

## **REBUILDING THE SPIRIT OF PLACE:**

### ***The Fundidora Park of Monterrey***

ARQ. JULIETA CANTU DELGADO

*Instituto Tecnológico y de Estudios Superiores de Monterrey,  
Campus Monterrey*

*Email address: julieta.cantu@itesm.mx*

**Abstrac.** The historical and social meaning of industries in modern cities, explains their importance as a cultural patrimony within a society developed and enclosed by work, technological developments and the forces of industrial production. This work presents the case of the *Fundidora de Monterrey Park* as the largest iron and steel production industrial complex, in the north of Mexico. Now, after its closing, it changes its activities and introduces new uses, to offer in its original location, a cultural space that commemorates its history and recreates the iron and steel industrial process which was the vocation of its origin. The restoration and reuse of the factories, offices and furnaces, offers a new sense of place that allows to remember, the people and the events that comprise its past, establishing a relation between the material and the immaterial, in search of the reconstruction of the spirit of place.

### **1. Historical context. Monterrey in the early twentieth century**

The city of Monterrey, capital of the state of Nuevo Leon, is located in northeastern Mexico two hours from the U.S. border. It has a population of 1 million 200 thousand inhabitants, but its metropolitan area includes nine municipalities inhabited by more than 3.3 million people, representing 85% of the total population of the State. The main activities of the entity are industry, commerce and education at the most prestigious institutions of the country.

Since the late nineteenth century until present times, Monterrey has been distinguished by its progress, its technological development and a very important industrial production of textile, glass, beer, cement and steel. The process towards industrialization of northern Mexico must be analyzed in the historical context of the country itself. During the late nineteenth century and early twentieth century, the stage called *Porfiriato*, was an era of political stability and economical progress that encourage the process of modernization and industrialization of the country, due to public policy, State incentives, and capital investment of foreign and domestic entrepreneurs. The

construction of railways was also important because of the creation of a larger internal market more wide and integrated than before, and also because of the population growth (Vizcaya, 1971). Until 1890 the presence of great foreign companies with modern technology, gave impulsion to the industry, resulting in significantly increased production of textiles, footwear, beverages, paper, food and wine. Subsequently the industries of steel, chemicals and cement were determinant for the modernization of Mexico. France invested most of the foreign capital, mainly in textile production, followed by Germany, the United States and England, bearing in mind the important participation of domestic investors, which led to the emergence of industries in Mexico City, Puebla, Guadalajara and Monterrey.

For the particular case of the iron and steel industry in the city of Monterrey, subject of this work, it is important to observe that the circumstances took place in the process towards such a productive activity, are related to historical events that preceded the stage of the Porfiriato, and that have a direct connection with the events of the Civil War in the United States. In 1858, a free trade zone was created in the Mexican state of Tamaulipas during the blockade that the northern states of the United States applied to the southern states ports. Monterrey traders took the opportunity of being the sole suppliers of cotton, goods and armaments that came from Europe. As a result, the Monterrey entrepreneurs obtained profits that in time would be transformed in the capital been used to start the industrialization of Nuevo Leon. (CONACERO, 1996, p. 52)

The existence of mineral deposits of iron and coal, as well as the abundance of water at that time in Monterrey were decisive for the start of the steel industry. Besides, the construction of the railroad tracks Laredo-Monterrey, and some others that placed Monterrey at the center of a railway network, which linked Tampico, Matamoros and Torreon with Mexico City, leaving Monterrey at a strategic position between the U.S. and the Mexican Republic. This situation facilitated the shipment of minerals mined in the north of the Mexican territory and were exported to the United States. These exports were due to the advantages of the minerals mined in Mexico in regard to those of the U.S. territory, its low cost and high performance represented a big benefit for the development of this industry. But in 1890, the McKinley Tariff was established with the objective to detain the introduction of lead, considered a strategic industrial metal. By this mean the U.S. smelters were forced to consume national minerals,

which was a negative action for Mexico but it also enabled Americans about investing in the Mexican territory. Added to this the Mexican government took the decision of taxing exports of minerals, making non profitable casting abroad. (Vizcaya,1971, p. 32).

However, the development of the metallurgical industries in Monterrey not only was due to the geographical position and historical circumstances, but also to the vision of entrepreneurs who invested capital and resources for industrial production. It is in this context were created the first metallurgical industries, and few years later, in 1900, was formed the *Compañía Fundidora de Hierro y Acero de Monterrey* (Iron and Steel Smelting Company of Monterrey).

