interconnectivity that they offered to the internal plaza. (Fig 86) The structure consisted of five outer rectangular columns, and one circular at the intersection with the other modules and where the walls divided the shops.⁶⁹⁴ The facades were designed to be mainly glazed floor to roof surfaces, with walls at the intersections. (Fig. 87) The roof was hexagonal and pitched.⁶⁹⁵ The one-story shops had a total height of 4.95 mts, while the shops with a mezzanine had a height of 7.8 mts.⁶⁹⁶ Two different types of mezzanines offered yet more variety to the modules.

Though many varied shop modules were offered, in Mario Pani's shopping center plans there was no 'variety' of tenants like in a traditional American shopping center.

⁶⁹³ Mario Pani, Arquitectos Asociados, and Hilario Galguera, "Comercios Internacionales. Planta Principal. Artesanías. A-1. Tijuana, B.C." (PRONAF, August 1965), Archivo de Arquitectos Mexicanos. Mario Pani.

⁶⁹⁴ Mario Pani, Arquitectos Asociados, and Hilario Galguera, "Comercios Internacionales. Artesanías. Detalles Plantas y Cortes. A-3. Tijuana, B.C." (PRONAF, September 1962), Archivo de Arquitectos Mexicanos. Mario Pani.

⁶⁹⁵ Mario Pani, Arquitectos Asociados, and Hilario Galguera, "Comercios Internacionales. Artesanías. Planta de Techos. A-2. Tijuana, B.C." (PRONAF, September 1962), Archivo de Arquitectos Mexicanos. Mario Pani.

⁶⁹⁶ Pani, Arquitectos Asociados, and Galguera, "Comercios Internacionales. Artesanías. Detalles Plantas y Cortes. A-3. Tijuana, B.C."

(Fig. 88) The shops were supposed to offer the best products made in México and Latin America, ranging from furniture, clothing, and other arts & crafts. Like in a mercado, this was a handicraft ‘specialized’ shopping center.

Three seemingly contradictory elements should be highlighted from Pani’s project for Tijuana. 1. PRONAF’s director and Pani understood that the tourists needed more than just arts & crafts, and thus the shopping center included other commercial, cultural, recreative, and civic activities. 2. The project seems to respond in no way to the previous studies that PRONAF carried out in the borderlands. A study that shows the predilection of the American visitor for the “traditional Mexican” atmosphere and activities: The mariachis, arts & crafts, bullfights, the charro clothing, and the traditional food. 3. Pani’s International Style architecture⁶⁹⁷ functioned as a shiny modern display for Mexican products following PRONAF’s intention of:

mexicanizar en el mayor grado todas sus actividades. Cuando todo lo que ofrezcan al turista sea producido en México, será mayor el atractivo para visitarnos, porque el extranjero que nos visita quiere encontrar en todo una atmósfera y un ambiente *nuevos* [my italics], es decir, un ambiente muy mexicano.⁶⁹⁸

In 1968, seeing that the federal government completely neglected the city of Tijuana, Mario Pani, in collaboration with two private financial companies, took over the project to modernize the city. In collaboration with Financiera Noroeste, S.A., and Banco Internacional Inmobiliario, S.A., investors put forth 160 million pesos to project a

⁶⁹⁷ From the information, drawings, photographs, and perspectives available.

⁶⁹⁸ Bermúdez, *El rescate del mercado fronterizo: una obra al servicio de México*, 121. Translation: Mexicanize all its activities to the greatest degree. So that when everything that is offered to the tourist is produced in Mexico, the attractiveness to visit us will be greater, because the foreigner who visits us wants to find in everything a *new* [my italics] atmosphere and environment, that is, a very Mexican atmosphere.

development of 1,000 houses and a modern touristic center -Plaza Santa María. By the beginning of October of the same year, 30% of the first stage was already undergoing, and 263 housing units of the Conjunto Residencial Lomas were built.⁶⁹⁹ The shopping center didn't get built, and it was not until 1971 that the first commercial and cultural development akin to PRONAF's intentions for the city of Tijuana got built.

Nogales, AZ

For the Nogales, Arizona border, the story is quite different. Nogales was a much smaller city than the rest of the border cities where projects were planned, and during the era of the shopping center boom (1950-1960) it only had an average of 6,700 inhabitants.⁷⁰⁰ Even when adding the population of Nogales, Sonora 3,692,⁷⁰¹ the market still wasn't lucrative enough for developers, since population and its potential growth is one of the highest valued factors in the shopping center *Site Selection Weight List* devised by Gruen.⁷⁰² The closest shopping center for the borderland communities was built in Tucson, Arizona. Following an incredible population growth of 368% from 1950-1960 in Tucson, The El Con Center opened its doors in 1961. The shopping center was built next to the historic El Conquistador Hotel, a Spanish Revival structure that opened in 1928, and was demolished in 1964. The open-air center had a two-level 60,000 sqft local department store, Levy's; and a two-level, 180,000 sqft Montgomery Ward; seven more

⁶⁹⁹ "Iniciaron Las Obras de Un Gran Centro Turístico," *El Mexicano*, October 6, 1968.

⁷⁰⁰ "Nogales, AZ Population," accessed February 9, 2021, <https://population.us/az/nogales/>.

⁷⁰¹ Programa Nacional Fronterizo, *National Border Program*, 2:10.

⁷⁰² Gruen, *Shopping Towns USA; the Planning of Shopping Centers*, 45.

stores opened in the first stage. Later in the year, nine more stores opened, and by 1969 it went through a major expansion taking over the land of the demolished hotel. By 1971 one section of the shopping center was enclosed, and by 1979 with a new addition the rest of the mall was fully enclosed.⁷⁰³

Nogales, Son.

Although the plan for Nogales, Sonora was featured in one of the few sources for the PRONAF projects the article in *L'Architecture d'Aujourd'hui*,⁷⁰⁴ there was no individual PRONAF booklet for it. (Fig. 89) Previous analysis showed that even without the existence of a shopping center in Nogales, AZ Mexicans crossed the border to do their shopping, generating a deficit for the Mexican city.⁷⁰⁵ As mentioned in Chapter 4, Nogales of all the border cities, was the city with the second highest per-capita expenditure in the US, exceeding bigger cities like Cd. Juárez. In order to attract tourism and capital to the city and overturn the disparity, Nogales received a larger budget for the urban renovations from PRONAF than Tijuana.⁷⁰⁶

Nogales, Sonora had been neglected by the federal government for a long time, and the construction of new roads and railways in previous decades had isolated the city, resulting in a slowdown of its economy. Bermúdez decision to focus efforts on Nogales,

⁷⁰³ "MALL HALL OF FAME," accessed February 9, 2021, <http://mall-hall-of-fame.blogspot.com/search?q=tucson>.

⁷⁰⁴ Pani, "Programme National Des Villes Frontieres," September 1963.

⁷⁰⁵ Programa Nacional Fronterizo, *National Border Program*, 2:11–21.

⁷⁰⁶ By 1960, Nogales, Sonora was a city of only less than 40,000 inhabitants and received 60 million pesos, while Tijuana with almost 170,000, only received 37 million pesos. See Bermúdez, 1968 for budget and populations.

responded to this situation. The Puerta de México, the canalization of 1.45km of the Río Nogales over which the Avenida Sonora was built, and the transformation of the Plaza Trece de Julio where the PRONAF complex was built, were the projects that the Mexican government undertook in the city.⁷⁰⁷

The grand urban renewal that these changes intended to bring to the city was translated from Pani's plan for a commercial and urban center, with hotels, motel, office buildings, commercial buildings and public places.⁷⁰⁸ The city received much needed infrastructural projects like a new telephone building and grid built by Teléfonos de México; a new pediatrics and maternity hospital, a joint venture of the federal and the municipal governments; and the previously discussed "ultra-modern" railroad station.⁷⁰⁹

The site selected by PRONAF for the main commercial center and Puerta de México was the historic Plaza Trece de Julio, the renovation of which led to the landmark 1894 neoclassical customs house was razed.⁷¹⁰ (Fig. 90) In the project designed by Mario Pani in collaboration with Hilario Galguera, the shopping area was divided into two sections, with a separate third area for the hotel and convention center. (Fig.91)

Directly east of the customs and immigration offices built in tandem with the Puerta de México, a small general commerce area was built. The two sets of six shops were covered by barrel-vaulted roofs, and consisted of modules 7 by 5 mts each, divided by an approximately 3 mt hallway in the center. (Fig. 92) A project for a plaza on a

⁷⁰⁷ Bermúdez, *El rescate del mercado fronterizo: una obra al servicio de México*, 68–69.

⁷⁰⁸ Pani, "Programme National Des Villes Frontieres," September 1963, 23.

⁷⁰⁹ Chapter 4 – Section Train Station and Warehouse.

⁷¹⁰ Daniel D. Arreola, "La Cerca y Las Garitas de Ambos Nogales: A Postcard Landscape Exploration," *Journal of the Southwest* 43, no. 4 (2001): 508.

wedge-shaped plot, that appears to have been planned to be located south of the immigration/gateway/commerce complex, can be found in Mario Pani's archive at UNAM. (Fig. 93) The project for a "mercado de curiosidades" without a date, but fully developed, consisted of sixteen larger stalls ranging from 8 to 12 sqm, and 6 smaller of 2 sqm. It was covered with flat concrete roof, and gated. The outer facades consisted of Venetian mosaic tiled walls, and glass shutters covered by a clay-brick screen at the upper section that allowed cross ventilation. (Fig. 94)

Further south, Pani and Galguera designed and built a convention center, museum, and office building. (Fig. 95) The project, consisting of two volumes connected by hallway, presented a different architecture from the one built for the Puerta de México and contiguous immigration offices and commerce. The tower was designed in an architectural language that recalls his Avenida Reforma international-style apartment towers in Mexico City, and the museum/auditorium complex was formed by a completely enclosed concrete rectangular box with two zig-zagging facades, rising to a concrete-shell paraboloid covering the auditorium, similar to the one designed for Cd. Juárez. (Fig. 96)

With a footprint of 12.9 by 36 mts, and a structural module consisting of rectangular concrete columns that run the whole width and every 6 mts at length plus an elevator, stairs and service shaft running at the center;⁷¹¹ the office building was oriented east-west on its longest axis and was five-stories high plus a penthouse. At the ground floor, the office tower offered commerce, services, and a distributing vestibule that

⁷¹¹ Mario Pani, Arquitectos Asociados, and Hilario Galguera, "Sala de Exp. Museo y Edif. Oficinas. Planta Baja. A-1. Nogales, Sonora" (PRONAF, January 1964), Archivo de Arquitectos Mexicanos. Mario Pani.

allowed connection to the hallway leading to the museum and auditorium building. The second floor housed a restaurant with its kitchen, bathrooms, and a connection to the museums' rooftop terrace, at the same level that the auditorium. The third, fourth and fifth floors presented an open plan, and the sixth floor, the penthouse, was shortened by one module at each side at length, and 2 mts each side at width, leaving open a grand roof terrace. (Fig. 97)

The museum/auditorium complex consisted of a two-story building. The first floor, completely enclosed, had two 7 by 6 mts landscaped light wells, where the auditorium roof's support structure also emerged. The museum's vestibule allowed access to the 300-seat auditorium through a spiral staircase, and to the museum through a series of curved walls that directed the visitor.

Two sections not described or illustrated in the *Programme des Villes National* article, or in any existing plan in the archives, appear in photographs of the era. In a strip of land north of the museum, two sections of buildings very similar to the immigration and customs office were built. (Fig. 98) Developed around the end of 1963 by Mario Pani and entrusted to Hilario Galguera the project for the Mercado de Cuernavaca was very similar in shape, but with a larger scale. It consisted of a barrel-vaulted concrete shell with arched openings on its sides giving the side façades the appearance of being formed of pendentives in the same way that the immigration and customs office was. The Mercado de Cuernavaca plan consisted of rows of stalls in the center organized in a way

that allowed the creation of dividing hallways.⁷¹² (Fig. 99) Considering the difference in scales of both projects, and from photographs available, it appears that only one row of shops facing both sides formed the buildings of Nogales. The other section that was also built but not available in drawings, was a series of small barrel-vaulted shops that ran along the Calle Elias, the avenue that led to the international border crossing into the US. (Fig. 100)

By the end of 1964 the Puerta de México, the immigration and customs offices, and the commercial areas opened their doors and operated for a couple of decades with their original purposes, before some changes were made to the structures. The projects were highly praised by the Arizona press for the great change they brought to the borderland's communities. Their modern architecture, clean lines, parking spaces under roofs, and refrigerated air-conditioning spaces, were commented on in various newspaper's articles. "The tourist of tomorrow" they wrote, "cannot describe the border as 'quaint' or 'cute.' It will, instead, be sophisticated and cultured, and as such, benefit the economy and improve the relations of both countries."⁷¹³

"Mexican borders were to be cleaned-up and, vice-controlled." The "recreational emphasis" of the borders towns was to be changed, and Arizonans were happy about it.⁷¹⁴ For the Mexican government Nogales was one of the gateways to México, but for

⁷¹² Mario Pani and Arquitectos Asociados, "Centro Comercial de Cuernavaca," *Arquitectura México*, March 1963.

⁷¹³ Eaton, "Towns Trade Quaintness For Culture, Sophistication."

⁷¹⁴ Polly Benn, "Nogales Takes on New Look," *The Arizona Republic*, September 11, 1964.

Arizonans it represented the flow of tourists of the Southwest and Midwest through their state, in order to cross the international border.

Pani's modern architecture for Nogales had its chance to be put to the test unlike the project for Tijuana. American tourists approved and Mexican's seemed to have accepted the project well, but the failure of subsequent governments to perpetuate the program negatively affected the structures. The completion date for the convention hall and the museum was set for January 1st, 1965 ⁷¹⁵ but the building never opened for these activities. After having been used as a discotheque, a government warehouse, and multipurpose function hall, the museum was rehabilitated and opened to the public until 2012.⁷¹⁶ The two commercial buildings north of the museum were turned into casinos in the 90s and continue to operate as such. The commercial area right next to the immigration and customs office continues to operate as an arts & crafts shopping center despite the changes its individual facades has undergone. Lastly, the Puerta de México, as mentioned in the previous chapter, still stands. For whatever reason, Nogales is one of the few cities that have managed to keep its architectural heritage standing.

Eagle Pass, TX

The situation in Eagle Pass was similar to that in Nogales, AZ with the added

⁷¹⁵ Benn.

⁷¹⁶ Jonathan Clark Nogales International, "Sister City Unveils New Art Museum, 50 Years in the Making," Nogales International, accessed February 18, 2021, https://www.nogalesinternational.com/news/sister-city-unveils-new-art-museum-50-years-in-the-making/article_706e057a-fc21-11e1-b3a7-0019bb2963f4.html.

disadvantage that the population between 1950 and 1960 actually decreased 1.6%.⁷¹⁷ As such, the average population was 13,152 inhabitants during the boom years of the shopping centers. Even adding the 14,290 inhabitants of Piedras Negras,⁷¹⁸ the total population was still too low for a developer to venture into building a shopping center in the city of Eagle Pass. The closest option for the Eagle Pass/Piedras Negras community was 143-miles away in San Antonio, Texas. The North Star Mall was a complex built on a 53.9-acre plot of land, in the north of San Antonio, adjacent to a newly completed section of the Loop 13-Expressway. The North Star was the first fully enclosed shopping center in San Antonio, and it consisted of two two-level magnet stores of 62,000 sqft each, forty-two stores and service. It opened its doors on September 23, 1960. By 1963 an expansion of 160,000 sqft, comprising eighteen stores, and a total of 82,000 sqft was added to one of the magnet stores, totaling approximately 543,000 sqft of leasable area, with eighty-eight stores and services.⁷¹⁹ The North Star Mall also was an option that served the community from Brownsville and Matamoros, who would have had to drive 277 miles.

Piedras Negras, Coah.

Piedras Negras, like Nogales, had previously been neglected by the Federal Government for a long time. After a plea of help by the municipal president to be

⁷¹⁷ “Eagle Pass, TX Population,” accessed February 10, 2021, <https://population.us/tx/eagle-pass/>.

⁷¹⁸ Programa Nacional Fronterizo, *National Border Program*, 2:10.

⁷¹⁹ “MALL HALL OF FAME,” accessed February 10, 2021, <http://mall-hall-of-fame.blogspot.com/search?q=north+star+mall>.

included in the cities to receive PRONAF's investment after the program was announced,⁷²⁰ President López Mateos, by the intervention of Bermúdez, granted an investment of 25 million pesos for the regeneration of the border city.⁷²¹ The city underwent one of the most complete transformations in the borderlands, with a new tourist and commercial area, which included the Puerta de México. In addition, very necessary water and drainage works, including a water purification plant, were carried out.

Six blocks were demolished just west of the international border crossing to build Pani's *macromanzana*.⁷²² The master plan included a replacement for the "Palacio Municipal"- city hall-; national, and international commerce; a supermarket; a cafeteria; a bank office branch, and the customs and immigration office -built in tandem with the Puerta de México-; the preservation of the plaza and kiosk; and a Museum/Exhibition Hall/Office building complex similar to the one developed for Nogales. (Fig.101)

The new Palacio Municipal, designed by Pani, was built in a block adjacent to where the commercial and cultural center was to be constructed. It replaced the 1919 neoclassical city hall. (Fig. 102) From photographs it can be described as a three-story building. A stone base provided entrance to the building, to the right side the façade included a concrete-brick screen. The upper floors were covered with a clay-brick screen, that allowed a view of an internal façade with parapets and windows for the office areas.

⁷²⁰ Staff, "Piedras Negras, Coah. Gestiones Para Incluir La Cd. En El ProNaF," *El Porvenir*, September 5, 1962, Fondo Mario Pani Darqui.

⁷²¹ Staff, "Importante Mesa Redonda Presidió Ayer Mismo En Piedras Negras El Sr. D. Antonio J. Bermúdez," *El Sol Del Norte*, May 27, 1962.

⁷²² Bermúdez, *El rescate del mercado fronterizo: una obra al servicio de México*, 107.

A modern-sculptural structure formed the balcony and bell towers of the traditional Mexican city hall buildings. (Fig. 103)

On each side of the Puerta de México two wings labeled for international commerce shops were built. They consisted of a non-prismatic folded plated concrete shell roof top, with each module belonging to a shop. Images show that they were instead used for an arts & crafts mercado. (Fig. 104) The other commercial area was a module copied from the Nogales project. The same barrel-vaulted concrete shell with arched opening façades that looked like pendentives, were in this project presented to the automobile border crosser in all its form. The driver encountered the building in its totality, as part of an angled perspective that included the building labeled to be the supermarket, once they crossed the border. The so labeled supermarket building, was a “folded plate star-shaped roof supported by columns and a discrete system of infill curtain-wall glazing.”⁷²³ (Fig. 106)

The projects for Piedras Negras reflected the late inclusion of the city to the program. They were a collage of the forms and shapes that Pani had experimented with and projected for the other cities that PRONAF had initially planned investments for. Although aesthetically pleasing, the project does look like a catalogue of modern architecture formal language, confirming for a lot of Pani’s detractors that his work belonged more to the “International Style” than to a Mexican modern style of architecture. The reality is that the project responded to PRONAF’s ideals of generating a

⁷²³ Burian, *The Architecture and Cities of Northern Mexico from Independence to the Present*, 97.

modern and recognizable face for the borderlands of México, and to attract tourism. (Fig. 107)

By 1968 it was said that Piedras Negras's economic structure had improved significantly, having generated more the 400 million pesos a year.⁷²⁴ As Bermúdez mentioned in a very patronizing way, the project allowed the city to step out of the "mediocridad y la insignificancia económica en que han vivido."⁷²⁵ The project did not receive as much publicity and coverage in the media as Nogales, Cd. Juárez, or Matamoros did. Although the buildings operated as intended for a couple of decades the Palacio Municipal was destroyed by a fire in 1985, caused by a riot against the electoral fraud committed by the PRI for the state government elections.⁷²⁶ The commercial areas were demolished in February 2010 to make way for a new beautification project for the city. The architect responsible for the project, in a ironic turn of events alleged that PRONAF's buildings "al ser edificios obsoletos y cuya falta de mantenimiento los ha dejado fuera de la modernidad e imagen que se busca para el Centro Histórico de Piedras Negras,"⁷²⁷ it was worth razing them.

⁷²⁴ "Mejora El Comercio de Piedras Negras," *San Antonio Express*, June 11, 1968, sec. Noticiero en Español.

⁷²⁵ Bermúdez, *El rescate del mercado fronterizo: una obra al servicio de México*, 74. Translation: the mediocrity and the economic insignificance in which they have lived.

⁷²⁶ Rigoberto Losoya Reyes, "Dr. Eleazar G. Cobos Borrego: Precursor de La Democracia En Piedras Negras," *El Periódico de Saltillo*, January 2015, Digital Edition edition.

⁷²⁷ Joaquín Guerrero, "Pronaf Frena Desarrollo Del Centro Histórico de Piedras Negras: Arquitecto," February 19, 2010, https://www.zocalo.com.mx/new_site/articulo/Pronaf-frena-desarrollo-del-Centro-Historico-de-Piedras-Negras-Arquitecto-. Translation: ...being obsolete buildings and whose lack of maintenance has left them out of the modernity and image that is sought for the Historic Center of Piedras Negras...

Conclusion

PRONAF's main objective was to modernize and consolidate a territory culturally, economically, and socially through the built environment—architecture and infrastructure. It aimed to forge a for-export “Made in México” national identity that was imbued with *Mexicanidad* but was also modern and palatable for the North American visitor. The purpose of the examples presented in this chapter is not only to demonstrate how Pani and collaborators sought an architecture that balanced to include the Mexican aspects into especially modern (for the borderlands) architecture; but also, to reveal their concern for understanding that a significant feature of the borderlands is the *cultural hybridization* between the Mexican and the American. However, the use and application of *purely* Mexican materials in modernist forms, and the prioritization of the automobile while preserving patios and central pedestrian plazas, was already becoming part of the vocabulary of Mexican modernism.

What PRONAF was original to propose in the early 1960s for the border territories and for the country, was the first Shopping Centers. A series of large public spaces in which locals and foreigners could have daily access to cultural, social, and commercial activities in safe and pleasant surroundings. These spaces would promote civic participation, facilitating interaction and contact among the different identities of their users, and thus promoting cultural enrichment. Had it succeeded; the project might have reduced “the tendency to view the borders as a stark dividing land.”⁷²⁸

⁷²⁸ McCrossen, *Land of Necessity*, 53.

The first shopping center, in a more American sense of the concept, opened in México in 1971, years after the PRONAF projects were designed, and the few ones that got built were already functioning. Ciudad Satélite (1954) designed by Mario Pani expressly as a dormitory city for the growing Mexico City, was planned following the models of the American suburbs, the English New Towns, and the Herrey road system.⁷²⁹ Although Pani invited Juan Sordo Madaleno to design the shopping center as early as 1963, when Ciudad Satélite was a big success, it wasn't until 1968 that its construction started.⁷³⁰ The project of a “centro commercial planeado específicamente para Mexicanos y los Mexicanos,”⁷³¹ had all the characteristics of a suburban enclosed shopping center: vast parking lots, magnet stores, variety of shops, covered plazas, etc.

At the borderlands' shopping centers, the *folkloric* traditional *mercado* for which the American tourist traveled to Mexico, in Pani's projects was enclosed in modernist structures. Its open displays and lightweight covers turned into concrete stalls were now also oriented at the automobile driver, presenting a double facade. By diverging from the projects of architects like Del Moral and Candela, in Mexico City, or Zohn in Guadalajara, Pani provided large parking spaces, creating open central courtyards surrounded by shops in a pedestrian setting. Like Rodriguez and Rivero mention:

The “shopping center” of the American culture is used for the sale of Mexican goods, but not as part of an anonymous suburb; it is self-contained in a superblock, isolated from other uses and “polluting” factors, with free automobile transit nucleus as the CIAM modernist urbanism defined.⁷³²

⁷²⁹ Adrià, *La sombra del Cuervo*, 115.

⁷³⁰ Juan Sordo Madaleno, “Centro Comercial Plaza Satélite,” *Arquitectura México*, November 1974.

⁷³¹ Sordo Madaleno, 9. Translation: shopping center planned specifically for Mexicans, and Mexican's needs.

⁷³² Rodriguez and Rivero, “ProNaF, Ciudad Juárez: Planning and Urban Transformation.,” 206.

The spaces designed by Pani and endorsed by PRONAF's director, in the mind of two modernizers of the country, were praised as successful in accomplishing the role of making México a participant of the modern world and the global economy that it wanted to be a part of- and putting in display the products and traditions for which it had become a famous touristic destination. Unfortunately, many of the projects were not built, and they could not be put to the test, to let tourists decide their success. What the Mexican architect envisioned as the spaces that hybridized the traditional and the international for the American tourist could have seemed too modern and not Mexican enough.

PRONAF's goal to provide lodging facilities with the best hotel techniques in which formal comparison must always be favorable to Mexico,⁷³³ was successful in Cd. Juárez according to the press. Legorreta's Camino Real hotel created an atmosphere of "being in another world that is foreign, but with all the comforts and services of the best of modern hostelry."⁷³⁴ With an architecture in transition between modernism and the postmodern, and its fabricated interiors of authentic *Mexicanidad*; the hotel added another layer to the hybridization operations. Camino Real Motor Hotel hybridized different temporalities- the colonial, the modern, the contemporary- and different geographies- the center, the border, and the US. The hotel in García Canclini's words articulated "the promises of modernity and the inertia of tradition."⁷³⁵

⁷³³ Programa Nacional Fronterizo, *National Border Program*, 2:29.

⁷³⁴ "Camino Real Serves You in Charming Mexican Manner."

⁷³⁵ García Canclini, *Hybrid Cultures*, 53.

It is true that Pani, being a man of his time and circumstances, approached PRONAF considering the borderlands as a general geographic location and with a single cultural dichotomy, and not in its full geographic and cultural diversity. That said, this dual cultural identity of the borderlands – the Mexican and American- allowed him to explore and experiment even further into what I consider to be one of his most constant preoccupations throughout his career: the creation of an innovative hybrid modern architecture with its roots in the Mexican environment and culture. It was a concern that he demonstrated since his final thesis project in the Ecole des Beaux-Arts in Paris, *Maison au Mexique*, described as a house with patios filled with sunlight and exotic trees;⁷³⁶ showing his ability to integrate French academicism with the theoretical proposals of Villagrán García,⁷³⁷ his opening to plastic integration in Mexican architecture, his insistence on improving the quality of life of Mexicans in his residential projects, and his interest in the inclusion of local construction techniques and materials.

As praised and well received as the program was, every city that received PRONAF raised concerns about the more important necessities to be solved in their cities. Sewer, potable water, paving, and good mass transportations systems were services that the borderlands populations were demanding. Approximately 20% of a budget of the 408 million pesos went to acquiring land in the different border cities. Although negotiating with private landowners lowered costs, the urbanizations that the program

⁷³⁶ Vladimir Kaspé, “Tiempos de Estudiante Con Mario Pani,” in *Mario Pani*, ed. Louise Noelle, 1st ed. (México, D. F: Universidad Nacional Autónoma de México, Instituto de Investigaciones Estéticas, 2008), 42.

⁷³⁷ Louise Noelle, “La Arquitectura y El Urbanismo de Mario Pani. Creatividad y Compromiso,” in *Modernidad y Arquitectura En México*, 1st ed. (Barcelona, Spain: Gustavo Gili, 1998), 180.

brought exponentially grew the expenses, leaving little to no budget for some of the projects. What was praised in the media as: “At long last it seems that 1964 will bring a new life to the extended strip of real estate known as the Mexican border, an area which brings over 500 million dollars a year into Mexico and so little prestige,”⁷³⁸ by January 1965 would seem entirely less feasible.

With the formation of the Patronato Pro-Industrialización de Ciudad Juárez (discussed in Chapter 2) in early 1964, and its consolidation as a corporation in January 1965, the industrialization of the northern border robbed the attention and budget of PRONAF. With Gustavo Díaz Ordaz in power (Dec. 1, 1964) came reorientation of the economic strategy for the country. Antonio J. Bermúdez resigned from the direction of PRONAF by the end of 1965, and by 1966 the Programa de Industrialización de la Frontera – PIF was functioning in full speed. The construction of hotels and shopping centers was replaced by maquiladoras.

If the projects designed by Pani had been built and/or properly maintained by the subsequent governments these public spaces would have offered the border cities an alternative space of modernity that while still resisting, as intended, the total assimilation of American culture, were more appropriate to the *fronterizos* and their environment. These spaces would have started to reveal the understanding that the *cultural hybridization* along the Mexico-United States border is not one in which the participating elements disappear but is rather a unique conception that finds fertile ground in this third

⁷³⁸ Gary Pickard, “Mexican Notebook. New Year Sees New Look Through Border ‘Window’ As Mexico Starts Big Construction,” *The Arizona Republic*, December 29, 1963, Newspapers.com.

space between cultures and systems. A space that according to Cantú and Hurtado in the introduction of Gloria Anzaldúa's *Borderlands/La Frontera. The New Mestiza* she describes as,

neither fully of México nor fully of the United States...That space in which antithetical elements mix, neither to obliterate each other nor to be subsumed by a larger whole, but rather to combine in unique and unexpected ways.⁷³⁹

⁷³⁹ Norma E. Cantú and Aída Hurtado, Introduction in Anzaldúa, *Borderlands/La Frontera*, 6.

CHAPTER 6

Conclusion

The Programa Nacional Fronterizo [PRONAF] was created in 1961 as a program that sought to propose a model of economic and cultural development for the nation that neighbored the country with the highest economic potential in the world. The rapid industrialization of México, characterized by the economic stability of that period, allowed the government to undertake the PRONAF project. It was these elements of industrialization, economic stability, and national identity which were put on display at the borderlands.

This dissertation analyzed PRONAF's architecture and urban project through an interdisciplinary approach focusing on national and international history and the political conditions that fostered its creation. The project is presented as a symbol of the interdependence between the two countries. PRONAF projects are interpreted as trans-border urban and architectural projects that brought modernization, industrialization, and culturalization to the borderland territories. The analysis is based on the designs that Pani, head architect, proposed for PRONAF, defining them as hybrid spaces: a mix between the modern and the traditional, between México and the United States, between the urban and the suburban, but also between the reality of the lives of the border residents and the policies implemented by the federal governments in this territory.

