

Beyond the Post-Industrial Park: the spatial heritage of Fundidora de Fierro y Acero de Monterrey glimpsed through its workers' neighborhoods*

Más allá del Parque Posindustrial: el legado espacial de la Fundidora de Fierro y Acero de Monterrey visto a través de sus barrios obreros

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Abstract: Though widely recognized for its post-industrial park, the urban heritage of Fundidora transcends the boundaries of its furnaces and needs to be addressed in the neighborhoods, schools, and infrastructure that the company planned, designed, built, and subsidized throughout the city. The 1950s district of Fraccionamiento Buenos Aires as well as the 1970s Fraccionamiento Adolfo Prieto are arguably some of the first fully planned communities in the municipality, an exceptional trait particularly amongst the working-class districts of the time. As part of the city's history, these two neighborhoods represent Fundidora's contribution to the modernization of urbanism and architecture in Monterrey.

Keywords: Fundidora, industrial heritage, workers' neighborhood, urban landscape, modernism.

Resumen: Aunque ampliamente reconocido por su parque posindustrial, el legado urbano de Fundidora trasciende las fronteras de sus hornos y necesita ser abordado en los barrios, escuelas, e infraestructura que la compañía planificó, diseñó, construyó y subsidió en toda la ciudad. El Fraccionamiento Buenos Aires de 1950 y el Fraccionamiento Adolfo Prieto de 1970, son algunos de los ejemplos más antiguos de comunidades planificadas en la municipalidad, una particularidad excepcional entre los distritos obreros coetáneos. Como parte de la historia de la ciudad, ambos barrios representan la contribución de Fundidora en la modernización del urbanismo y la arquitectura

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de Monterrey.

Palabras clave: Fundidora, patrimonio industrial, barrio obrero, paisaje urbano, modernidad.

The evolution of urban space is intrinsically tied to the evolution of the society that inhabits it. This interconnectedness between city, space, and society, is evident since the emergence of the first human settlements and civilizations. By accommodating the necessities of a society, the city creates spaces that will further reshape the community that originated them; in time, the necessities of this renewed social order will demand the creation of new spatial typologies or the evolution of existing configurations. It could be argued, then, that as an autonomous entity, the city acts as the mediator between the spatial demands of society and the sociological repercussions of space. While historically observable only through large lapses of time, this feedback loop between space and society has accelerated exponentially since the advent of industrialization.

1. INTRODUCTION

The industrial revolution brought to the table not only new technologies and improved communications, but also the necessity to reevaluate aspects of urban history and heritage. Nineteenth century theories demonstrated that with the emerging materials and techniques it was possible to replicate buildings that had taken centuries to build in just a fraction of the time. As industrialization spread, architectural periods shortened, and the notion of a prevailing and unified style came into crisis. Though industrialized societies eventually adapted to the increasingly rapid turnover rate of buildings, largely fostered by the use of steel and concrete, the field of history, and especially architecture and urban history failed to effectively adapt at the same velocity. This left a significant dent in the mapping, analysis, and critique of relevant architectural testimonies that have become lost against the impending momentum of a fast paced society. Of particular interest since the last decades of the twentieth century is the history of working-class housing initiatives that uncover the relations between industry, property, and urbanization. (Melling, 1981, p. 255).

Monterrey, located in Northeastern Mexico, is a prime example of a city that has experienced an accelerated growth and evolution in the socio-spatial spectrum due to the advent of industrialization, spearheaded by the establishment of Compañía Fundidora de Fierro y Acero de Monterrey SA Founded in 1900 through the collaboration of national and international entrepreneurs, Fundidora was a major breakthrough in the transition of Monterrey from an agrarian and mining town to the industrial center of Mexico. With the fiscal support of the government of Nuevo León, then in the hands of Bernardo Reyes, the steelworks initiated a series of urban interventions that would impact the socioeconomic landscape of the city to the present

day. Across the years, Fundidora experienced an age of expansion that peaked from the 1940s to the 1970s during the era known as the *Milagro Mexicano*. During this time the company expanded its urban footprint by creating several neighborhoods, as well as a number of parks, elementary schools, and kindergartens for the families of the workers, most of which remain today, though heavily altered through time by the hand of different agencies.

Though widely recognized for its post-industrial park, the urban heritage of Fundidora transcends the boundaries of its furnaces and needs to be addressed in the neighborhoods, schools, and infrastructure that the company planned, designed, built, and subsidized throughout the city. After Fundidora's collapse during the 1980s, the Federal Government acquired the grounds of the smelter and eventually ceded them to the State of Nuevo León for the planning and construction of an ecological park. (Rocha, 1991, pp. 124-125). However, beyond the monumental heritage of the smelter itself, and the post-industrial park, lies a series of urban vestiges that have played an important role in the spatial configuration of Monterrey. The 1950s Fraccionamiento Buenos Aires and the 1970s Fraccionamiento Adolfo Prieto, shown in fig. 1, are arguably some of the first fully planned communities in the municipality, an exceptional trait particularly amongst the working-class districts of the time. As part of the city's history, these two neighborhoods represent Fundidora's contribution to the modernization of urbanism and architecture in Monterrey.

