



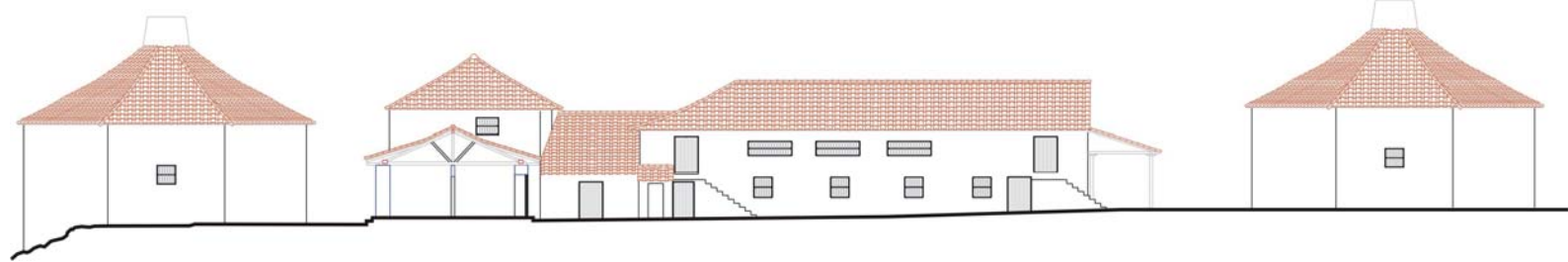
**CONSERVATION & MANAGEMENT OF HISTORIC BUILDINGS**  
Lund University (Housing Development & Management)  
Swedish International Development Cooperation Agency (SIDA)

**PROJECT: CONSERVATION AND MANAGEMENT PLAN OF THE  
FÁBRICA DE LOZA BOGOTANA:  
Productive Housing for Social Inclusion (Bogotá, Colombia)**

**FINAL REPORT**

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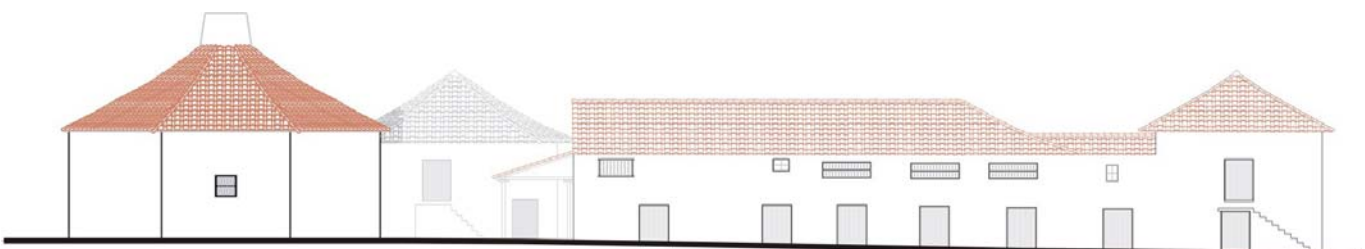
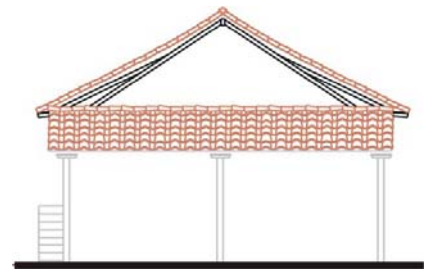
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## I. INTRODUCTION

### I.1. Industrial Heritage in Colombia

As defined by The International Committee for the Conservation of the Industrial Heritage, (TICCIH), the remains considered as belonging to the industrial culture are those that possess a historical, technological, social, architectural or scientific value. These remains consist of buildings and machinery, workshops, mills, industries, mines; sites destined to activities such as processing, refining, for harbor or for storage; those used for generating and transmitting energy; those for transportation including all its infrastructure; as well as those social sites where industrial activities take place such as the house, or in religious and educational centers.<sup>1</sup>

The archaeologists who alerted in Europe and North America the rapid destruction of the structures and machinery associated to this period first recognized it as industrial heritage. This destruction, as was argued, could bring profound consequences by banishing from social memory the significance of a phenomenon of great repercussions in the transformation of human society and which has introduced the modern world to all the corners of the earth. In order to register and preserve the memory of this process, industrial archaeology implemented a distinctive methodology, of interdisciplinary character, oriented towards the study of all its evidence – tangible and intangible: documentary, artifacts, stratigraphy, structures, settlements, and natural and urban landscapes, created by the industrialization revolution or for it. Hence, this specific subject was defined as to study only the production that dated since the second half of the 18<sup>th</sup> Century and onwards.<sup>2</sup>

At present, Colombian industrial heritage is composed by a very poor selection of sites that hardly represent the peculiarities of this process in the country. In legal terms, it does not have a status of its own, as the concept is not perceived as an integral subject. This in turn is reflected by the way the remains have been catalogued and listed in the national context, under different categories such as Industrial Architecture, exemplified by the magnificent brick building of Bavaria, a beer company founded at the end of the 19<sup>th</sup> Century, or as Engineering Works, which include several bridges that cross the Magdalena River, the most important one in the country, or the c. 400 train stations found in almost every medium and big town in Colombia.

Under these circumstances, it is easier for other type of sites to be subject to destruction, as the perception of this notion is fragmented and limited. The buildings and structures recognized up to now, don't give an idea of the impact this industrialization process had on Colombian society, since those registered tend to reinforce their aesthetical and artistic value, giving it a "monumental" status, whilst they are very limited in representing the new productive developments introduced into society and cities, with its impact on technology, scientific knowledge and social change.

#### I.1.1. Industrial Heritage Values

The values considered for industrial heritage are based on the argument that they should put in evidence the activities that have had profound historical consequences. In this context those activities refer to the advancement in productive techniques, of science, of the ways of building and modifying the natural and urban context, and the transformation of everyday habits.

As such, the valuation of industrial heritage takes more than a few examples of singular tangible sites, and as well, they also include the social value as a way to register the lives of common men

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1. Nizhny Tagil's Letter on Industrial Heritage, July 2003. The International Committee for the Conservation of the Industrial Heritage, TICCIH. [www.international.icomos.org/xian2005/ticcih-nizhniy-sp.pdf](http://www.international.icomos.org/xian2005/ticcih-nizhniy-sp.pdf)

2 Ibidem

and women involved in this process, which endows an important sense of cultural recognition and identity to those that have been excluded from other types and conceptions of heritage. These values are built-in to the sites, their components, the machinery, the landscape, the written testimony as well as in the intangible memory and customs of people.

These values don't exclude the aesthetical or artistic ones, as they can refer to the quality of the architecture, the design and the planning, but they cannot be the single or predominant value in the industrial heritage context. More important yet, is the necessity of considering that in the Colombian and Latin American context, as well as in what is called the Third World, the character of this industrial heritage will be totally modest, which in turn makes it difficult to be recognized as it lacks the elements that have made visible other types of heritage (colonial, republican, modern, fortifications, gardens, etc) and because they don't serve an ideological purpose of exalting individuals, elites or powerful groups.



### 1.1.2. Historical Studies, Categories and Inventories of the Industrial Heritage

With these arguments in mind, it is relevant to conduct the historical study and the cataloguing and registering of the industrial heritage as a means to acknowledge it, protect it and preserve it for the memory of future generations. This study must undergo an analysis of the different categories of industries it should take into account and based on this elaborate the inventory that may indicate its diversity, its state of conservation and its valuation.

Towards this purpose, the Maestría de Restauración de Monumentos Arquitectónicos and the Colombian Built Heritage Study Group, have developed several works, starting with the preindustrialization process studied by Felipe González, more specifically about the Aguardiente Fabrics<sup>3</sup> from the colonial period. More recently two lines of studies have been created: one that documents the industrialization process from a historical and architectural perspective with the projects such as the Fábrica de Loza Bogotana (a ceramic industry), which will be described further on, and the line that studies it from the cultural landscape angle.