PRONAF – Master Plans

Mario Pani was one of those design professionals that worked seamlessly between architecture and urbanism. His formative years in the late 1920's in the École des Beaux-Arts in Paris marked in him an academicism that would follow in some way throughout his career. When he arrived to back in México, his projects responded to a country that was recently coming out of the Revolution. The first houses, hotels, and apartment buildings were exuberant, pompous, and demonstrated what has been criticized as a “horror vacui.” Soon after, his work began to show the extreme functionalism that would characterize it. But that didn't mean that his interests in clarity, representation, composition, human scale, and decoration, a consequence of his time at the Gromort workshop, were lost.

Pani's modernism followed *integración plástica* -the use of painting, and sculpture as integral parts of architecture design- not as a replacement of decoration, but as its evolution. In his buildings the tradition of Mexican social realism narratives of murals was integrated in the form of non-realist purist sculptures and paintings. Examples of this plastic integration can be seen in projects that ambiguously play with the scale of architecture and urbanism, like the Escuela Normal, or the Multifamiliares Miguel Alemán and Benito Juárez.

The Multifamiliares, as projects that were developed in macromanzanas, where thousands of people can develop various activities like commerce, recreation, and others, in addition to living; should be considered as the first and experimental seeds for the

projects to come for UNAM Campus, the Planos Reguladores for the border cities, and for them the PRONAF Commercial, Cultural, and Civic Centers. In this progression of projects, Pani and his Taller de Urbanismo demonstrates their ability to pass from one scale to the other, always bringing the lessons learnt from the previous one.

Pani's architectural approach to urbanism, or urban approach to architecture, was to undertake the study and analysis of the problem with the perspective of the big picture, taking into account the needs of the human being at every scale and considering how they are interrelated. Taller de Urbanismo's view as led by Pani always encompassed the building, the ensemble, the barrio or neighborhood, the city, and the region.

As was analyzed in the dissertation, his urban tenets stressed certain elements: the Herrey circulation system, the macromanzana as a unit for growth and development, integration of different types of housing per neighborhood, a vertical growth of the city, and the integration of regions through road systems. Although not mentioned, Pani did not completely neglect the aesthetic element in his urbanism, just as he didn't in his architecture. It is true that a primacy of the technical and functional aspects over the aesthetic can be perceived in Pani's projects. The pressing need to solve the social problems of the country generated this hierarchy, but one must differentiate the two types of urbanism: the 'city within a city' projects, and the 'city outside the city' ones. Of the latter, examples exist like Ciudad Satélite where the models of the CIAM functional city's macromanzanas and the American suburbs were hybridized, and undulant roads converge with orthogonal traces; where the separation of traffics permitted the integration of landscape solutions that had an ecological water recycling component. To this type of projects are what PRONAF's solutions were closer to.

The general plans for the Civic and Cultural Center as projected and sometimes depicted in the promotional materials included a shopping, tourist and entertainment centers, a museum, a convention hall, a cinema, a theater, office building, hotel, motel, and sometimes a charro stadium. All these different typologies of buildings, new, modern, and traditional, that I mention were laid out in a sort of *mat-building* arrangement, where a single homogenous composition composed of a series of sub-systems are integrated at different scales by buildings, materials, parks and gardens, walkways and paving.

Miquel Adrià writes that urban ideas arrived late to México, and that Pani was still building Athens Charter's cities in the late 1960s. But again, that depends on which type of urbanism you look at, his city inside the city projects, like Nonoalco Tlatelolco, respond to a tabula rasa model, but PRONAF city models were hybrid. They followed his urban tenets that looked at the region, and the different scales granularities, among other complexities. The *mat-building* characteristics of PRONAF's proposals are, in the same way, responses to this understanding. Whether Pani knew of the work of the Smithsons is not that important, I use the mat-building concept because of the similarities, and because it allows an easy frame of reference in which to understand them. In any case it can be said that Pani built "streets-in-the-air" for the Multifamiliar Miguel Alemán, long before the Smithsons proposed them. Ideas flow back and forth.

What Mario Pani proposed in the master plans for the Commercial, Cultural and Civic Centers for PRONAF, and that can be viewed in plan, perspective drawings and photographs of the models, is a mesh and a system of buildings, a series of patterns created by the roads- both pedestrian and automotive- that create plazas, parking spaces and

gardens. A series of buildings that, positioned over a grid with a different logic that overlaps these patterns of communication, creates different densities. Although for some Mexican authors it is hard to believe that an ardent modernist like Mario Pani, who never shown interest in the work of the Smithsons, at least not publicly or in his magazine, could be directly citing their ideas, like I previously mentioned, in the case of Pani's "sort-of mat-building" there is a hybridization. As a great artist in architectural composition, a historicist view of ordering architectural elements but using a modern language -like the historical examples mentioned in the Smithsons' article- could have been what provided an approximation to the language of the new typology. Either way, Pani's planning response sought to be appropriate to its time and place. It responded to the user's prioritization of the automobile, his interest in experiencing different environments, both Mexican but also clean and with all the comforts of modern spaces; and to his patrons' demands of showing through architecture a thriving modern country that was also true to its indigenous roots and centralist ambitions.

Pani offered a solution model that could be adaptable for the different environments in which the project would be introduced. His proposal positioned the new commercial and touristic centers as a new and alternative center of the city, as spaces placed right next to the main avenues that led to the international border. They were strategically located there to promote social interaction between the tourists and the locals. The superblocks included spaces to accommodate all of the programs that PRONAF demanded; buildings, plazas, and open spaces were designed to display cultural activities of all sorts: music, dance, and representations that would attract not only the tourist but the local populations.

The program as a model promoted a binational cooperation. American and Mexican architects were urged by the Colleges of Architects and Associations to collaborate on a project that considered the borderline not as a line of division but as an axis of integration. Although the collaboration on paper was very successful, several reunions, congresses, and planning sessions were attended, and charters and documents were signed, the projects happened very disjointed if at all on each side of the border. What was projected at the national scale for the Mexican side, never got to be on the American side. Local projects in the U.S. cities never encompassed the support, budget, and scope of representation of a national identity that PRONAF had. In some cases, they were customs and immigration offices, undertaken by local governments with the intervention of the federal government, and in others failed projects of satellite city developments like the Horizon City project outside El Paso, where the name of Lucio Costa was used as a marketing strategy. However, the documents signed, like the Charter of El Paso, and the formation of the International Border Commission, remain as the first and only efforts in which architects and urbanists led inter-boundary policy and project making efforts in the México / U.S. borderlands.

PRONAF, as a general model to solve the development of the borderlands, was charged with far more than urban regeneration and cultural and commercial equipment for the border cities. The project sought to represent the whole country at the borderlands, with a double intention of creating and solidifying a weakened economy by attracting short stay tourism, and push those tourists further into the country. López Mateos's government inherited many years of abandonment at the borderlands and charged the project with too many objectives that could not be tackled in just six years. The sole

effort of urbanizing, in many places introducing basic infrastructure like paving, water, and sewage; and the construction of the Commercial, Cultural and Civic Centers to dignify the borderlands and represent a national identity, required a monumental effort. Architecture and urban planning -commercial, cultural, and civic centers- should generate and develop a local economy by attracting a certain kind of tourism that would spend the night, consume at the bars and restaurants, and buy products, hence boosting the national market.

On resistance and national identity.

López Mateos paid special attention to education and culture during his presidency as elements that reinforced the values of the revolution and national identity. It was during his term that the museum of history was institutionalized as an educational tool. In collaboration with the secretary of education, Jaime Torres Bodet, they devised a program that, including textbooks and a series of history museums, would educate students on the values of the post-revolutionary country. Museums like the Galería de Historia Museo del Caracol and the Museo Nacional de Antropología in Ciudad de México are examples of such efforts at work. In the hands of Pedro Ramírez Vázquez, these projects were constructed on the premise that the most promising way to guide a country towards the future was through culture. The cultural endeavor took place both inside and outside the country, with different goals when directed to eyes of the foreigner.

With the promotional intention of selling and promoting an image of México, Ramírez Vázquez directed the design, construction, and exhibition for the International

Fairs' pavilions, which he connected programmatically to the border museums. The museums for the border cities, Tijuana, Cd. Juárez, and Matamoros, had to fulfill two goals. Connected to the educational endeavor carried out by the Secretariat of Education, they had to educate the *fronterizo* population on the history and values of the country, the one dictated not only by the government but by the central intelligentsia and had also to promote in a glimpse Mexican culture to the (primarily American) tourist.

After the Revolution, the priority was to construct an idea of tradition and *Mexicanidad*, an official narrative that included rural life, its arts and crafts, and the pre-Colombian past. The hope was that a foundational myth including the idea of mestizaje of the indigenous Aztec and the Spanish would unify the dismembered country by creating a national identity. By the 1960's Mexican authorities needed to present a modern country that also appreciated tradition. Architecture and urbanism were used as tools for economic development, and Mexican modernism which combined state-of-the-art technology, an abstraction of pre-Colombian motifs, the use and application of traditional materials in contemporary ways, provided architects like Ramírez Vázquez a language to do it.

The museum buildings for the borders, in a condensed and synthetic manner, provided a panorama of the history and culture of the country. The exhibition presented in a chronological way the various stages of Mexican art, from the pre-Colombian cultures, mainly the Mexica-Aztec, passing through the colonial period, to the most recent schools and movements of the mid-century. Additionally, an exhibition of Mexican handcrafts, customs, folklore and landscapes in the form of photographs and objects was presented, normally in a secondary architectural volume. Ramírez Vázquez used the buildings themselves as symbols of national identity. Through the use of

traditional materials like canteras and stones, used in contemporary ways by technified cuts and applications on walls with methods that previous adhesives wouldn't have allowed, and the use of a repertoire of the contemporary modern forms found in the most-advertised buildings of Ciudad de México, the building themselves were used to represent modern contemporary Mexican architecture.

The museums' architecture contained other elements that are important to take into account to understand the message that was put on display. The inclusion of a large-scale model in the outside plaza of the museum islet of Tenochtitlán, in addition to the prevalent idea of having the museums main hall surrounded by water, suggests Ramírez Vázquez's intentions to culturally reclaim the borderland territory for México. His constant reminder of Tenochtitlán's formal and hydrological characteristics at the border museums is a reminder to *fronterizos* of the mother culture, of the primacy of the Aztec/Mexica part of their mestizo heritage. The border museums for Ramírez Vázquez had the purpose of reminding Mexicans of their cultural values, so that in the face of dominating American culture, they would feel proud of their Mexican heritage. For many people from the center, the *fronterizos* were in danger of being lost to Americanization, and there was still resentment from the Mexican American War that the northerners didn't do enough to protect the territory. Ramírez Vázquez, as an architect coming from Ciudad de México, felt the need to exert his centralist perspective in his design process.

The museums appeared in Pani's project in plazas as sculptural architectural pieces connected to the rest of the complex by sidewalks, passageways and sculpture gardens that completed the exhibition. The only museum built, and still successfully in operation is the Cd. Juárez Museo de Arte e Historia, whose shape has many origins

discussed in this dissertation. Either the result of a technical advancement – the dome- or the abstraction of a sacred grain silo – cuscomate-, the museum's formal attributes reinforced the general schemas that Ramírez Vázquez set for the museums at the borderlands. The exhibition was set to create a cultural link between México's center and the border. Surrounded by water, the museum was accessed by a bridge, corresponding to the north-south axis, which could be said to resemble the act of crossing the border river, but that in the general design was a reminder of the bridges of the island of Tenochtitlán. The architectural model of Tenochtitlán can also be seen, adding a reminder of the Mexican identity that *fronterizos* were supposed to be proud of.

El Paso and Brownsville, Texas, as well as San Diego, California built museums around the same time that PRONAF was planning theirs for the border cities. With collections of very different origins, and with different purposes the museums opened their doors around the same time that the Cd. Juárez museum. Housing European Masters collections donated by wealthy family collections, the museums had no intention of portraying any sort of national history or identarian narrative. The El Paso and Brownsville museums used a neo-classic language, El Paso's was a renovation of an old mansion, and Brownsville was deliberately designed in such a style. San Diego's Timken museum was designed in a modernist style, with a structural frame that regulated the form and shape of the museum, and with panes of marble and glass that gave the museum a regulated symmetrical façade. San Diego, being a larger metropolis, had a more solid tradition of modern architecture; by 1962 Louis Kahn was initiating the construction of the Salk Institute, of which Luis Barragán is said to have played an important part in the

design of the “garden.” The Timken museum was one more piece of a series of important modern buildings in the area.

Welcome to México.

The first pieces of architecture/infrastructure that were built from the PRONAF projects were the Puertas de México. They were the real front face of the Mexican territory, the first face of the more than 2000-mile show-window that PRONAF wanted the borderlands to be. The Puertas were the crossing points, the first points of encounter with the country, and as such they should generate in the visitor, through their architecture and planning, the best of impressions. México was to be presented as more modern than its neighbor.

The Puertas de México projects, located at entrances in Tijuana, Nogales, Piedras Negras, and Matamoros mainly fulfilled one function, to symbolize the entrance of the country and receive the tourist. Second, they provided administrative services for customs and immigration. Pani, as the main designer (Nogales, Piedras Negras, and Matamoros), but also Rossell (Tijuana), made use of an architectural language that, while showing off the technological advances that had been achieved in the country in architecture and construction, remained recognizably Mexican. How was this achieved? Symbols and signs, and the media.

The hyperbolic paraboloid shells, introduced by Candela, the suspended bridge-like volumes, and light-weight concrete wing-like slab roof were indeed a catalogue of forms with which the Mexican architects had been

experimenting since the early 50s. Although they might have been not that new to the American connoisseur, they had been heavily published as part of Mexican architecture since the construction of the UNAM Campus. With the proliferation of publication of Mexican architecture in American media, a certain branding of Modern Mexican Architecture had been created. The distancing from the cultural centers of the borderland's cities was true for both sides of the border; the construction of such modern structures represented for the border communities a great spectacle, as newspaper articles attest. If modern architecture was not considered Mexican before, it became so once it was first built in Mexican territory, since the American border cities couldn't compete with these projects for decades. Lastly, the structures maintained a modern aesthetic of no ornamentation save one symbol, the Mexican emblem of the royal eagle standing on a cactus devouring a serpent, which, oriented towards the incoming traffic from the U.S., presented the visitor with the clear image that the structure that they were about to pass was undoubtedly Mexican.

The projects for the Puertas de México, as mentioned previously, were more of a symbolic gesture than a functional solution. Pani's project for Matamoros proves that although he decides to hang the main building housing immigration offices between two red parabolic arches, it was in the secondary building at ground level where the leading staff offices were located. The arched building was designed to be approached by the automobile, perceived at driving speed, and the roads leading to it provided the necessary detours to allow angled views and pauses for view capturing.

The Puertas projects rapidly became spaces of great stem and pride for the citizens of the places they were built. In Piedras Negras for example, a city neglected for decades

by the federal government, it represented not only a dignified entrance to the country, but also to the city. It provided commercial spaces and a point of reunion for the small town. Its surroundings became parks and places where the locals gathered. For the people in Piedras Negras it also represented that even though they were the last to be considered for the PRONAF project, the federal government was for the first time responding to their needs.

The Nogales project represents an interesting example of the use of symbolism in these Puertas. Located in an area where the borderline was marked by an invisible line that resulted from the Gadsden purchase, and that was only delineated by a fence, the crossing act for the Nogalenses was more a political act than a physical one. Since more than half of the Mexican border is divided by the Rio Bravo, requiring the physical action of crossing the river, for Nogales Pani replicated that experience for tourists entering the customs and immigration building. By making them cross through a bridge to pass the water pond that surrounded the building, he reinforced in the user the sensation of crossing a border.

The concrete shells that Pani used for the Puerta de México in Nogales were a version of forms that he had been experimenting with on previous projects. In this case, he used them monumentally and as external covers, to signal entrance and approach to Mexican territory. The Puerta's plazas took as a precedent the many archeological sites where a plaza with a sculpture marker and a platform or some other element that functioned as a place of pause before entering the ceremonial site existed, or stone-built platforms topped with Christian crosses outside the evangelized towns during the Spanish colonial occupation. The Puertas de México were markers of entrance and were also spaces of transition, where one leaves one country and enters the other, an in-between space. These

symbolic gates marked that transition, the crossing from the U.S. to the new, and modern México.

Their experience was supposed to be short but memorable and exciting every time it was repeated. For this reason, Pani articulated several functions, elements, signs and symbols in them. They were a spectacle to approach, to cross by, to access the buildings they encompassed. Driving through them was different than walking over them, and the same could be said about experiencing them while crossing from the U.S. to México, than from México to the U.S. But more importantly, they were spaces of passage, they were designed to make the crosser aware that in that space both cultures existed, but that further – for the main purpose they were designed- the best of Mexican culture awaited.

Buying Mexican in Shopping Centers

PRONAF's dreams would have come to reality in the form of Cultural, Commercial and Civic Centers, full of American tourists, shopping, consuming in bars and restaurants, attending cultural events, and occupying hotel rooms. The projects that Pani designed for the borderlands to represent *Mexicanidad* were intended to contain traits of the traditional that would represent the Mexican spirit and culture, in a modern container that was attractive to the visitor and demonstrated a thriving country.

México, as previously mentioned, found itself in a soul-searching process to find a true national identity, and cultural representation. Although some thinkers thought of it as a more modern problem attributing it to the post-revolutionary period, architects like Del Moral took it back to the Spanish conquest. Entering into a debate related to the

regional and the international, Del Moral offers perspectives and views, but never settles on what is a Mexican modern architecture. For him, architecture is influenced by the generality of the times we live in and colored by personalities formed under the cultural traits of the local environments. Admonishing young staunch Mexican functionalists, he mentions how their work will always have traces of the characteristics of the architecture of the country they were educated in, coming from, and working within.

The multifunctional Shopping Centers at the borderlands were not shy in hiding their international influences. Pani's architecture not only used models of international modernism that he adapted to the Mexican realities, either through program, materials, methods of construction, and all of the previous, but in the case of PRONAF, the very goal was to generate a hybrid typology. The shopping centers at the borderlands, were not only the first shopping centers in the country, but they were designed with the American tourist in mind.

Although not explicitly mentioned, Pani used two typologies to design the shopping centers. Firstly, the traditional Mexican mercado, which by the mid 1950s had gone through a major overhaul in Ciudad de México by the major modernist architects acquiring a clear typological language, and the American suburban shopping center. In the borderland's projects, Pani hybridized them, put them inside a macromanzana, and inserted them into the existing city instead of relegating them to suburbia.

As in the case of the mat-building parallelism it is not clear if Pani knew directly of the work of Victor Gruen. What is known is that the language in which the projects were described in the PRONAF booklets, and the elements included in the plans, coincides with Gruen's ideology for the American shopping centers. Also, by 1961, when

Pani was designing these centers, Gruen's work was already internationally recognized, and Pani, as a director of the most important magazine for the dissemination of architecture ideas in México, was an architect well aware of the trends of the world.

Of the projects designed for Tijuana, Nogales, Piedras Negras, Cd. Juárez, and Matamoros, only portions of them were built, Cd. Juárez being the one of which the most elements were completed. Tijuana only had the Puerta de México built, but its Master Plan included a monorail system intended to solve the mass public transportation problem of the city. Nogales and Piedras Negras got sections of their commercial and cultural areas built, although to a disjointed timeline. The projects were never fully finished, but the sections that were completed remained functional for decades to come and were used to some extent as they were planned. Nogales still stands, while Piedras Negras's commercial areas have been razed.

Cd. Juárez, for various reasons, remains the most interesting case to study. It could be said that it was the place where PRONAF was born, but also where it died. Antonio J. Bermúdez, the director of the program was a Juarenses, and it could not be a coincidence that it was this city the one that got the highest budget for the construction of the shopping center. That said, it was also the site of another very important international political event that occurred during PRONAF's life, the return of El Chamizal, a small territory that belonged to México and that because of the movement of the Río Bravo in the late 1800s, became part of the U.S. and through diplomatic intervention got returned in 1961 to México after a 100-year dispute. The project for Cd. Juárez was not only a show-window for the American tourist, but a window through which the entire world could peek into México.

A large section of Pani's shopping center got built, with two typologies of shops that demonstrated two of the modern Mexican architectural languages -barrel vaulted shops, and flat roofed with overhangs shops- completed the commercial area. From Pani's office also came the convention center, a star-roof paraboloid structure which coronated the central plaza. At the far ends of the shop buildings, Pedro Ramírez Vázquez museum, with its nationalist modern architecture, and Legorreta's transitional, hacienda-like Camino Real motor hotel, that featured arches, patios, walkways, halls, sculptures, pools and waterfalls.

The shopping, cultural, and civic center was inserted inside a macromanzana, it was surrounded by vast spaces for parking lots, and encircled by his famous Herrey road system that connected it to the existing city, located not too far away, but with land surrounding it as a buffer anticipating growth. The modern architecture, parking spaces, and refrigerated air-conditioning spaces were praised in various newspaper articles. The museum's exhibitions were heavily attended by El Pasoans and Juarenses, and the Camino Real became a high-end bar and restaurant destination. PRONAF became a spot of sophisticated and cultured entertainment where the traditions and atmosphere for which México had become a famous touristic destination, were offered to the tourist in a modern, climate controlled, clean space.

Unfortunately, many of the other projects were only partially built. Even Cd. Juárez project was not fully completed. What was built was in many cases not even completed to original specifications, and the further administration of the program didn't ensure that the spaces completely fulfilled their intentions. PRONAF could not be fully put to the test. The success of PRONAF is difficult to measure since subsequent

administrations did not allocate funds, thereby denying continuity to the program. The maquiladora program that was initiated precisely there in Cd. Juárez, in the presidential term after López Mateos, took not only the attention but also the budget from PRONAF, leaving it without funds to pursue further construction or maintenance and administration.

As a program intended to represent through the built environment Mexican identity and culture at the edge of the country, while resisting an imminent Americanization, the project provided elements that proved to be successful. On the other hand, as a project that sought integration to the global economy through tourism, the project was not that successful. Many new buildings or renovations were praised by the American media for the changes that they brought to the image of the city. For Nogales, it led to a complete change in the city, and tourists from both sides of the border flowed to Nogales Sonora to visit and shop at the newly renovated shopping center, but in Nogales no hotel was built. As tourists came, they had to leave. A similar case was that of Piedras Negras. Neither Nogales and Piedras Negras had a museum, which would've completed the cultural aspect of the tourist's visit to the cities. The spaces, although, modern, clean, and air-conditioned, did not offer that much of a Mexican ambience; restaurant and bars where the tourist could enjoy traditional music and food would have also completed the experience. What Pani envisioned as spaces that hybridized the traditional and the international, for the American tourist could have seemed too modern and not Mexican enough.

Cd. Juárez offered a larger variety of spaces, experiences, and activities from the cultural to the commercial and the entertainment, showing that it was in the creation of complex experiences where an approach that succeeds in showing Mexican culture and

identity resides. Architects and urbanists can contribute to the processes of displaying national identity, when the aim is to consolidate a territory economically, culturally, and socially, if the experiences they create contain the complexity of several layers, activities, and environments.

PRONAF did not fail. What failed was the scope of the program, and the ambitions of the government to try and put in a single program, in a single term, the solutions needed for a region that had been neglected for decades. What PRONAF has shown in this analysis is that architecture and urbanism can contribute to reveal the complex interrelated political and social systems that exist within México, and between México and the U.S. It has also demonstrated that the idea of a more porous borderlands had existed, and that architects and urbanists had envisioned it, specifically within the twin-city systems. This text provides proof that different understandings exist of what the borderlands territories are in the minds of its dwellers and the people coming from the centers of power. Through the texts analyzed, like newspapers articles and others in the dissertation, it can be noted that what Ciudad de México and Washington see as the borderlands, is not the same as what the *fronterizos* see.

Appendix

Chapter 2 - Figures

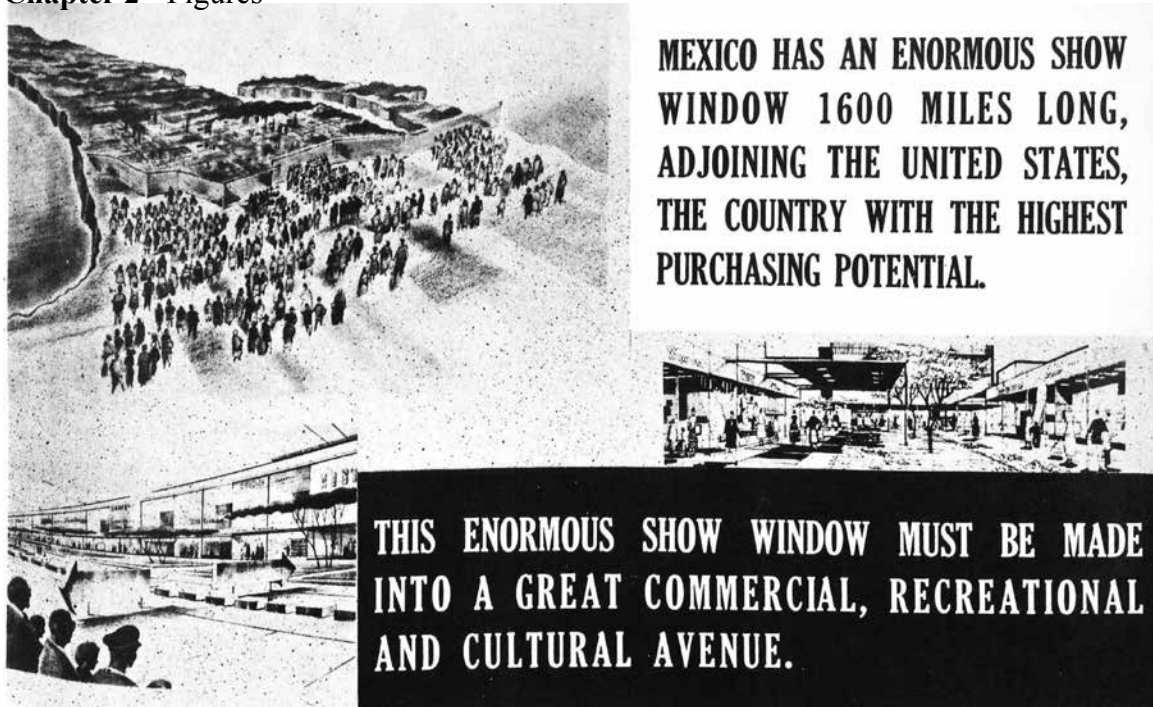


Fig. 1 PRONAF - Mexico has an enormous show window. Source: PRONAF Booklet.



Fig. 2
Multifamiliar Centro Urbano Presidente Miguel Alemán. 1949. Mario Pani
Source: CIA. Mexicana Aerofoto SA.