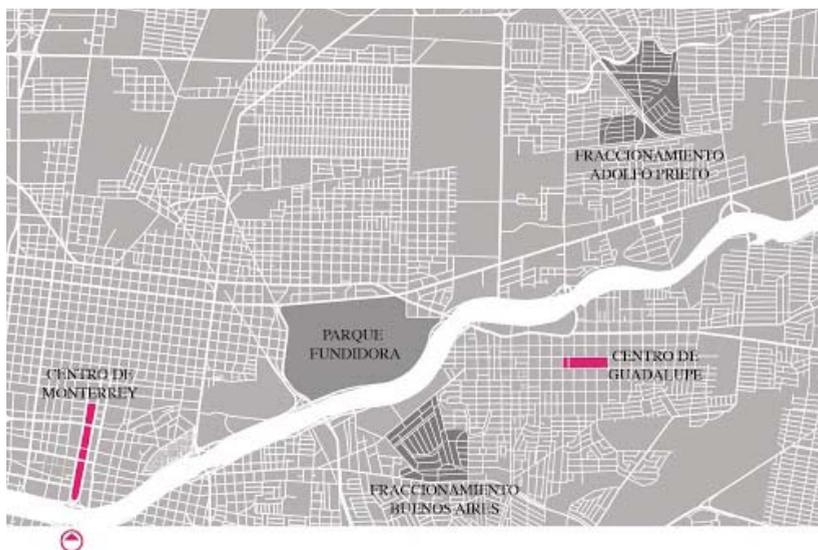


Fig. 1. Location of Fundidora and its workers' neighborhoods in relation to the metropolitan area. In magenta, Monterrey's downtown to the west, Guadalupe's downtown to the east. In dark gray, Parque Fundidora center, Fraccionamiento Buenos Aires south, Fraccionamiento Adolfo Prieto northeast. Source: image assembled by Juan José Reyna Monreal.

Being one of the first cities in Latin America to embrace industrialization, it is no surprise that Monterrey is, and will be, a predominant actor in defining the extents and limitations of a post-industrial character in the region. The present study looks into the role that Fundidora has played, directly and indirectly, in the formation and configuration of the urban landscape of the city. Demarcating the role that the smelter, and industrialization at large, played in the socio-spatial evolution of Monterrey throughout the twentieth century, and beyond, also represents an effort to forecast the potential future of the city, its urban space, and its society. In the contemporary context, understanding how society helps shape and is in turn shaped by the constructed landscape becomes vital at a time when Mexico and Latin America are experiencing political, economic, and social transitions that will undoubtedly impact the urban structure of their cities. By salvaging the remnants of a fallen industry, whether as an ecological park, or as schools that were absorbed by the Government, or as neighborhoods that still stand today, the agents involved have begun to define the route of a Mexican post-industrial society. Company towns in particular expose the possibilities of framing urban heritage not only in terms of institutional monuments but as enterprises meant to create city and society. (Morisset, 2017, p. 43).

To unpack this information, the study will first identify and map the neighborhoods and infrastructure that Fundidora built for its workers and then analyze the configuration and spatial identity of these communities in order to offer a critical stance on the conservation status of the districts. Bibliographical data, as well as the historical archives of Fundidora, and the city of Monterrey, will serve as the basis for establishing a temporal and geographical context for the investigation. Surveying through site visits will represent the primary tactic employed to uncover the patent spatial qualities of the neighborhoods and infrastructure left behind by the company. The analysis will offer observations on the conservation status of the original typologies as well as the prevailing motives and mechanisms involved in the spatial transfiguration of these communities. Finally, the conclusions will offer a critical standpoint on the complex phenomenon of industrial patrimony as it relates to sites and architecture beyond factories' grounds.

2. THE NEIGHBORHOODS

The three neighborhoods that Fundidora developed for its workers were built in response to the company's necessity of bridging the gap between workplace and workforce, as well as the economic and demographic trends within the company and Monterrey at large. It is particularly remarkable that unlike the case of other industrializing societies where legal city planning quickly emerged as a response to industrialization, Fundidora undertook the whole endeavor according to its own understanding and interests. (Shigeo, Satoru, Ken, Yusuke, 2016, pp. 183-184). The first neighborhood, Colonia Acero, was built in an adjacent lot north of the smelter

a couple years after the company started operations. The second development, Fraccionamiento Buenos Aires, was built in the 1950s across the Santa Catarina River, on the eastern limits of Monterrey. Their last urban endeavor, Fraccionamiento Adolfo Prieto, was developed during the 1970s in the municipality of Guadalupe, east of Fundidora. Though most of the original Colonia Acero was lost to the late expansion projects of the smelter, the other two developments have prevailed, absorbed by the ongoing urban sprawl of the metropolitan area.