From the latter one, there have been two major projects: *On the reflection and constitution of the industrial heritage of Bogotá* (capital city of Colombia), and *Models of Industrial Landscapes*, both of them carried by Lina Beltrán, Natalie Rodríguez and Monika Therrien. Regarding the different models of settlement these industries had, they have been categorized taking into account their impact on the site they were founded on. As such there are those that were designed for an industrial purpose, altering the site where they were established, those that modified an existent site, or an industrial or any other type of landscape, and those that didn't have any effect on the site. Also, regarding the industrial landscape, the connections that these allowed were taken into consideration, those that represented a link between towns and the rural areas, or those that only traced specific connections within the urban or the rural area.

In the line of the historical perspective there have been two master's thesis research done by Yasmeides Constante regarding the *Industrial Heritage of Barranquilla 1890 – 1950* (principal maritime port of Colombia) and Angela Maria Santa's *Industrial Heritage of Bogotá 1890 – 1950*, both directed by Monika Therrien. These thesis projects have allowed the identification of this industrialization process in two important Colombian cities, but as well, they have offered a more ample vision of what it is composed by, bringing in new categories that hadn't been taken into account, such as Food industries, Clothing, Tobacco, Public Services, Communication, Construction, etc., with distinctive examples that show the variations within Colombia.

All this research work intends to contribute with the preservation of the Colombian industrial heritage by transforming its perception by the official authorities, and with the demand of public

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3 An alcoholic beverage, its production was in the hands of the Spanish colonial authorities.

policies oriented towards the protection of all those sites that had not been perceived as such, and that are rapidly disappearing as tangible remains.

## 1.2. Fábrica de Loza as Industrial Heritage

Within this context came up the interest to do a research of the Fábrica de Loza Bogotana, established in 1832, and of its existing building, which up to now has suffered minor transformations. Under these conditions, this building could be considered a prototype of the first industries of the last decades of the 18<sup>th</sup> Century and the beginnings of the 19<sup>th</sup> Century, not only for Colombia but for the world, since other examples have been demolished (for example in Mexico) or have suffered profound alterations (as those set in Staffordshire, England).



This research began in 1999, with an archaeological focus and an interest in valuing the objects that were produced by this industry, of which there existed remains brought up by archaeological excavations and by objects exhibited in several local museums. The results from this first stage consisted in a monograph written by Carolina Lamo, *Study of the ceramics produced in the first industry of fine ware in Santafé de Bogotá during the 19<sup>th</sup> Century*, as part of her B.A. studies and directed by Monika Therrien, as well as a characterization of this material in the *Catalogue of Archaeological Ceramics from the Colonial and Republican Periods in Colombia* (Therrien et al, 2002).

Further on, in 2001, Monika Therrien obtained financial resources from the Pontificia Universidad Javeriana to undergo the research project *De Fábrica a Barrio: Urbanización y urbanidad en la Fábrica de Loza Bogotana*. This project was developed from a multidisciplinary perspective, and was carried on by 8 professionals that were in charge of documenting the historical, architectural, archaeological and anthropological aspects and evaluating the conditions of this 19<sup>th</sup> Century industry, which turned into a *barrio* (neighborhood) during the 20<sup>th</sup> Century.

Along with this research two master's thesis were developed, within the program of the Maestría de Restauración, *Reconstruction of the Urban Development of the Site Antigua Fábrica de Loza* by Luis Felipe Arizmendi, and *Virtual Representation based on the Historical, Architectural and Archaeological research of the Fábrica de Loza Bogotana*, by Olimpo Vergara, both directed by Monika Therrien. Through these studies it was possible to identify the building's original characteristics and its present state of conservation, as well as the urban development of the terrain alongside the Fábrica and its impact in the social change and landscape of this area.

In the whole, the singularity of the research of the Fábrica is that it started with a site that was not recognized as part of the industrial heritage and as such it wasn't listed. Generally, every conservation plan proposed takes into consideration those sites that already have been declared as monumental, most of which have been listed arbitrarily, as they don't count with enough documentation. As a study held during 5 years, in which all of its results evidence its importance, however its listing as a District heritage was accelerated due to its impending destruction by the construction of a four lane avenue, designed to run over its location. In a near future the inclusion in the national listing is expected.

## 1.3. Academic and community interaction regarding the Fábrica de Loza Bogotana

It's impossible to think of industrial heritage without doing a multidisciplinary study of it: historical, architectural, archaeological, anthropological or sociological as well as economical. But

more important yet, is to take into account those directly involved in it, in this case the inhabitants or workers related to these industrial areas.

This method is a joint venture, not only as a means of obtaining a registration and recognition in the national listings of tangible or industrial heritage, but also as a means to design a conservation and management plan oriented towards the social and economical rehabilitation of the site where its located, generally characterized by the extreme poverty that surround these symbols, as is the case of the Fábrica de Loza. A first step towards this goal is the approach to the conditions of the physical space and the way the inhabitants see and live it, as well as a diagnosis of their economical, social and political status.



This latter subject, the political status, is important in order to acknowledge what the public policies are regarding the planning of these areas of heritage conservation. In most cases these policies are very limited since they only regard the tangible aspects (and those of monumental standards) with no consideration as to the intangible practices linked to it, represented by the inhabitants of these sites through their own cultural expressions.

With this in mind, whatever research is done must contribute to create and disclose this forgotten urban memory of the city. In the case of the Fábrica de Loza, it is important to acknowledge the incipient process of introduction of the industrial production in the city, and the hardships of constituting a neighborhood after it's closing, in what was always considered a marginal area. When the only public policies consist of plans that bring in the demolition of entire sections of the city, in order to eradicate chaos (and unwanted population), with the building of new and beautiful public spaces (or four lane avenues), the usual consequence is that this will bring further and greater problems (social and economical wise).

It is the intention then to design a conservation and management plan of the Fábrica de Loza area, which includes a rehabilitation program that will encourage the social inclusion of a population that during centuries has been marginalized and to generate the economical support that will guarantee their sustainability as well as that of the building; the inhabitants of the Fábrica already recognize in the Maestría an ally in their battle to keep on living in the area and improve their present habitat conditions.

## 2. DOCUMENTING THE BUILDING

### 2.1. History of the Fábrica

After the Independence of Colombia (1810 – 1819), the Fábrica de Loza Bogotana was established, in 1832, by Rufino Cuervo, an intellectual and political figure, Joaquin Acosta, a military and also political figure as well as the director of the national museum, Nicolás Leiva, a young entrepreneur from the region of Antioquia whom finally gained total control of the industry, as well as several other associates from other parts of the country.

In 1836, after bringing from England the architectural plans of the building, the machinery, the molds and engravings, with which the ceramic ware was made and decorated, and also four English technicians to help instruct the local workers, the industry kept its production until the death of its owner in 1887. After this, the workers of the Fábrica took hold of the building and settled in all its areas, other than those destined exclusively as rooms. This continues to be the use

given to the building, and some of the present inhabitants state that they are descendants of these past workers, while others have settled there in more recent times.

John Steuart, an Englishman that resided in Bogotá in the year of 1836, described the Fábrica at the moment of its inauguration:

*The industry is located at the limits of the city, in the slopes of the high-rise mountain of Gaudalupe. Its terrains are extensive and are enclosed by a solid mud wall. The buildings follow the best European models, and great care and order can be observed within them, something rare in a country where stupidity, ignorance, and the passionate expressions of the working class are heading to destroy the master plans designed by the most capable headmasters. (Steuart, 1836:128).*

Although it tried to imitate those European models referred by Steuart, its establishment took hold of the local constructive systems, it was adapted to a peculiar kind of terrain, as well as to a particular sociopolitical system. During this period several industries were founded, those of glass, paper, printing, textiles and gunpowder. But this ceramics industry was the only one established during the decade of 1830 that lasted for over half a century and it was the only one that counted with a building that followed a specific architectural design for it to function. Because of this it required to be built in an area free from constructions. Its location, however, was not casual, the politicians, and in general the citizens, considered that the site was very dangerous and that a project of this characteristics would by all means introduce certain social order into its chaos.