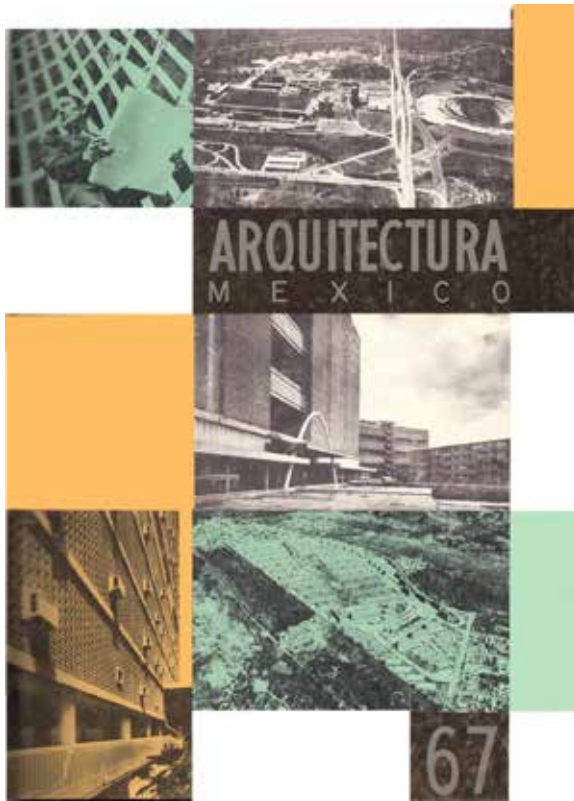


Fig. 3 Arquitectura Mexico Magazine Issue 67. 1959
Dedicated to Mario Pan and Taller de Urbanismo
Source: Arquitectura México

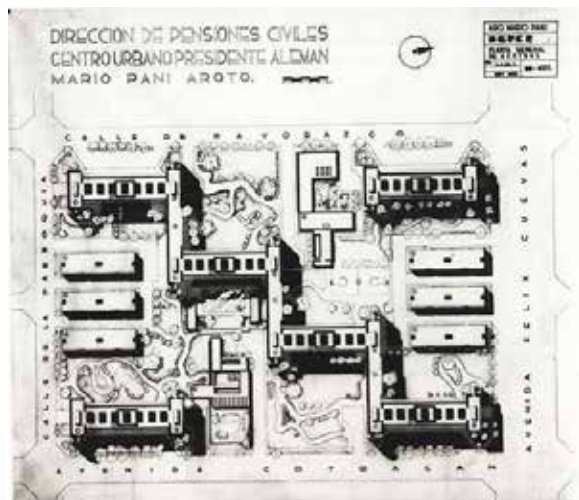


Fig.4 Centro Urbano Miguel Alemán 1940. Mario Pani. Source: Arquitectura México

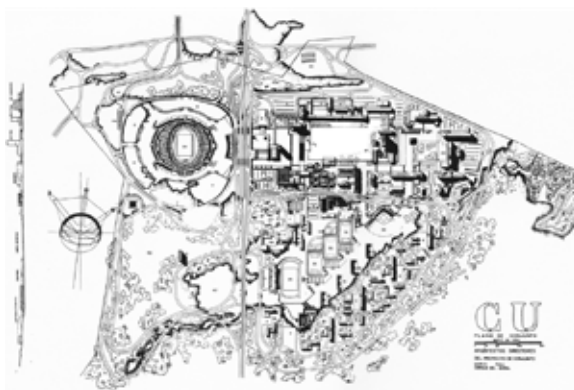


Fig. 5 UNAM Campus Mexico City 1952. Mario Pani, and Enrique Del Moral. Source: Una Vida Moderna

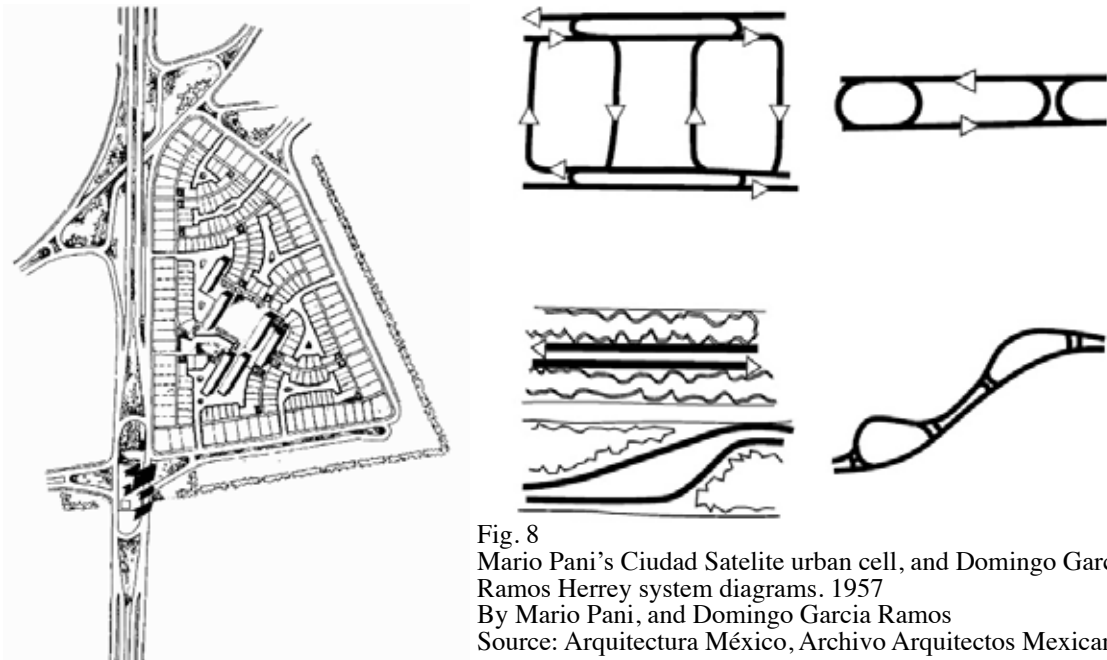


Fig. 8
Mario Pani's Ciudad Satelite urban cell, and Domingo Garcia Ramos Herrey system diagrams. 1957
By Mario Pani, and Domingo Garcia Ramos
Source: Arquitectura México, Archivo Arquitectos Mexicanos



Fig. 9
AIA with CAM Members in front of UNAM library
in their visit to México. 1959
Source. AIA Journal



Fig. 10
Mexican and U.S. architects report to Texas
Governor. 1959. Source: AIA Journal

Fig.11 Carta de El Paso / El Paso Charter. 1961. Signed by CAM-SAM and AIA members
Source: AIA Journal

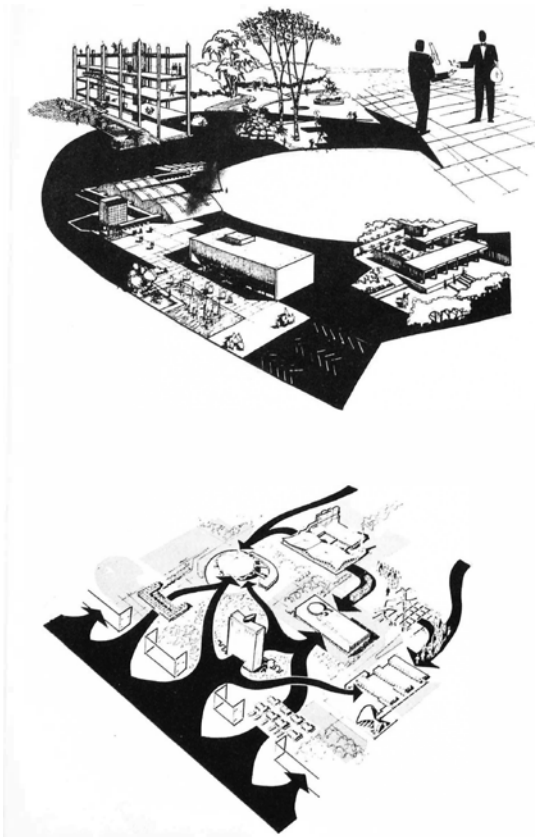


Fig. 12
PRONAF'S Objectives
Source: PRONAF Booklet

Objectives

The National Border Program has set for itself the following objectives, which it feels are suited to actual needs and conditions of the border zone:

- 1) Arrange to have the products of the nation's industry reach the border areas in proper conditions of timeliness, quality and price;
- 2) Ensure that the development of the important market of the border zone is reflected in an increase in national production and in the establishment of new industrial enterprises;
- 3) Encourage insofar as possible, the creation of new job opportunities in the border zones which, based on their competitive advantages, may meet the needs of both the consumer and producer, not only in these zones, but also in other parts of the country, as well as for export;
- 4) Stimulate to a maximum degree the foreign tourist travel flow toward our border cities, creating the necessary condition for the increase, in particular of family travel.
- 5) Increase in the border area the supply of the rich and varied handcraft production of each of the nation's regions, properly emphasizing the great artistic value of these goods.
- 6) Make it as easy as possible for the foreign visitor to see and buy the typical products of Latin American arts and crafts;
- 7) Improve the general environment of the border cities, their physical appearance and condition, that they may fulfill efficiently their urban functions both on behalf of their inhabitants and of national prestige, since they are entrance gates to the country.
- 8) Promote the constant raising of the cultural standards of the population, paying special attention to technical training, in order to properly develop the people's inborn ability, that will make students take root in their respective communities.
- 9) Stress the values of our history, folklore, language, culture and arts, in order to attract students from abroad interested in these subjects.
- 10) Through these combined measures, appreciably raise the standard of living of the population, without losing sight of the importance of maintaining their personal income in the highest possible degree of stability.

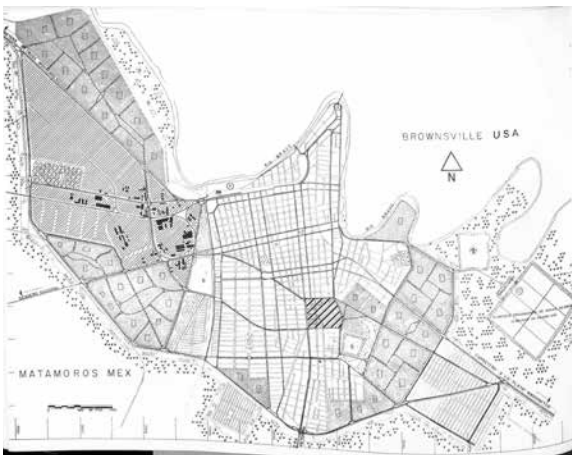


Fig. 13
Plano Regulador for Matamoros as it appears in
PRONAF booklets, 1961.
By Mario Pani and Arquitectos Asociados
Source: PRONAF Booklet

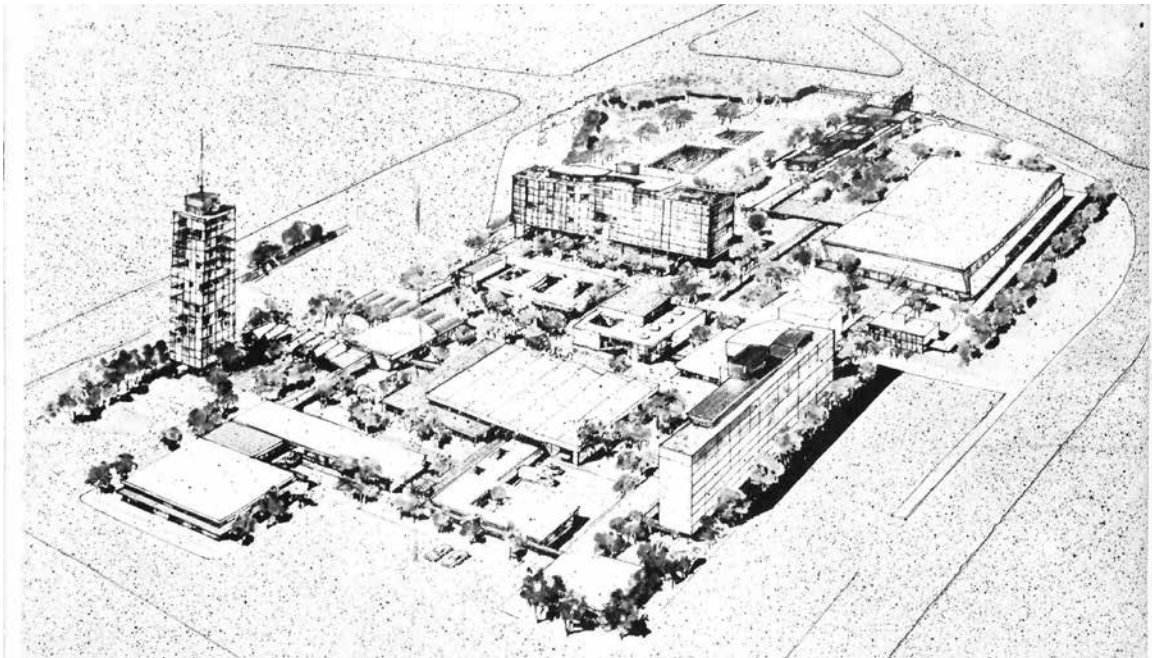


Fig. 14
Perspective render of the Cultural, Civic and Commercial Center in Matamoros. 1961
Mario Pani y Arquitectos Asociados
Source: PRONAF Booklet



Fig. 15
Views of Cultural, Civic and Commercial Center in Cd. Juárez. Mario Pani y Arquitectos Asociados
Source: Fondo Mario Pani



Fig. 16
Pedestrian lanes, pergolas, gardens and resting areas
in Nonoalco-Tlatelolco. 1964-1966.
By Mario Pani and Arquitectos Asociados
Source: Una Vida Moderna

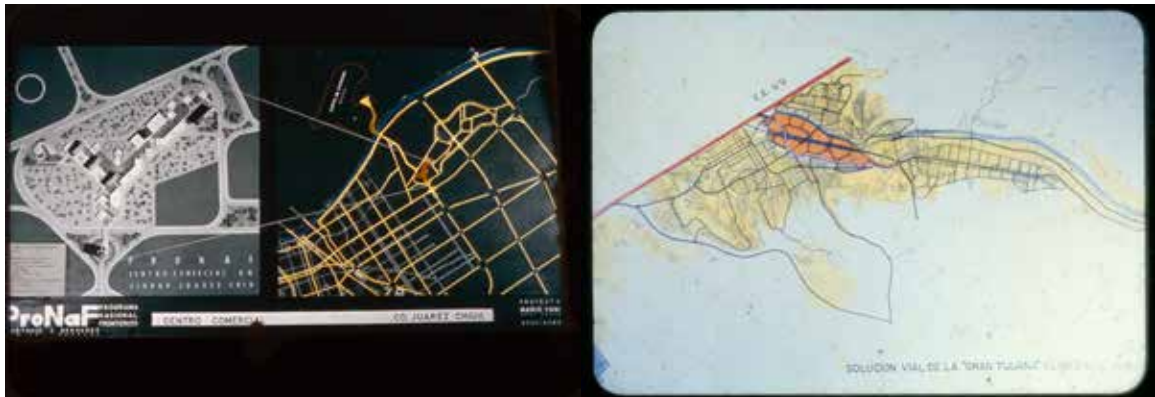


Fig. 17
Plan Regulador for Cd. Juárez (left) and Tijuana (right). Showing locations of PRONAF projects in relation to borderline. n.d. By Mario Pani and Arquitectos Asociados
Source: Fondo Mario Pani Darqui

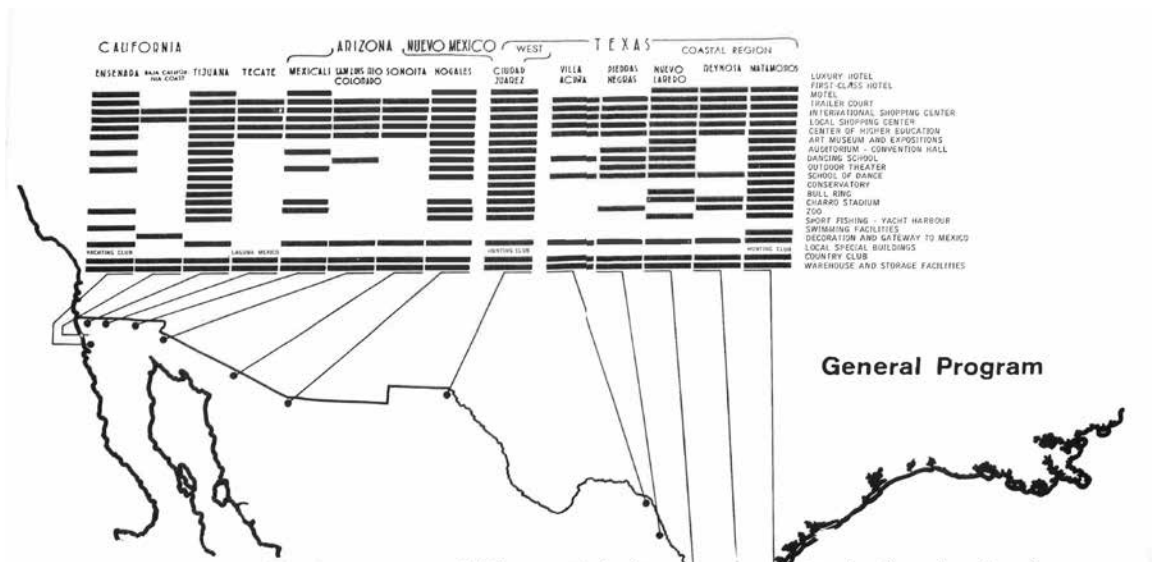


Fig. 18
Graphic showing the analysis of the programmatic needs of each border city., 1961. By PRONAF
Source: PRONAF Booklet



Fig. 19
Model for Puerta de México for Matamoros, Tamps. n.d. By Mario Pani Arquitectos Asociados and Hilario Galguera. Source: Fondo Mario Pani Darqui



Article presenting Horizon City. El Paso, TX. 1959
Source: El Paso Times

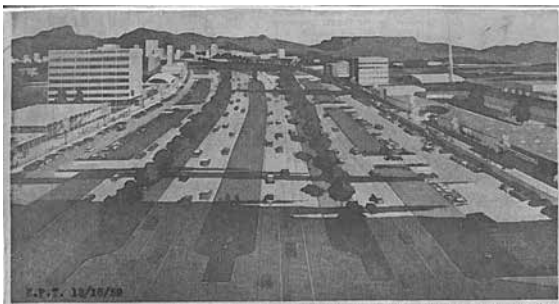


Fig. 21
Render of highway crossing by Horizon City. 1959
Source: El Paso Times



Fig. 22
Render of Horizon City. 1959
Source: El Paso Times

Chapter 3 - Figures



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Fig. 1
New York Times Travel section front cover dedicated to border projects. 1964. Source: New York Times



Fig. 2
Paris World's Exposition. Mexican Pavilion. 1889
By Antonio Peñafiel
Source: Library of Congress, prints and photographs division, Washington, DC.



Fig. 3
Rural school building. By Pedro Ramírez Vázquez.
Photo Javier Ramírez Campuzano & Germán
Espinosa. Source: El Universal



Fig. 4
Brussels World's Fair Mexican Pavilion. 1958. By Pedro Ramírez Vázquez, and Rafael Mijarez
Source Una vida Moderna



Fig. 5
New York World's Fair Mexican Pavillion. 1964
By Pedro Ramírez Vázquez, and Rafael Mijarez
Source: Una Vida Moderna



Fig. 6
Model for the Museo del Caracol. 1960
By Pedro Ramírez Vázquez
Source: Arquitectura Pedro Ramírez Vázquez



Fig. 7
Altar a la Patria - Sculpture and display of the 1917
Constitution. 1960. By Chávez Morado
Source: Arquitectura Pedro Ramírez Vázquez



Fig. 8
Iterations of location of Matamoros' museum
Mario Pani & Pedro Ramírez Vázquez. Source: Archivo de Arquitectos Mexicanos

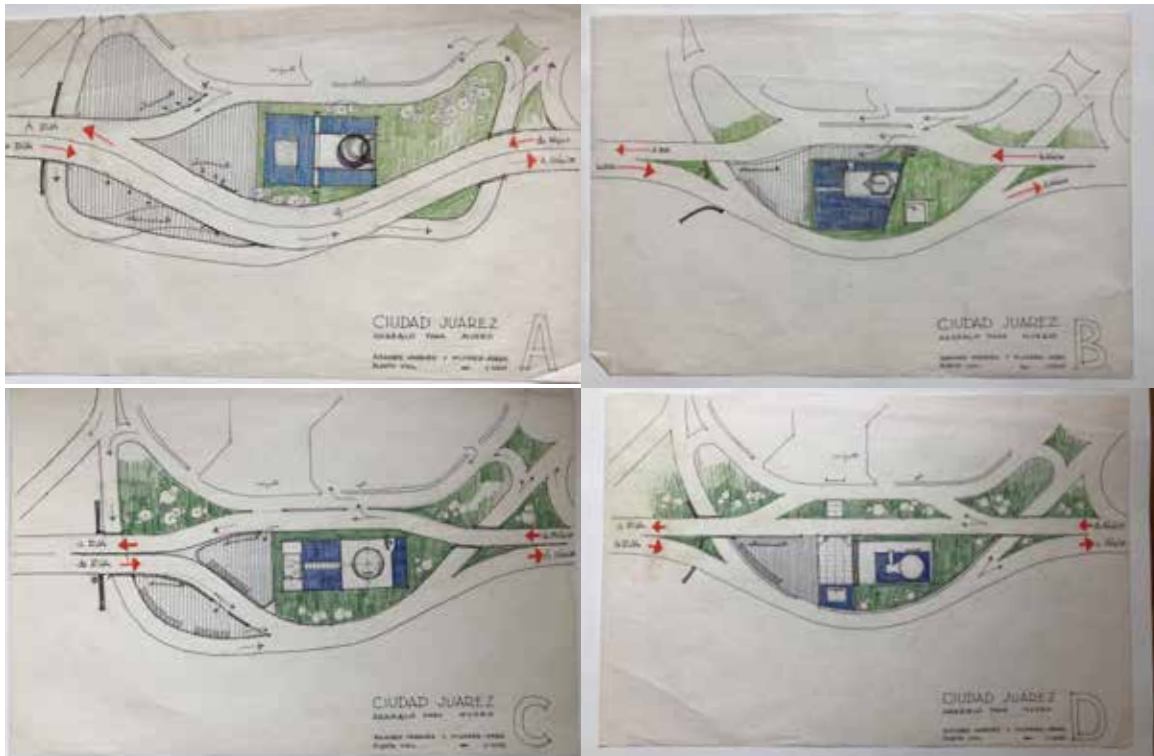


Fig. 9

Iterations of different forms for Matamoros' museum. By Pedro Ramírez Vázquez, and Rafael Mijares
Source: Archivo Pedro Ramírez Vázquez



Fig. 10

Project for Museo Ambiental for Cd. Juárez
By Pedro Ramírez Vázquez and Rafael Mijares
Source: Archivo Pedro Ramírez Vázquez



Fig. 11
Sketch of final form that the Cd. Juárez museum
would take.
By Pedro Ramírez Vázquez and Rafael Mijarez
Source: Archivo Pedro Ramírez Vázquez

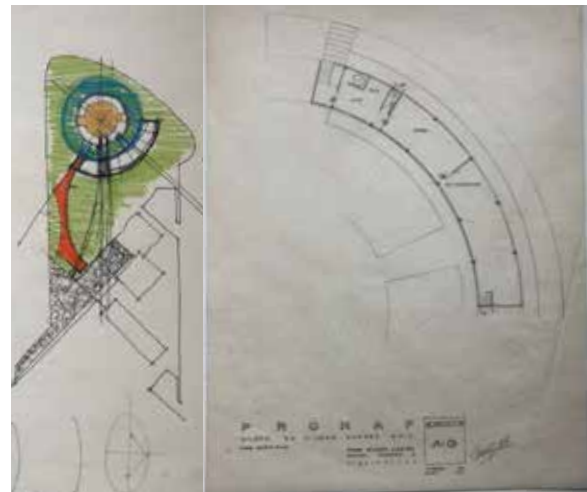


Fig. 12
Detail of location and interior of secondary volume
By Pedro Ramírez Vázquez and Rafael Mijarez
Source: Archivo Pedro Ramírez Vázquez



Fig. 13
Roofline iteration for secondary building
By Pedro Ramírez Vázquez, and Rafael Mijares
Source: Archivo Pedro Ramírez Vázquez

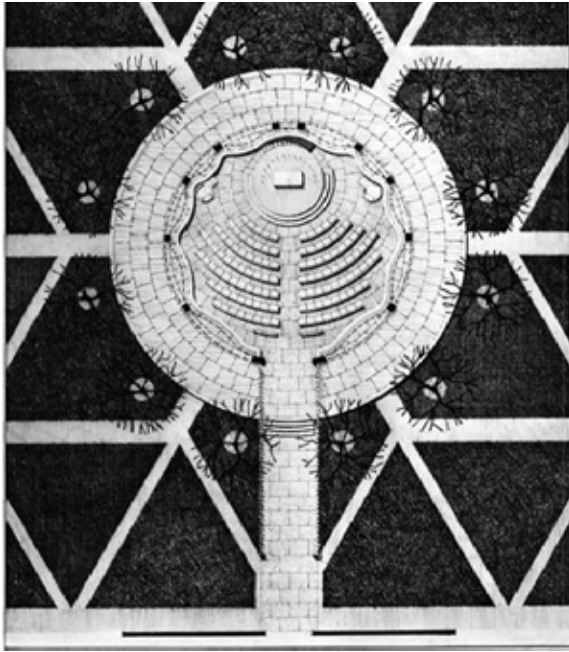


Fig. 14
MIT Chapel
By Eero Saarinen
Source: MIT Libraries

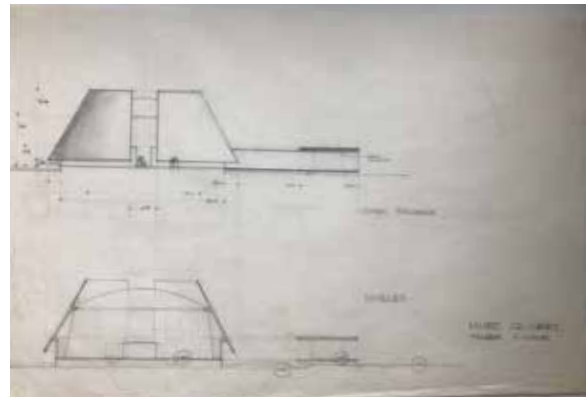


Fig. 15
Cd. Juárez Museum of Art section
By Pedro Ramírez Vázquez, and Rafael Mijares
Source: Archivo Pedro Ramírez Vázquez



Fig. 16
View of Atlante through main entrance and mountains
By Pedro Ramírez Vázquez, and Rafael Mijares
Source: Archivo Pedro Ramírez Vázquez



Fig. 17
Cuexcomate/Cuscomate. Morelos, México
Photo: Fernando López
Source: Instituto Nacional de los Pueblos
Indígenas

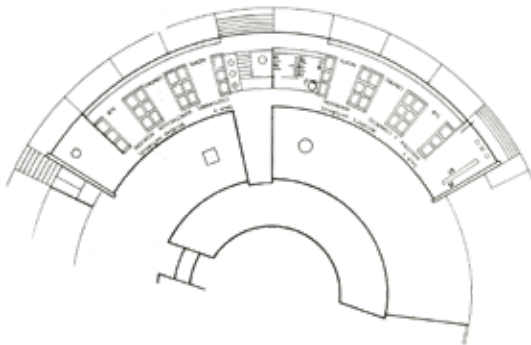
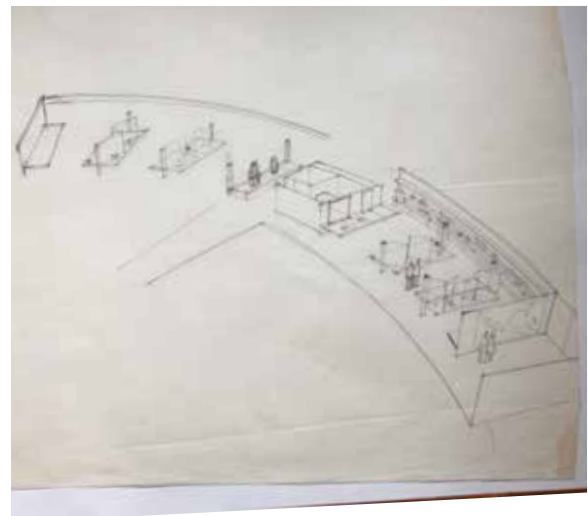


Fig. 18
Cd. Juárez Museum of art plan and perspective
drawing of secondary section
By Pedro Ramírez Vázquez and Rafael Mijares
Source: Archivo Pedro Ramírez Vázquez



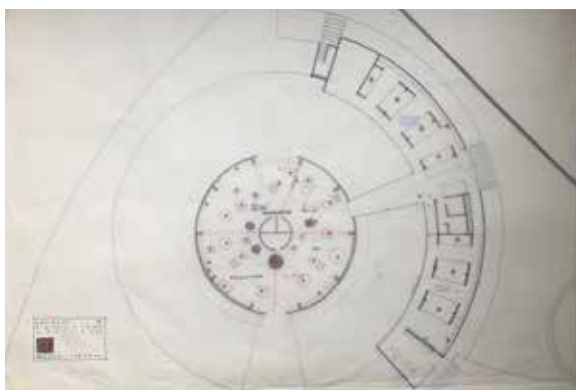


Fig. 19
Cd. Juárez Museum exhibition plan
By Pedro Ramírez Vázquez and Rafael Mijares
Source: Archivo Pedro Ramírez Vázquez

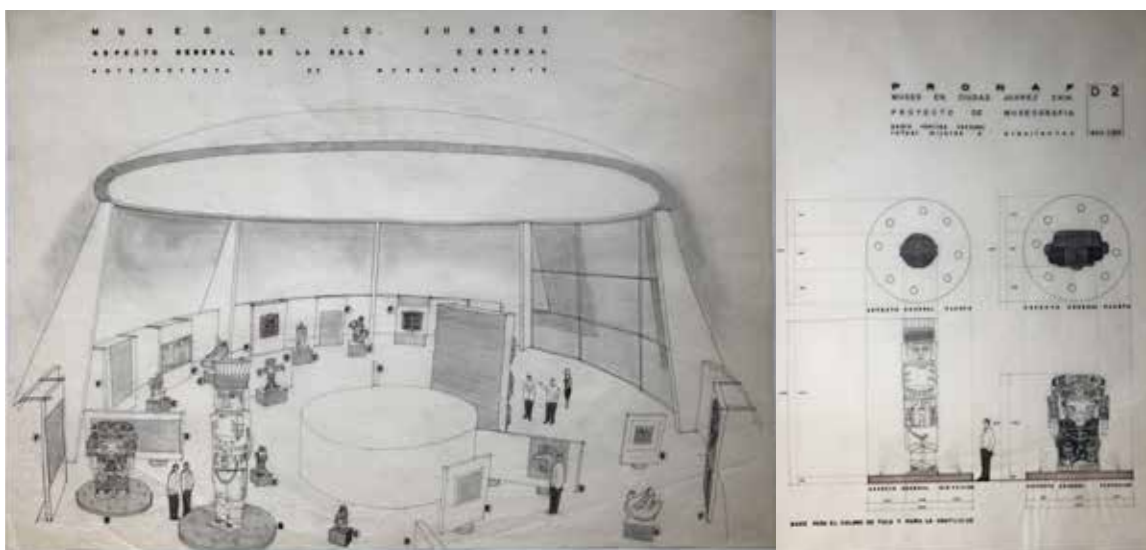


Fig. 20
Cd. Juárez Museum interior perspective showing exhibition / detail of exhibition platforms
By Pedro Ramírez Vázquez and Rafael Mijares
Source: Archivo Pedro Ramírez Vázquez



Fig. 21
Cd. Juárez Museum Colonial art exhibition
By Pedro Ramírez Vázquez and Rafael Mijares
Source: Museo de Arte e Historia Ciudad Juárez Guía Oficial



Fig. 22
Cd. Juárez Museum contemporary art exhibition
By Pedro Ramírez Vázquez and Rafael Mijares
Source: Museo de Arte e Historia Ciudad Juárez Guía Oficial



Fig. 23
Cd. Juárez Museum contemporary art exhibition.
In view at the back, Multifamiliar Miguel Alemán
by Mario Pani, Museo de Arte Moderno by Pedro
Ramírez Vázquez, and Torres de Satélite by Luis
Barragán and Mathias Goeritz
Source: Museo de Arte e Historia Ciudad Juárez Guía Oficial

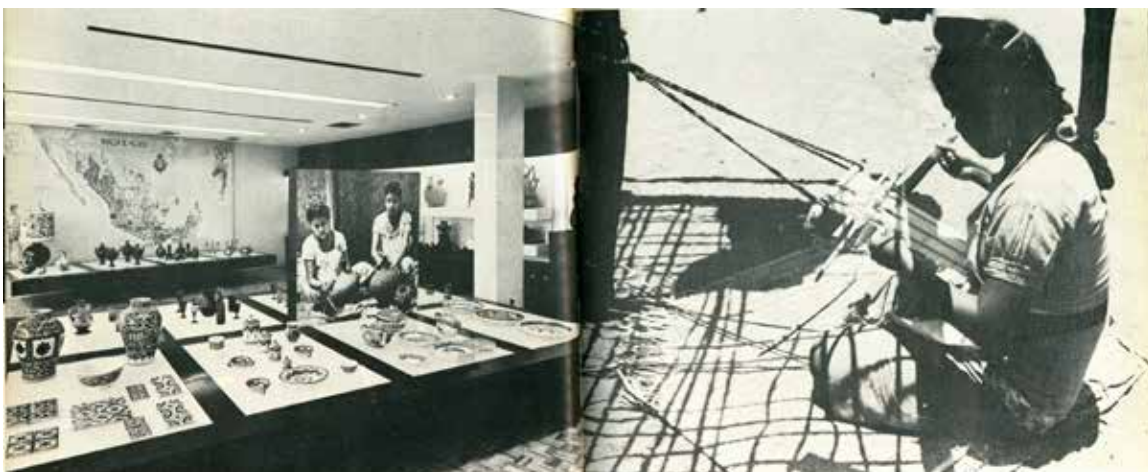


Fig. 24
Cd. Juárez Museum arts&crafts exhibition.
Source: Museo de Arte e Historia Ciudad Juárez Guía Oficial