2.1. Colonia Acero

The Compañía Fundidora de Fierro y Acero de Monterrey S.A., or la Maestranza, as the workers colloquially nicknamed it, was legally established in 1900, and situated several miles east of the existing populated limits of Monterrey. In 1903, the first blast furnace of the company started operation with a production rate of 350 tons per day, demanding the availability of a large workforce at hand. Thus, in that same year, the company board decided to build the first dwellings for workers in a lot adjacent to the smelter, just north of the factory grounds. Named Colonia Acero, this enterprise constituted the first attempt at easing employer-employee relations, and bringing the workers closer to the workplace, many years before the National Constitution of 1917 decreed these type of benefits compulsory. Subsequently, the administration of the Spaniard Adolfo Prieto, who was involved with the company from 1906 until his death in 1945, further enhanced this vision of Fundidora based on modern theories of humanism and social progress. (González Caballero, 1980, pp. 6-7, 69, 101).

Though modest in size and scope, Colonia Acero was remarkable as the company's first venture into the construction of housing and infrastructure for company workers. (Guerra, y Trejo, 2000, p. 313). The neighborhood was organized in a traditional gridiron plan, with four rectangular blocks running side by side on a west-east axis. The blocks were roughly 70.00m long by 42.00m wide, and accommodated approximately 100 dwellings total. At the eastern end of the neighborhood, the company built the Hotel Acero to house visiting technicians and engineers from abroad who were commonplace during the first years of operation. In 1911, under Prieto's administration, the Escuela Acero was built north of the original housing blocks, replicating the same west-east arrangement; eventually, the neighborhood also witnessed also the construction of an auditorium, a maternity hospital, a plaza, and a park. (Rojas Sandoval, 2012, p. 17).

Of that original urban enterprise of Fundidora, only the Escuela Acero, later renamed Escuela Adolfo Prieto U.1, and the auditorium remain. The original housing blocks, as well as the hotel, were demolished by the company during the mid 1970s as part of an expansion project for the factory. The maternity building was also eventually lost and is now occupied by a large parking lot. Parts of the plaza and park remain, but were heavily altered during the construction of the post-industrial park.

However, the school retains most of its original configuration and now serves as an arts center and is also host to Fundidora's historical archive.

The demise of Fundidora's old Colonia Acero demonstrates the pressures of a fast-paced industrial economy and its impact on the potential formation of urban patrimony. The inability to foresee the value of a 70-year-old settlement, strongly associated with the history of Fundidora and Monterrey, can only be comprehended in the context of the financial crisis that the company was experiencing and the transition of the administration from private to government hands. The original housing typologies, which followed a vernacular model similar to the houses in the city's old town, could now be a significant testament to the materiality and configurations of the first industrial districts in the city. Though the school and the auditorium remain, the removal of the housing blocks alters their reading as part of a larger coherent organization. It is evident in fig.2 that the salvaged buildings now stand out as singular structures in the park, disconnected from the surrounding urban fabric.



Fig. 2. Juxtaposition of the plan of Colonia Acero in 1965 over the existing Parque Fundidora.

Only parts of the school and the auditorium remain. Source: image assembled- by Juan José Reyna Monrreal based on the 1965's Proyecto Plan Expansión Fundidora found in the Archivo Histórico de Fundidora.

2.2. Fraccionamiento Buenos Aires

During the early 1950s in the onset of its modernization project, Fundidora began the planning and development of Fraccionamiento Buenos Aires. Unlike Colonia Acero, which mostly fed off of equipment found within the factory's grounds, this new neighborhood was planned with the idea of self-sufficiency. Built on the southern side of the Santa Catarina River, opposite to Fundidora, the Fraccionamiento Buenos Aires was relatively segregated from the steelworks. Therefore, the company decided to provide it with its own kindergarten, elementary school, sports grounds, parks, and other types of infrastructure. Additionally, the administration of Fundidora donated the lands on the north edge of the fraccionamiento for the construction of a municipal amusement park named after Adolfo Prieto's country of origin, Parque España.