## **2. The Fundidora Monterrey**

As a company, the Fundidora de Monterrey, name under which it is best known years later, was established on May 5, 1900 with a capital of ten million pesos gold, and a few months later began operations under the leadership of Mr. Vincent Ferrara, Eugene Kelly, Leon Besagoiti and Antonio Ferrara. The company aimed at the exploitation of iron ores and coal, and smelting and processing industry in the form of the metal. And considering the huge demand that the steel had at that time due to the industrialization of the country motivated by President President Porfirio Díaz, the future was promissory (Nierman, 1991, p.29).

The Fundidora occupied a spot 226 hectares located east of the city of Monterrey, on the outskirts on land devoted to agriculture. According to the vision of the owners of the company, the extensive ground would be used for future enlargements of the factory, an area set aside for the construction of housing for workers, and even building schools for educating children of laborers. Projects that were gotten to fulfill with the time and were part of the complex Fundidora Park.



*Figure 1. La Fundidora de Monterrey (Fundidora Park files)*

The initial installations were carried out in 1901, building workshops Drained, Machinery and the Forge. However, but it was until February 1903 that production began with the Blast Steel Furnace No. 1, the first in Latin America, known as the *Maestranza*, its popular name meaning casting of canons and canons balls. This furnace had a daily production capacity of 350 tons and employed 1500 workers initially, as mentioned by Nierman. (1991:32)

The Fundidora Company had several stages of growth throughout the 86 years of activity. The first stage comprises the foundation in 1900 to 1912, when the first set of buildings was performed: Blast Steel Furnace No 1, factories, offices, hotel, and colony for workers as well as a school for the children of laborers, spaces that are connected with the City and engaging in productive activities and discipline of work. Since that time the Fundidora began to have a strong presence in the landscape of Monterrey, and became a reference point for the inhabitants of the city, which is accustomed to the sound of the whistle from the *Maestranza* and the routine of a city that was growing. This occurred as a result of industrialization and trade with the country's capital and with the United States across the railway network.

It should be distinguished that the Fundidora faced serious economic difficulties from 1904 to 1917, during the global crisis of 1907, the flood of the city of 1909 and the beginning of the Mexican Revolution in 1910, events that caused a setback for the Fundidora until there was a significant recovery in 1929, maintaining a moderate RIM production and growth, reaching for the first time in its history the record figure of 100,000 tons of steel. (Nierman, 1991:61)

Following World War II, the demand for steel began to grow in the year 1939 and to meet the needs that the war required, in particular the demand for the U.S., it was necessary to establish various growth strategies, as it was imperative to modernize the facilities and expand and equip existing ones. The plan to build a Second Blast Furnace that would double the production capacity of the first was imperative, so the second one began to operate by 1943. The capacity of both furnaces was substantial and allowed the growth of the company and became a detonator of its economic expansion.

Later, driven by demand for steel worldwide, the company launched a plan for the modernization and expansion between 1950 and 1960, where the building to house the Mill Combination Lewis

was the most important structure of this period. A second phase of the Plan was conducted from 1964 to 1968 with the construction of Blast furnace no. 3, with capacity to produce 1600 tons of steel daily, and a final phase that began in the year of 1972 were the work of modernizing the blast furnaces (Sanchez and Dominguez, 2007, p. 5). In 1977, the *Fundidora* de Monterrey, S.A. step to be administered by the Federal Government and thereby, under the responsibility of the state production of steel.

Managed by the government, the company continued to face technical, organizational and union problems, but the most serious was that over the years, facilities *Fundidora* had become obsolete and inefficient. Efforts to modernize the plant led to excessive indebtedness. This joined the excessive demands of the workers who put pressure on the company. They themselves were partly responsible for the collapse of the *Fundidora*, which was in addition of being their source of work, a symbol of the emergence of industrial Monterrey, their entrepreneurial spirit and its economic power.

On May 8, 1986 the company *Fundidora de Monterrey, S.A* was declared bankrupt in Mexico City. Nearly, 15 000 workers were left jobless and without prospects for a just compensation, took the streets in Monterrey to protest for days and months. The most important steel industry in Latin America never again produced, but with the passage of time would emerge as the cultural heart and entertainment of Monterrey, provided an opportunity to rebuild their spirit and sense of place and belonging to the inhabitants of city.