Fig. 25
El Paso International Museum. 1961
By Carroll and Daeuble Associates
Source: El Paso Times



Fig. 26
Matamoros's PRONAF center. 1962
By Mario Pani Arquitectos Asociados, and
Hilario Galguerra
Source: Archivo de Arquitectos Mexicanos.
Mario Pani

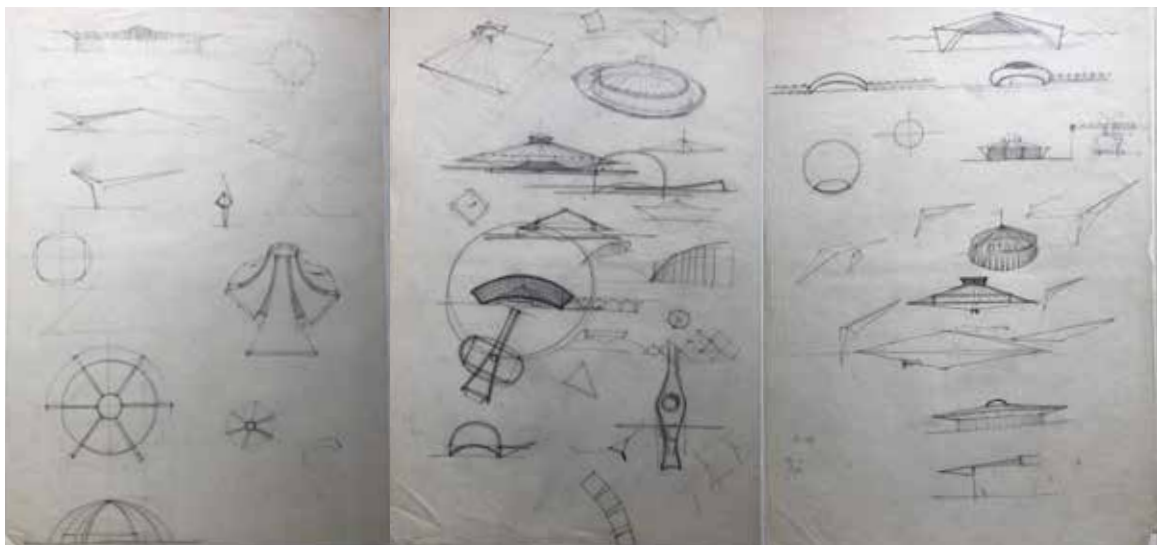


Fig. 27
Matamoros's museum project sketches star-like faceted roof.
Source: Archivo Pedro Ramírez Vázquez

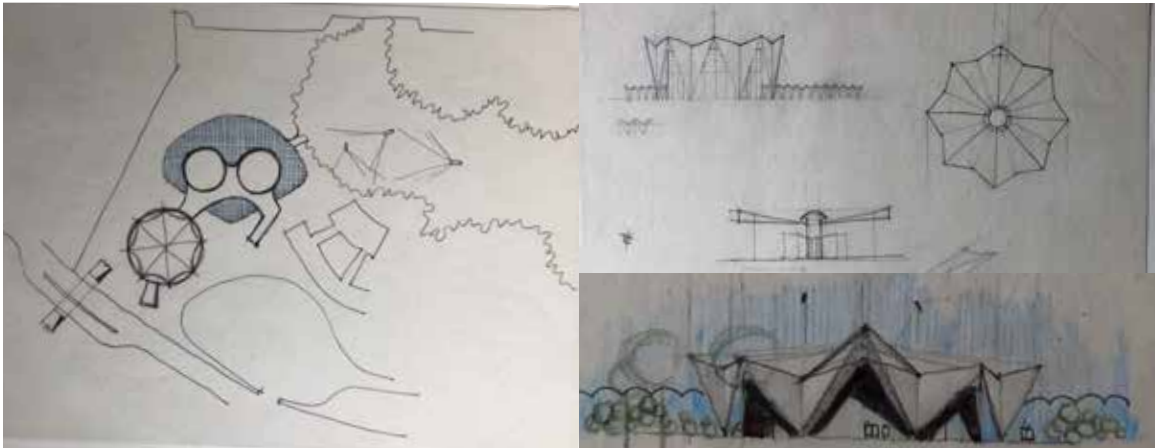


Fig. 28
Matamoros's museum project sketches star-like faceted roof. Source: Archivo Pedro Ramírez Vázquez

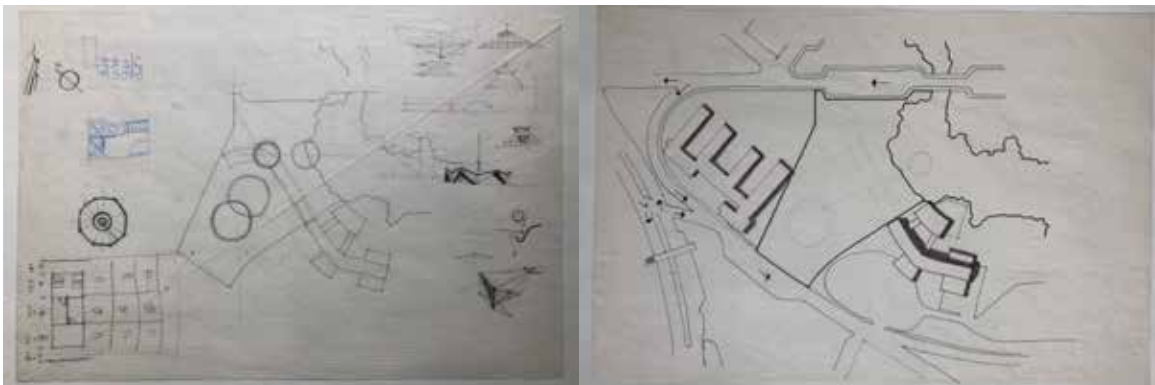


Fig. 29
Matamoros's museum project roof type iterations. n.d.
Source: Archivo Pedro Ramírez Vázquez



Fig. 30
Matamoros's museum project iteration with room floating on the lake. n.d.
Source: Archivo Pedro Ramírez Vázquez

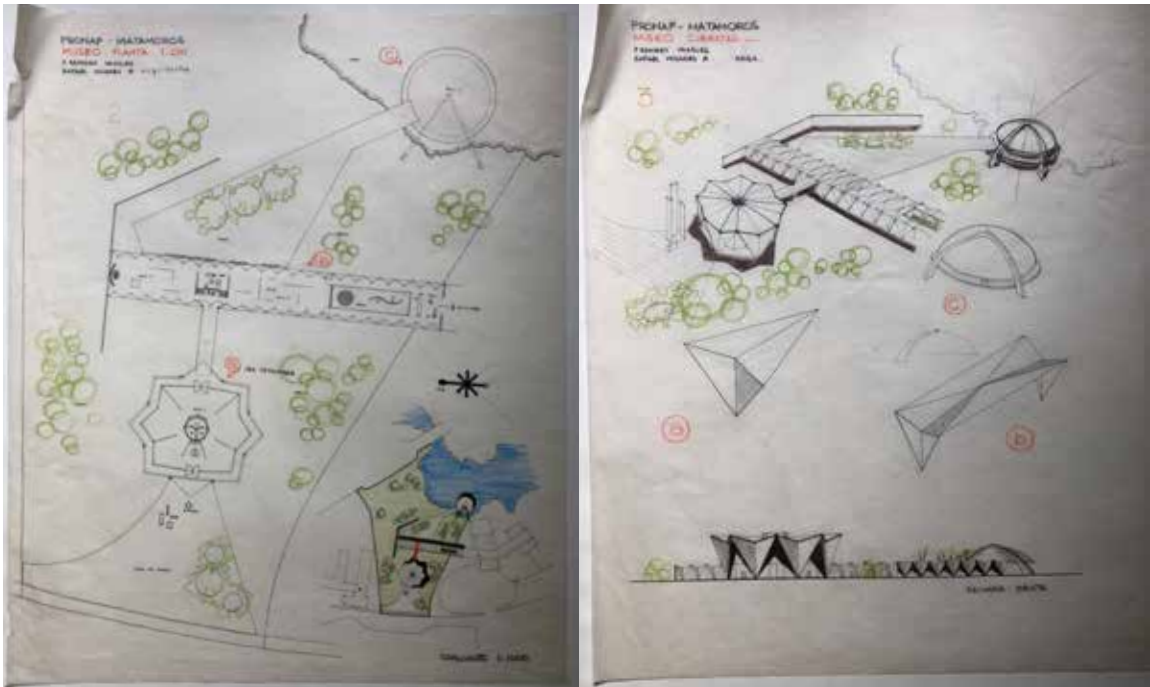


Fig. 31
Matamoros's museum interior distribution and study of roof types. n.d.
By Pedro Ramírez Vázquez, and Rafael Mijarez. Source: Archivo Pedro Ramírez Vázquez

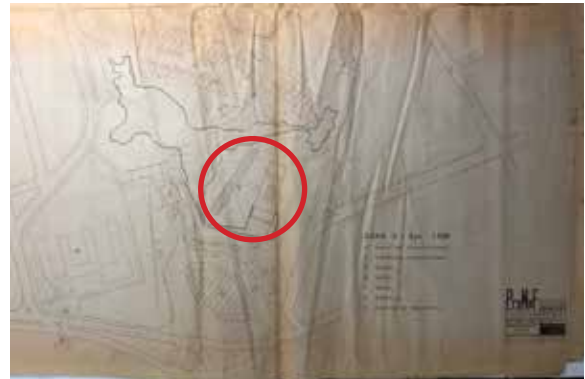


Fig. 32
Matamoros's museum location. 1962
By Pedro Ramírez Vázquez, and Rafael Mijarez
Source: Archivo Arquitectos Mexicanos. Mario Pani

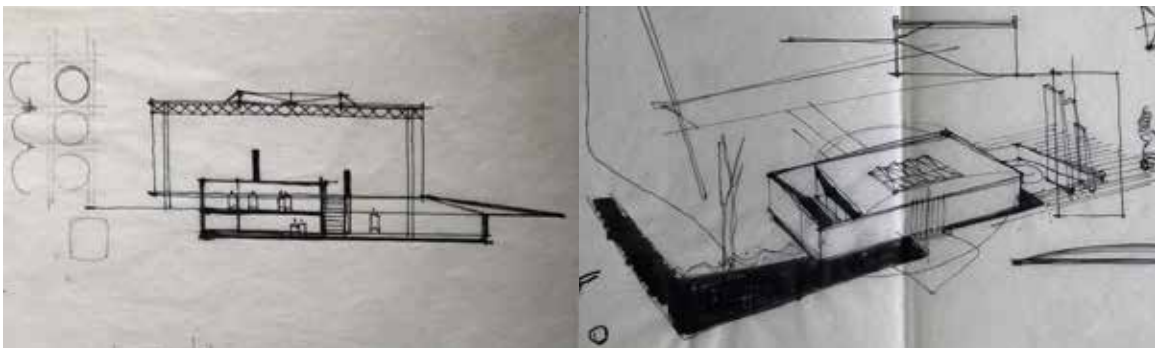


Fig. 33
Matamoros's museum volume and section study. n.d.
By Pedro Ramírez Vázquez, and Rafael Mijarez. Source: Archivo Pedro Ramírez Vázquez

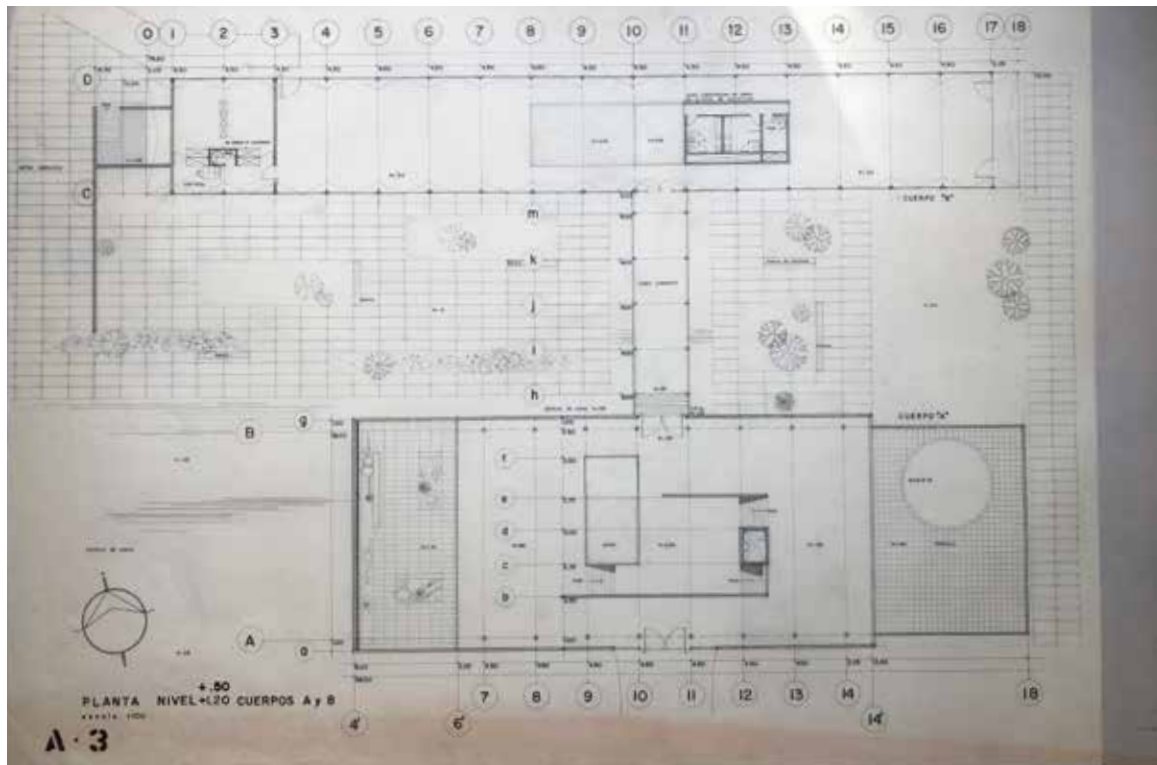


Fig. 34

Matamoros's museum plan. n.d.

By Pedro Ramírez Vázquez, and Rafael Mijarez. Source: Archivo Pedro Ramírez Vázquez

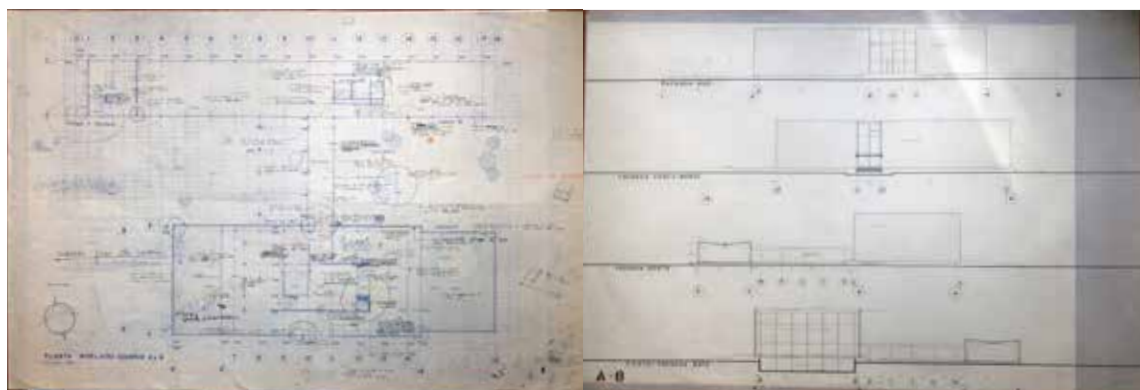


Fig. 35

Matamoros's museum details notes on plan and facades. n.d.

By Pedro Ramírez Vázquez, and Rafael Mijarez. Source: Archivo Pedro Ramírez Vázquez



Fig. 36
Pedro Ramírez Vázquez PRONAF museums
advertised in a newspaper's article. 1962
Source: Novedades. Fondo Mario Pani Darqui

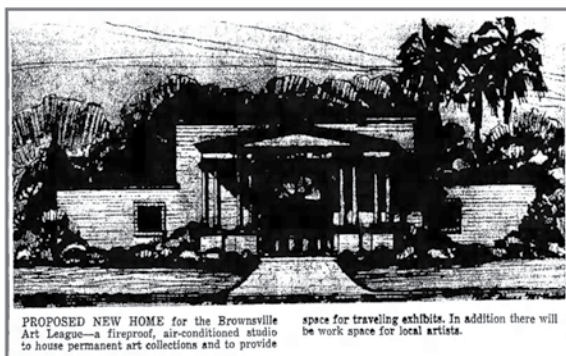


Fig. 37
Brownsville Museum of Fine Arts. n.d.
By Ruth Young McGonigle
Source: Brownsville Herald

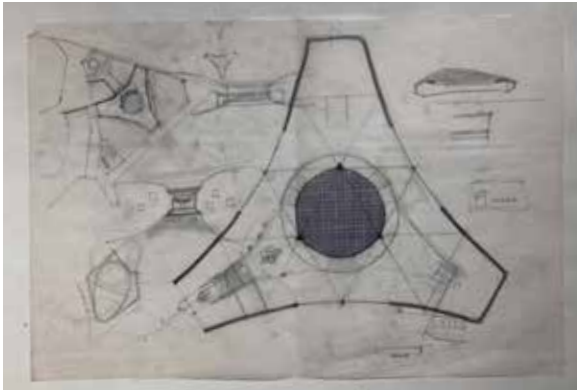


Fig. 38
Tijuana museum plan iterations. n.d.
(Responding to the hexagonal plan shops)
By Pedro Ramírez Vázquez, and Rafael Mijarez
Source: Archivo Pedro Ramírez Vázquez

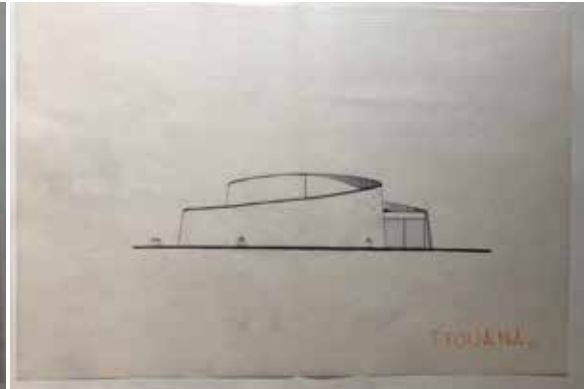
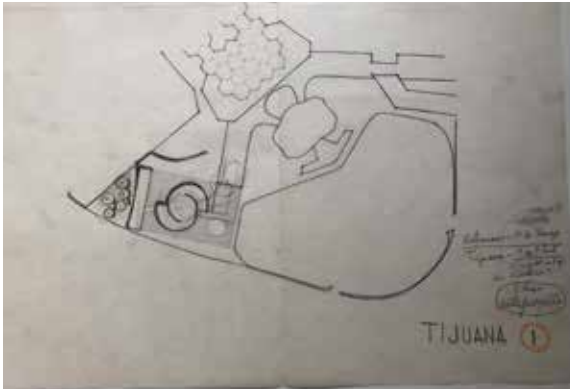


Fig. 39
Tijuana museum plan iteration. n.d.
By Pedro Ramírez Vázquez, and Rafael Mijarez. Source: Archivo Pedro Ramírez Vázquez



Fig. 40
Tijuana Civic and Commercial Center. n.d.
By Mario Pani Arquitectos Asociados
Source: Fondo Mario Pani Darqui

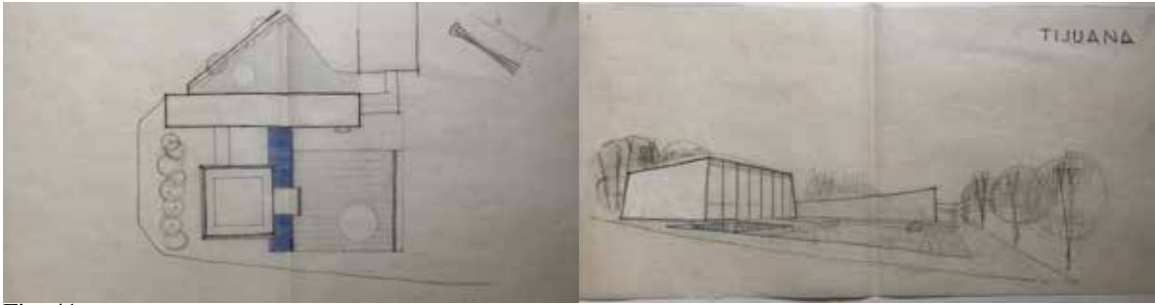


Fig. 41
Tijuana museum square plan iteration n.d.
By Pedro Ramírez Vázquez, and Rafael Mijarez
Source: Archivo Pedro Ramírez Vázquez

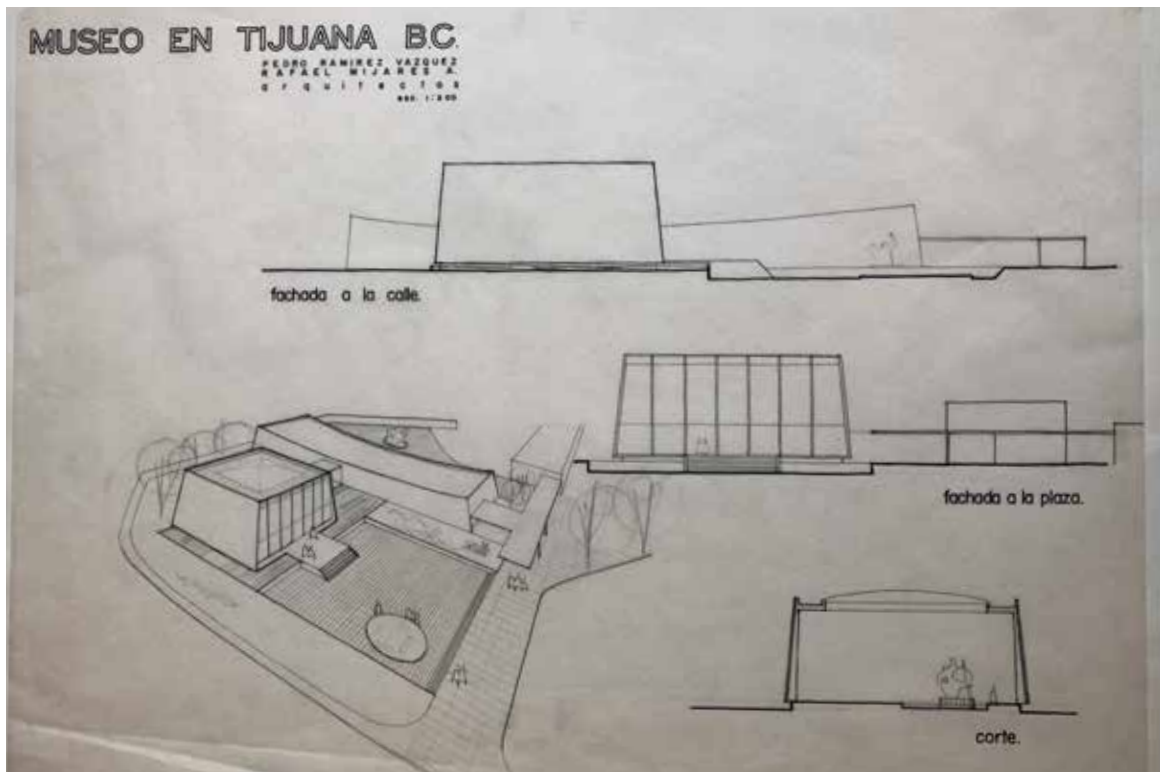


Fig. 42
Tijuana museum square iteration, perspective, section, and facades. n.d.
By Pedro Ramírez Vázquez, and Rafael Mijarez. Source: Archivo Pedro Ramírez Vázquez

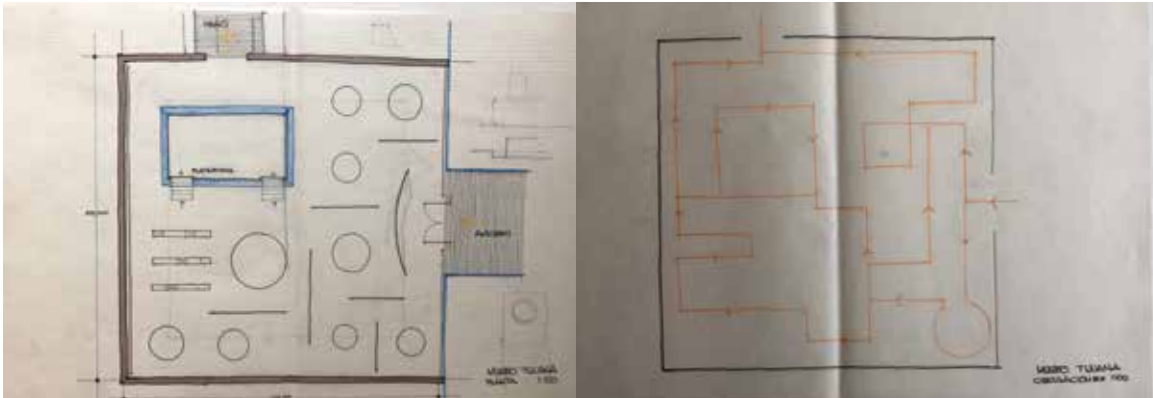


Fig. 43

Tijuana museum plan and exhibition distribution (left) & Circulation diagram (right). n.d.

By Pedro Ramírez Vázquez, and Rafael Mijarez

Source: Archivo Pedro Ramírez Vázquez

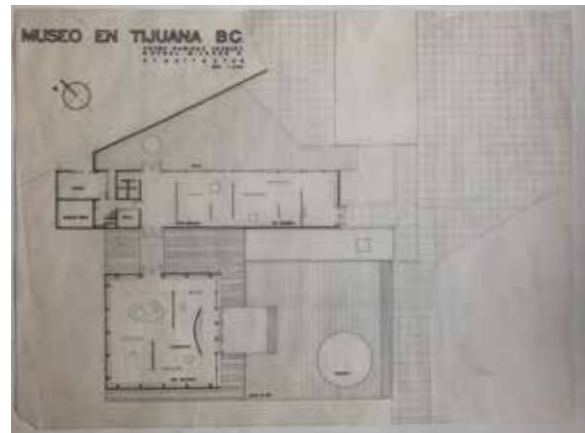


Fig. 44

Tijuana museum plan. n.d.

By Pedro Ramírez Vázquez, and Rafael Mijarez

Source: Archivo Pedro Ramírez Vázquez

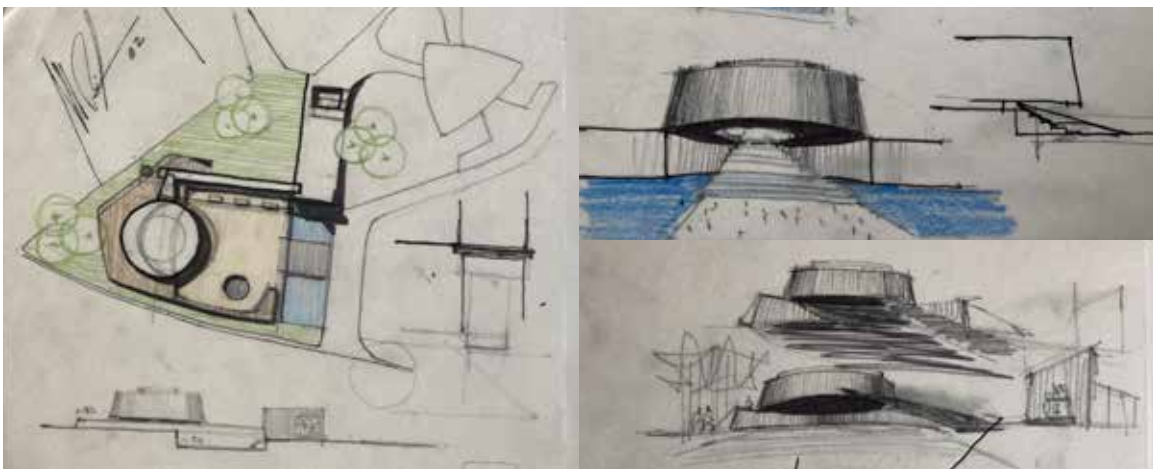


Fig. 45

Final project for Tijuana museum plan (left) & entrance variations sketches (right). n.d.