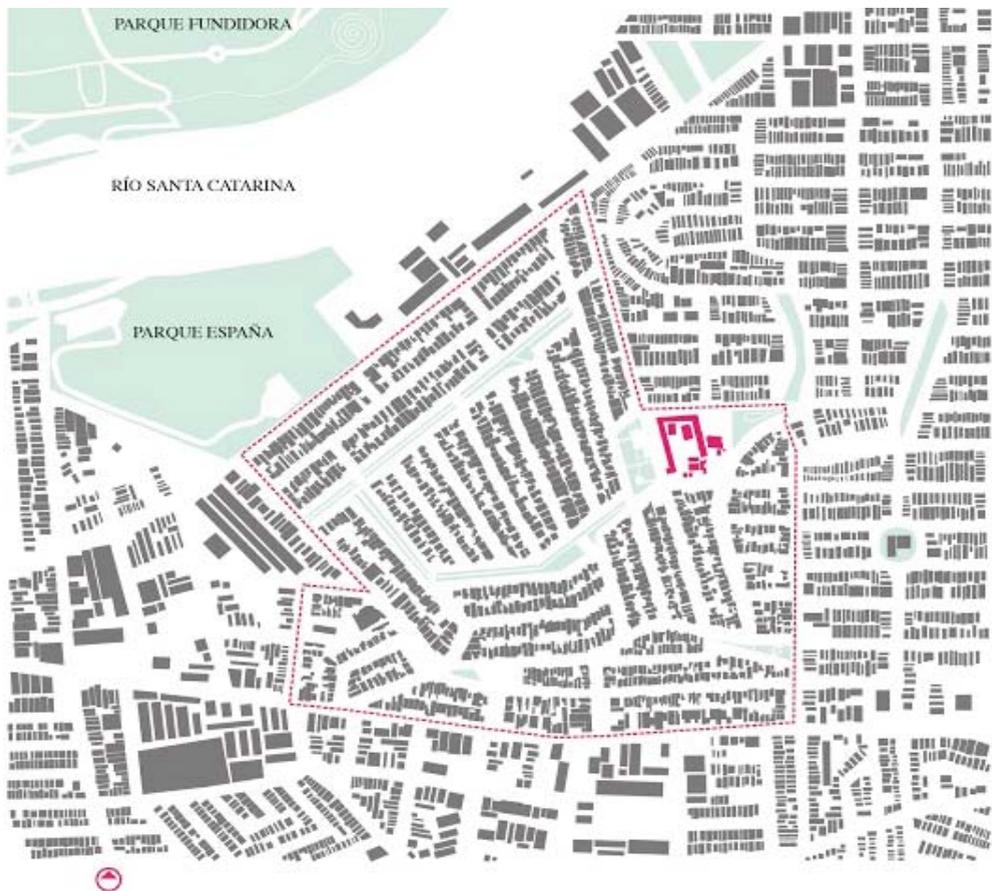


Fig. 3. Morphology and urban fabric of the Fraccionamiento Buenos Aires. In magenta, Escuela y Jardín de Niños Adolfo Prieto. Source: image assembled by Juan José Reyna Monreal.

Unlike the gridiron plan of Colonia Acero, Fraccionamiento Buenos Aires has a distinctive urban morphology characterized by the arrangement of its blocks that form a self-contained community, as shown in fig.3. The blocks themselves are elongated rectangles averaging 250.00m in length and 50.00m in width. The interior grid of the fraccionamiento runs north-south bordered at each edge by two rows of perpendicular blocks running east-west. The neighborhood is bounded on all sides by residential streets: Chapultepec to the south, Hornos Altos to the west, Texcoco to the east, and Federico Gómez García to the north. Due to its particular morphology and cohesive configuration the fraccionamiento is easily distinguishable as an island amongst the chaos of the surrounding urban fabric.

The neighborhood was arguably influenced by urban theories and models such as the “garden city” that were entering Northern Mexico through imitation of the postwar suburban developments of the United States. The Fraccionamiento Buenos Aires was originally positioned as an idyllic community for the families of the workers of Fundidora. Lying on the eastern outskirts of Monterrey, the development was located close enough to the workplace to facilitate commuting but also buffered from the smelter and the city’s downtown by the river’s channel. The property lots were subdivided into 10.00m by 25.00m plots, allowing enough space for a house, a front porch and yard, and a backyard. The original vision of the fraccionamiento highlighted the openness of the design and the pastoral qualities of the surrounding scenery, then mostly comprised of undeveloped agricultural lands.

Spatially, the landscape plays a prominent role in the neighborhood, organizing the circulation around green corridors and parks that represent the spinal structure of the district. A linear park, which doubles as a median, surrounds the perimeter of the interior blocks on their north, west, and south edges. The east side is dominated by the main park and plaza, facing the elementary school. Additionally, there are two pocket parks on the southeast and southwest borders of the fraccionamiento, and the large urban park, Parque España, lies just across the northern edge of the district. The way the urban landscape is configured highlights the green spaces as both landmarks and corridors that enhance the walking experience of the neighborhood; virtually all of the streets either run along or face a green space.

The sidewalks become, then, the vertebrae that communicate the lots and houses to the larger green systems of the fraccionamiento. The sidewalks of the neighborhood are relatively wide, when compared to other local developments of the time, averaging 3.00m and lined up with planters for trees. The vegetal profile of the fraccionamiento’s streetscape is highly eclectic but the most frequently observed species is the ficus tree (*Ficus benjamina*) planted along the sidewalks. Also common are the eastern arborvitae (*Thuja occidentalis*), the Mexican fan palm (*Washingtonia robusta*), and the European ash (*Fraxinus excelsior*), which dominate the medians and plazas. Together with the green corridors and parks, the presence of vegetation

along the sidewalks acts as a continuous thread that links together the neighborhood and its infrastructure.