As well, this industry would introduce a new economic activity into the country, an urgent policy that had to be fulfilled in order to guarantee the subsistence of the recently independent republic. Although the primary base of the country's economy was the agricultural production, there were no doubts that the ceramic industry would flourish in a similar way, as the example of all the English Staffordshire industries attested to this.

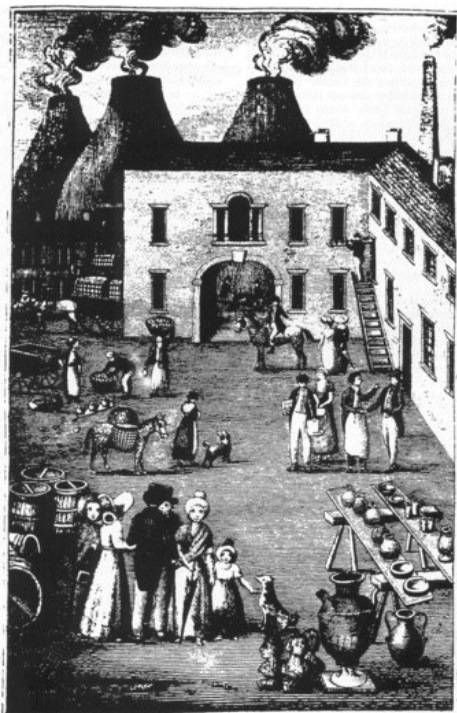
This industry would also introduce changes as to the production habits, most conducted by small artisans in their homes. Since prehispanic times, and also during the colonial period, a few members of the family and other associates produced the ceramic ware in the domestic spaces of the house. In the Fábrica, this would change radically, being the building a space designed primarily for the production of ceramic ware, although it included rooms for the workers, but in no way could they be perceived as a home.

The model followed by the building's construction includes a U shaped structure, one of its sides built in two floors, and it's where all the productive activities took place. It also has a rectangular block that runs parallel to the U shaped building, where the workers dormitories were located. There were at least four isolated elements, two big furnaces for the firing of the ceramic ware, the mill used for crushing minerals and clay, and the manager's office.

The working area made possible to follow all the steps required for the making of the ware: 1) preparation of the clay and other elements such as varnishes, 2) preparation of the clay forms, 3) molding of the clay, 4) finishing and surface treatments, 5) drying of the ware, 6) decoration, 7)

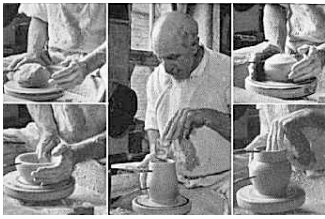


Luis Núñez Borda. Watercolor. Bogotá, 1938.



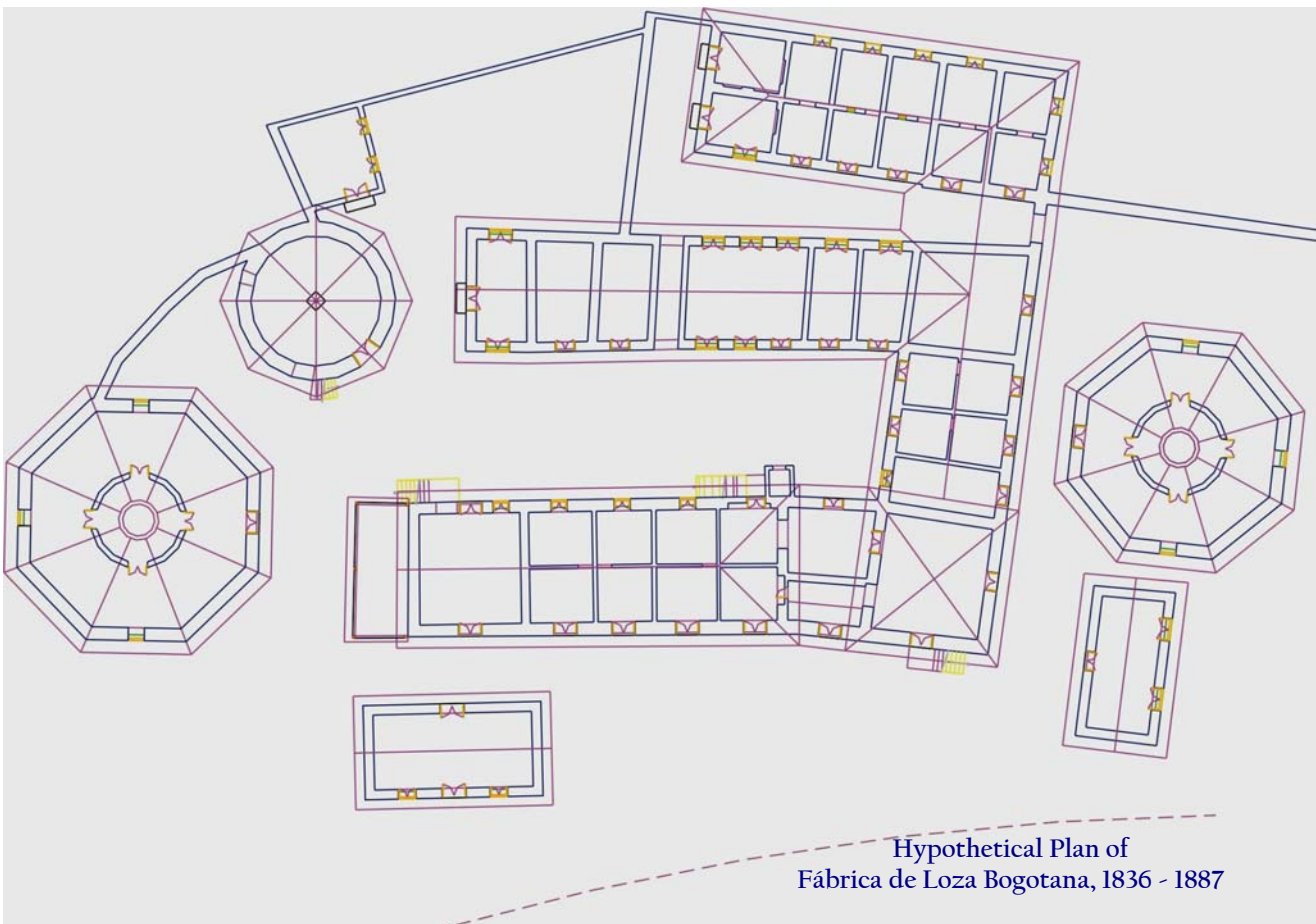
*The Staffordshire Pottery.*

burning of the ware, 8) postfire treatment. Additionally, there had to be space to store large amounts of clay, coal, and the boxes the ware was packed in.



At its highest peak of production, the Fábrica counted up to 61 local workers, four English technicians, the manager and the owner, in a town where the population was raising up to c.20,000 inhabitants in the midst of the 19<sup>th</sup> Century.

During the period when the industry functioned as such, the premises were surrounded by a wall, which contained a vast terrain of green area, which after its owner's death was developed into a working class neighborhood, with narrow and winding roads, and different types of housing. At present all this set of urban development is known as Antigua Fábrica de Loza. The original building of the ceramic industry (the U structure and the block that runs parallel to this one) is occupied by at least 60 families, most of them composed by single mothers and their children. It still is an area with a high criminality rate, reason why its inhabitants want to abandon it as they can't find any solutions to their dreadful habitat conditions, and because they expect to get some kind of payment on their leave.





## 2.2. Situation of the Fábrica de Loza Bogotana

In general, European industrial settlements were established by water canals and rivers that helped power the production as well as transport the goods that were manufactured in them. However, in Bogotá, and possibly in other Latin American cities, these were not the only or principal reasons that determined where to establish an industry, it also depended on other factors such as to bring order in barren terrains or discipline and control where needed.