By Pedro Ramírez Vázquez, and Rafael Mijarez

Source: Archivo Pedro Ramírez Vázquez

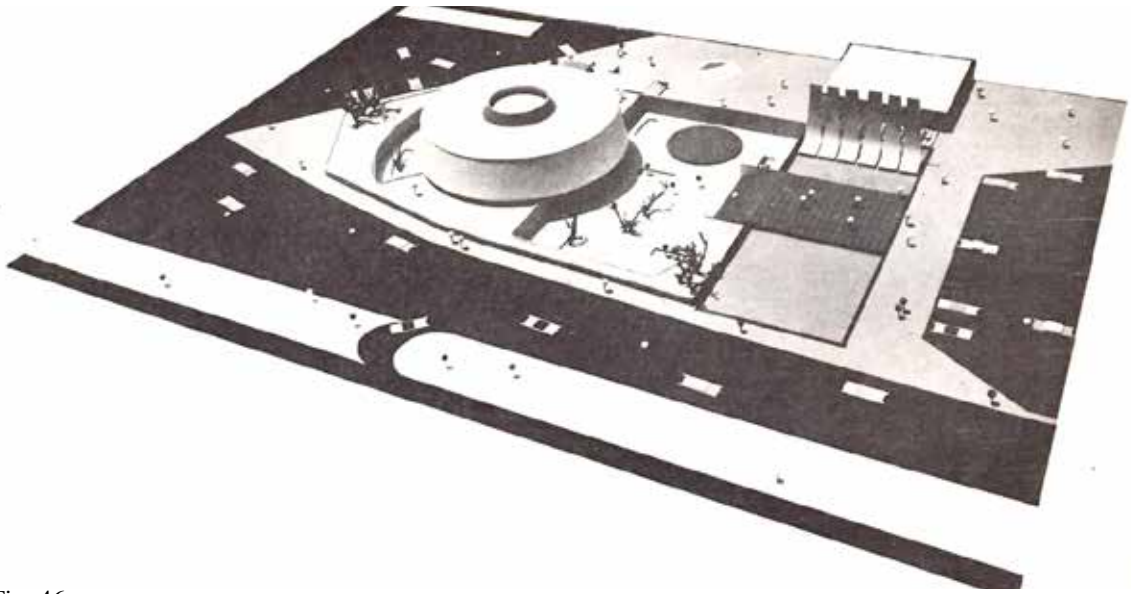


Fig. 46
Model for Tijuana museum. n.d.
By Pedro Ramírez Vázquez, and Rafael Mijarez. Source: Archivo Pedro Ramírez Vázquez

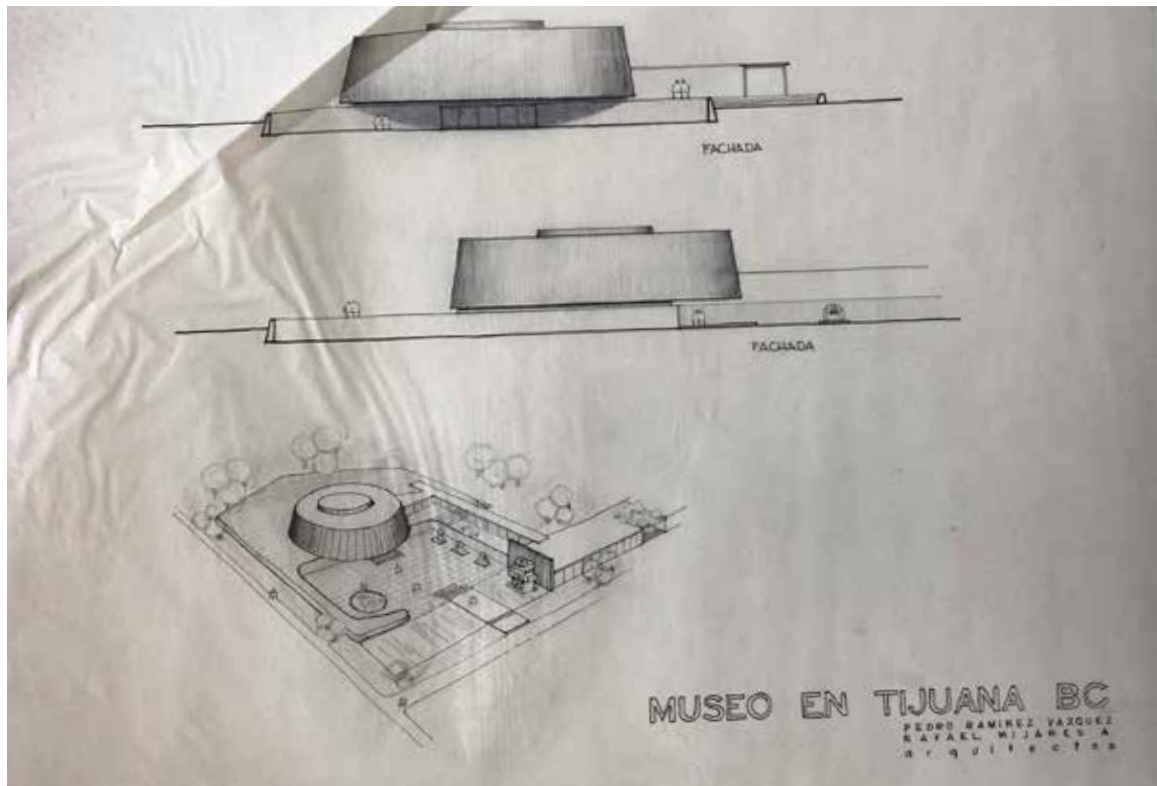


Fig. 47
Final projec for Tijuana museum presentation drawings. n.d.
By Pedro Ramírez Vázquez, and Rafael Mijarez. Source: Archivo Pedro Ramírez Vázquez



Fig. 48
Circulation diagram for Tijuana museum. n.d.
By Pedro Ramírez Vázquez, and Rafael Mijarez
Source: Archivo Pedro Ramírez Vázquez



Fig. 49
Centro Cultural Tijuana. 1982
By Pedro Ramírez Vázquez, and Manuel Rossen Morrison
Source: ArchDaily



Fig. 50
Timken Museum of Art. San Diego.
By John Mock
Source: Timken Museum of Art



Fig. 51
Timken Museum of Art, plan project iteration. circa
1961. By John Mock
Source: Richard Schulte's Cool Sand Diego Sites!

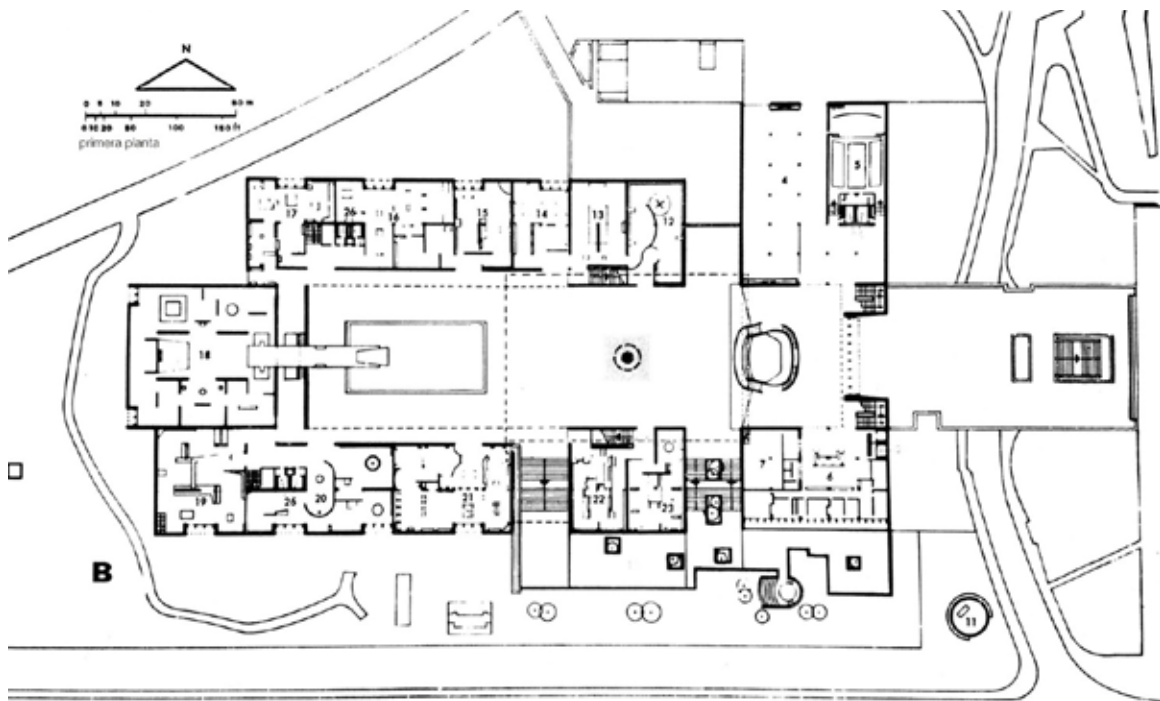


Fig. 52
Plan of Museo Nacional de Antropología e Historia. Mexico. 1964
By Pedro Ramírez Vázquez, and Rafael Mijares. Source: Ramírez Vázquez en la Arquitectura



Fig. 53
Pond in Museo Nacional de Antropología e Historia. Mexico. 1964
By Pedro Ramírez Vázquez, and Rafael Mijares. Source: ArchDaily



Fig. 54
Detail of sun screens. Mexico. 1964
By Manuel Felguerez. Source: Una Vida Moderna



Fig. 4
(L-R) Mrs. Kennedy, President Adolfo Lopez Mateos, President Kennedy, First Lady Mateos, and an unidentified woman. Los Pinos, Mexico. Photo credit "Robert Knudsen, White House/John F. Kennedy Presidential Library and Museum, Boston."



Fig. 5
LBJ and Mexican President Adolfo Lopez Mateos ratify the Chamizal Convention of 1963 in El Paso, Texas. Source: NPS Photo



Fig. 6
Map of the city of El Paso "Land affected by the Chamizal Settlement." Source: © Public domain.



Fig. 7
Rio Grande channel under construction, 1965.
Source: © National Park Service, U.S. Department of the Interior.



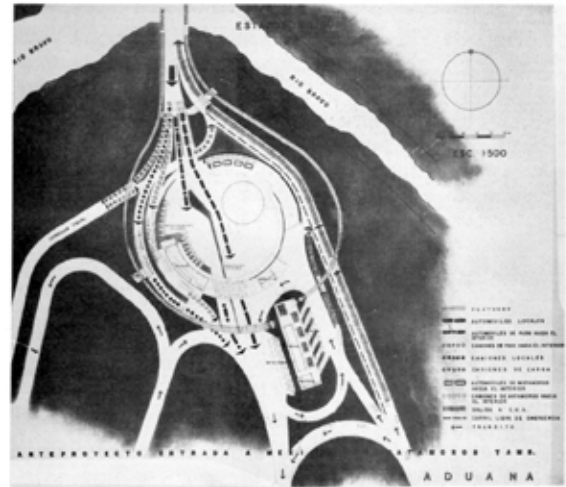
Fig. 8
Rio Grande channel completed, 1969.
Source: © National Park Service, U.S. Department of the Interior.



Fig. 9
Billboard at the entrance of Cd. Juárez circa early 1960s. Source: El Juarez de Ayer.



Fig. 10
Matamoros Customs Office 1949-1962
Usuario Centli, "Garita del Puente Nuevo," Source:
México En Fotos



PUERTA DE MEXICO

Se hace imperativo dignificar el lugar de entrada a nuestro país, como la Puerta de México. La obra demanda una regeneración de la zona inmediata al puente, construyendo los edificios aduanales y un lugar de comercio que, de no dejarlo previsto, de todas maneras se establecería con los inconvenientes de una obra hecha al acaso o al criterio de los comerciantes. Esta misma obra impone la necesidad de crear un nuevo centro cívico-comercial dentro de la ciudad, tomando como base el núcleo formado de la transformación vial que se propone. Se estima que en este sitio deben quedar alojadas las distintas oficinas federales que ahora, en edificios inadecuados, se encuentran dispersas en toda la ciudad. Complementan el centro la edificación de lugares para despacho, comercio, de diversión, y casino, con amplios estacionamientos.



Fig. 12
Ensemble plan for the Puerta de México in
Matamoros Project
Source: Arquitectura México

Fig. 11
Puerta de México
As it appears in the Plano Regulador de Matamoros
article in the Arquitectura México Magazine

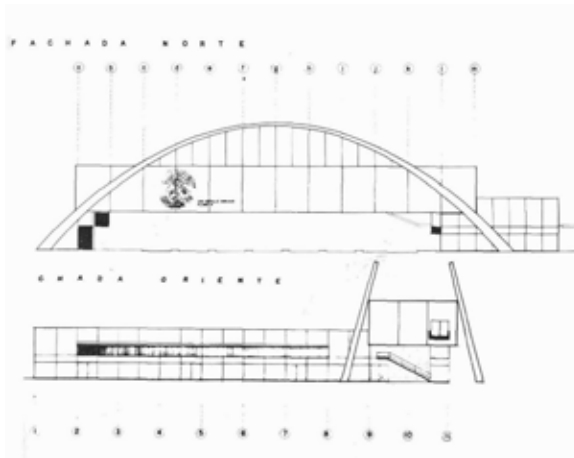


Fig. 13
Facades of Puerta de México in Matamoros
Source: Arquitectura México



Fig. 14
Facades of Conjunto "Presidente Juárez" in Mexico City. Source: Arquitectura México

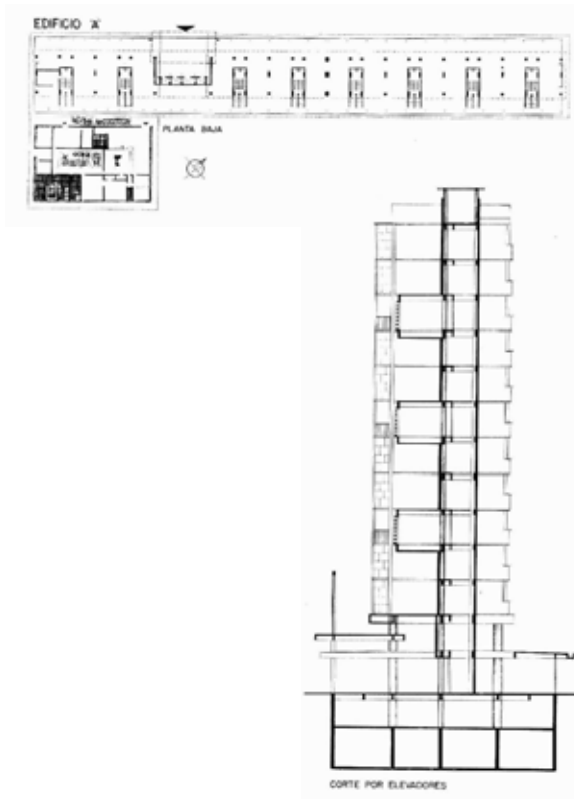


Fig. 15
Plan and Section of Building Type A in Conjunto
"Presidente Juárez" in Mexico City.
Source: Arquitectura México

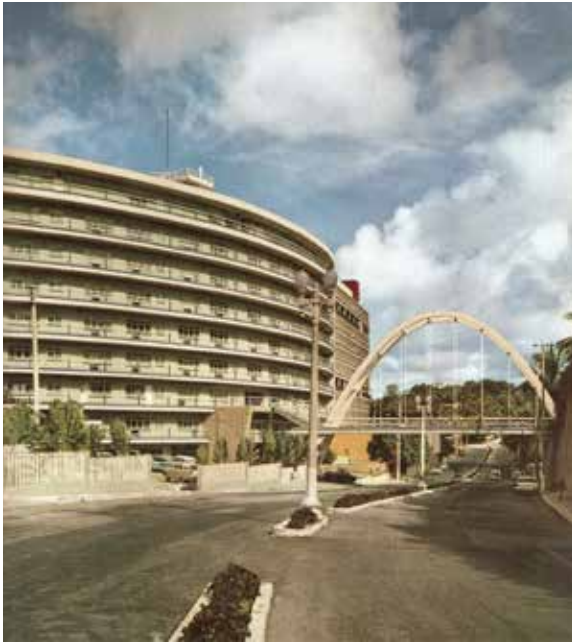


Fig. 16
Bridge over Avenida Costera, connecting Hotel Club
de Pesca and Bungalows
Source. El Acapulco de Ayer



Fig. 17
View of Tlatelolco during construction. 1964.
By Mario Pani, and Luis Ramos.
Source: Una Vida Moderna

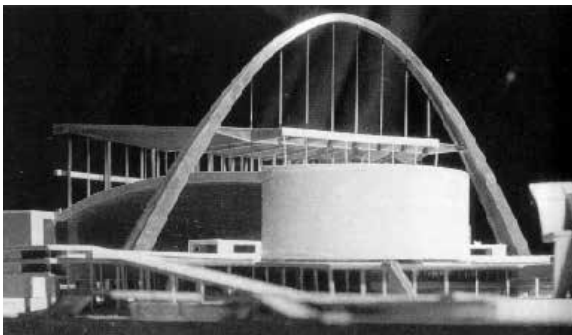


Fig. 18
Le Corbusier, project for the Palace of Soviets
Competition, 1931.
Source: <http://www.arth.upenn.edu/>

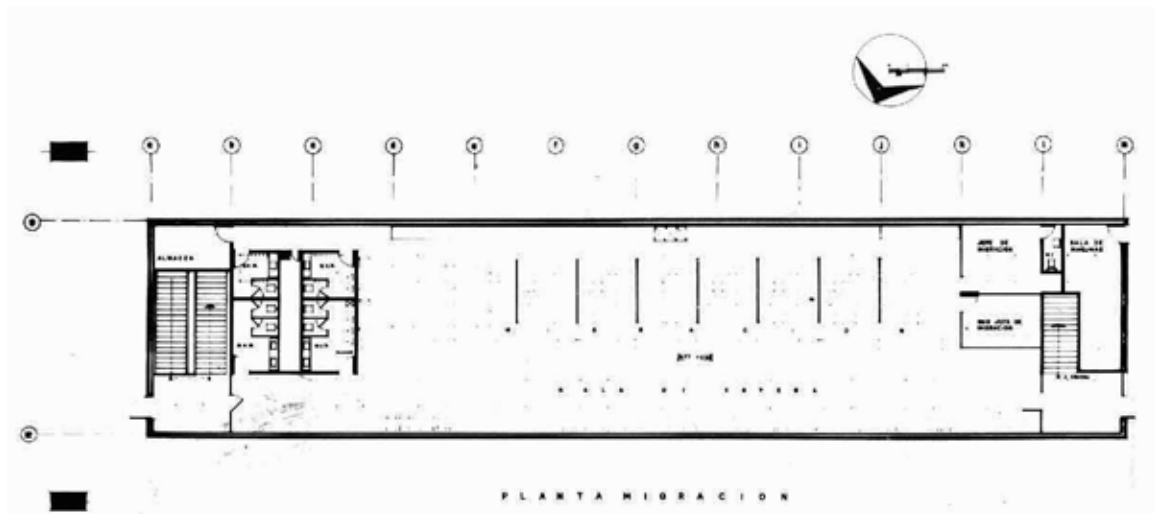


Fig. 19
Plan of the Immigration Building
Source: Arquitectura México

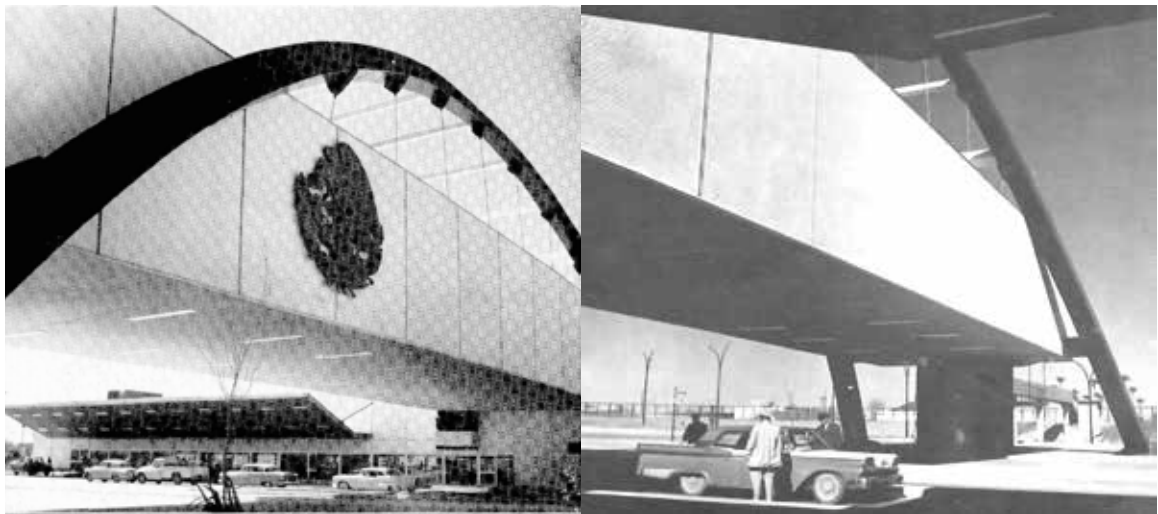


Fig. 20
Puerta de México in Matamoros
Source: Arquitectura México

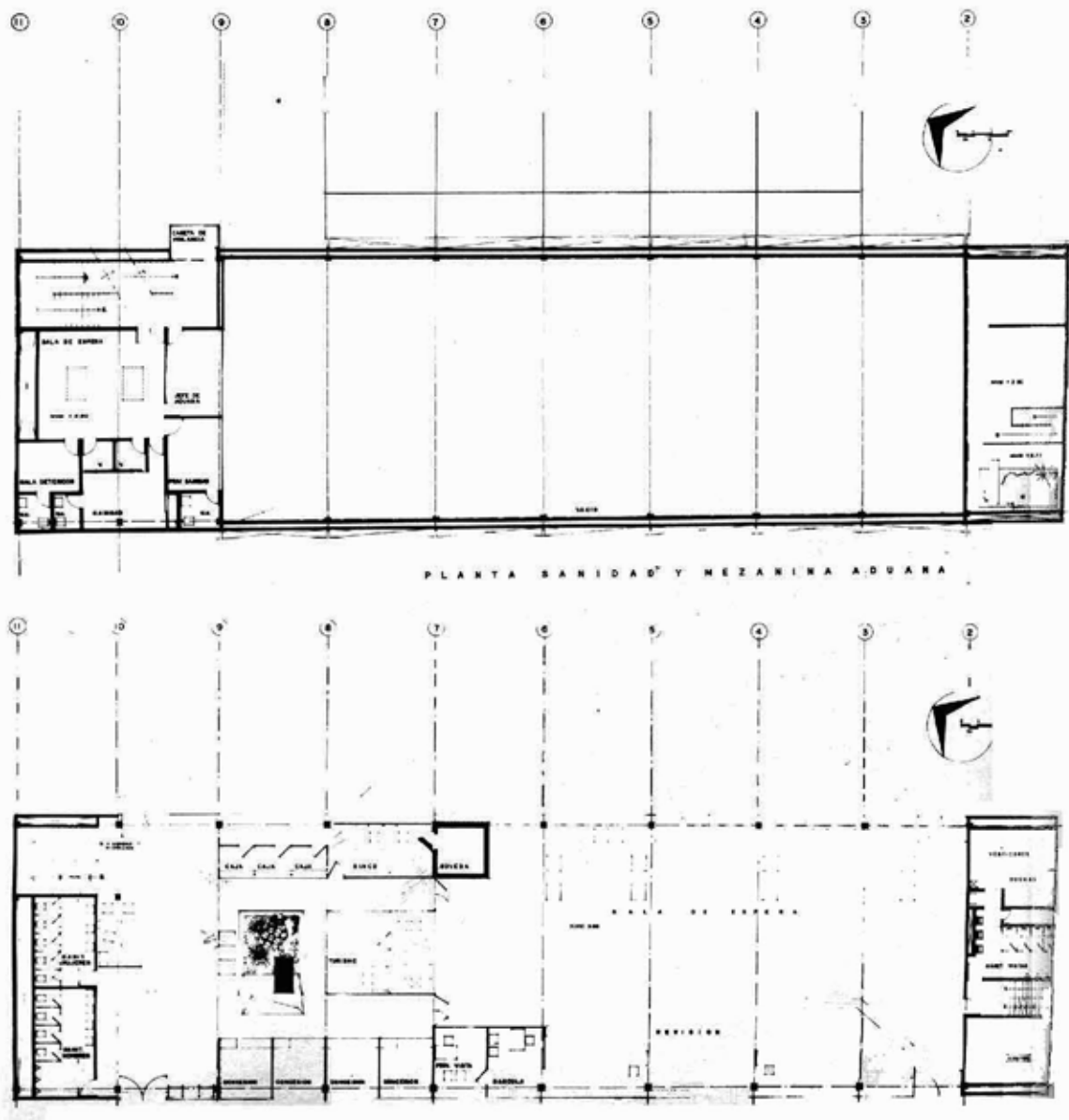


Fig. 21
Plan for the Customs Building
Source: Arquitectura México

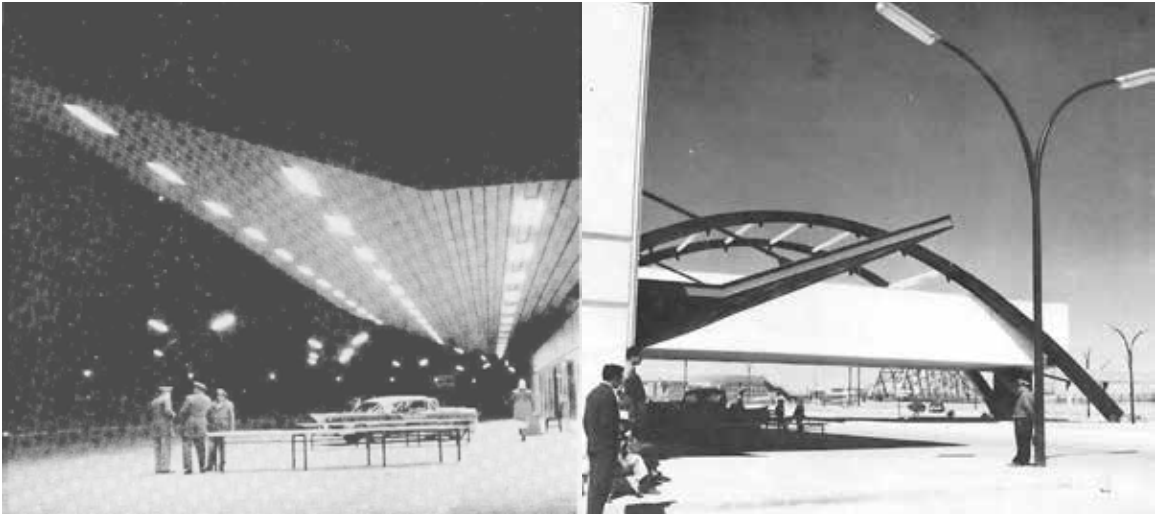


Fig. 22
Platform for automobile inspection with canopy.
Source: Arquitectura México



Fig. 23
Puerta de México in Matamoros circa 1964
Source: Una Vida Moderna

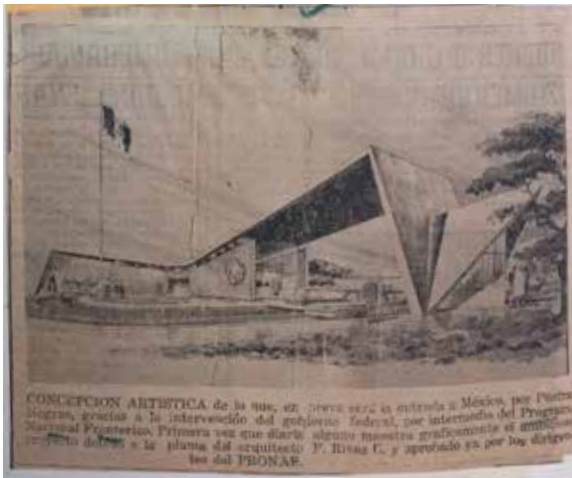


Fig. 24
Newspaper's article presenting the Puerta de México for Piedras Negras for the first time to the public.
Source: Periódico el Día, Fondo Mario Pani Darqui.

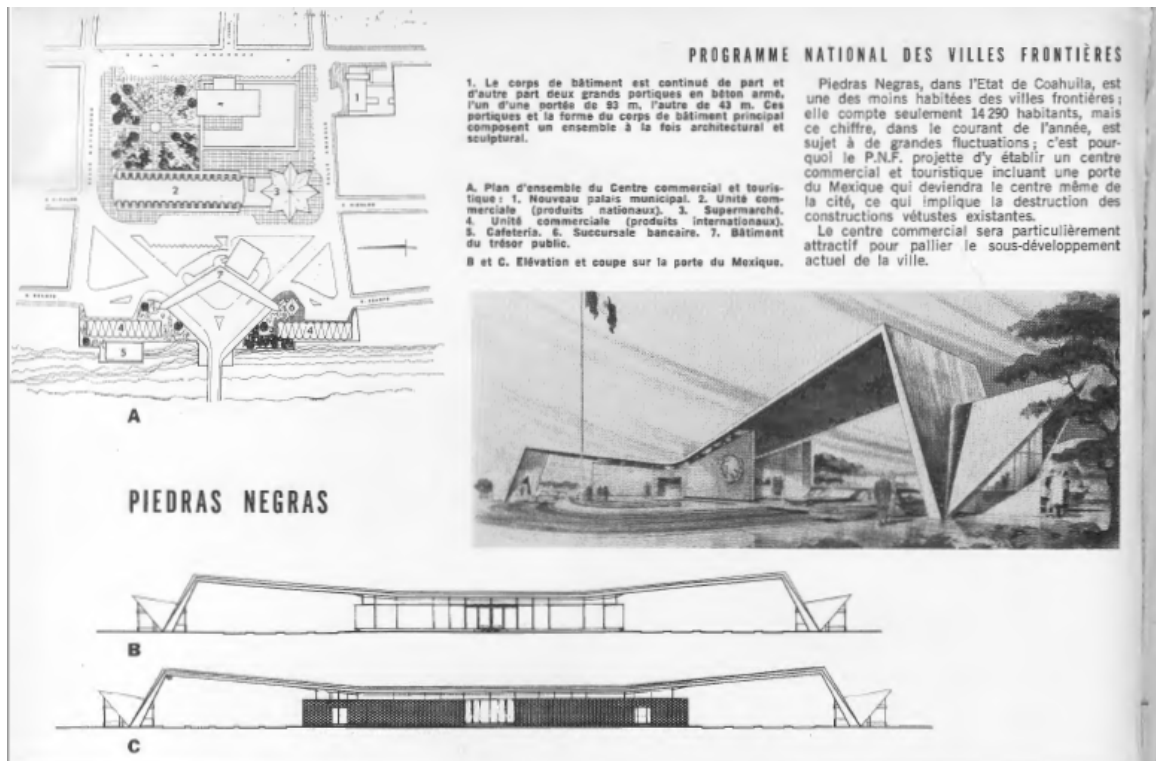


Fig. 25
Section on Piedras Negras in L'Architecture d'Aujourd'hui article titled Programme National des Villes Frontières.



Fig. 26
Piedras Negras Postcard showing the Puerta de México in Piedras Negras.
Source: El Piedras Negras que se fue



Fig. 27
Image of one of the Puerta de México in Piedras Negras 'wings'.
Source: El Piedras Negras que se fue



Fig. 28
Presiden López Mateos dedication of the Puerta de México in Piedras Negras
Source: El Piedras Negras que se fue



Fig. 29
City Plan of Nogales, Sonora; and Nogales, Arizona
in 1892.



Fig. 30
Nogales, Sonora and Nogales, Arizona border in
1919.
Source: Collection of the Pimeria Alta Museum in
Nogales, Arizona.