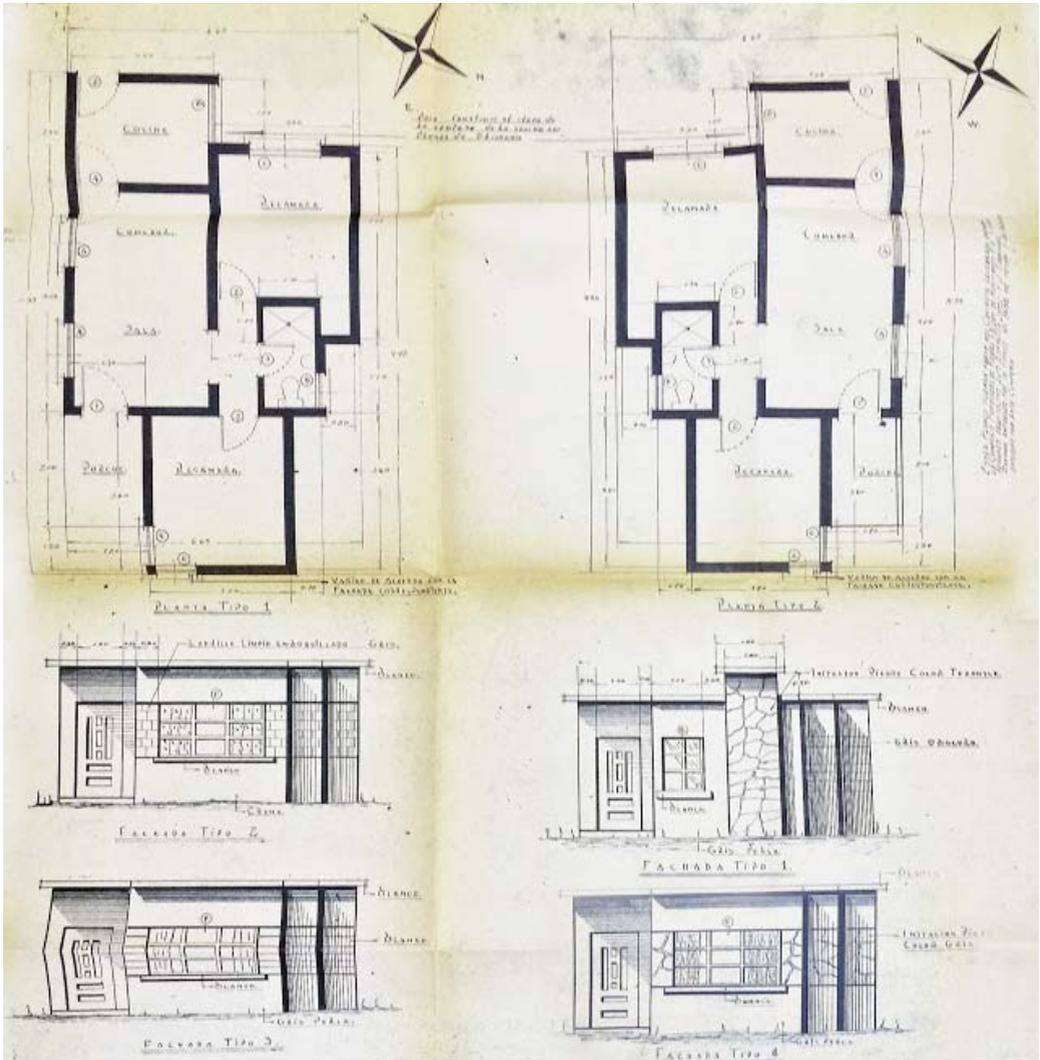


Fig. 4. Original house typology designed in 1951 by the architects L. Espinosa. and J. Sanmiguel for the Compañía Fundidora de Fierro y Acero de Monterrey S.A. The drawings show the plan scheme and four façade options. Source: Archivo Histórico de Fundidora.

The original housing prototypes were arguably a reflection of the company's preoccupation with creating a low-density suburban environment. The architects in charge, first L. Espinosa and J. Sanmiguel, and eventually Ricardo Guajardo, designed various possible facades and interior configurations that shared some common traits. (Traslaviña, 2014, pp. 198-200). The houses consisted of a front porch opening to the living/dining area, a rear kitchen opening to the backyard, one or two bedrooms and a bathroom connected to the living area through a hallway. The original houses were all one story high, had a front and back entrance, windows on all sides, and had a 65m² footprint. Considering the average lot of 250m², the built area including the front porch was roughly 30 percent of the parcel, allowing the house to sit comfortably in the middle, unconnected from adjacent neighbors.

A remarkable trait of Fundidora's undertaking when constructing the Fraccionamiento Buenos Aires was the ubiquitous employment of concrete and steel that had entered the residential market some decades before, but had not been commonplace among large scale housing developments. In fact, the very word *fraccionamiento*, denoted that the neighborhood had been uniformly built with long-lasting materials. This was in direct contrast to the homonymous Colonia Buenos Aires, located west of the fraccionamiento, or the Colonia Paraíso located east, both of which allowed the employment of wood and where *tejavanes*, akin to wooden shacks, were commonplace. The incursion of Fundidora into modern architecture, and the employment of concrete and steel in the original prototypes of the fraccionamiento are especially relevant as they signal a period of transition between the arrival of these materials to Monterrey and their widespread acceptance. The diverse façade types designed by the architects in charge show various mechanisms employed to "improve" the appearance of the houses' fronts, such as selectively applying brick as a cladding material, or stamping the concrete with a stone or striped pattern, as observed in fig.4.