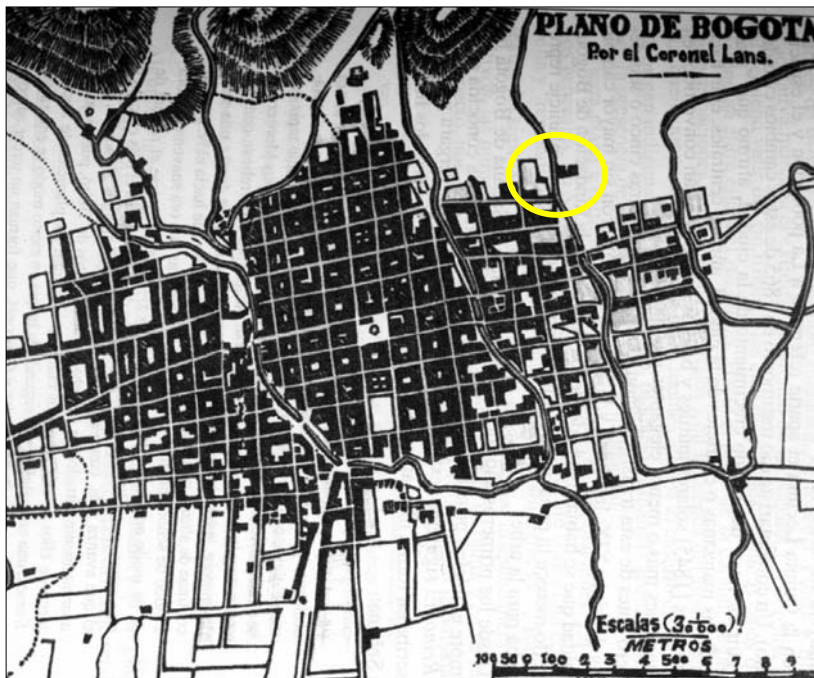
Up until the last decades of the 19<sup>th</sup> Century, the environs of the Fábrica de Loza were relatively uninhabited, being just surrounded by small rivers, slopes and by clay mines and tile and brick kilns. With the growth of the city population, the private interests of the landowners and the rising importance of the roadways that lead to other towns (and to where the local industrial production was to be exported), the landscape started to change, approximately at the same time of the death of Nicolás Leiva, developing into a more obvious urbanscape than before.



Panoramic view of Bogotá, c. 1850 (Bogotá C.D.)

This process made evident the ever-marginal situation of the Fábrica, since it was treated as a border or frontier of the city. When it was founded, it was considered as a boundary for the *barrio* Santa Barbara, the only one recognized as a formal neighborhood located at the south of Bogotá. At the end of the 19<sup>th</sup> Century, with the rapid population growth, Santa Barbara was subdivided in

turn into two barrios, the new one being Las Cruces which corresponded with all the area bordering with the eastern mountain slopes including that of the Fábrica. Only after the formation of the last barrio immediate to the Fábrica, barrio Lourdes (after being bounded by others like Belén and Girardot), did this site become included in the city's legal urban planning and was subsequently recognized by civil authorities.



José María Lanz, Bogotá en la década de 1830. (Bogotá C.D.)

Few years before its closing, in 1883, a newspaper chronicler visited the Fábrica and exalted its virtues. At the time it was considered a noble purpose to introduce the habits of higher civilizations with the production of such fine goods as ceramic ware. This article also intended to dignify the surroundings of the Fábrica, through a meticulous description of its buildings and its owner's activities.

But chaos and criminality have never been expelled from the perception of this section of Bogotá. In the middle of the 20<sup>th</sup> Century again the newspapers mentioned the Fábrica and made it better known as the Tunnel (in allusion to something bleak and scary). What the tunnel also alluded to was the narrow walkway (1,50m wide x 80m long) in front of one of the housing projects built in the Fábrica's terrain. This typology probably contributed with worsening the situation of the area, and the depictions of it in the newspapers allowed to enhance its criminal reputation in the minds of the inhabitants of the other parts of the city.

Only since 1982, a few articles in the papers have tried to relieve this bleak perception of the south of the city. In a more paternalistic fashion they describe how sites as those of the Fábrica, battle to survive and gain a more honest way of living. This also has to do with their crossover from being "spontaneously" built barrios to an achievement as legitimate settlements approved by the district's planning department.

### 2.2.1. Designation of the property



Since 1836, the area where this industry was founded has been known as Fábrica de Loza Bogotana. It is not clear yet if it changed or not its name when the owner died, although it is known by the newspapers that it also was referred to as the Tunnel, most probably because reporters were the ones who changed its name. Anyhow, since 1978 the area appears referred again as Fábrica de Loza, when they begin their formal claim to be recognized as a barrio, claim that breaks through in 1996 when

it is accepted by the name Antigua Fábrica de Loza (Early Ceramic Industry). However, recently the city has undertaken large district planning reorganization, and now the barrios are grouped by *Localidades* (Localities), being Localidad 2 the one that includes the Fábrica. In turn, these localidades conform the UPZ, Unidad de Planeación Zonal, through which guidelines regarding the organization of each of these vast and diverse zones are dictated. So the brief autonomy and recognition the inhabitants of the Antigua Fábrica had gained was quickly lost in the city's political administration restructuring process.

### 2.2.2. Ownership

The total area of the land that belonged to the Fábrica was of approx. 30,000 square meters, and the built area occupied at least 2,000 sq. m. This terrain belonged to Nicolás Leiva, and at this death it was auctioned to Eugenio Gaviria, who died almost immediately after he had bought it, after which his three nephews inherited the land in 1898. The cadastral and public documentation survey regarding the ownership shows that the three nephews took charge of the vacant piece of land and through the years they sold fractions of it, which were later developed into what was known as working class housing. There are no legal papers that explain what happened with the building itself, although its highly probable that the Fábrica workers took possession of them and that they weren't expelled from there.

The social survey done at the Fábrica has identified at least 5 families that probably descend from these previous workers. All of the inhabitants mention the Mora, Díaz, Rodríguez, the Barbosa sisters, and the Monguí sisters, as funding families. As well, Eduardo Gaviria is considered as another founder, and recognized as one of the owners of the Fábrica. But in some testimonies it appears that he claimed this ownership, by taking hold of some of the uninhabited pieces of land and by charging the rent to the new families



that arrived at the Fábrica building. However, not before long he was driven out of the barrio, with rocks and other threats.

The newspapers in 1982 stated that at the time 94 families lived in the 61 spaces conditioned as living dwellings. However, the survey done in 2002 showed that only one family lived per existing dwelling (61 in total). At present none of them can prove the legal possession of their living quarters.

### 2.2.3. Legal protection and municipal planning

The Fábrica is located in the southern border of the Historical Center of Bogotá, known as La Candelaria and is listed as National Heritage. Although very close to this heritage area, it has not brought any benefits to its ever marginal status, its rising poverty and criminal rates. On the contrary, this position has driven to ensure new plans oriented towards furthering its segregation thus worsening the area's marginal condition. Under these terms, in the 70's it was decided to pass through the southern border of the historical center, a four lane avenue project called Avenida de Los Comuneros, that would divide once and for all the genteel section of town from the other, and also demolish some undesirable constructions. However it still hasn't gone through since its direction depends on the ever changing perception of where the dangerousness of one or the other area is located.

The project was stopped for two decades, until 1997 when it gained life again, along with a significant number of changes introduced all around the city, like its new transport system, public schools, libraries and parks that have contributed with consolidating the idea of renovation as an option to transform problematic spaces. This has made possible the reinforcement of the Urban Renovation Office, with projects such as Third Millenium park, where 19 blocks bordering the southern limits of the historical center where demolished, and their troublesome inhabitants were evicted from the area.