### 3. Conservation of spaces in Fundidora

Two years after the smelter closed, the Federal Government decreed public utility conservation and improvement of the area where it was the old steel and ceded the land to the government of Nuevo Leon. The state government began building the *Fundidora Park* through a trust promoted by the Government of Nuevo Leon to build a large park with gardens, the Museum of Science and Industry, an exhibition centre, an arena for shows, a hotel, a fun fair, spaces for recreation, cultural, sporting and economic development. The project envisaged the work of conservation and restoration of the old craft workshops, kilns, plants, warehouses and other spaces that shaped the *Fundidora*; reuse the goal was to conduct new activities, cultural and recreational facilities and salvage a place of meaning and tradition for inhabitants of Monterrey.

With the preservation of industrial heritage, in this case, the *Fundidora Park*, named Site of Industrial Archaeology, which recognizes the value of their buildings expresses the relationship between society and technology, and are testament to an era in which the beginnings the industry in Monterrey were forged. Conservation, restoration and reuse spaces that for years had a clear vocation to produce steel, was a laborious task, considering that the buildings were in a position of serious deterioration. But with the painstaking work of restoration specialists, we were able to rebuild not only buildings but the spirit of the place, integrating industrial architecture to nature, in a large park where some time ago working men and women existed.



Figure 2. Blast Furnace Num. 3 (Julieta Cantu)

The restoration and reuse of the Blast Furnace 3, now known as the Steel Museum, one of the most important works of the Park, the emblematic smelter, and a key part of the history of Nuevo Leon was rescued, being always in the memory of all of its inhabitants. Throughout the museum, the Gallery of History recounts its past and is seen through the eyes of the people who worked in that space. While the Steel Gallery describes the processes of the production of iron and steel using interactive media, so that visitors can learn the processes and scientific principles behind the transformation of raw materials in assets and social economical utility. But the most significant area in the museum is the Furnace itself, showing through video images of the *Fundidora* and emotional testimonies of men who worked in this industrial compound, while displaying lights, sounds,

effects of flames and steam spectacularly to provoke in the visitor the feeling of being inside Blast Furnace No. 3. The awakening of the oven, its simulation and restoration, provide the visitor the feeling of the site allowing it to evoke that some time ago it was the heart of the largest steel industrial centre in Latin America.



Figure 2. Blast Furnace Num. 3, inside view. (Julieta Cantu)

Blast Furnace 3, now the Steel Museum, was declared by the Institute of Fine Arts in Mexico as an artistic monument of the Nation in 2008, due to the excellent work of rescue, restoration and reuse as a centre for science and technology, and especially, as the industry icon of the people of Monterrey known as *Regiomontanos*. This declaration will ensure the conservation of the building, so that future generations will enjoy the industrial heritage of Monterrey, values and the effort of human beings who forged the modernization of Mexico through the production of steel.

#### 4. Reconstruction of the spirit of the place in the Fundidora Park of Monterrey

Employers, employees and laborers who participated in the founding and development of the *Fundidora de Monterrey*, were key players in building a prosperous city, and contributing to the definition of urban symbols with which they have identified several generations of culturally inhabitants of Monterrey. The process of interaction of people who worked in the *Fundidora* is linked to the experience and occupation of spaces, and is the result of different types of relationships established between those seeking a reference in the place where they work and establish companionship ties, reaching the site owners feel. The place turns into a container of stories and

images, constituting a vital and livable space that evolves over time, changing their uses, while retaining the spirit of the place that often has to be rediscovered.

The sense of belonging to a place is an essential part of a person's identity, as belonging to a place means having a foundation in an existential sense of concrete each day, is crossing the threshold and winds back the lost place and returns to give it meaning. The Italian architect Aldo Rossi in his book *La Arquitectura de la Ciudad* (p. 185), refers to the place or locus as that which is not simply a natural space, but that is an area that belongs to the culture, that the interpretation can be given by him is the history that has suffered and what has changed. The place is not simply an area composed of external elements to humans, but is made of how the human lives he/she has lived and, as it has looked and behold, as it is integrated, is owned and redefined by him/her. For this reason, the reconstruction of the areas of *Parque Fundidora*, it was very important to integrate the old craft workshops and the natural environment, and include significant elements such as fireplaces, steel girders, and emptying buckets of various elements to remember visiting the site's original vocation. The objects are converted into symbols of the history of the place and its inhabitants.

The architecture theoretician, Christian Norberg-Shultz, in his book *Genius Loci, Toward a Phenomenology or Architecture* (p. 54), proposes a phenomenological look taking place as a guide to the thinking of Martin Heidegger, and notes that the place for the human is through its existence, depositing their dreams, hopes and desires as horizons of their life. Thus, the place takes on the poetic dimension that corresponds with meaning and significance.

