

Mercado Madrid

The energy of a place

Politecnico di Milano

Laurea Magistrale
Scuola di Architettura Urbanistica Ingegneria delle Costruzioni
Corso di Studio in Architettura
a.a. 2017/2018

Prof. Arch. Ignacio Vicens y Hualde
Prof. Arch. Emilio Faroldi

Francesca Gardini
Camilla Grassi
Raffaele Mangini

POLITECNICO DI MILANO



Francamente invidio questa opportunità che la cultura progettuale spagnola può utilizzare per costruire un rapporto inedito tra antico e nuovo, riaprendo un dialogo diretto con la storia. (...) L'antico è infatti tale solo se materiale vivente nel presente, come "sostanza pregiata" del progetto

(F. Purini).

01 The Re-use and Urban Regeneration

- The re-use paradigm
- Reinterpreting the spaces of modernity
- Reused as an opportunity for urban regeneration
- The birth of a new aesthetic: the charm of ruin
- Functional transformation as occasion
- New spaces for culture

02 Reuse of Modern Industrial Heritage

- Case Studies
 - European policies
 - Adaptive reuse in Spain
 - New Space for culture in the city of Madrid
- The project of ruin in Madrid

03 Analysis on the area

Madrid, Arganzuela and the old market of Legazpi square

- Historical lecture of Madrid: stratifications and expansions
- Urban development
- Recovery and regeneration
- Three limit areas
- Investment policies for new cultural spaces in Madrid
- Legazpi market: a strategical project

04 The project

Mercado Madrid

- Historical social dynamics
- The history of Legazpi Square
- The history of the market
- Market today
- Report of the project:
 - Main topic of the project
 - Relationship with the contest
 - Design strategies
- Quantitative data

Bibliography and Sitography

Abstract

Located in the former Mercado Central de Frutas y Verduras de Legazpi dating from 1935 on the southern edge of the Madrid city center and in proximity of the river Manzanares, the new cultural and mixed-use spot is a coexistence of new and regenerated buildings. . The aim of the new project is the rehabilitation of the urban and architectural quality of the existing building proposing new typologies and functions.

Starting from the morphological reflection on the building existing shape, an imposing open three-nave triangle surrounding an inner court, the project finds the opportunity to design a new open public piazza which unifies each part of the building, linking it to the river and the city. Analysing the former market as a monument that concludes the Paseo de las Delicias, the main street which starts from Atocha station, the projects propose two new towers which reinforce the monumental role and experiment new typological possibilities.

As it is increasingly happening in the contemporary architectural scenario, the project is not a preservation project and not a new architecture. It is the coexistence of both which continuously beneficiate one of the other. It is an investigation about possibilities to test the boundaries which separate ancient and new architecture.

The proximity of the project to Matadero cultural center has suggested first the integration of new cultural spaces to the hub, defining a clear and consistent cultural district on the southern border of Madrid city center and, in particular, along Madrid Río.

The refurbishment of the existing building proposes semi-public activities such as the new permanent home of the Museum of Cinema in Madrid, an independent public multiplex cinema, a new library, a new restaurant, a new cafe, public laboratories for the inhabitants of the district and residences for researchers.

The architectural design of the towers propose a new branch for municipal offices in the lowest; offices, residences, an auditorium and a restaurant in the tallest.

Moreover, the project is intended as an occasion to extend the landscape project of Madrid Río and implement public spaces, sport facilities and green infrastructures in the southern part of the city, currently cut off by chaotic highway junctions.

The reduction of the infrastructural impact both along the river and in the proximity of the former market gives the possibility to redesign the river's borders, giving continuity to Madrid Río and including the peripheries in the successful transformation project of the city.

The projects considers the river as the natural limit of the southern part of the city-center and the reuse of the former marked of Legazpi as crucial in the development of the transformation of the city.

In those terms, the intervention is intended as strategical under the urban point of view and as experimental under the architectural one.

Situato nell'ex Mercado Central de Frutas y Verduras de Legazpi, risalente al 1935, all'estremità meridionale del centro di Madrid e in prossimità del fiume Manzanares, il nuovo centro culturale ad uso misto è una coesistenza di edifici nuovi e rigenerati. L'obiettivo del nuovo progetto è la riqualificazione della qualità urbana e architettonica dell'edificio esistente tramite la proposta di nuove tipologie e funzioni. Partendo dalla riflessione morfologica sulla forma esistente dell'edificio, un imponente triangolo a tre navate aperto che circonda un cortile interno, il progetto trova l'opportunità in una nuova piazza pubblica aperta che unifica ciascuna parte dell'edificio, collegandola al fiume e al città. Analizzando l'ex mercato come un monumento che conclude il Paseo de las Delicias, la strada principale che parte dalla stazione di Atocha, i progetti propongono due nuove edifici che rafforzano il ruolo monumentale e sperimentano nuove possibilità tipologiche.

Poiché accade sempre più nello scenario architettonico contemporaneo, il progetto non prevede né una sola conservazione né una nuova architettura. È la coesistenza di entrambe che beneficiano continuamente l'uno dell'altro. È un'indagine sulle possibilità di testare i confini che separano l'architettura antica e nuova.