The final outline of the Avenida de Los Comuneros concludes a history of longtime segregation, where the avenue transforms itself in the boundary that will separate the Fábrica building from its immediate perimeter. Once before, at the beginning of the 20<sup>th</sup> Century, the river San Agustín, once considered the southern frontier of the town in the colonial period, was canalized and converted into a narrow road and was later refashioned as a four lane high speed avenue. After this came the canalization of the river San Juanito, right next to the Fábrica, and now this small winding road is to become another four lane avenue, under the name of Avenida de Los Comuneros project. This then will add up two four lane avenues which will segregate the historical center from its immediate boundaries, recreating in its crevices, potential zones of urban degradation as those that were eradicated by the Third Millenium park project, when the neighborhood that existed there became trapped between two highways as well.

On the other side, in the eastern and southern borders of the Fábrica, there is a 3 meter fence that separates the building and encloses the



COL - Lourdes, a civic center that gives service to almost all the residents in the roundabouts, except the Fábrica's inhabitants. And finally, after the avenue is finished, an empty lot with no use assigned will bound the Fábrica in the western border.



The urbanscape of this part of town will suffer profound changes, some of its symbolic references will disappear and with them the social links established by their inhabitants. There will be an emptiness of context and signifiers that maintain the unity and social web of the barrio, which in no case seems to guarantee that the situation that is wanted to eradicate really will.

Registering the Fábrica building in the District's listing of tangible heritage made possible its protection, otherwise it would have been directly affected by the construction of the Avenida de los Comuneros. This now makes it mandatory to design a Protection Plan for the building and its surroundings. However, since we are working with an integral notion of industrial heritage, this results in a more complex plan, which introduces new strategic logistics.

#### 2.2.4. Usage

At present, the Fábrica is used as residential dwellings, in the form known as *inquilinato*, where some spaces are shared, and where there is no legal or real possession of the space occupied. The principal population consists of single mothers and their children, as well as adult male artisans, basically shoemakers and construction workers. There is no guarantee of their permanence at the site, as they lack any legal paper that can prove the property of their premises.

This lack of legal documentation, has prevented the creation of habits of stability and permanence, thus there is no interest in maintaining the building. However, those families that have been seated there for generations have made strong alterations to their living quarters, looking towards some kind of reward, as they are liable to be expelled from them. These interventions have in some way affected the structure of the building.

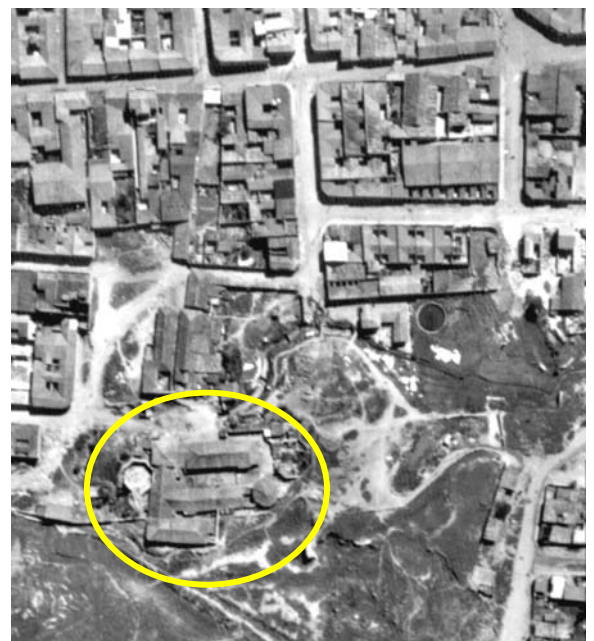
### 3. TECHNICAL OVERVIEW

#### 3.1. Technical systems

In 1837, the government asked for a visit to the premises of the Fábrica, in order to establish if the industry kept to its legal authorization of functioning. The visitors stated the magnitude and importance of the construction for the city at the time:

*We have found an industry of considerable extension, solidly built, with all its activity areas, kilns, machinery, deposits and dormitories, necessary for its functioning: it is composed by 13 principal offices for the preparation of clay, varnishes, decorations and engravings, molding, etc. There are also 7 furnaces, two for Slip or the evaporation of the humidity of the clay, and the rest for burning, varnishing, and gilding the ceramic ware, as well as other experiments possible, with a complete capacity and solid structure. We found also three stoves and two horse mills. There also exist various storage rooms for the uncooked and baked ware. There are 61 workers and 4 foreigners, two managers, one overseer and a doorman... (visit conducted by Gerónimo Torres and Vicente de la Roche in 1837, transcription made by Sergio Elías Ortiz, 1968)*

Along the preliminary architectural survey done in 2002 and 2003, and through the analysis of aerial photography from different years it was possible to identify the original structures and materials used in the construction of the Fábrica. This survey also helped separate the original materials from those added afterwards, allowing a



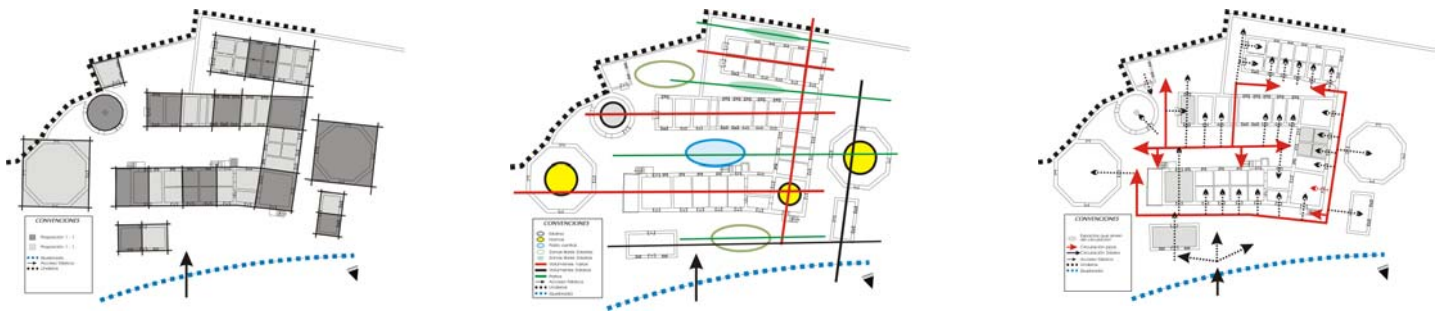
virtual reconstruction of what the building might have looked like at this date of the visit.

As was suspected, the construction fulfilled the minimum requirements of an industry of this nature, but like most examples of the local architectural, it was just a modest prototype of the large European industries. But in the context of Bogotá, within its formal morphological language of the period, the building constituted a novelty and probably became iconic for the southern part of town, with its seven furnaces over-towering the Spanish tiled roofs of the surrounding houses. Curiously enough, a classical structure of whitewashed mudbricks forming a hexagonal figure and topped by tiles, surrounded two of the most important kilns, made in the shape of a bottle, which still have to be explained.

The morphological analysis reveals certain points of interest regarding the proportion of the areas of the building. The square serves as the basic module from which the composition of the building is generated. Four modules, in a proportion of 1-4, compose the principal volumes; the furnaces also start with a square as its major scale, in a proportion of 1-1, whilst the other isolated volumes and lesser scale spaces are established in a proportion of 1-2.

Another important characteristic are the patios, as structuring axes of the volumes that conform the building. The survey shows three principal axes (primary volumes), oriented east to west, and tied at the western side by another principal axis (primary volume) that runs parallel to the former ones. The set creates a relation of empty and filled spaces in a sequential manner and all surrounded by more empty space, giving a sensation of certain liberty. The circulation is done through the central and secondary patios, as there are no interconnecting doors within the working and dormitory areas, except for 5 of the 29 areas that compose these volumes that may lead from one patio to the other.

The perfect geometry of the building, evident in the chain of volumes and empty spaces, made it easy to design each of the areas required to give way to the ceramic ware industry. Each individual area can vary between 10 and 20 sq. m., and they only have one doorway that leads to one of the patios, but never connected to another working area. All workers then had to exit into the patios where the managers or the overseer could control them.