The historical significance of the *Fundidora Monterrey* is in direct relation to shaping the thinking and the way of being of *Regiomontanos*, because in a land that has few resources and with severe weather making it very difficult to work and find work, so it has been necessary to seize the opportunities that are presented. The *Fundidora de Monterrey Park* becomes the symbol of thinking and being *Regiomontanos*; discipline at work, entrepreneurial vision, savings and use of resources. Knowing and recognizing your identity you can fulfill your dreams and the quest of permanent ship. That is why the conservation and reuse of space was very important to rebuild the genius loci, across elements to communicate the values of the place, as well as search and accept a language to express the idiosyncrasies of its inhabitants.

For many years the significant elements of the landscape of Monterrey were chimneys, blast furnaces and steel structures of their industries, represented a landmark for the orientation of the individual in the city. It is necessary to give distinct identities to the urban intone which inhabits, work and recreational activities. The guidance elements in turn, constitute mental images of the city that give emotional security, as mentioned by Kevin Lynch (1984, p. 10), all cultures have developed "guidance systems" and "spatial structures that facilitate the development of a good environmental image ", so that the city is organized around a set of focal points, spaces and natural elements that give security and sense of identity. This is true of the *Fundidora* Park where buildings have already become guidance elements in the urban context, items with historical significance that are standing testimony to the culture of the industrial city of Monterrey.

### Conclusions

In the postmodern era, the inhabitants of the contemporary cities must preserve in their memory the places that were witnessed in their process of industrialization and modernization. The conservation of the industrial patrimony is very important, since with it stays the bows with the past in the economical and social origins of the productive activities that gave the identity to each city.

The Park *Fundidora de Monterrey* is an example of conservation and reusability of the spaces that formerly occupied the factories, offices, furnaces and other places that were constructed for the smelting of the iron and the steel in the north of Mexico. The spaces were recovered and gave them a new use reconstructing the spirit of the place, in a site where the industrial work constructed and landscape are integrated in a space of encounter for cultural and recreational events.

To conserve a place where years ago men and women worked and dedicated their time and effort in behalf of the progress of Monterrey, Mexico, is to reconstruct the spirit of the place and its value, like inheritance for future generations. *Fundidora* has many significant meanings in time; it was and it is an element of direction within the urban context, but also it makes reference to one of the cultural identities of northern Mexico that is related to the arduous work, the tenacity and the effort of those who have forged the industrialization of Monterrey.

The reconstruction of the spirit in the *Fundidora* Park in Monterrey is a process that fuses the shared experiences, histories, troubles and moments of success, with the recovered spaces and the natural environment, to give place to new activities. In *Fundidora* Park past and present make a bond and give sense and identity to the place that is a legacy for today and future generations.

## REFERENCES

- Camilo Contreras y Moisés Gámez. Coords. (2004). *Procesos y espacios mineros. Fundición y minería en el centro y noreste de México durante el porfiriato*, Tijuana: El Colegio de la Frontera Norte / Editorial Plaza y Valdés.
- CONACERO, (1996) *México a través del acero*. México: CONACERO.
- Guerra Marcela y Trejo Alma, (2000) *Crisol del Temple. Fundidora de Fierro y Acero de Monterrey*. Monterrey: Grfo10Print Editores.
- Heidegger, M. (1962). *Being and Time*. New York: Harper & Row.
- Lynch, Kevin. (1984), *La imagen de la ciudad*. Barcelona: Gustavo Gili.
- Nierman Daniel. (1991). *Fundidora con raíces de Acero*. México: Grupo Azabache.
- Norberg-Shultz, Christian. (1984). *Geius Loci, Toward Phenomenology o Architecture*, USA: Rizzoli
- Rojas Sandoval, Javier (1997), *Fábricas pioneras de la industria en Nuevo León*. Monterrey: Universidad Autónoma de Nuevo León. Consejo para la Cultura de Nuevo León y Pulsar Internacional, S.A. de C.V.
- Rossi, Aldo. (1982), *La Arquitectura de la Ciudad*. España: Gustavo Gili.
- Sánchez García, Javier y Héctor Domínguez del Peral. (2007 julio-septiembre). Intervenciones al patrimonio industrial construido del Siglo XX: La historia, la ciudad y La Maestranza, en *Revista Rizoma*, No. 5
- Vizcaya Canales Isidro (1971) *Los Orígenes de la Industrialización de Monterrey (1867-1920)*. Monterrey: Librería Tecnológico.