La vicinanza del progetto al centro culturale Matadero ha suggerito prima l'integrazione di nuovi spazi culturali, definendo un distretto culturale chiaro e consistente al confine meridionale del centro di Madrid e, in particolare, lungo Madrid Río. La ristrutturazione dell'edificio esistente propone attività semi-pubbliche come la nuova sede permanente del Museo del Cinema di Madrid, un cinema multisala pubblico indipendente, una nuova biblioteca, un nuovo ristorante, un nuovo bar, laboratori pubblici per gli abitanti del distretto e residenze per ricercatori.

Il progetto architettonico dei due edifici ex novo propone una nuova filiale per gli uffici comunali nella parte più bassa; uffici, residenze, un auditorium e un ristorante nel più alto.

Inoltre, il progetto è inteso come un'occasione per estendere il progetto paesaggistico di Madrid Río e implementare spazi pubblici, impianti sportivi e infrastrutture verdi nella parte meridionale della città, attualmente interrotte da svincoli autostradali caotici. La riduzione dell'impatto infrastrutturale sia lungo il fiume sia in prossimità del vecchio mercato dà la possibilità di ridisegnare i confini del fiume, dando continuità a Madrid Río e includendo le periferie nel riuscito progetto di trasformazione della città.

I progetti considerano il fiume come il limite naturale della parte meridionale del centro cittadino e il riutilizzo del precedente segnato da Legazpi come cardine nello sviluppo della trasformazione della città.

In questi termini, l'intervento è inteso come strategico sotto il punto di vista urbano e come sperimentale sotto quello architettonico.

01

REUSE AND URBAN REGENERATION

Riuso e Rigenerazione Urbana

The re-use paradigm

Riuso come contrapposizione stilistica

“Building always means reusing”¹ (Martin Boesch int.). With this sentence Martin Boesch in his last publication *Yellowred* expresses the ontological essence of the design act. In his vision every architect works with the existing surround changing and reusing it. The pre-existing surround sometimes is made by the urban context and sometimes is a building in itself. Although it is common to associate the theme of reuse to contemporary and radical approaches, Martin Boesch demonstrates that reusing old buildings changing their functions has always been part of the architectural profession?..

Jacopo Barozzi da Vignola changed the function of Palazzo Farnese (Caprarola, 1550) from a military caste in a noble palace; Baldassarre Peruzzi changed the Teatro Marcello (Roma, 500) from a theatre in a noble palace too, keeping the façade of the existing one and adding his new proposal in the back; Michelangelo Buonarroti converted the former Terme di Diocleziano, ancient Rome’s thermal baths, in the actual Basilica di Santa Maria degli Angeli e dei Martiri (Roma, 1563), slightly changing its façade, but redesigning the interiors. Leon Battista Alberti in the intervention of Palazzo Rucellai (Firenze, 1455-1462) joined different buildings under a common facade, giving unitary aspect to the final palace. Leon Battista Alberti in the Tempio Malatestiano (Rimini 1452) overlaid a former roman basilica with a Renaissance structure, overlapping the style of his era on the raw roman existing structure.

Thanks to these examples coming from the Italian Renaissance it is possible to understand some case studies from the XX century like the Gunnar Asplund addition to the Göteborg city townhouse (Göteborg, 1937), the reinterpretation of the museal spaces of Museo del Prado by Rafael Moneo or the reconfiguration of the spaces of Castelvecchio di Verona by Carlo Scarpa (Verona, 1968).

However, these examples are linked to each other not only by a common fascination and respect for the ruin, but also from a certain idea of quality of the existing object.

In the reflection about the role of reuse during the XX century it is necessary to point out the change in terms of perceived quality of buildings built in this period.

The XX century and the modern switch of cities in Modern Metropolis² generated a massive production of modern objects which were commonly considered problematic and ugly in the last part of the century. In fact, when in the post-industrial society the manufacturing sector started to produce less wealthy than the service sector³ modern cities had the task to manage the dismissed existing industrial heritage.

During the seventies, in the theoretical urban discussion, the issue became related to the architectural quality value that modern buildings have in contemporary cities (ref_European Cart for the architectural heritage 1975).

Regarding the reuse of modern residential buildings in the end of XX century the trend was to demolish instead of recover. As Charles Jenks tells in his most famous publication “The Story of Post-modernism” the emblematic event about that was the demolition in 1970 of the social-housing project Pruitt-Igoe in St. Louis, Missouri after only twenty-six years of life⁴

¹ «REUSE, BLACK YELLOW RED» - ATELIER BOESCH

The Practice of Teaching at the Accademia di Architettura di Mendrisio 16th International Architecture Exhibition – Venice Biennale 2018, Arsenale.

² Ludwig Hilberseimer, *Groszstadt Architektur*, Julius Hoffmann Verlag, Stoccarda, 1927, trad. it. *Groszstadt Architektur. L'Architettura della Grande Città*, Clean Edizioni, Napoli, 1998, p. 7

³ Touraine, Alain. *The post-industrial society: tomorrow's social history: classes, conflicts and culture in the programmed society*. Vol. 6813. Random House, 1971.