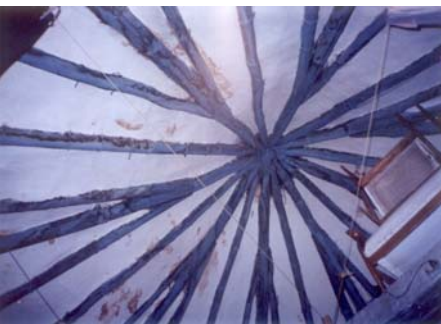
### 3.2. Technical details of the building



An archaeological exercise of reading the building, from floors to roofs, gives evidence of the technical systems applied in the construction. The building's foundation consist of rounded river stones and the use of an earthen mortar, and had a width of approx. 1 meter, over which a 0,80 m wide mudbrick wall was constructed, while internal divisions were made with the same mudbricks but only 0,20 m or 0.30 m thick. Newer additions have been made with modern block bricks, cardboard and even CD's. The flooring was originally finished with red ceramic tiles, although most of it has been replaced by cement tiles or varnished ceramic tiles.

There is very little left of the original woodwork, consistent in doors, window

divisions and shutters. Almost all the doors, for reasons of security have been changed to metal ones, although there are new wooden works, especially for windows, that tried to imitate the original ones, but using poor quality materials.



In general, as the use of most of the building spaces was destined to productive areas, the roofing wasn't given any special treatment. It consists basically of a kind of thin bamboo canes, tied with braided hay over which the ceramic roof tiles were installed attached with very moist mud. However, in the second floor of the main building a plaster was applied over the cane, then painted pink and the wooden beams in blue, probably as a way of identifying what would be one of the most important working spaces in the Fábrica.



Also, a superficial survey of the mural coloring gives evidence of the use of several colors, apparently being the pink the most frequently used to stylize the building. Traces of this original appearance have been covered, as well as most of the ceramic roof tiling has been replaced for more modern and cheaper materials such as zinc and asbestos-cement.

The spaces airing and illumination are intimately related to the functional use given to them. Most of the windows are set lower than the suggested height, which indicates that they favored the light needed by people who worked seated, while in the area of the dormitories the access to light and ventilation came from the door and a small opening at the back side of the room.



According to the description made by the visitors of the site during the 19th Century the architectural survey and the aerial photography analysis, the Fábrica consisted of all these areas:

### 3.3. Technical, Functional and Aesthetic status of the building

The descriptions made by Torres and de la Roche, as well as that of Vargas, allowed the location and identification of the working areas, the dormitories, and the administrative offices, useful to define the technical and functional status of the Fábrica.

The analysis of this particular disposition of the volumes, and within them the functioning of the working spaces and the inclusion of the dormitories within the premises of the Fábrica, remind us of the principles applied in the design of the panopticum. In the panopticum it is possible to control and maintain discipline, since it is likely to have a view of all its spaces and what is happening within them from certain angles. In addition to this, there was a mud wall that bounded and segregated its terrain from others, keeping control and security with respect to the exterior world.

And as there existed visual forms of control in the internal spaces, outwards the visual elements focused on other objectives. Over and over again, in postcards, photos and publicity, the principal symbols of these industries were their kilns and their black and thick fumes. The seven furnaces of the Fábrica, which could probably be seen from any angle of the city, would have constituted a great spectacle as an example of the modern industry in the early years of the 19<sup>th</sup> Century. Although they wouldn't have been the only ones since there were other kilns that identified a number of tile



and brick industries located in the surroundings of the Fábrica.

As a conclusion of this preliminary process of analysis, it is difficult to refuse the idea that this building did not part from a rigorous and formal architectural study. The hypothesis, still not verified documentarily, that its design was taken from a model of industry based on the plans brought by Joaquin Acosta, may prove to be true.

However, regarding the construction techniques used in the construction of the Fábrica, it's evident that although its founders may have imported or imitated the European ceramic industries, they also depended totally on the local knowledge of constructing and traditional materials. As Germán Téllez says, Colombian transculturation process consisted in adapting, enlarging and remodeling houses and architectural designs made by foreign professionals or by following other countries regulations, and what made this process incredible was the “vast and fascinating world of improvised building technology used by its constructors... using, inevitably, the local resources that were available” (1996: 82).



## 4. VALUATION OF THE BUILDING

### 4.1. Historical value:

Although many authors insist on indicating that the Colombian industrialization process started around 1890, there is historical evidence of the establishment of an incipient industrial production during the first decades of the 19<sup>th</sup> Century, although the only one that kept up its manufacture until this time was that of the ceramic ware elaborated in the Fábrica de Loza Bogotana.

Archival documents, foreign visitors, chroniclers, newspapers, magazines as well as historic maps and plans of the city attest to the importance of this industry, with which it was pretended to introduce a whole new style of production into the country, being this a glimpse of western modernity that later on would radically transform society and cities.



### 4.2. Architectural value

Although a modest prototype of industrial architectural, it probably may represent a unique example of what an ancient ceramic industry looked like, around the 18<sup>th</sup> Century in any part of the world. And from what is known it's the only example of this kind of early industry founded in the first half of the 19<sup>th</sup> Century still standing in Latin America.

### 4.3. Technological value

There are two types of evidence that attest to the technological process this industry introduced into Colombia. The first can be read through each one of the spaces designed for every step in the ceramic production, this required skilled workers and that their labor be uniform and continuous. This industrial site also states that work was the most important activity, different from the artisan production where family and home were bounded to production and gave sense to their craftwork.

Also, as evidence of the technological change this industry brought in, was the ceramic ware. Although not many, there are various examples of plates, jugs, flower vases, soup bowls in different museums and private collections, as a testimony of what these skilled workers manufactured. As

well, they indicate the early experiments done with decorative engravings and fashioning new styles of ware, as a way of introducing new artistic expressions.



#### 4.4. Cultural identity value

As most industrial heritage sites, Fábrica is located in an impoverished area, a situation which as in many cases over the world has made possible its preservation. However, an additional value of this site is the way its inhabitants, interested in its history, have used the name and now the building as a symbol of their dispute with local authorities and their policies of segregation, like their eviction from the area through the avenue project.

Even though they have been treated negatively for over half a century, the Fábrica's inhabitants memories, habits, urban legends and life histories tie them strongly to the site, being some of them descendants of its earlier workers. Although these intangible expressions are frail and vulnerable, they are also the strongest elements that may make the building and its significance sustainable, cultural wise.



### 5. PRESERVATION PROGRAM

#### 5.1. Inventory of problems

Based on the information produced up to this moment regarding the Fábrica, we find the following general problems:

- Degradation of the building due to the lack of legal possession of the dwellings as well as the inhabitants socio-economical situation, mainly single mothers and part time artisans who are in need of a better financial support for their subsistence and for the investment in better habitat conditions.
- Political and administrative segregation: since its establishment, the area of the Fábrica has been stigmatized and stereotyped as a high rated criminal area (which in turn has driven a few to act as such), a spiral condition that has impeded their inhabitants to find a way out. This representation of the area has been translated into a number of public policies that instead of looking onwards to a rehabilitation of its environment, they have been oriented towards the demolition, banishment and segregation of whole sections of the surroundings of the historical center.
- A lack of cultural recognition and identity strengthening: as well as there exists rejection from neighboring barrios, there is also a need to implement a sensibilization campaign in order to acknowledge the importance of the Fábrica as an identity referent, that can be conducted towards the alleviation of the criminality stigma related with its inhabitants.
- Lack of capacities and access to educational and financial resources: the low scholarity of the inhabitants (most of them just finished second grade) if not their total ignorance and their extreme poverty, have impeded these single mothers and artisans to gain information on where and how to access a further education in productive processes that can aid them in the purpose of improving their life conditions.

