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Triagulac[c]ión | About Legazpi Market in Madrid

Giuliana Di Mari, Emilia Garda, and Roberta Ingaramo
Politecnico di Torino, Turin, Italy

Abstract: The main contribution of municipal architects to Madrid's Rationalism must be investigated in the construction of public buildings. Markets play a fundamental part among them, thanks to the work of *F. J. Ferrero Llusìa*, public architect since 1921. With his markets, between 1931 and 1934, it has brought a real change in European industrial architecture in the XIX century. With the premise of hygiene, constructive austerity, structural trueness and the rejection of ornament in favor of pure form, he created a new hypothesis that was characterized by the guiding principles of Rationalism. Awareness of the construction culture of the time, through observation of the details and technical literature linked to the "*Mercado Central de Frutas y Verduras*" in Madrid, are the conditions for an intervention of conscious restoration. The paper presents a process of slow re-appropriation of the site by the citizens, as an alternative to the current project proposed by the municipality.

Key words: industrial heritage, market, rationalism, architectural current, conservation

1. Markets in Spanish Industrialization Through Rationalist Constructive Culture

Covered markets, which could be defined as factories devoted to commerce, have always been closely linked to the city in which they are made. A growing city needs places where to allocate the commercial function and these same places become physical spaces of social exchange. Enclosures with an industrial classification, markets became, between the end of the 19th century and the beginning of the 20th century, places for experimentation with new forms thanks to the use of new materials. With the introduction of concrete, as well as the use of iron, large diaphanous spaces were built, recreating the open spaces typical of market squares but inside modern containers. The result were large buildings, which had to accommodate the growing number of inhabitants, and of strong impact given by the structure left visible in all its innovative composition.

Corresponding author: Giuliana Di Mari, Ph.D. Candidate; research areas/interests: ICAR 08, C1 building technology and integrated building design and ICAR, 10 building technology and details. E-mail: giuliana.dimari@polito.it.

Between 1910 and 1936 a large number of markets were built in Spain. In Madrid, during the 1930s, a renewal of the distribution of markets began to take place, together with the use of a new material, reinforced concrete. Barcelona and the Catalan district followed suit and small towns in the Spanish areas that had not experienced the spread of the iron markets built buildings in reinforced concrete, as in the case of Logroño, whose building remains the most emblematic and of the highest architectural quality in the city.

Due to the lack of previous models, the architecture of these buildings focused on functionality and less on esthetics, making itself evident with the stylistic tendencies of the moment. Between the end of the 19th and the beginning of the 20th century, the eclectic style began to appear on industrial buildings, in the image of the company showing its buildings with their modern structures. The most developed architectural typologies in Spain between the end of the 19th century and the beginning of the 20th century were:

- *Fábrica de pisos*, already used in the past, were buildings with several floors and simple facades that followed the guidelines of residential buildings. The buildings were in a

rectangular plan with stone or brick walls and usually with a porch;

- *Fábrica-nave*, a unique diaphanous space that hosted machines and workers. The industrial character was defined above all by the different roofing systems and the structural system used was with pillars or load-bearing walls in brick with metal or wooden trusses and roofs formed by beams and strips or ceramic or brick tiles (Fig. 1);
- The aisle, like a shed or *dientes de sierra*, is a single plan building with rows of pillars supporting an asymmetrical structure and with the faces of the roof facing north designed in glass.

Fig. 1 Interior of the Valencia Market a few days before its inauguration in 1928. Work began in 1910.

The Spanish architecture of the twentieth century is strongly linked to some events that occurred between the end of the previous century and the beginning of the twentieth. The loss of many colonies during the Hispanic-American war has generated new nationalist feelings that have merged into an architecture with typically Spanish models that reinforced the national closure. At the same time, however, an architecture was being developed that was the opposite of the nationalist, inspired by modern European models. In recent years, the capital has favored the traditional styles linked to the *neo-Mudéjar* and decadence of the *Belle Époque*. Following the conflicts between the working class and the army in Barcelona in 1909, nationalist ideologies became more radical, expressing themselves in the architecture in a clearly monumental style defined as *Estilo Alfonso XIII*. With the demographic expansion of the early years of the twentieth century, social and health issues put traditional architectural models in crisis, leading to the need for a renewal not only formal but also methodological.

Between radical historicism and rationalist orthodoxy of the emerging Catalan group *GATEPAC* (*Grupo de Artistas y Técnicos Españoles Para la Arquitectura Contemporánea*) arrange the *Generación del '25*, a group of Spanish architects formed on a traditional academic structure thanks to which they can

create works with a certain guarantee of success, but who live in a historical moment of rupture accentuated by the arrival of new materials and the possibility of changing the form and lifestyle of society.