However, it was precisely the relative low-cost and structural stability of these new materials, coupled with Fundidora's subsidy to steel products for their workers that stimulated the rapid transformation of the neighborhood. The workers, after receiving a house in one of the company's raffles, were allowed to modify the awarded unit as they deemed fit; therefore, some of the houses were never actually inhabited in their original state. The most prevalent modification to the original prototypes was the expansion of the roof slab towards the front property limit, expanding the porch for leisure and, in some cases, to accommodate a car. Also common was the addition of rooms towards the rear or sides of the parcel, as the families grew. In recent years, however, the transformations have taken on a more drastic tone, closing the house off completely from the street, adding a second story, and in some cases razing and rebuilding.



Fig. 5. Depicted from top left: appropriation, expansion, renovation, and neglect as observed in Fraccionamiento Buenos Aires. Source: photos taken by Acsa Merari Medellín Escalante.

Analyzing the transformations that the houses, and the neighborhood at large, have suffered, it is possible to identify four different mechanisms at play, depicted in fig.5, sometimes acting in conjunction: appropriation, expansion, renovation, and neglect. Appropriation refers to the almost immediate changes that the tenants make on the original prototypes, such as the aforementioned expansion of the porch, or the substitution of the original chain-link fence for concrete walls and wrought iron gates. Expansion is, by a large margin, the most prevalent mechanism of transformation present in the neighborhood, as the majority of the houses have undergone considerable additions by expanding the number of rooms or adding a second story. Renovation is the most recent, and arguably the most damaging of the four processes, and is directly related to speculative forces external to the neighborhood, as investors and new tenants acquire properties that are demolished and rebuilt as small apartment buildings or contemporary middle-class houses. Neglect is mainly observed in the few houses that retain the original scheme, as well as some of the units that received minor modifications through appropriation.

Despite its ongoing transformation, the Fraccionamiento Buenos Aires remains today, almost 70 years after its foundation, a critical witness to the development of industrialization and its spatial implications in the city; fig.6 presents a glimpse of the current state of the neighborhood. The relevance of the fraccionamiento is threefold.

First, its construction consolidated the metropolization of the city as it effectively merged the east end of Monterrey to the western periphery of Guadalupe, demarcated by the Colonia Paraíso. Second, the planning and design of the neighborhood's urban landscape, in conjunction with its housing prototypes spearheaded the, now highly problematic, ideal of suburbanization and low density for the working classes¹. Last, at the time of construction, the fraccionamiento was a remarkable incursion in the large scale employment of concrete and steel, as well as an important transition in the emergence of an early modern architecture in the locality.



Fig. 6. Street view collage showing the contemporary state of the Fraccionamiento Buenos Aires. View taken from Golondrinas Street, near Tapachula Street, looking west. Source: image assembled by Juan José Reyna Monrreal.

2.3. Fraccionamiento Adolfo Prieto

Built during the late 1960s and early 1970s, about 2 miles northeast of the smelter, in the neighboring municipality of Guadalupe, the Fraccionamiento Adolfo Prieto was the company's last fully planned community. The neighborhood was primarily developed for the workers of the subsidiary Aceros Planos S.A., located about half a mile west of the fraccionamiento. By the time the new community was

¹ The phenomenon of suburbanization and land ownership is a complex topic observed throughout Mexico, and especially Northern Mexico, which derives from several factors such as colonialism, imitation of north American models, and inefficient institutions that have failed to provide new housing models adapted to the demographic and economic realities of the country. As the cities continue to sprawl and land prices rise exponentially in central areas, the low and middle classes are pushed outward in their pursuit of affordable land prices and single-family units. Fundidora's neighborhoods, for better or worse, undoubtedly legitimized the notion that the working classes could, and should, live in low-density suburban environments. The reality is that the low-density model is no longer viable for a large percentage of the country's population. (Quadri, 2011).

planned and built, the city of Monterrey had readily merged with Guadalupe to the east. The Miguel Alemán Avenue, a continuation of Francisco I Madero Avenue, facilitated communications between the new development and Fundidora, and between Monterrey and Guadalupe at large. Fraccionamiento Adolfo Prieto was built in several phases, each separated by heavily trafficked thoroughfares.



Fig. 7. Morphology and urban fabric of the Fraccionamiento Adolfo Prieto. In magenta, Escuela y Jardín de Niños Adolfo Prieto. Source: image assembled by Juan José Reyna Monreal.

As a result of its phased development, and the presence of avenues that subdivide it, the urban morphology of the neighborhood is not as cohesive as the Fraccionamiento Buenos Aires project. Its overall shape is highly irregular, delineated by the creek Arroyo Talavera to the north, Anáhuac Street to the east, Anillo Vial Metropolitano and the train tracks to the south, and Calle Plan de Ayutla to the west. Additionally, the development is dissected by large avenues that effectively segment the neighborhood into three clearly distinguishable sectors, as seen in fig. 7. Adolfo Ruiz Cortínez Avenue runs west-east and divides the central part from a north flange. Juan Pablo II Avenue running northwest-southeast separates the main body from an annex developed southwest.