#### 5.2. Actions

In consequence with all that has been exposed up until now, the proposal presented here involves the interest of city authorities and the academy in drawing a conservation and management plan



oriented towards the social inclusion of poverty stricken areas related to heritage buildings. This is to be done from a multidisciplinary perspective, in order to understand and give solutions to the complex situation of its territory, as well as the cultural, social and economical problems that affect its environment. In the case of the Fábrica, this refers specifically to the lack of legal possession or any other strategy that guarantees the inhabitants stability at the site, the need for cultural recognition and the diminution of the bad reputation of this tangible and intangible heritage area, the lack of an economical organization that may prove sustainable and contribute to their permanence, all of which could bestow a fair and equitable treatment of these marginal sections of Bogotá.

Henceforth, this proposal refers to put in place a program of intervention of the building of the Fábrica to make it adequate to its function as *Productive Housing*, favoring in this way the majority of its population, single mothers and artisans that inhabit it.

This program contemplates as well, the necessary social and economical development that may guarantee the permanence and sustainability of the population in charge of this testimony of the industrial heritage. In this sense it is urgent to sensibilize the inhabitants towards the significance of the environment they make part of, in the reinforcement of their cultural recognition and their acceptance from the neighboring barrios, specially the COL – Lourdes which has isolated itself from the Fábrica, in the strengthening of their identity through a communication campaign that will divulge the existence of this enclave and afterwards its register in the National Heritage listing. Also, take into care the generation of educational programs for the creation of minor economical enterprises that can offer a means of support to the inhabitants of the Fábrica.

With this in mind, and gaining a favorable attitude from the District offices, and with the specific mission that the Javeriana University has of undertaking all the problems associated with a lack of interest in the nationality values and a lack of consciousness regarding the cultural identity, it has been made possible for the Maestría en Restauración to reinforce its program on the management of tangible heritage, and more specifically, the implications of evaluating the built city and its heritage. In this manner the Urban Laboratory of Las Cruces was created and from its developing through 6 years, it was possible to identify the problems related with the gentrification and singular status conferred to historical center of La Candelaria, and the segregation policies applied to its marginal areas.<sup>4</sup>

Through the acquirement of this new knowledge, this project, looks forward to offer solutions regarding the rehabilitation and management of depressed and segregated urban areas considered of patrimonial interest for Bogotá.

Four general actions are taken into account: a strategic plan for national and international cooperation, the conservation, development and new additions of the site, which are intricately related between and thus it doesn't represent a chronological order of commitment.

For the execution of the project two initial phases are proposed: a short term survey for the identification of the present conditions of the building and its inhabitants and the quantification of the actions that will take place, in order to calculate their costs and the institutions, cooperation agencies and actors that will participate in it. In the medium term, it is expected to put in march the actions established in this plan.

### 5.2.1. Strategic Plan for National and International Cooperation

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4. One of the main problems regarding the tourist development of the historical centers is the incorporation of new actors, with higher and better financial resources than the traditional inhabitants, causing the rise of the cost of living, which in turn brings as a consequence the migration of these populations to other sections of the town. This gentrification process of the historical centres is also accompanied by the segregation policies that look forward to isolate these areas, as this situation in turn relates to problems of insecurity and the abandonment that overtakes these depressed sections.

Along the implementation of this conservation and management plan, it is imperative to identify and compromise the different institutions, cooperation agencies and actors in the participation of this project as this guarantees its viability. The tasks involved in the conservation plan are not easy to arrange, since the Fábrica does not follow the traditional characteristics of what is conceived as monumental, in the classical conception of heritage. However, the extreme conditions of economical and social degradation of the area, and due to its unique elements and history, may help to add up different forces with which to start its rehabilitation with repercussions in the whole environment.

Its important then to start from the beginning coordinating and allocating the financial, educational and material resources that will make possible the introduction of social change in an area where the only perspective of policies is to eradicate its inhabitants and introduce physical changes (in the manner of a four lane avenue) to the environment.

### 5.2.2. Conservation

The subject of housing is a fundamental purpose in the strategies needed to gain the rehabilitation of marginal areas. However, as well as bettering the habitat conditions it is vital to contemplate the development of productive activities that can guarantee the sustainability of the inhabitants as well as the dwellings themselves. All of this is included in the concept of *Productive Housing*,<sup>5</sup> an option that can be introduced in the design of economically and socially depressed patrimonial areas, in order to gain their past role in history.

To put through this idea of a Productive Housing plan, may seem contradictory, as it puts together conservation and development. However, it's the interest of this plan to turn the tangible cultural heritage in a strategy of human and social development, that can be imitated in other parts of the city, or cities, and where other solutions that can be thought include the social dimension of the problems related with its conservation. There is no place now for a plan that excludes its social use in order to gain a static and passive monument.

Following these ideas, the tasks that will be undertaken include the diagnosis of the building's pathologies, structural analysis, public services, sanitary and hydraulic fittings and security systems (fire, evacuation, etc), as well as other subjects.

Given the importance and singularity of the building, as was evidenced by the historical and preliminary architectural and archaeological survey, the intervention of the building should be oriented towards the liberation of recent additions, freeing it from new materials and structures that might be affecting its stability. This will contribute with reinforcing its patrimonial character and may sustain its register in the National Heritage listing.

Additionally, the design of the conservation plan must take into account the adaptation of the building areas to its productive purpose, so as to make possible the permanence of the inhabitants, and that they may offer a space of security and tranquility, specially for the infant and juvenile population, which is the most vulnerable.

### 5.2.3. Development

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5. By productive housing will understand that it includes those archietctural and urban plans in which the number of dwelling units should respond to the demands of housing in the area and the productive structure should work accordingly to the economic impulse and characteristics of the section where they will be put to function.



As a purpose to guarantee the sustainability of the inhabitants and through them that of the building, and in order to fulfill the purpose of implementing a productive housing project, it is necessary to include the concept of development, however contradictory it may sound.

From this perspective, there is a need of thinking the concept in two ways: social development and economical development, although they are not to be understood separately, they are to be treated separately when it refers to the institutions that can reinforce the process of rehabilitation of the area of the Fábrica.

As such, social development will be understood as all the actions taken to accept and recognize the barrio, particularly with the neighboring actors, such as the COL (Centro Operativo Local) Barrio Lourdes - La Candelaria, which offers education programs and cultural activities, from which most of the time the inhabitants of the Fábrica are excluded, due to their stigmatization as criminals.

As well, their cultural recognition will be sought through the listing of national heritage, in order to strengthen not only its tangible aspect, but also the intangible dimension, specially for the district authorities as a mechanism of intercultural dialogue and the understanding and acceptance of different expressions, that characterize the cultural diversity encountered in Bogotá.

It is also of fundamental importance to generate the bases of the economical development, making it adequate to the particular conditions and characteristics of the population of the Fábrica. As we are speaking of single mothers and artisans, the educational programs in economical development have to be adjusted to their interests and the expectations of the environment.