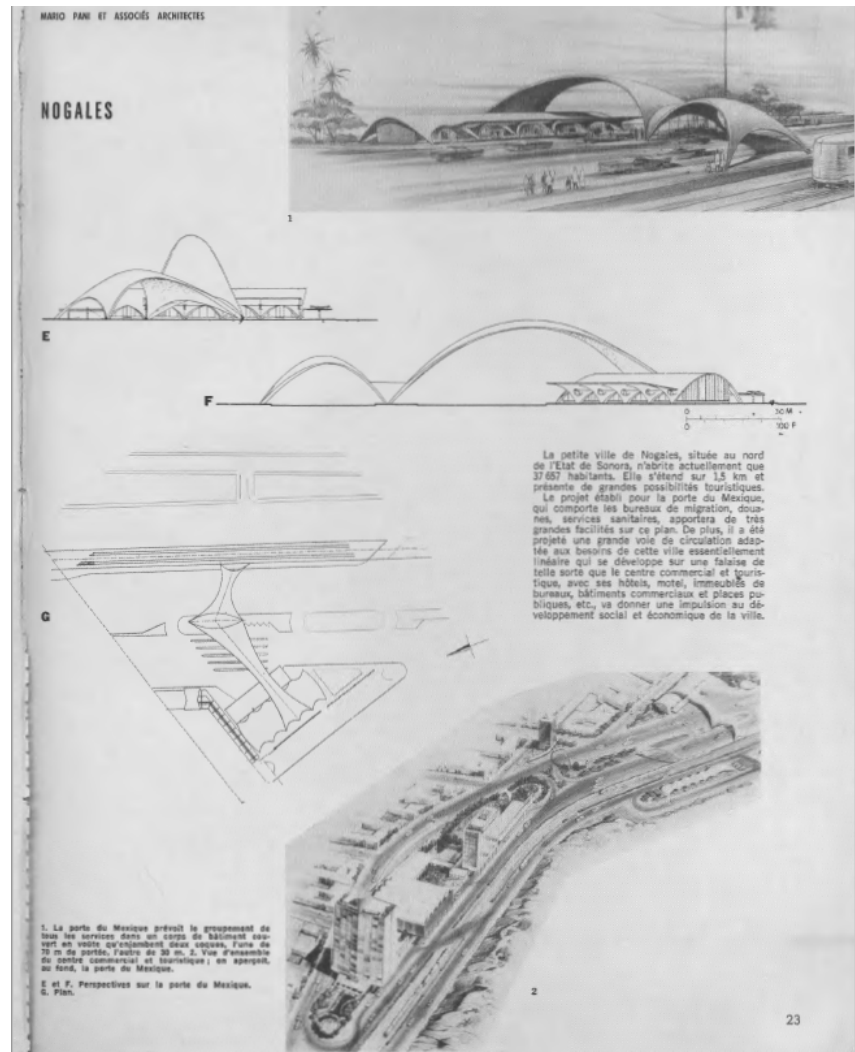


Fig. 31
Section on Nogales
in L'Architecture
d'Aujourd'hui article titled
Programme National des
Villes Frontières.

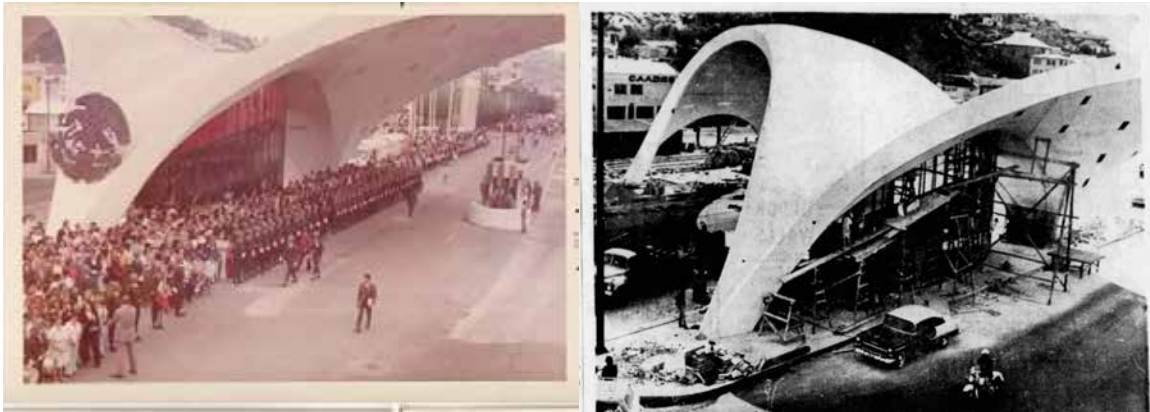


Fig. 32

Photos that show the glass 'island' built at the groin of the two arches. (Left)- Possibly during the dedication. (Right) - During its construction.

Sources: L- Nogales de mis recuerdos, R- The Arizona Republic.

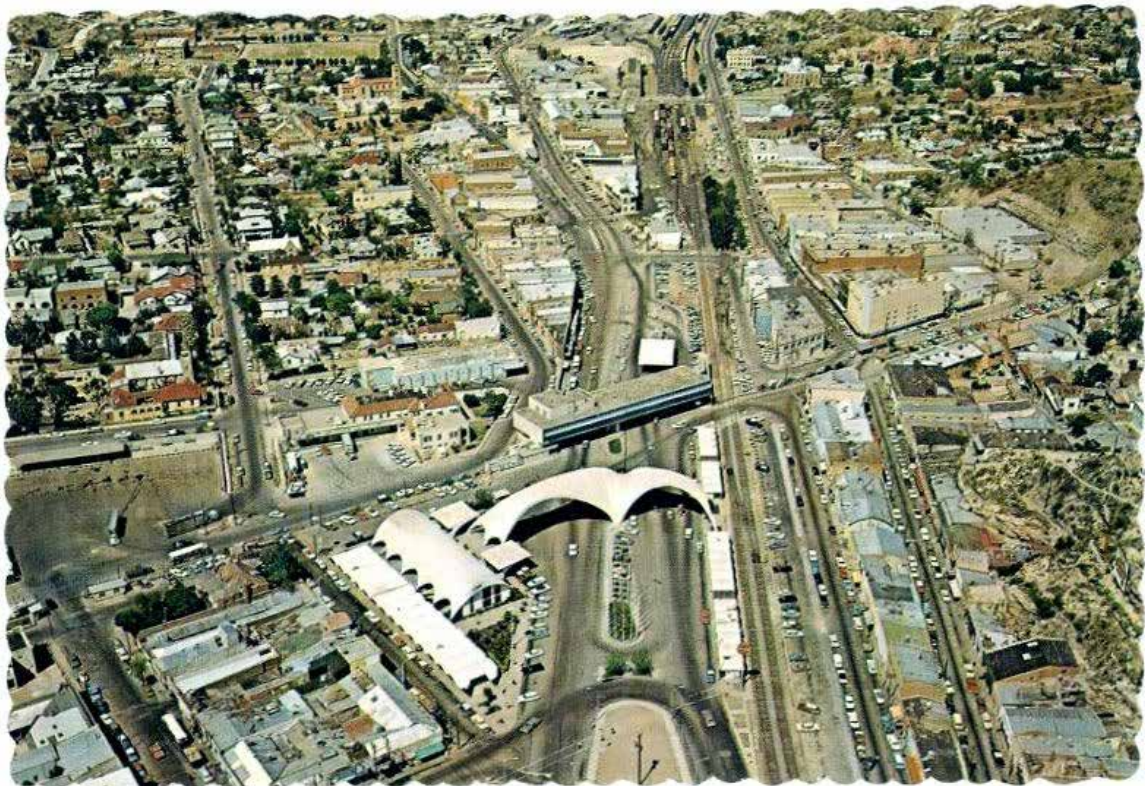


Fig. 33

Postcard of Nogales Sonora and Nogales Arizona, showing the newly built Customs and Immigration Office



Fig. 34
Photo showing the landing of the arch, and the main entrance to the Customs and Immigration Office.
Source: Nogales de mis recuerdos

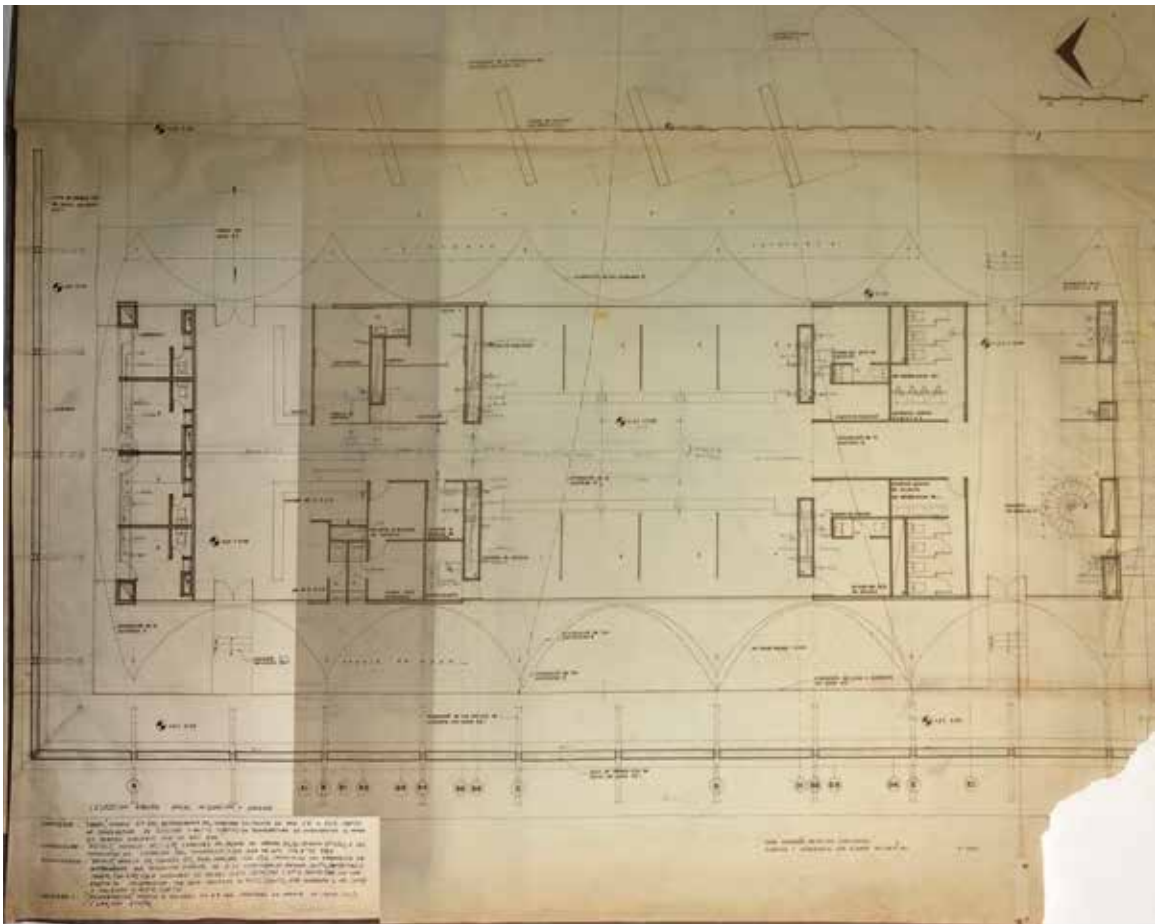


Fig. 35
Only existing drawing of the project in Mario Pani's Archives at UNAM. As it can be seen, it is a drawing of an old project since the projection of the arch still embraces the building, which was not built that way.
Source: Archivo de Arquitectos Mexicanos. Mario Pani.



Fig. 36
Parking area with cantilivered canopies during
construction.
Source: Nogales de mis recuerdos



Fig. 37
The U.S. customs and immigration building
Source: Nogales de mis recuerdos



Fig. 38
Pabellon Acústico Felix Candela en Unidad
Habitacional Santa Fe. Source. Photo Onnis Luque.



Fig. 39
Acapulco Airport. 1952
Mario Pani, and Enrique del Moral.
Source: Arquitectura México



Fig. 40
Kindergarten at Multifamiliar "Presidente Juárez" 1952
Mario Pani, and Salvador Ortega. Photo. Guillermo Zamora. Source: Una vida moderna



Fig. 41
Mercado Adolfo López Mateos. Cuernavaca, 1963
Hilario Galguera for Mario Pani Arquitectos
Source: Una vida moderna
Planta de conjunto de la estación de Nogales, Sonora.

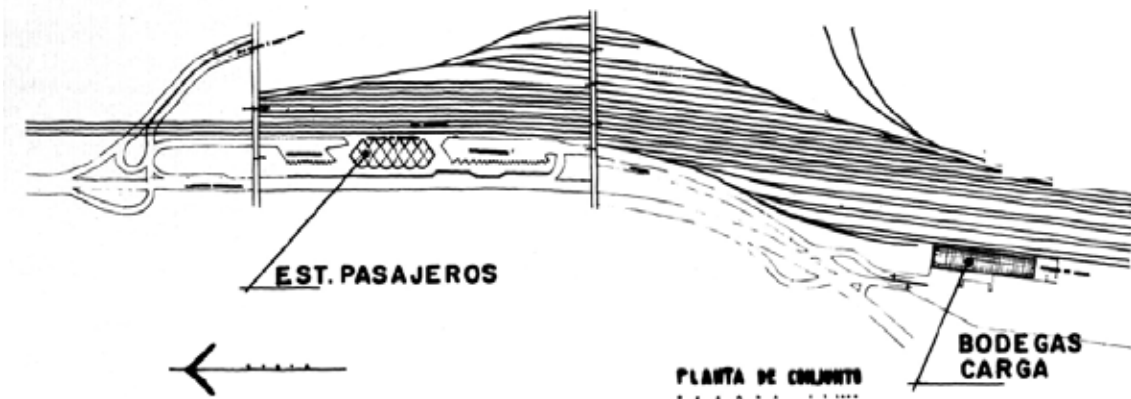


Fig. 42
Plan of Ferrocarril del Pacífico Station by Autónoma de Arquitectos
Source: Revista Calli



Fig. 43
Ferrocarril del Pacífico Station by Autónoma de Arquitectos. Source: Nogales de mis recuerdos

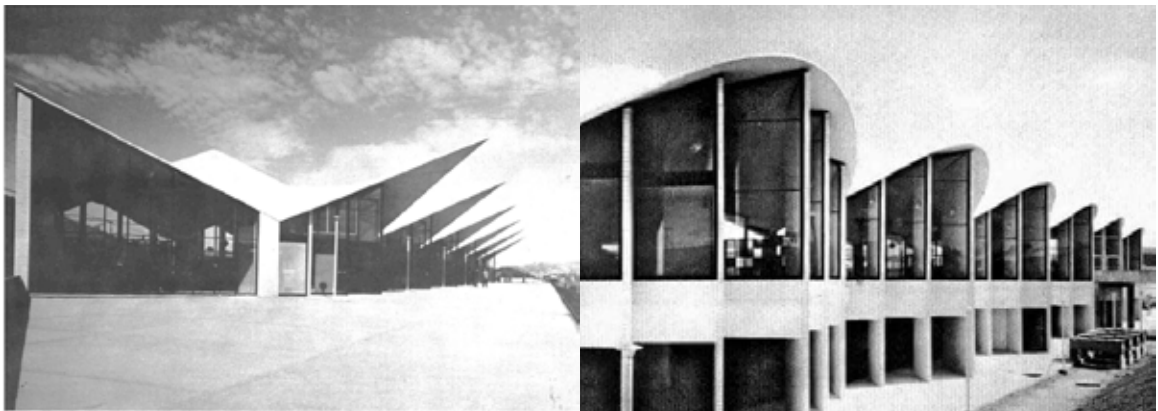


Fig. 44
Ferrocarril del Pacífico Station front and back views
Source: Revista Calli

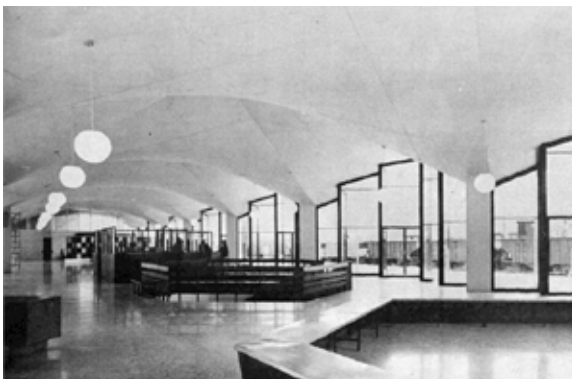


Fig. 45
Interior view of the station showing the brise-soleil facade system.
Source: Revista Calli

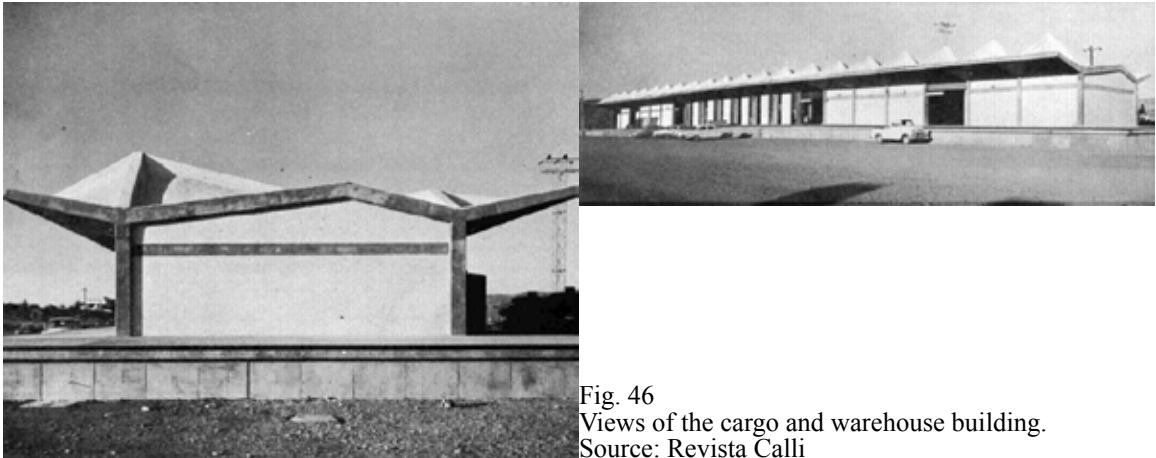


Fig. 46
Views of the cargo and warehouse building.
Source: Revista Calli



Fig. 47
Collection of images of residences in Tijuana showing the arrival of the international style in the 1950s.
Source: UCSD, Harry Crosby's Collection



Fig. 48
Street vendors at the International Border circa 1950.
Source: UCSD, Harry Crosby's Collection



Fig. 49
Perspective of the Puerta de México in Tijuana as it
appeared in the Newspaper Novedades. Jan 28, 1963
Source: Fondo Mario Pani Darqui.



Fig. 50
Escuela de Ciencias Químicas, UNAM. 1952
Guillermo Rossell, and Enrique Yañez.
Source: Una vida moderna



Fig. 51
Auditorium for the Escuela de Ciencias Químicas,
UNAM. 1952
Felix Candela, and Guillermo Rossell with Enrique
Yañez
Source: Una vida moderna



Fig. 52
Headquarters of the Fabrica Automex, 1953
Guillermo Rosell, and Lorenzo Carrasco.
Source: Una vida moderna



Fig. 53
Entrance sculpture for “Tequesquitengo Lomas Tropicales” residential, 1957
Guillermo Rossell, Manuel Larrosa, and Félix Candela. Source: Una vida moderna



Fig. 54
Los Abanicos fountain. Lomas de Cuernavaca, 1958
Guillermo Rossell, Manuel Larrosa, and Félix Candela. Source: Una vida moderna



Fig. 55
Open air chapel. Lomas de Cuernavaca, 1958
Guillermo Rossell, Manuel Larrosa, and Félix Candela. Source: Una vida moderna

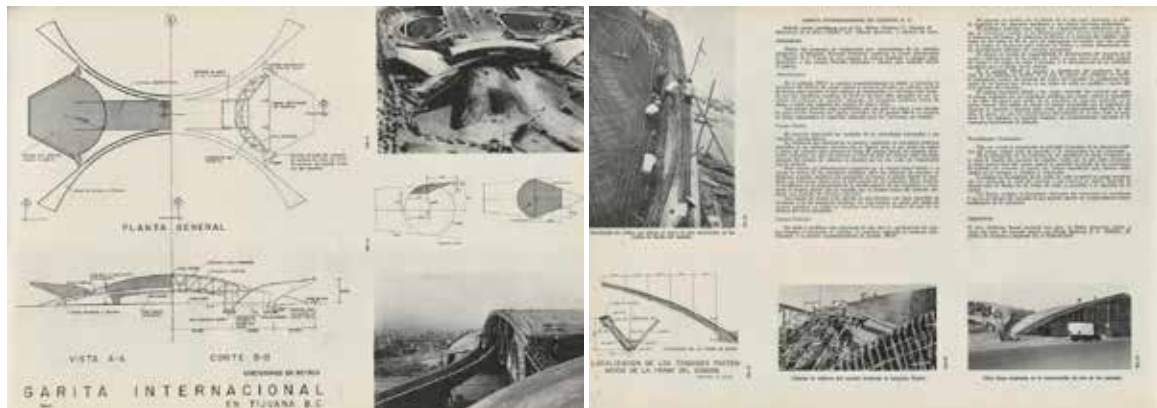


Fig. 56
Pages from book Estructuras Modernas de Concreto Reforzado by Ricardo Laso, 1966.



Fig. 57
Photo showing the concrete ramps that provides access for pedestrians, and the main access to the building.
Source: De Tijuana para el Mundo

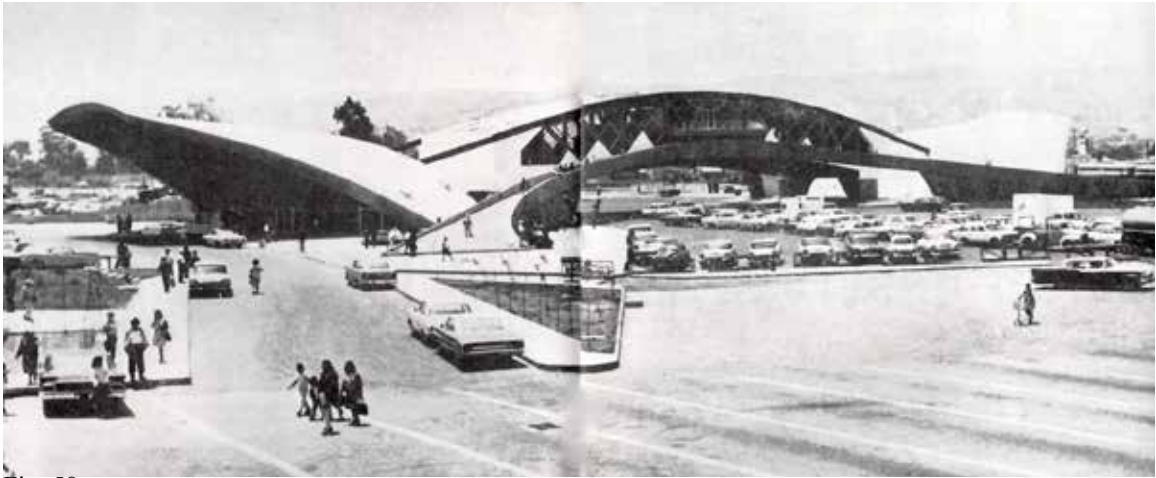


Fig. 58
International border point of entry. Puerta de México in Tijuana. Guillermo Rosell.
Source: Una vida moderna



Fig. 59
Eero Saarinen's TWA Terminal, Newark, 1955-1958
Source: Photo by Ezra Stoller. atlasofplaces.com

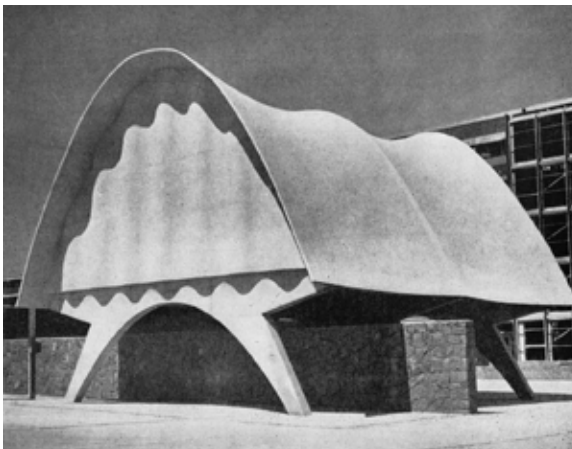


Fig. 60
Cosmic Ray Pavilion, UNAM, 1951
Félix Candela. Source: Una vida moderna



Fig. 61
Advertisement for the new urban development of
Rio Tijuana by the end of the 1960s
Source: Comité Científico de Arquitectura del Siglo
XX de ICOMOS Mexicano A.C.



Fig. 62
Cruce Fronterizo El Chaparral-San Ysidro
Source: Secretaria de Comunicaciones y Transportes



Fig. 63
PRONAF Master Plan for Tijuana. Number 4 marks the monorail station.
Source: National Border Program Booklets



Fig. 64
Front page of article, about monorail
Source: Arquitectura México



Fig. 65
Pani's rendering proposal for Mexico City monorail.
Source: Una vida moderna



Fig. 66
Cost and revenue analysis for monorail system for Tijuana.
Source: Fondo Mario Pani Darqui.



Fig. 67
Internacional Nacional Y Regional, showing connections to the adjacent cities.
Source: Fondo Mario Pani Darqui.

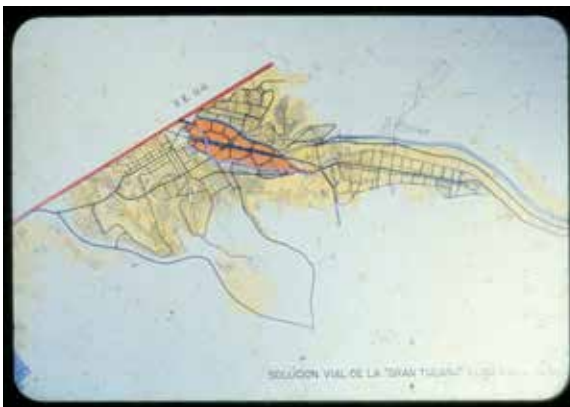


Fig. 68
The slide shows how the growth of the city can be managed with the help of the monorail line and the design of the supermanzanas.
Source: Fondo Mario Pani Darqui.



Fig. 69
The slide shows the stops of the monorail at the PRONAF complex.
Source: Fondo Mario Pani Darqui.



Fig. 70
Render of the ALWEG monorail through the streets of Tijuana
Source: Fondo Mario Pani Darqui.

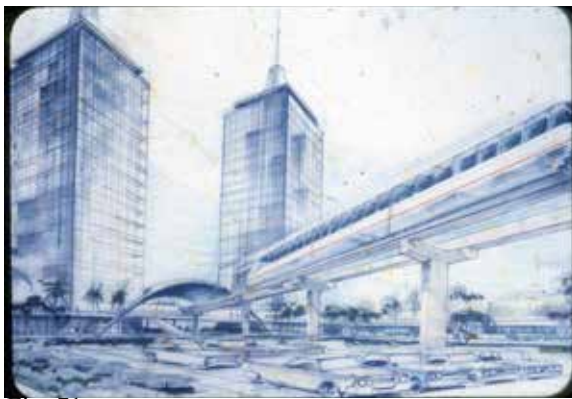


Fig. 71
Render of the ALWEG at the civic center stop
Source: Fondo Mario Pani Darqui.



Fig. 72
Render of the ALWEG monorail passing over the Rio Tijuana
Source: Fondo Mario Pani Darqui.



Fig. 73

Render of the ALWEG monorail arriving to the Puerta de México International Border

Source: Fondo Mario Pani Darqui.



Fig. 74

1953. El Paso before the construction of the I-10.

Source: From Concordia to Lincol Park Thesis



Fig. 75
Construction progress of the I-10. El Paso. 1963
Shows how the city is being divided in two.
Source: El Paso Times

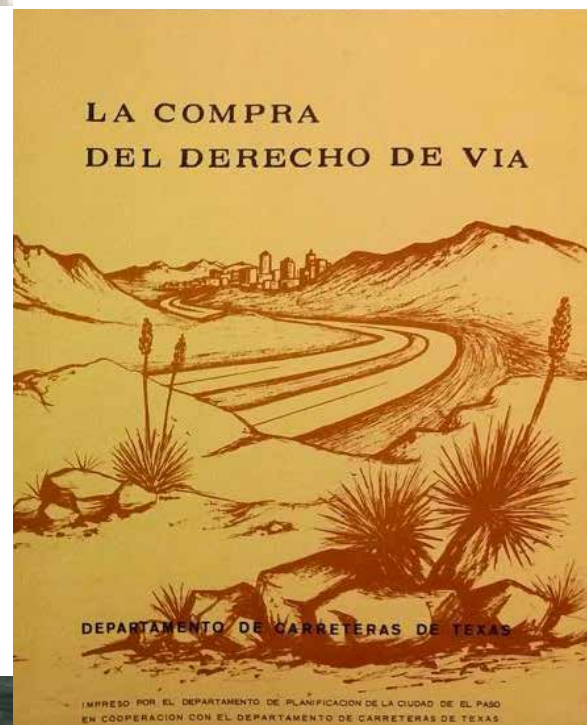


Fig. 76
Booklet explaining right-of-way to non English speakers
Source: From Concordia to Lincoln Park Thesis



Fig. 77
Channeling of the Rio Bravo, and Chamizal Border Freeway completed.
Source: © National Park Service, U.S. Department of the Interior.