The *Generación del '25* is mainly from Madrid and develops its activity in a relatively independent way from the other centers of Spanish architectural culture. In the 1920s, Madrid was the city in which the spread of the European avant-garde, theoretical reflection and architectural experimentation required greater modernisation. A useful factor in further linking Madrid's architects was the magazine *Arquitectura*; in the year of its creation, 1918, an important article by *L. Torres Balbás* was published, "*Mientras labran los sillares*", which criticizes 19th century architecture and the forced search for a national style.

The works of this generation are therefore characterized by a progressive breath that cannot yet be assimilated to the orthodox rationalism of *GATEPAC*. We could rather speak of a pre-rationalist chapter, since they are situated in a space halfway between the simple survival of traditional styles and the extreme representations of the modern (Fig. 2). The desire to stay out of the "purity of ideas" has meant that the two groups have not joined together, even though most of the projects of this generation follow the guidelines then undertaken by *GATEPAC* as well as the critical attitude of the *Generación del '25*. Three works mark the beginning of the group and define its spirit: the first is the gas station of Porto Pí (Fig. 2), by *Casto Fernández Shaw*, built in 1927 in Madrid, a work intentionally designed and stripped of all ornaments and accessories. The second is the house of the *Marquis of Villora*, also built in Madrid by *Rafael Bergamín* in 1928-1929, entirely in exposed bricks,

Fig. 2 Gasolinera de Porto Pí Madrid, by Casto Fernández Shaw, 1927. Oil on canvas, 54×65 cm, by Damian Flores.

Fig. 3 Entrance of the Mercado from the Plaza Legazpi in 1960 at the height of its activity.

with references to Nordic architecture and a Loosian composition. The third is the *Rincón de Goya*, in Zaragoza, by *Fernando García Mercadal*, architect "bridge" between the two generations. In addition to these, there are numerous major projects, including, for example, the global manifestation of the spirit of this generation, the *Ciudad Universitaria de Madrid* (1928-1936), and the colony *El Viso* (1933-1936) by *Rafael Bergamin*, one of the most important works of Madrid's rationalism.

2. The Mercado de Frutas y Verduras de Legazpi in Madrid, From Its Construction to the Recovery Proposal

Madrid's rationalism was identified in the construction of public buildings in the early twentieth

century. Among these, the architect *Francisco Javier Ferrero Llusía*, who graduated in 1917 and has been a municipal architect since 1921, plays a fundamental role. With its markets, built between 1931 and 1934, it has reversed a real revolution in the industrial architecture of the nineteenth century.

At the end of the nineteenth century the markets of Madrid were in a problematic situation, due to the constant growth of the population and the inadequacy of position, size and hygiene conditions. In 1925, the *Plan General de Mercados de Madrid* was drawn up on behalf of the architect *Louis Bellido*, but it was not implemented until 1930. Under the direction of *Bellido*, the architects *Ferrero Llusía*, *Leopoldo Ulled* and *Adolfo Blanco* planned the creation of markets by district, close to the rail lines. After abandoning the model of *Les Halles*, the new buildings were characterized by functional design, without superfluous ornaments and with designs that responded to the problems of function. In an article published in 1935 in the magazine *Arquitectura*, *Ferrero Llusía* explains the problems related to the markets and compares their design with that of an operating theatre. The careful design of the new models of the *Plan de Mercados* influenced the subsequent public architecture and placed Madrid in the scenario of the Modern Movement. A new demographic increase in the sixties led the municipality to take new measures, which in 1973 merged with the *Mercamadrid* company, with which the commercial functions of the city were relocated, determining the end of the large markets of the early twentieth century. Analyzing the evolution of Spanish and, above all, Madrilenian architecture in the 20th century is a necessary process for understanding the evolution of the *Mercado de Legazpi*, which today remains the emblem of Madrilenian rationalism and is one of the first examples in Madrid of large reinforced concrete buildings. It is spread over a space of about 30,000 square meters within the lot to which it belongs, from which it takes over the triangular shape. The building is developed on two levels, with the exception of the two buildings adjacent to the *Plaza Legazpi* which delimit a smaller courtyard, and which was the

Fig. 4 Mercado de Legazpi in 2015. Detail of the structure on the first floor of the building.

Fig. 5 Mercado de Legazpi in 2015. First floor with subsequent additions due to various changes of function.

access area to the market area. At the center of the large inner square was a small structure in which the services were located, isolated from the storage and sales areas for hygienic reasons and the width of the space was designed for vehicular traffic. The internal space of the *Mercado* is marked by rows of concrete pillars that form six bays whose outer space housed the rail. The repetitiveness of the obstacle-free construction system gives a solemn view of the environment. On the first floor, the lack of two rows of pillars gives way to a central corridor, a passage for the means of transport for goods that entered the building directly from the *Puente de la Princesa*. The structure of the building allowed three different flows: pedestrian, road and rail.