Unlike the centralized plan of Fraccionamiento Buenos Aires, Fraccionamiento Adolfo Prieto is conceived as a series of linear blocks that flow parallel to one another. The blocks are on average 45.00m wide rectangles. However, the irregular morphology of the neighborhood makes the lengths highly variable, with a standard of 110.00m in length, while some extend over 250.00m commonly in proximity to the large avenues. The midsection of the fraccionamiento is discernible by its blocks that flow as a mirrored “S” shape, split on its inflection point by the central park and plaza; whereas the north and southwest additions are arranged along a linear traditional west-east axis.

By establishing central nuclei around which the blocks are organized, the landscape again plays an essential role in the spatial distribution of the neighborhood. The main park of the fraccionamiento, located at its core and traversing it northeast-southwest, effectively links together all sectors of the development. Additionally, it also serves as the front to which the elementary school and kindergarten open directly. The northernmost section of the neighborhood is also split by a central park that hosts a Catholic church and runs from the creek’s canal on the north edge towards the center of the fraccionamiento. As it stands today, the southwest annex appears devoid of open green space, although it was originally planned to run into a linear park along its eastern border before reaching the avenue. However, the only vestige of the original proposal is a marginally planted median.

The sidewalks are designed to act as the connective tissue between the residential lots and the larger green infrastructures. Averaging 1.75m wide, the sidewalks are generally smaller and less significant than their counterparts at Fraccionamiento Buenos Aires. To enhance the sense of flow and connection between housing, green and educational infrastructure, some of the sidewalks on the core-northwest sector merge directly into the adjacent parks. This effectively creates a linear corridor from sidewalk to park to school, and forces a zigzag-like movement for cars on the street. Similar to Fraccionamiento Buenos Aires, the prevailing species throughout the green areas and the streetscape are the common ash, ficus tree, and the eastern arborvitae.

Noticeable in the housing model of the Fraccionamiento Adolfo Prieto is the influence of the architecture of the Colonia Cuauhtémoc, developed by a local brewing company during the mid twentieth century. The original houses of Colonia Cuauhtémoc are easily distinguishable by their lawned fronts that open unobstructed to the sidewalk. By the time this newer fraccionamiento was built, Fundidora was well aware of the success of the Cuauhtémoc housing prototype². The architecture of the Adolfo Prieto neighborhood was therefore a reinterpretation of the one story detached house seen in the Fraccionamiento Buenos Aires, but built over 200m² lots, and with a special emphasis on the openness of the front yard that was lawned and intentionally devoid of fencing. The objective was to enhance the sense of community through the articulation of unobstructed vistas from house to sidewalk to park, and vice versa.

As expressed in a memorandum of February 26th of 1960, signed by Carlos Fernández Leal, then in charge of the construction of houses for the workers of Fundidora, the company attributed the accomplishments at Colonia Cuauhtémoc to possible regulatory norms imposed by the brewing company. At that time, municipal authorities did not regulate the urban image of neighborhoods, something that remains true to a certain degree even today. When the time came for the construction of the Fraccionamiento Adolfo Prieto during the late '60s, the smelter stipulated several clauses to upkeep the image of their new fraccionamiento. The guidelines prevented the erection of frontal walls and solid fences, encouraged the implementation and maintenance of lawns and low vegetation such as hedges, among other requests. In the end their efforts were only partially successful, as only a limited amount of units have maintained the original vision.

The neighborhood shares the same four basic mechanisms of transformation previously observed in Fraccionamiento Buenos Aires, although with different prevalence rates. Overall the phenomenon of appropriation is present in almost 50 percent of the neighborhood, with the most common modification being the construction of frontal walls and fences. Expansion is equally common, with the addition of a second story being its most recurring manifestation. Renovations are less frequent than in the Buenos Aires neighborhood, and mostly happen in proximity to the larger avenues. Also, due to its construction roughly 20 years later than its predecessor in Monterrey, neglect is correspondingly less evident, even in the houses that fully maintain the original design.

While its younger age in comparison to Fraccionamiento Buenos Aires has certainly allowed Fraccionamiento Adolfo Prieto to maintain more of its original

² According to a memorandum written by Rodolfo Barragán with the topic: "Publicidad y Colonia (sic) Buenos Aires", dated February 22nd 1960, where he exhorts the company's staff and the Constructora Popular, a subsidiary in charge of the construction of the Fraccionamiento Buenos Aires, to analyze the reasons behind the other company's successful neighborhood.

identity, it is a double-edged sword that also makes the neighborhood more prone to be overlooked as part of the city's urban history. Fifty years after its construction, Fundidora's last neighborhood maintains a distinctive character thanks to the prevalence of the prototypical one story detached house, which has only suffered minor adaptations through time. However, in a city with a number of buildings dating back to the eighteenth century, and a country with a plethora of millennia old architecture, it is difficult to recognize the relevance of these houses as a significant piece of history. The metropolization of Monterrey, and its effective merging with Guadalupe has also impacted the original reading of the neighborhood as a peripheral community. The fraccionamiento Adolfo Prieto, however, offers an excellent opportunity to exert a stricter control on the conservation of an urban legacy that can better help frame the life of Fundidora's workforce.