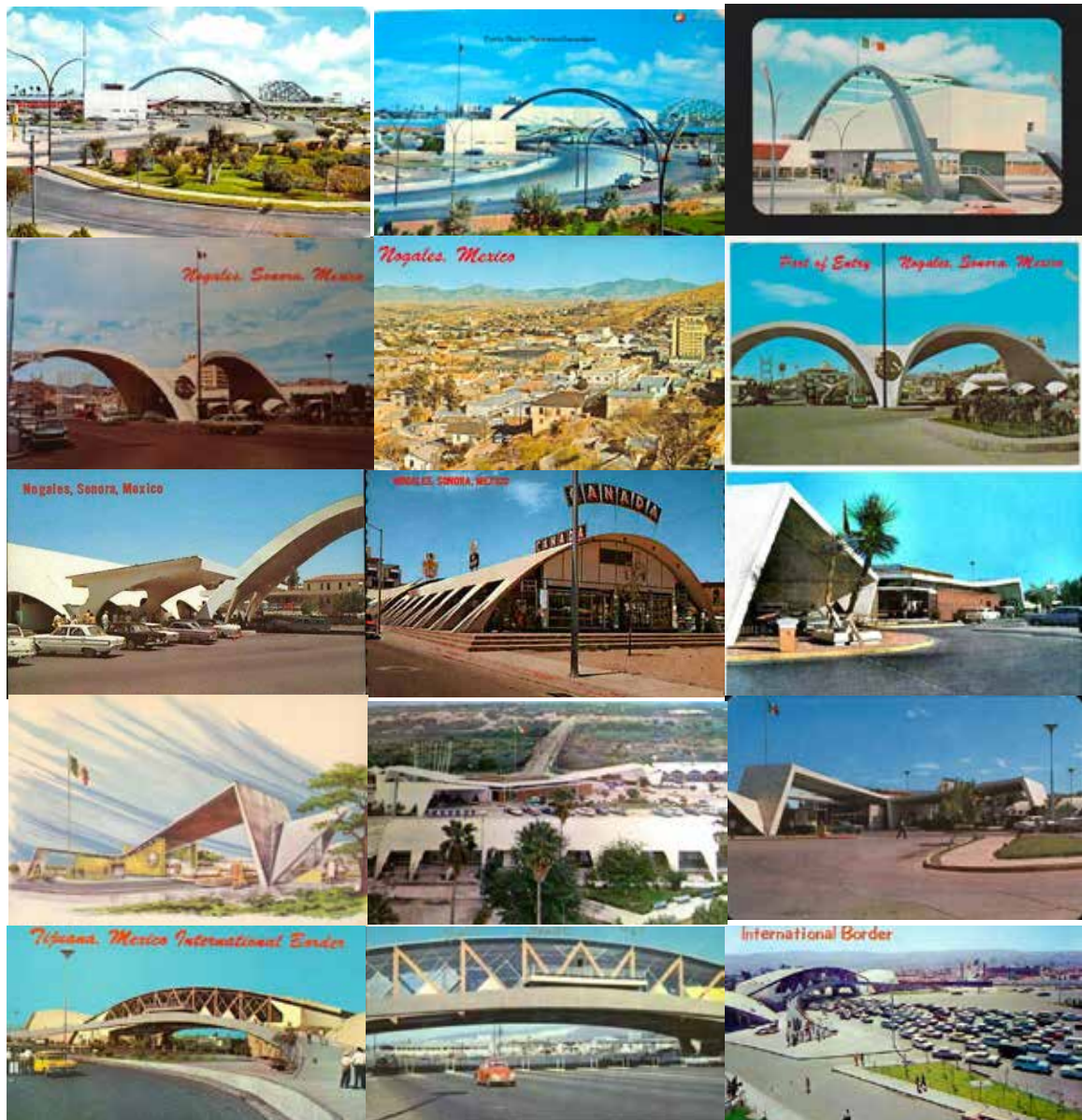


Fig. 78

Following Page- Collection of Puerta de México Postcards
 Source: Postcard Collection from Facebook group collectors

Chapter 5 - Figures

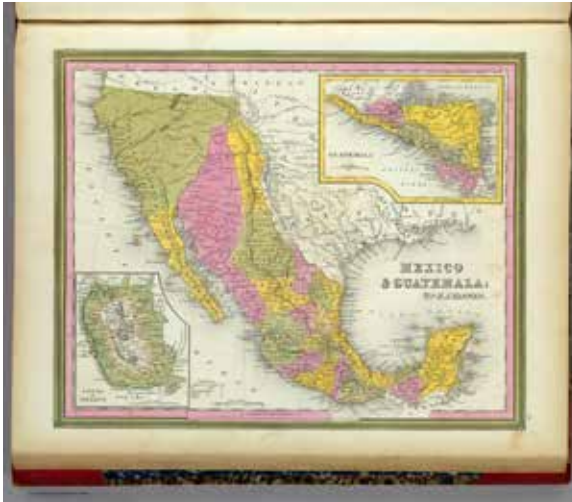


Fig. 1
Mexico & Guatemala: By H.S. Tanner. With two inset maps: Guatemala and Valley of Mexico. Entered 1846 by H.N. Burroughs Pennsylvania.
Source: Digital images and descriptive data © 2000 by Cartography Associates



Fig. 2
Justo Sierra, Leopoldo Batres and other personalities during the Americanist Congress in 1910. San Juan Teotihuacán. Source: Fototeca Nacional.



Fig. 3
View from the sea, Condominio Los Cocos, Mario Pani and Salvador Ortega. Acapulco, 1957
Source: Una Vida Moderna



Fig. 4
La Plaza de Toros El Toreo de Tijuana, 1964.
By Harry Crosby.
Source: Harry Crosby Collection. Special Collections
& Archives, UC San Diego, La Jolla, 92093-0175



Fig. 5
Office building in Mexico City 1950.
José Villagrán García, and Enrique Del Moral
Photo by Guillermo Zamora.
Source: Una Vida Moderna



Fig. 6
UNAM Campus Mexico City 1952.
Mario Pani, and Enrique Del Moral
View of Faculty of Sciences at the background and
the School of Architecture on the right.
Source: unavidamoderna



Fig. 7
Torre de Rectoría, 1952.
Mario Pani, and Enrique Del Moral..
Photo by Claudia Alba. Source: Donde Ir Magazine

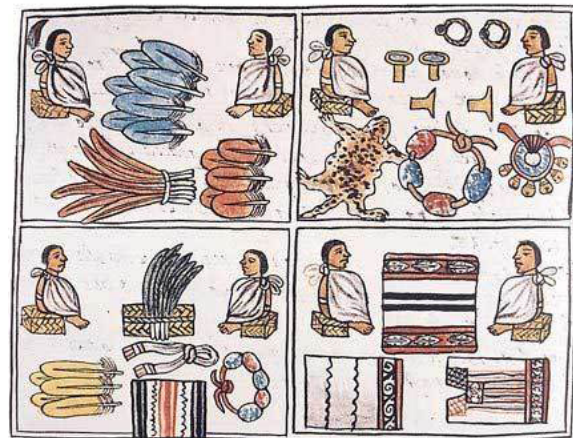


Fig. 8
Pochtecas, Florentine Codex. General History of the
things of New Spain. 1569
Source: Medicea Laurenziana Library, Florence



Fig. 9
The Feather merchant. Florentine Codex. General
History of the things of New Spain. 1569
Source: Medicea Laurenziana Library, Florence



Fig. 10
Detail of Plaza Mayor de la Ciudad de México 1765
By Diego García Conde
A representation of the traditional tianguis stall.
Source: Museo Nacional de Historia de México



Fig. 11
Plaza Mayor de la Ciudad de México 1765
By Diego García Conde
Source: Museo Nacional de Historia de México



Fig. 12
Plaza de El Volador de México, 1769
By Juan Patricio Morlete Ruíz
Source: Fondo Cultural Banamex



Fig. 13
Project for the Monumento a la Independencia.
By Lorenzo de Hialga
Source: Anales del Instituto de Investigaciones
Estéticas

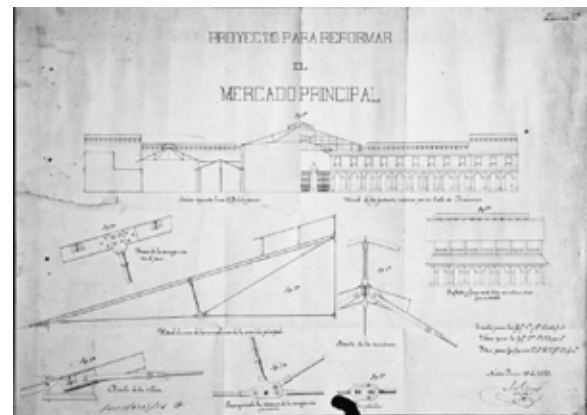


Fig. 14
Mercado Principal reformation project, 1873
By Antonio Torres Torija
Source: AHDF, Planoteca, Photo. Roberta Vassallo.



Fig. 15
Project for Mercado Santa Catarina. Facade. 1904
Source: AHDF, Planoteca. Photo. Roberta Vassallo



Fig. 16
Photo spread presenting the previous analysis of the
area of the Mercado de la Merced
by Enrique Del Moral
Source. Arquitectura México

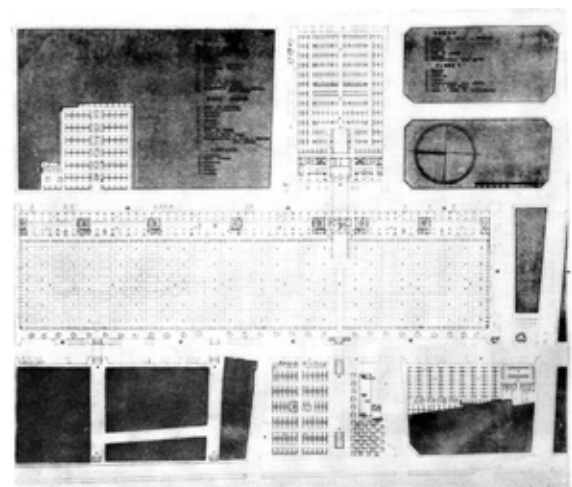


Fig. 17
Plan for the Mercado de la Merced. 1956
By Enrique Del Moral
Source: Arquitectura México



Fig. 18
Mercado de la Merced view of southern facade, 1957. (Edited by the author)
By Enrique Del Moral
Photo Guillermo Zamora. Source: L'Architecture d'Aujourd'hui

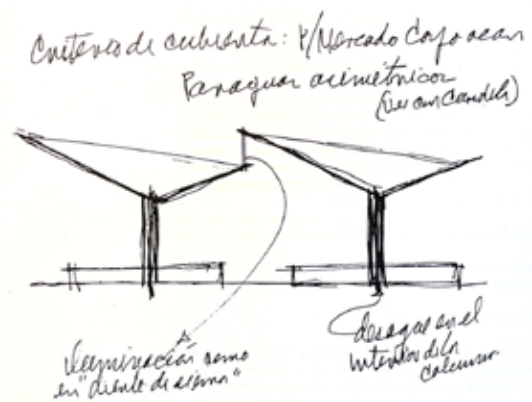


Fig. 19
Scene of a street market in 1884 (left). Pedro Ramírez Vázquez drawing for mercados' concrete shell covers. Photo by William Henry Jackson (left) Source: U.S. Library of Congress - Prints & Photographs Online Catalog. (right) Source: Ramírez Vázquez en la Arquitectura



Fig. 20
 Mercado de Coyoacán. Mexico City 1956
 By Pedro Ramírez Vázquez, and Rafael Mijares in collaboration with Félix Candela
 Photo. Guillermo Zamora. Source: Una Vida Moderna



Fig. 21
 (Edited) View of Mercado de la Lagunilla. Mexico City 1956
 By Pedro Ramírez Vázquez, and Rafael Mijares . Source: L'Architecture d'Aujourd'hui

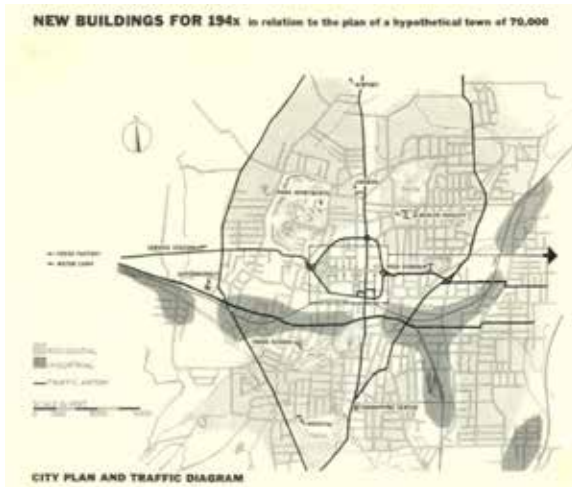


Fig. 22
Plan of a hypothetical town of 70,000
Source: Architectural Forum

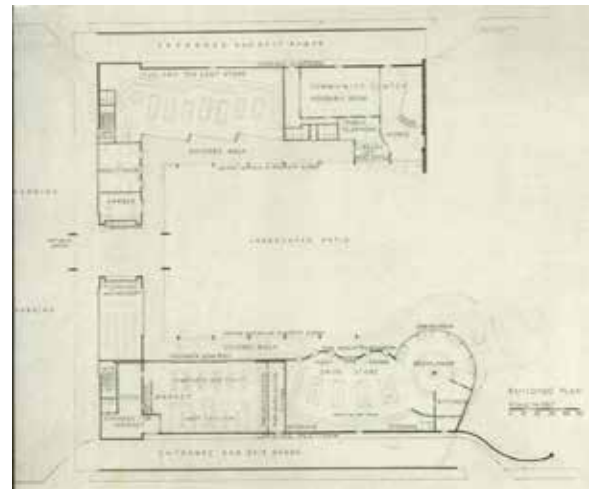


Fig. 23
Plan for 194X Town Shopping Center. 1943
By Victor Gruenbaum, and Elsie Krummeck
Source: Architectural Forum

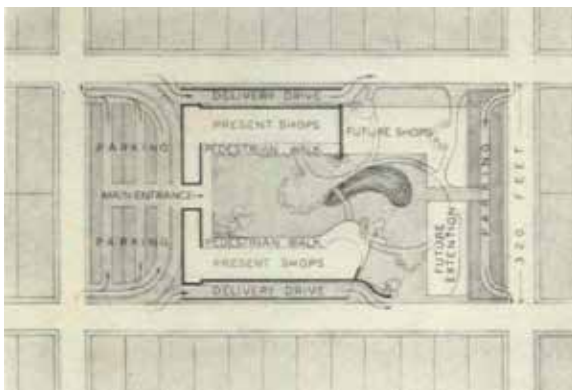


Fig. 24
Location plan of 194X Town Shopping Center. 1943
By Victor Gruenbaum, and Elsie Krummeck
Source: Architectural Forum

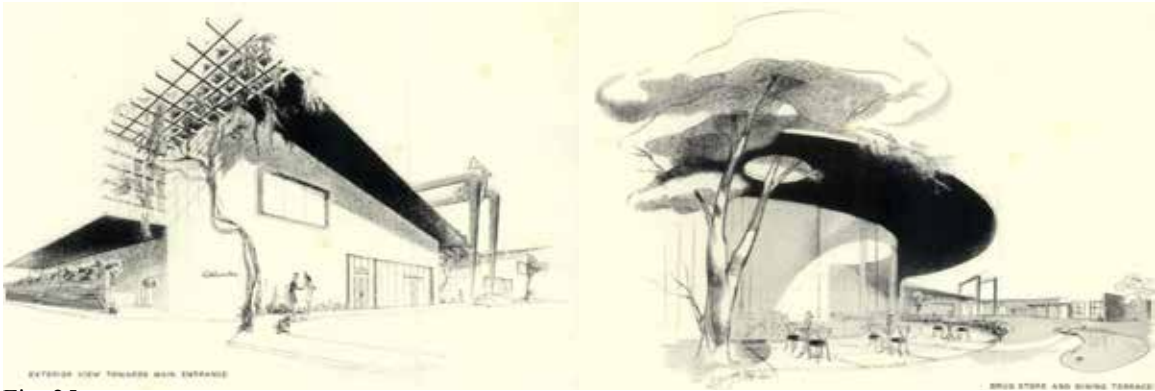


Fig. 25

Renders of exterior and interior -terrace views of 194X Town Shopping Center. 1943

By Victor Gruenbaum, and Elsie Krummeck

Source: Architectural Forum



Fig. 26

Northland Shopping Center aerial view. 1954

By Victor Gruen Associates

Source: Gruen Associates



Fig. 27

View of Northland Shopping Center plaza

Source: Gruen Associates



Fig. 28
Aerial view of Southdale Shopping Center. 1956
By Victor Gruen Associates
Source: Gruen Associates



Fig. 29
Interior view (left) and render (right) of Southdale Shopping Center. 1956
Source: Gruen Associates



Fig. 30
Shopper's World. Boston. 1951
By Morris Ketchum. Source: Boston Globe



Fig. 31
Aerial view of Northgate Seattle under construction.
1949. Sources: seattlepi

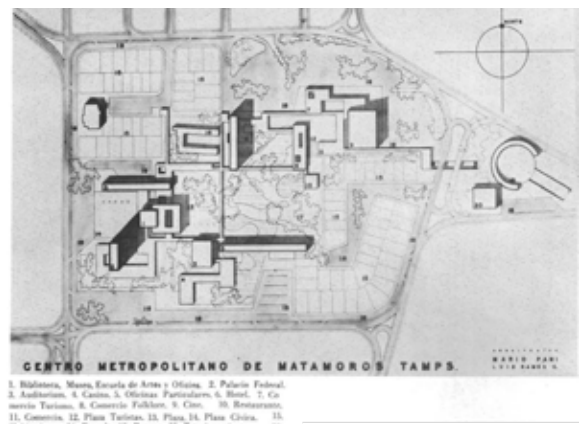


Fig. 32
Centro Metropolitano de Matamoros Tamps. As it
appears in the Plano Regulador for Matamoros. 1960.
Mario Pani, Domingo Garcia Ramos, Victor Vila and
Miguel de La Torre
Source: Arquitectura México



Fig. 33
Plano Regulador for Matamoros. 1960.
In red, the Centro Metropolitano de Matamoros
By Mario Pani, Domingo Garcia Ramos, Victor Vila
and Miguel de La Torre
Source: Arquitectura México

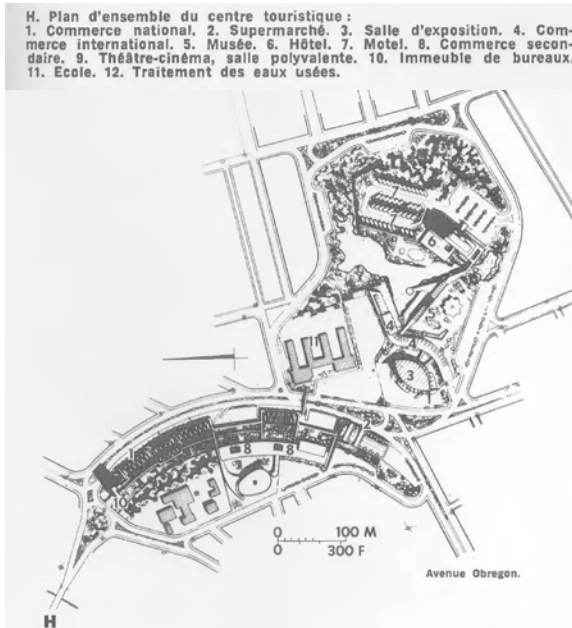


E. Plan du centre civique, culturel et commercial de Matamoros :
1. Centre commercial. 2. Tourisme. 3. Hôtel et motel. 4. Musée. 5. Chambre de Commerce. 6. Cinéma. 7. Théâtre. 8. Bureaux. 9. Théâtre en plein air.
F. Plan directeur de Matamoros.

Fig. 34
Centre Civique Culturel et Commercial de
Matamoros. 1963
Mario Pani y Arquitectos Asociados
Source: L'Architecture d'Aujourd'hui



Fig. 35
Perspective render of the Centre Civique Culturel et
Commercial de Matamoros. 1963
Mario Pani y Arquitectos Asociados
Source: L'Architecture d'Aujourd'hui



H. Plan d'ensemble du centre touristique :
1. Commerce national. 2. Supermarché. 3. Salle d'exposition. 4. Commerce international. 5. Musée. 6. Hôtel. 7. Motel. 8. Commerce secondaire. 9. Théâtre-cinéma, salle polyvalente. 10. Immeuble de bureaux. 11. Ecole. 12. Traitement des eaux usées.

Fig. 36
Master Plan for Shopping and Cultural Center in
Matamoros. Developed 1962, Published 1963.
Mario Pani y Arquitectos Asociados
Source: L'Architecture d'Aujourd'hui

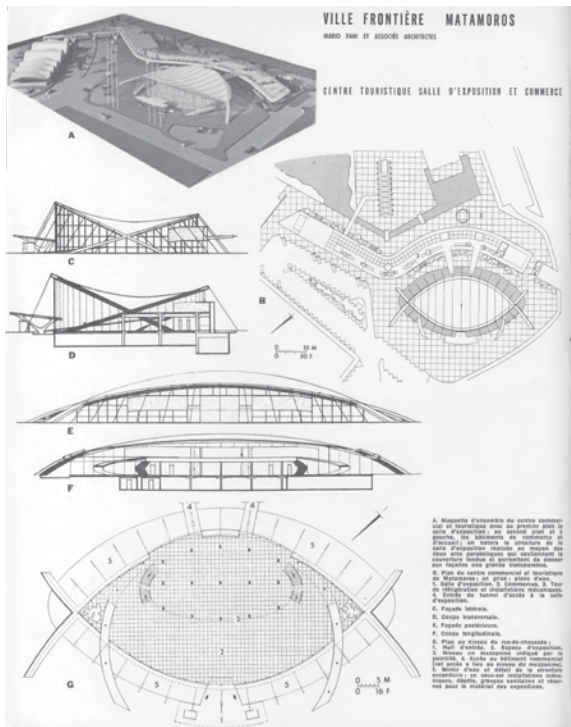


Fig. 37
Spread on the Convention Hall at Matamoros. 1963
Mario Pani y Arquitectos Asociados
Source: L'Architecture d'Aujourd'hui



Fig. 38
Drawing of Convention Center Plan. Feb. 1962
By Mario Pani Arquitectos Asociados, and Hilario Galguera. Source. Archivo de Arquitectos Mexicanos. Mario Pani



Fig. 39
Model of Convention Center for Matamoros. n.d.
View 1
Source: Fondo Mario Pani Darqui

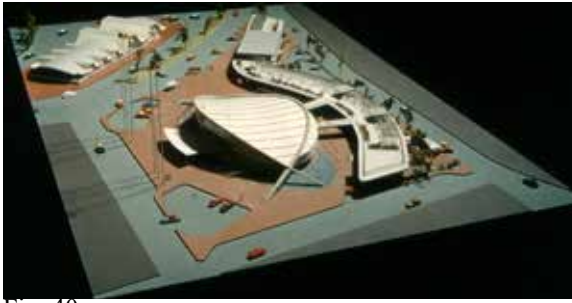


Fig. 40
Model of Convention Center for Matamoros. n.d.
View 2
Source: Fondo Mario Pani Darqui

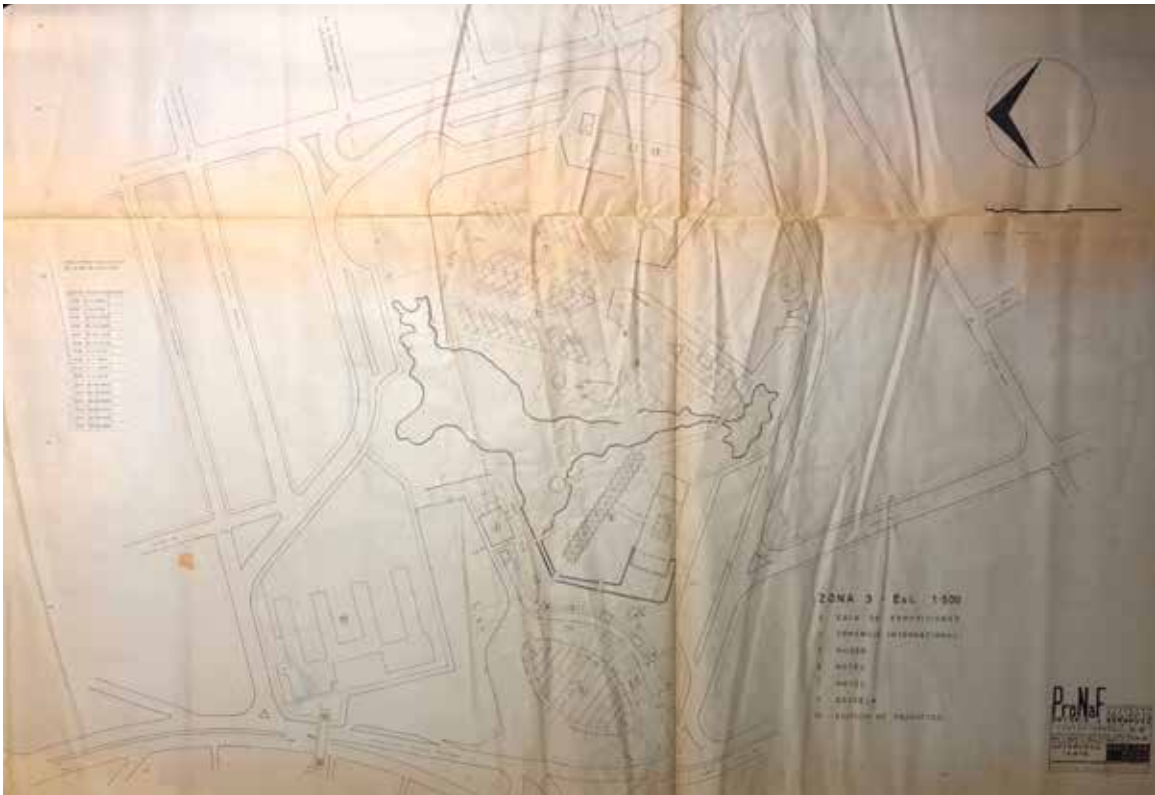


Fig. 41
Commercial Area, location of buildings plan. Feb, 1962
Mario Pani Arquitectos Asociados, and Hilagrio Galguera
Source: Archivo de Arquitectos Mexicanos. Mario Pani



Fig. 42
Model of Commercial Center in Matamoros. n.d.
Source: Fondo Mario Pani Darqui.



Fig. 43
Condominios Reforma. Mexico City. 1955
By Arqs. Mario Pani, and Salvador Ortega
Source: unavidamoderna

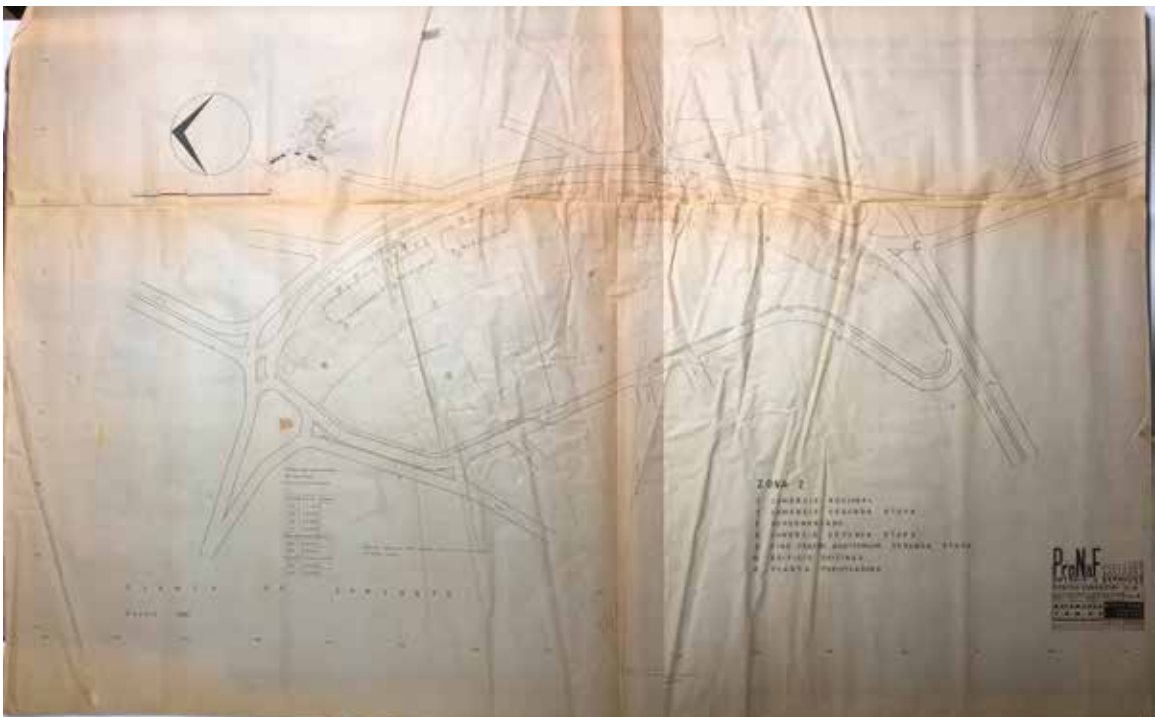


Fig. 44
"Comercio Nacional" Shopping Area. Feb, 1962.
By Mario Pani Arquitectos Asociados, and Hilario Galguera
Source: Archivo Arquitectos Mexicanos. Mario Pani

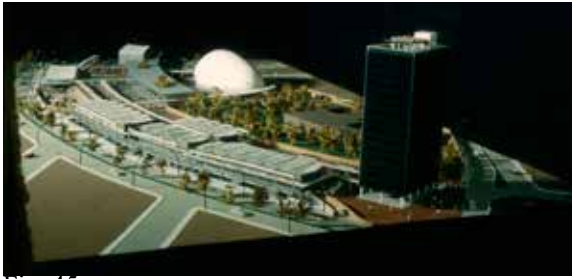


Fig. 45
Model of the "Comercio Nacional" Shopping Center
Area. n.d.
Source: Fondo Mario Pani Darqui

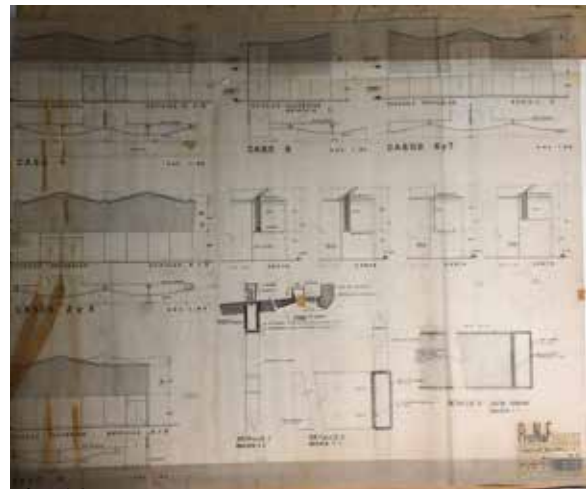


Fig. 46
Comercio Nacional Facades and Sections. n.d.
By Mario Pani Arquitectos Asociados, and Hilario Galguera.
Source: Archivo Arquitectos Mexicanos. Mario Pani



Fig. 47
Detail view of the Model of Commercial Center in
Matamoros, showing in the forefront the supermarket
building n.d.
Source: Fondo Mario Pani Darqui.