One of the most characteristic elements of the building is certainly the technique with which it was built. In the year of its construction in Madrid there were few manufactured products made of reinforced concrete so as to consider this technique still in the testing phase. The first difficulty faced during the design was the proximity to the river *Manzanares* and consequently the characteristics of the soil, formed by a layer of sand and clay with a layer of gravel below. In order to obtain a uniformly distributed load, the choice was made for the foundation mat, made of reinforced concrete plates, and the pillar-slab joint made of a conical truncated shape. Despite the triangular shape of the building there are few different elements and the repetition of the bays gives simplicity and beauty to the work. On the upper floor, as there is no need for a roof over the central corridor, two cantilevered porticos cover three and two bays respectively.

Following the prosperous period of activity and the subsequent disuse, the building comes to us, after more than eighty years from its construction, with no major changes or problems of degradation. The main changes have been brought about by the evolution of the transport network. Over the years, Madrid's expansion has incorporated the *Arganzuela* district, expanding the road network, which has progressively become dominant over the railway, and consequently the rails inside the building have fallen into disuse. After the foundation of *Mercamadrid* in 1973, the building had to accommodate different functions that did not

conform to the original structure, with fire brigade offices alternating with car parks, municipal car parks and civil protection depots. The different activities involved alterations and additions that did not consider the architectural value of the building: on the outside new openings were created and others were plugged, as well as two metal stairwells were added adjacent to the walkway connecting the entrance, inside the original partitions were removed in the areas intended for storage and replaced with a new distribution of space. Among the most important changes are no doubt the addition of a sheet metal canopy to cover the central corridor of the first floor and metal and glass windows along the ends of the aisles that close the rooms, while others concern structural reinforcements of some pillars through the insertion of metal circles.

The *Mercado de Frutas y Verduras* is not only the result of an innovative technological change, it is a perfect example of the artistic current that developed in Spain at the beginning of the twentieth century. A greater awareness about the history of the building allows us to develop a design idea that does not alter the image of the building, but rather reconceptualizes the space on which to operate. The proposed design idea, as an alternative to the actual Madrid municipality and in the process of being built, is inspired by a recovery of "light post-production", intervening without almost touching the existing structure, whose peculiarity is to offer large spaces in which to create reversible structures and smaller sizes. The proposal suggests a methodology that develops in phases through a slow re-appropriation of the building by the citizens, imagining a process that lasts approximately fifteen years.

The elaboration of the project proposal takes as its starting point the participatory process launched by the Madrid City Council to submit the intervention proposal to a period of public exhibition on which to create a dialogue between the city and its citizens. The period concerned was between March 2016 and September 2016, in different stages. In April 2016, the doors of the market were opened to citizens, starting the first phase of the participatory and knowledge-based process. The activities were dedicated in a first phase to the general reflection on the architectural and urban design and its implications for the city and in a subsequent phase concerning the management of spaces and the coexistence of different functions. This participatory process was not an obligation on the part of the administration but had the only form of consultative debate without producing official acts. Despite the city's opposition, which still continues today, the redevelopment project has been initiated and defined as "destruction of the Market".

From the participative process begun in 2016, through surveys and direct interviews with citizens, the proposal imagines low-cost interventions and a project that remains as "open plan" as possible, with permeable spaces and limited construction interventions that do not alter the original appearance even inside the building. In addition, the configuration of the plan makes it possible to create, in the "unbuilt voids", aggregation spaces around which different functions develop. In this way a nave is created dedicated to maintaining the market function but in a modern key, with the construction of greenhouses for the production of products at km0 that can be found in the spaces intended for sale, interspersed with areas of catering. On the same nave, but on the first floor, the sports function is associated, reusing the route of the internal road as a skating rink or athletics track, around which free areas allow different types of sports to be practiced. The central nave provides for more construction work, with the construction on the first floor of residences that are imagined as a cohousing for young people and artists who can at the same time use the spaces for laboratories and coworking in the nave adjacent to the *Matadero*. Through functional diversification the building can be used by different users and at different times, promoting the idea of an open and inclusive public space.