Fig. 8. Street view collage showing the contemporary state of the Fraccionamiento Adolfo Prieto. View taken from Federico Gómez Street, near Agustín Basave Street, looking south. Source: image assembled by Juan José Reyna Monrreal.

In the end, the Fraccionamiento Adolfo Prieto symbolizes both the commitment of the smelter towards its workers even through the company's financial crisis of 1970, as well as the relentless pressure of the labor union for company sponsorship, a combination that proved fatal for Fundidora's economy. The district was also an important move in Fundidora's expansion eastward, a colonization effort towards Guadalupe that started with the construction of the subsidiary Aceros Planos SA located halfway between Fundidora and the Fraccionamiento Adolfo Prieto. The development also represents one of the first efforts in regulating the urban image of a district in the locality, something that has arguably facilitated the survival of the original vision, as observable in fig.8. The perception of insecurity, aggravated by the drug wars of recent years, has nonetheless triggered the construction of solid and semi-solid barriers to protect the houses from the outside, closing or partially closing them to the sidewalks and streets. However, and similar to the experience of

Fraccionamiento Buenos Aires, the predominance and permanence of residential use has allowed for the survival of a strong sense of community among the families that share ties to Fundidora and its subsidiaries.

3. CONCLUSIONS

Although heavily altered by processes of appropriation, expansion, renovation, and neglect, it is evident that Fundidora's neighborhoods maintain a unique identity as part of the history of Monterrey. Unlike isolated landmarks and buildings, where this sense of identity stems directly from a clear silhouette imprinted in the observer, in these communities the phenomenon is more tacit, experienced only through the recognition of a thread that inadvertently ties houses, landscape, infrastructure, and society to a demarcated urban site. It is precisely in the unique configuration of their urban morphology that it is still possible to contextualize the Fraccionamiento Buenos Aires, and as a later example the Fraccionamiento Adolfo Prieto, as local exponents in the transition of the colonial grid plan and the associated row housing model to the, now ubiquitous throughout the metropolitan area, semi-suburban archetype. The iconic presence and survival of the smelter's blast furnaces, however, have unintentionally dominated the local discourse on industrial patrimony, shifting all attention to the post-industrial park. (Casillas, 2015, p. 25). Nevertheless, as memory builds, and society steadily transitions towards information technology, pressing the city to continue changing at an ever faster rate, it is imperative to recognize these neighborhoods as significant urban heritage, as a sum of parts necessary to frame and understand the whole urban history of Fundidora and Monterrey's industrialization. Especially as these former industrial districts represent, in the case of some European and American cities, the fringes that detonated the phenomenon of twentieth century conurbation (Acebedo, 2003, pp. 93-94).

Unfortunately, the rapid demographic expansion of the city throughout the twentieth century and the subsequent urban sprawl, coupled with the accelerated rate of construction, have put at risk the preservation of the original character of the districts. Of the four mechanisms of adaptation identified in the neighborhoods, it is crucial to understand the phenomenon of appropriation as an expected and even desirable development as it promotes both an individual and communal sense of belonging and, at large, establishes a dialogue between a pre-configured space and an evolving society. Expansion appears, then, as an unwanted necessity as the provisioned space becomes inadequate and the typologies have to evolve beyond superficial adjustments, impacting the original visual reading of the districts, especially when the expansion is vertical. Renovation, understood as the process of demolishing and rebuilding, is a highly disruptive mechanism within consolidated urban fabric, and is unequivocally associated with the influx of external capital flow that fosters disenfranchisement as the economy of investors and new tenants inevitably pressurizes a shift up. At the

other end of the spectrum, neglect and the consequent deterioration of buildings and landscape signals the financial sluggishness of a society that was unable to evolve or readjust, in this particular case after the closing of Fundidora.

Ultimately, it can be concluded that a reassessment of what is considered historically relevant in terms of architecture and urbanism is in order. The impending transition of Monterrey to an information society demands a thorough valuation of the industrial patrimony of the city, glimpsing beyond the imposing ruins of the now abandoned factories and warehouses. Liberal economy will tend to coerce the transformation of post-industrial districts in two polarized directions, often happening back to back, either through a high monetary influx that would undoubtedly incentivize gentrification, or through economic stagnation that would lead to the socio-spatial deterioration of the community. Instead, public authorities and civic associations need to exercise policies that regulate more closely the transformation of neighborhoods and the urban landscape, ensuring the protection and preservation of identity through architecture by preventing speculation, unnecessary changes in land use, and limiting densification in already consolidated communities. The approach, however, cannot solely take on an economic and political perspective, but rather should emerge from the collective awareness of the residents, either through self-realization or consciousness-raising campaigns, about the social and cultural significance of the neighborhoods they inhabit.

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