Fig. 48
Mercado Alcalde. Guadalajara. 1962
By Horst Hartun
Source: L'architecture d'Aujourd'hui



Fig. 49
Comercio Nacional Shopping Center Area as it was
built in 1963.
Mario Pani Arquitectos Asociados, and Hilario
Galguera. Source: Mi Matamoros Antiguo



Fig. 50
Comercio Nacional Shopping Center Area as it
appears today.
Source: google maps



Fig. 51
North Gate Shopping Center, El Paso. TX Circa
1960
Source : Mall Hall of Fame



Fig. 52
Bassett Center. El Paso, TX. 1962
Source: El Paso Times



Fig. 53
Plano Regulador Ciudad Juárez Chih. México. 1958
Domingo García Ramos, Víctor Vila and Miguel de
La Torre Source: Arquitectura México



Fig. 54
Master Plan for Commercial Center in Cd. Juárez,
Chih. 1961
By Mario Pani Arquitectos Asociados
Source: PRONAF Cd. Juárez Booklet

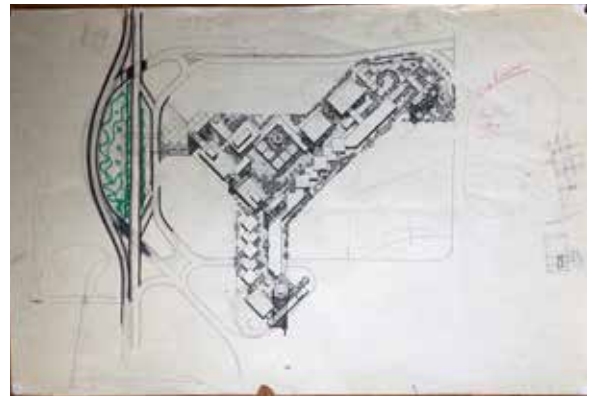


Fig. 55
Cd. Juárez' Commercial Center Master Plan , with
Ramírez Vázquez museum sketches.
Source: Archivo Pedro Ramírez Vázquez



Fig. 56
Cd. Juárez' Commercial Center Master Plan , with
Ramírez Vázquez museum integrated. Change of
land plot shape can be appreciated.
Source: Archivo Pedro Ramírez Vázquez

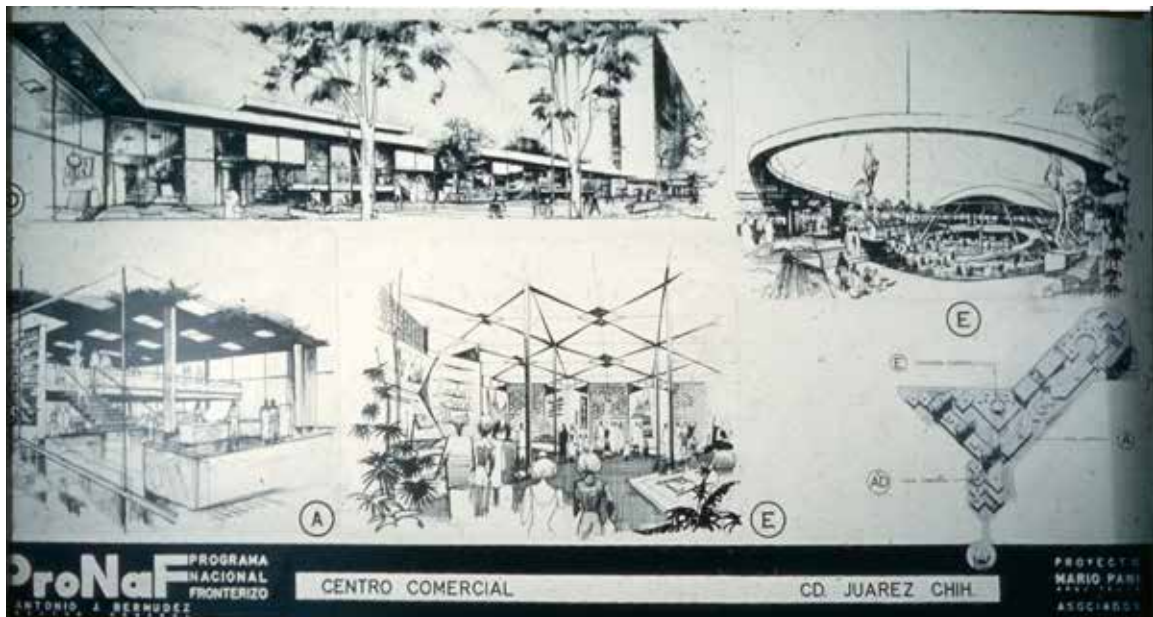


Fig. 57
Presentation Panel showing perspective drawings of different areas of the shopping center in Cd. Juárez.
n.d.
Mario Pani Arquitectos Asociados. Source: Fondo Mario Pani Darqui

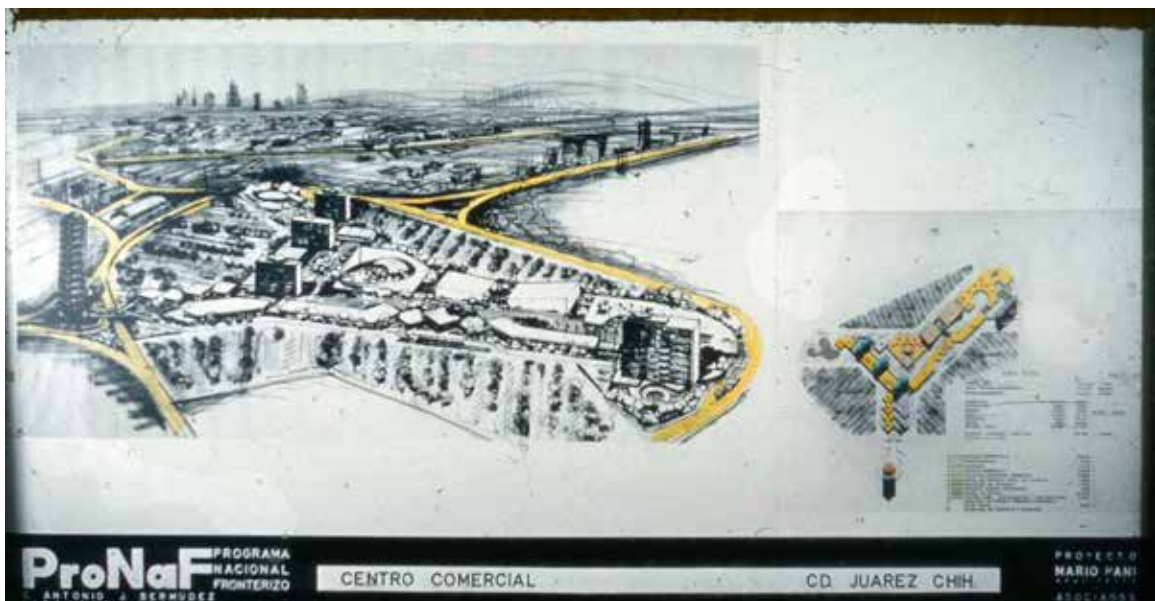


Fig. 58
Presentation Panel showing perspective drawings of Master Plan of the shopping center in Cd. Juárez. n.d.
By Mario Pani Arquitectos Asociados. Source: Fondo Mario Pani Darqui



Fig. 59
Presentation Panel showing perspectives of the shopping center areas. n.d.
By Mario Pani Arquitectos Asociados. Source: Fondo Mario Pani Darqui



Fig. 60
Perspective Presentation Panel 2. n.d.
Mario Pani Arquitectos Asociados. Source: Fondo Mario Pani Darqui



Fig. 61
Aerial view of PRONAF Cd. Juárez during construction.n.d. Source: El Juárez de Ayer



Fig. 62
Barrel-vaulted commerce section view
Source: El Juárez de Ayer



Fig. 63
Barrel-vaulted commerce section detail of store facade view
Source: El Juárez de Ayer



Fig. 64
Aerial View of PRONAF Cd. Juárez circa late 1960s
Source: El Juárez de Ayer



Fig. 65
Aerial View of PRONAF Cd. Juárez during its
construction. 1964-65
Source: El Juárez de Ayer



Fig. 66
Aerial View of PRONAF Cd. Juárez. Circa late 1960s
Source: El Juárez de Ayer



Fig. 67
PRONAF Cd. Juárez Convention Hall
Mario Pani Arquitectos Asociados, and Enrique
Molinar . Source: El Juárez de Ayer

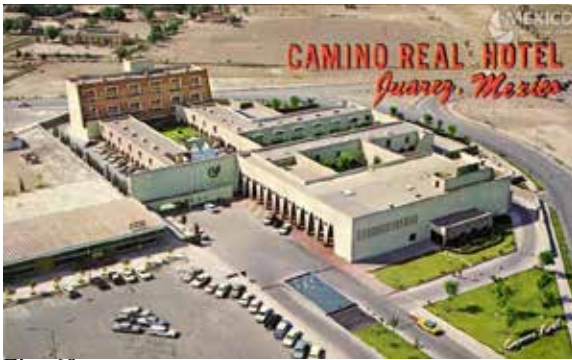


Fig. 68
Camino Real Motor Hotel , Cd. Juárez Chih. Circa
early 1970s.
Ricardo Legorreta. Source: México en Fotos



Fig. 69
Fábrica SF de México. 1963
By José Villagran García, and Ricardo Legorreta
Source: © Colección Legorreta



Fig. 70
Smith, Kline & French Mexico City. 1964
Photo: Flavio Roiter
Source: © Colección Legorreta



Fig. 71
Fábrica Automex. Estado de México. 1964
Photo: Katin Horna
Source: © Colección Legorreta



Fig. 72
Camino Real Cd. Juárez Hotel. 1964
View of front entrance car parking and motor lobby
By Ricardo Legorreta
Source: © Colección Legorreta



Fig. 73
Camino Real Cd. Juárez Hotel. 1964
Detail view of facade
Ricardo Legorreta Source: © Colección Legorreta



Fig. 74
El Camichin Mural by Juan Wörner Baz, and view of mural-Camino Real interior. Ricardo Legorreta.
Source: © Colección Legorreta



Fig. 75
Camino Real Cd. Juárez Hotel. 1964
Detail view of swimming pool
Ricardo Legorreta. Source: El Juárez de Ayer



Fig. 76
View from Camino Real to PRONAF Shopping
Center.
Ricardo Legorreta. Source: © Colección Legorreta



Fig. 77
Linda Vista Shopping Center. San Diego, CA. 1943
By Department of Treasury
Source: The Huntington. Library, Art Museum, and
Botanical Gardens

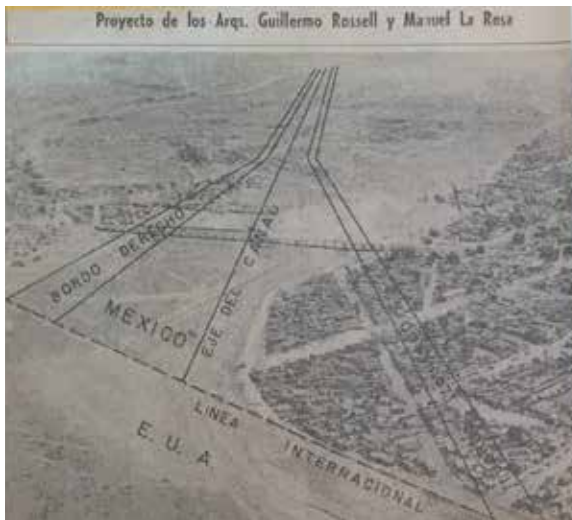


Fig. 81
Newspaper article image showing the projected
channeling of Rio Tijuana. 1963
Source: Novedades México. Fondo Mario Pani
Darqui



Fig. 82
Master Plan for Nueva Tijuana, B.C. 1961
Source: PRONAF Tijuana Booklet



Fig. 83
Tijuana monorail project presentation panel image
Source: Fondo Mario Pani Darqui

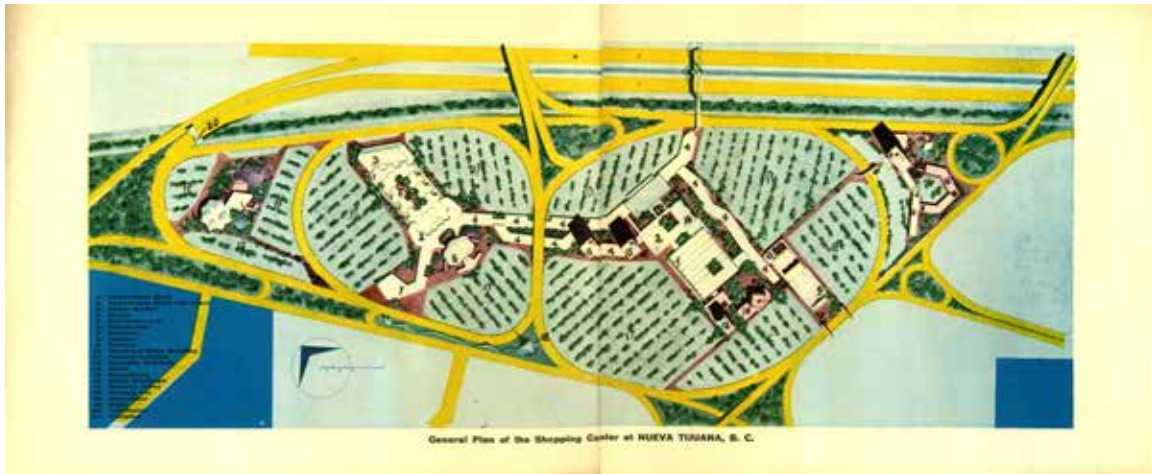


Fig. 84
 General Plan of the Shopping Center at Nueva Tijuana, B.C. 1961
 Source: PRONAF Tijuana Booklet



Fig. 85
 Model of Shopping Center at Nueva Tijuana, B.C. n.d.
 Source: Fondo Mario Pani Darqui

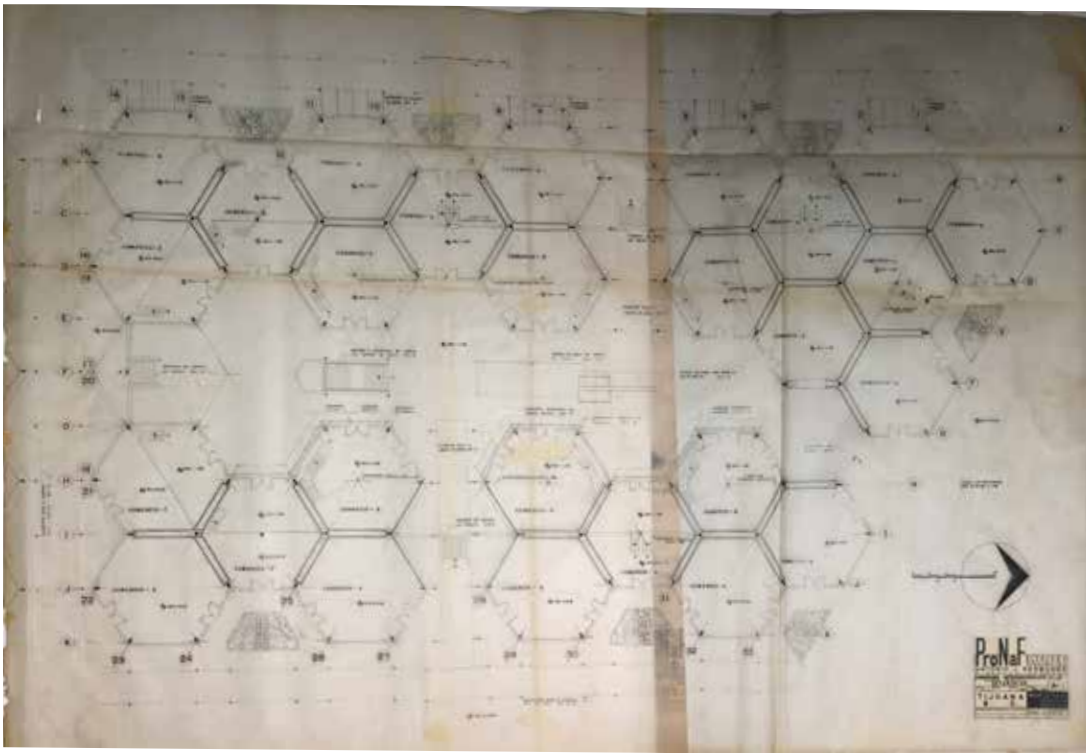


Fig. 86
Plan of Comercios Internacionales. Tijuana, B.C. Ago, 1962
Source: Archivo de Arquitectos Mexicanos. Mario Pani

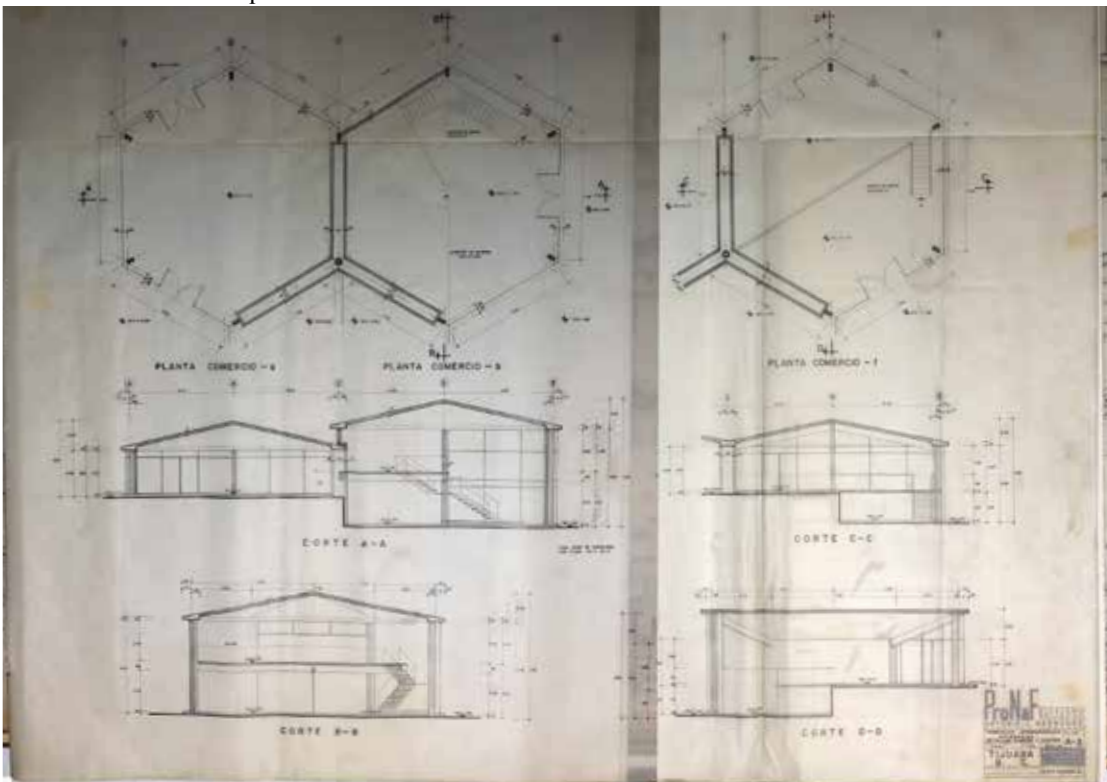


Fig. 87
Detail and Section of Comercios Internacionales. Tijuana, B.C. Ago, 1962
Source: Archivo de Arquitectos Mexicanos. Mario Pani



Fig. 90
Aduana Mexicana built in 1894.
Source: México en Fotos



Fig. 91
Aerial view of Nogales, Sonora-Arizona crossing line
Source: Google maps

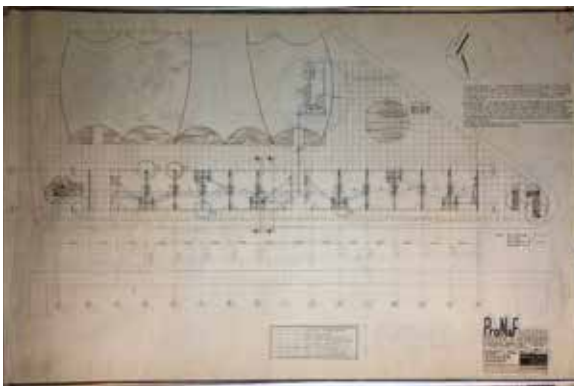


Fig. 92
Comercial zone immediate to internationa crossing.
A/C Plan Nogales, Son. May, 1963
By Mario Pani Arquitectos Asociados, and Hilario Galguera
Source: Archivo Arquitectos Mexicanos. Mario Pani

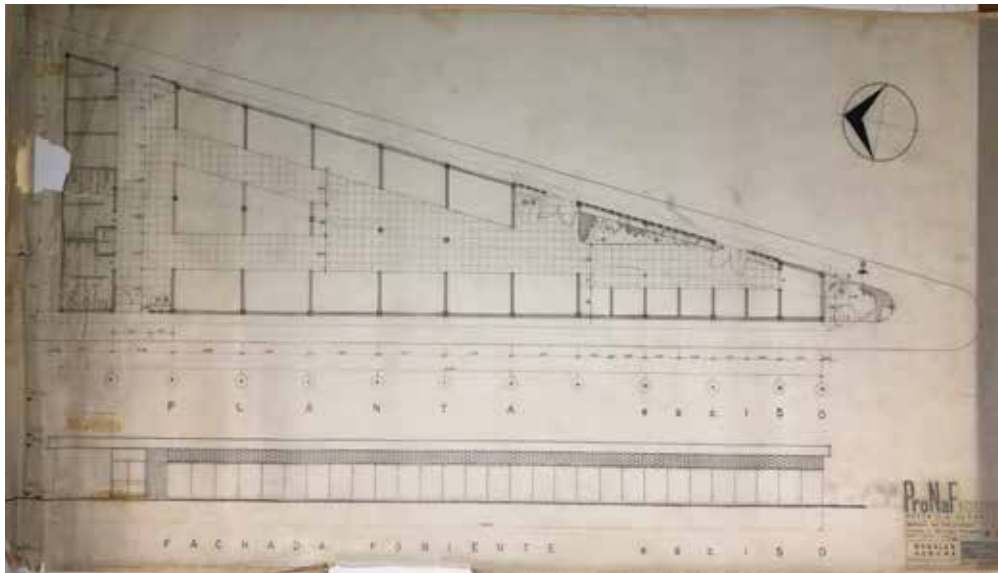


Fig. 93

Mercado de Curiosidades Plan. Nogales, Son. n.d.

By Mario Pani Arquitectos, and Hilario Galguera. Source: Archivo Arquitectos Mexicanos. Mario Pani

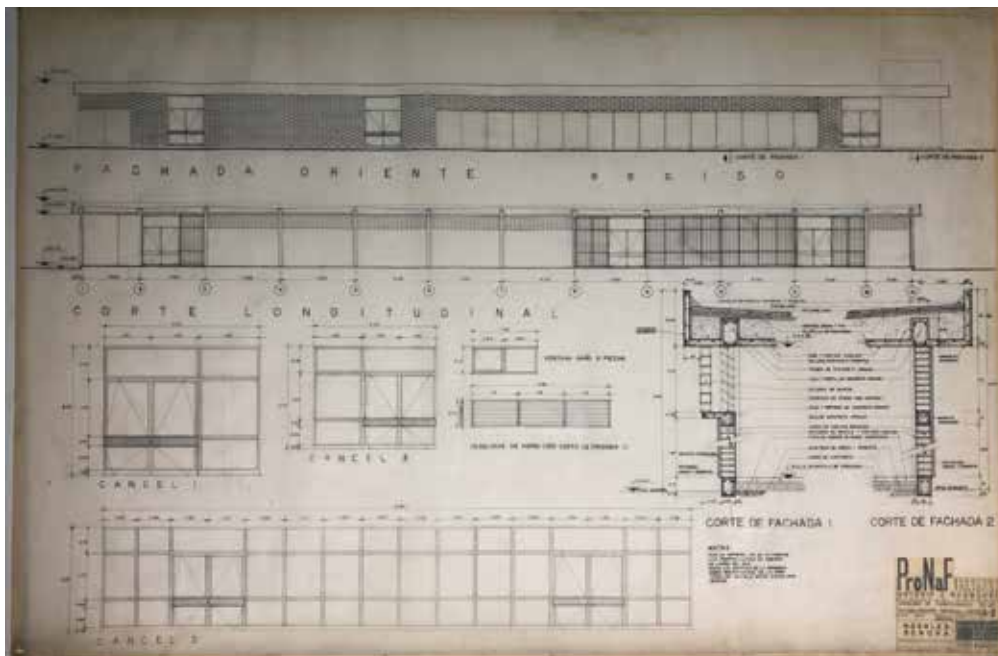


Fig. 94

Mercado de Curiosidades Plan. Nogales, Son. Section and details n.d.

By Mario Pani Arquitectos, and Hilario Galguera

Source: Archivo Arquitectos Mexicanos. Mario Pani



Fig. 95
Museum, auditorum, and office building complex,
during construction. Nogales, Sonora.
Source: El Nogales que se fue

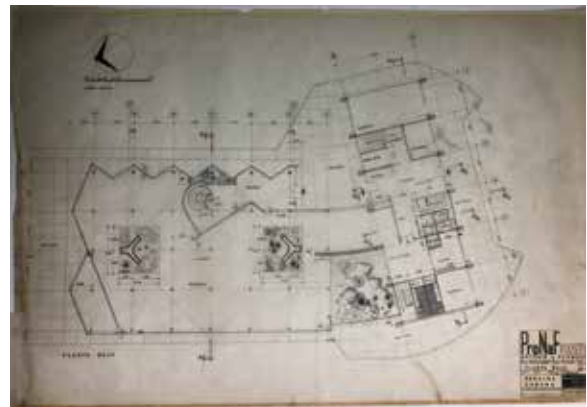


Fig. 96
Museum, auditorum, and office building complex
Plan
Nogales, Sonora. Jan, 1964
Source: Archivo Arquitectos Mexicanos. Mario Pani

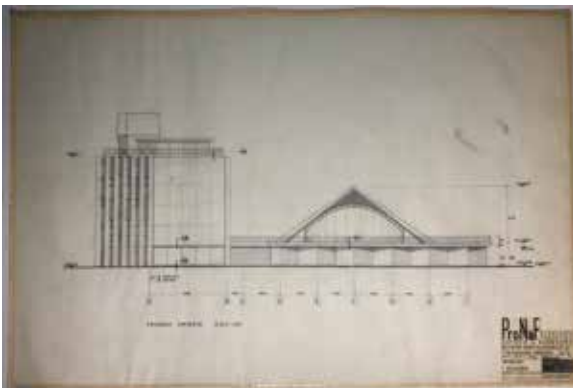


Fig. 97
Museum, auditorum, and office building complex
Facade.
Nogales, Sonora. Jan, 1964
Source: Archivo Arquitectos Mexicanos. Mario Pani



Fig. 98
View of International border crossing, Nogales,
Sonora. Circa late 1960s
Source: El Nogales que se fue



Fig. 99
Interior view of Mercado de Cuernavaca. Cuernavaca,
Estado de México. 1963
By Mario Pani Arquitectos Asociados, and Hilario
Galguera. Source: Arquitectos México



Fig. 100
Aerial view of International border crossing, Nogales,
Sonora. Circa late 1960s.
Source: El Nogales que se fue

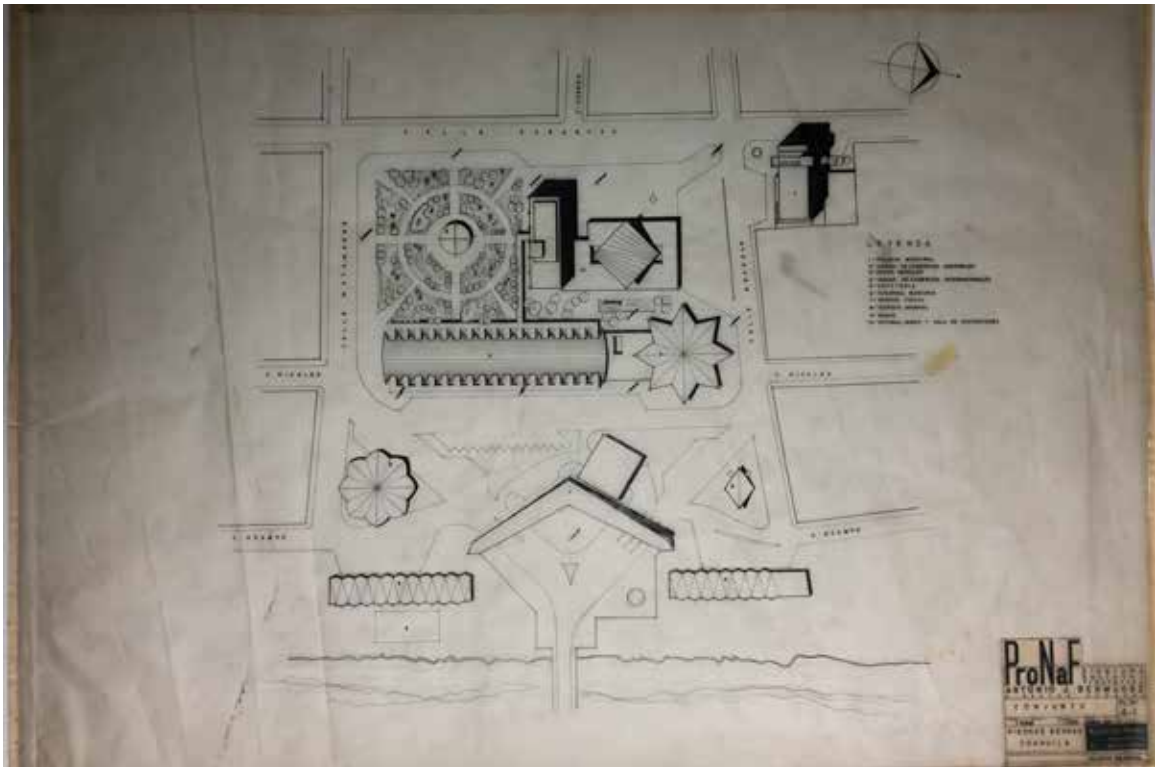


Fig. 101
 Piedras Negras Coahuila PRONAF Complex. Jan, 1964
 By Mario Pani Arquitectos Asociados, and Hilario Galguera
 Source: Archivo Arquitectos Mexicanos. Mario Pani



Fig. 102
 Former municipal presidency, Piedras Negras, Coah.
 1919
 Source: clío historia para todos



Fig. 103
 Palacio Municipal render, Piedras Negras, Coah.
 1964
 By Mario Pani Arquitectos Asociados
 Source: Fondo Mario Pani Darqui



Fig. 104
 Aerial view of Piedras Negras International Border Crossing. Circa late 1960s
 Source: Piedras Negras del Recuerdo



Fig. 105
View of Piedras Negras Commercial Area. Circa late
1960s
Source: Piedras Negras del Recuerdo



Fig. 106
View of Piedras Negras PRONAF Project rendering.
Newspaper Article. Source: Fondo Mario Pani Darqui

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