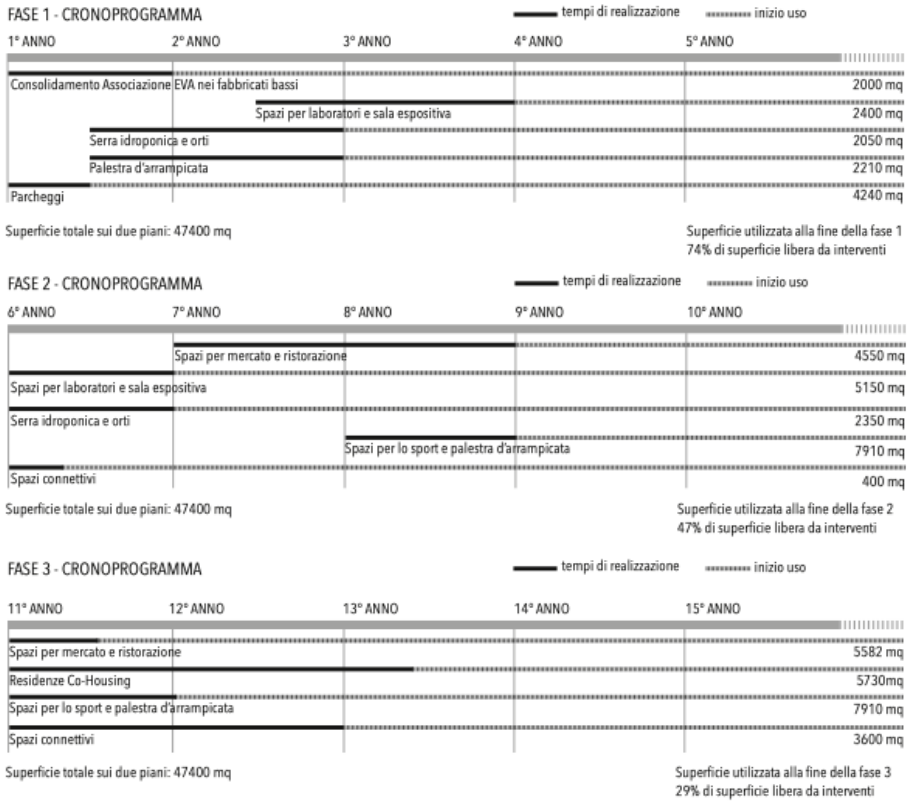

Fig. 6 Scheme of the three phases concerning the chronoprogramme of the project proposal for the recovery of the Mercado. The three images show a hypothesis of work development over a period of 15 years. The first phase involves mainly consolidation of the activities and spaces dedicated to the association of neighborhoods already present in a part of the building. At the same time, the use of a part used as a car park allows to have an economic return to finance subsequent works. The second phase is dedicated to the development of spaces for commercial activities and refreshments related to the original function of the building and spaces for creative activities in laboratories and for work. The last five years have seen the completion of the spaces already started in the previous phases and the construction of co-housing residences, the only intervention that requires changes in the structure.

3. Conclusions

The project currently in progress departs from the initial proposal of the architects *Pesquera Ulargui*, so shameless in its aesthetics as to be disinterested in the building that he proposed to redevelop. The architects maintain only the reinforced concrete structure of the entire building, a tangible sign of Spanish modernism, while the redevelopment is replaced by brick walls and the metal truss covering the central span of the first floor, which, although a later addition, completed the historical image of the building. In addition, the preliminary project included the construction of a new building on the inner market square and two towers on the area adjacent to the *Plaza de Legazpi*, thus denying the use of the inner courtyard as an open and inclusive space and breaking the horizontality that characterizes both the neighborhood and the volume of the building. The dialogue with the community has favored the modification of these excessively “audacious” parts of the project and has paid greater attention to the preparation of public spaces for the district as well as a municipal library. What remains evident is the strength and perseverance of the Madrilenians who, with every possibility, have tried to protect the building from these changes, succeeding in achieving a project that, in the end, maintains its original essential characteristics. Thanks to citizens and associations, today there is not a much more invasive “*destrucción*”, a sign of a little awareness of the good to be treated.

We should ask ourselves what the most “correct” vision between the desire for innovation of the executive project and the absolute devotion to the building is. From a look at the city emerges a Madrid that invests its economy on the recovery of its architecture. The examples of interventions in the Iberian capital outline alternatives that have been able to find the right balance between the need for functional and aesthetically attractive architecture and the historical memory intrinsic to the building.

The suggested alternative proposal shows how a deep knowledge of the development of the building leads to an awareness of the action to be performed since any modification would involve an irreversible alteration, depriving individuals of the possibility of enjoying a unique and unrepeatable architecture. Treating industrial heritage buildings with respect translates into actions that can revitalize functions without altering the compositional structure so as to allow the perpetuation of history over time.

History and knowledge are tools without which it is not possible to operate on a historical building. The project presented is an idea, a possibility of being able to work without upsetting the existing, a synthesis of research through which we assume awareness of the artifact and responsibility for the intervention. Current need is not a design that can further expand already established cities, but take responsibility for protecting, preserving and reshaping the architectures that have found their place in history and can still remain a testament to this.

One of the fundamental design principles for architect *Mario Botta* is the territory of memory, which he defines as follows: “In order to create a different, more sustainable relationship with the environment, it is necessary to place the territory of memory at the center of sustainability, the value of which is directly proportional to the value we attribute to the past. Living means occupying a space, which carries with it a memory. Giving importance to the territory of memory requires us to update, and therefore make our own, the great ideas of the past”.

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