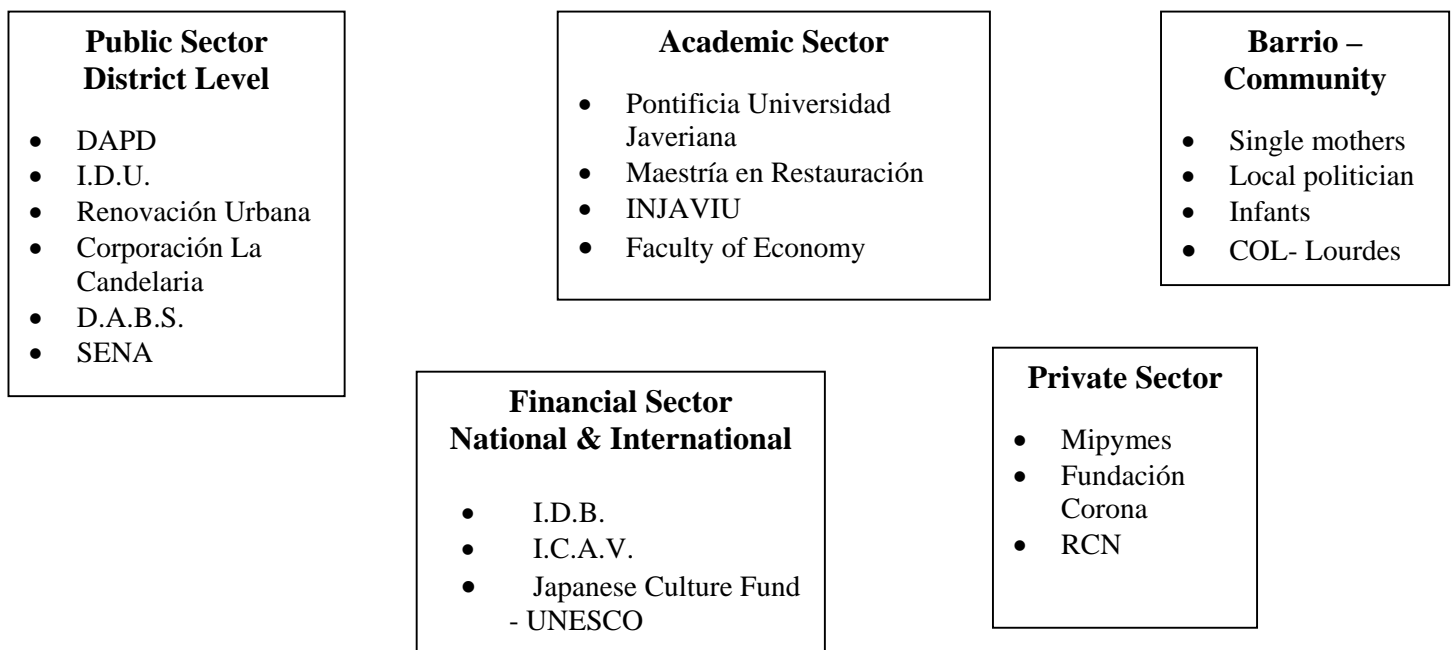
#### 5.2.4. New Constructions

The fourth action involves the construction of new areas within the site of the Fábrica. Based on the historical and architectural studies, it has been determined that there existed two big bottle shaped furnaces which probably constituted an iconographic element of the Fábrica, and that one still remained until 1947, when it finally burnt down.

The present project proposes the reconstruction of these two elements. One of them to generate an enclave for economical purpose at the service of the community, while the other would be destined as a space for a day care center. As it is thought to constitute productive spaces for the single mothers, this new space can offer a safe place, which they can use without having to share the productive space destined for the parent.

### 6. MAINTENANCE

#### 6.1. Identifying actors and institutions



#### 6.1.1. Academic Sector (Pontificia Universidad Javeriana):

- Maestría en Restauración de Monumentos Arquitectónicos: It has an eight year trajectory developing research projects for the rehabilitation and conservation of heritage sites. The Master's program will coordinate all the institutions and activities.
- INJAVIU (Instituto Javeriano de Vivienda y Urbanismo): has developed the research program "Strategies for the rehabilitation of urban heritage areas", and their results will aid in the developing of this project.
- Faculty of economy: has a program in High Competitivity and will aid this project with the economical survey and diagnosis of the Fábrica's inhabitants.

#### 6.1.2. Public Sector:

- D.A.P.D. (Departamento Administrativo de Planeación Distrital): the institution in charge of the urban planning and zoning of the city, and counts with a Heritage Office.
- IDU (Instituto de Desarrollo Urbano): in charge of the infrastructure planning of the city and public spaces. It is in charge of developing the Avenida de los Comuneros.
- Renovación Urbana: In charge of the transformation and preservation of the city's central area, it also focuses in the surroundings of the historic center. This office was in charge of demolishing 19 blocks from the historical center borders.
- DABS (Departamento Administrativo de Bienestar Social): dependent of the Mayor's office, it's in charge of the vulnerable population: women, children, old aged, drug addicts and those with health and mental problems.
- SENA (Servicio Nacional de Aprendizaje): state institution oriented towards giving technical instruction to low income population.

#### 6.1.3. Private Sector:

- Mipymes: small and medium entrepreneur college, oriented to the creation of small businesses and to instruct in its productive activities, and financial and business management.
- Fundación Corona: oriented to instruct business leaders and fund raisers.
- RCN (Radio Cadena Nacional): channle and radio station, they are now interested in doing a soap pera at the location of the Fábrica.

#### 6.1.4. Financial Sector:

- IDB (Banco Interamericano de Desarrollo)
- ICAV (Institución de Corporaciones de Ahorro y Vivienda)
- Japanese Culture Fund - UNESCO

#### 6.1.5. Barrio – Inhabitants

- Single mothers
- Infants and juvenile population: most vulnerable population, exposed to drug abuse and criminality.
- Local politicians: in particular there is a local politician that belongs to the neighborhood council, and is a descendant from the early workers.
- COL – Lourdes – La Candelaria: a civic center run by neighbors of the Fábrica.

### 6.2. Short-term requirements

It is proposed to develop the first part of the project in 8 months, during which the identification and quantification activities will aid in the design of the financial part of the conservation and management plan. Also the identification and compromise of the institutions and cooperation agencies will be sought.

The first four months will be destined to the identification of the existent conditions regarding the architectural, social and economical aspects, whilst the quantification of the plan and the

definition of the specific activities that will be developed during the second phase will be analyzed in the next three months, the management plan will be designed in the last month.

This first phase includes the handing of a urban proposal, in which the building will be articulated to its surroundings; an architectural proposal that incorporates the productive activities into the housing project, taking in to account its heritage character; a technical proposal for the social and economical rehabilitation of the population; and an identification of the activities and responsibilities of the institutions and cooperation agencies involved.

All these proposals will include the detailed costs of taking into action these activities.

### 6.2.1. Architectural issues

#### Context:

In the first phase, there will take place a follow up of the formal context of the Fábrica initiated in the year 2002. This information will lead to a profound analysis of aspects such as urban morphology, building typology, uses, public services, and others.

#### Building:

Regarding the building, a meticulous survey will be made of the pathologies present, the structural analysis, and the evaluation of the public services, building's security conditions (fire, evacuation, etc), according to the inventory records designed by the Maestría.

### 6.2.2. Social issues



Regarding the social aspects, four tasks will be developed: 1) The study of the perception that the population of the Fábrica have towards what is called heritage, the way they may think they are represented by it, and the ways they use it. This exercise is oriented to strengthen its recognition as industrial heritage (with a low profile in the country), and specially to sustain its listing as national heritage, but only when the community has appropriated it and has guaranteed its sustainability. 2) The identification of the cultural practices in the use of this site, its public spaces and the dwellings. 3) Characterization of the families that inhabit the building, the perception of themselves and that of their neighbors. 4) Characterization of the actors that can and will be involved in the process of restoration of the building, and the identification of the activities they can carry on with.

### 6.2.3. Economical issues

The economical research will be oriented to recognize the productive chains that have conformed the territory historically, in order to determine the characteristics of the market and its tendencies.

During fieldwork and with the recollection of data the economic activities can be identified as well as the strategies needed to reinforce them, involving small enterprises and potential associates present in the area.

This characterization of the productive activities will determine the actions that will have to follow in the educational programs oriented to improve their economical conditions and development.

### 6.3. Medium term requirements

Once the diagnostic and identification phase is over, and with the costs at hand of the conservation and management plan, the four actions take place.

This implies the definition of how many productive housing units will be adapted, the implementation of the restoration activities that will convey an adequate building for dwelling, the implementation of the educational programs for the development of productive activities and managerial handling. Also, there will take place the construction of two new buildings in order to offer other alternatives of recreation and educational spaces for the vulnerable population (infants and juvenile groups).

Altogether there is an interest in establishing the intervention criteria that will lead to an economical equilibrium and the social inclusion of the population subject to rehabilitation.

#### 6.4. Long-term requirements

For the long term requirements the plan proposes a monitoring phase after the second phase is finished, taking into account the four actions that have been identified: the cooperation of agencies and institutions, the conservation conditions of the building and its environment, the lessening of the social and economical degradation, the change of perception as a criminal area, the sustainability of the economic activities put into practice.

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