Against this drastic approach in 1995 Rem Koolhaas stated in his book *S,M,L,XL* that “Where there’s nothing, everything is possible. Where there is architecture, nothing (else) is possible” (Diffusion : in *S,M,L,XL*, 010 Publishers, 1995) and in the beginning of the new millennium architects like Roland Castro or Lacaton y Vassal showed new possibilities for the reuse of old and unfunctional residential modern buildings⁵.

Nevertheless, as it is currently happening in London with the demolition of the complex Robin Hood Garden dating from 1960 and designed by Peter and Alison Smithson (Lotus febbraio 2019) the issue about the reuse of modern residential buildings is still open and demolition is still considered as the easiest solution.

Regarding instead the reuse of modern abandoned industrial buildings in Europe, the problem on the change of function became almost redundant. If in the residential typology the main theme is the adaptation of contemporary solutions to the existing part, in the refurbishment of industrial buildings the theme of reuse and addition requests first the choice of new functions. Only in rare case dismissed industrial buildings are re-occupied by enterprises which need the former spaces because they work in the same field indeed.

Considering the problem of dismissed areas as a public problem gave it an urbanistic nature suggesting to planners and designers new common ways to undertake, pursuing the goal of the social well-being. In comparison to the different and discordant approaches in the reuse of existing residence buildings, architectural and urban theories about the refurbishment of industrial buildings, (then) seems to be more coherent and shared: to reuse industrial buildings means always urban regeneration and creation of new public spaces. If the problem of residences mostly refers on dwellers, the problem of dismissed industrial buildings affect the whole city, referring to the citizens.

Then, from the eighties due to social and economic transformations the task becomes vibrant in all main industrial cities (fine frase) and urban theories tended to support public functions, heterogeneity, flexibility and creative activities; in the last fifteen years the trend supported by the pop-culture seems to destine the neutral spaces coming from the industrial world to new cultural activities⁶.

In particular, in the main relevant last examples, dismissed factories are considered as the perfect container for visual and contemporary art. As Rem Koolhaas said about Fondazione Prada, probably the most sophisticated operation of refurbishment in contemporary architecture, “It is surprising that the enormous expansion of the art system has taken place in a reduced number of typologies for art’s display. To apparently everybody’s satisfaction, the abandoned industrial space has become art’s default preference”.

Furthermore, should be said that the failure or the displacement of modern industries generally generated not only empty massive buildings but also huge polluted and abandoned portion of territory both in cities and in the countryside. Focusing on reusing projects of ex-industrial areas in cities, the common (and successful) approach of the last thirty years is then to combine the architectural recovery of buildings with a more urban approach that involves biggest portions of cities and aims to involve the whole territory of the city. In some cases the dimension of those areas became occasion to implement project of landscape design, adding not only new functions to existent buildings, but also green and public facilities to the surround.

⁴ Jencks, Charles. *The story of post-modernism: Five decades of the ironic, iconic and critical in architecture*. John Wiley & Sons, 2012.

⁵ Todaro, Benedetto, and Federico DE MATTEIS. “Il secondo progetto. Interventi sull’abitare pubblico. Linee guida per la riqualificazione dei quartieri innovativi nell’Italia centromeridionale.” (2012): 1-708.

⁶ Reinventare i luoghi della cultura contemporanea. Nuovi spazi, nuove creatività, nuove professioni, nuovi pubblici Autori e curatori Cristina Carlini , Mimma Gallina , Oliviero Ponte di Pino

As expressed on the blog urban-reuse.eu, the dismissed spaces, are nowadays seen as resources to test new forms of interaction between institutions and social parts, promoting creativity and innovation. Some of those spaces, in particular, hosted specific functions during the years and were, so, integral part of the socially important for the city⁷. Considering, then, the cotemporary vision which associate the growth-oriented strategies of cities with the risks of decay (Martinez-Fernandez et al, 2012; Wiechmann and Pallagst, 2012), the reuse of big proportions of space in the consolidated texture gives the possibility to improve the quality of cities with a development in terms of density and complexity. The interesting approach of post-industrial cities nowadays is the switch from the problem to its urban and economical potentialities.⁸

Reinterpreting the spaces of modernity

Reinterpretare gli spazi della modernità

«Authenticity represents a genuine challenge for most modern architectonic creations, which were deliberately conceived in terms of impermanence and brevity and were explicitly experimental in their use of materials and techniques»⁹

The heritage is often now in poor condition and it does not respond to contemporary requires or recent norms. Its upgrading represents an onerous commitment for local authorities, who are obliged to act in accordance with proper legislation. It is also a matter of promoting and reinforcing knowledge, use and conservation of the cultural heritage.

It is fundamental to identify strategies involving different design phases; firstly is to establish the peculiarities to the original constructions, after which they can be matched against both the level of decay and obsolescence and the functional and technical shortcomings in the original structure.

Nowadays we are faced with the need to clarify the architectonic and cultural values that characterize the urban development. The criteria mentioned by Modern Heritage List can provide a first benchmark, but it is also true that the cultural asset is linked with the concept of authenticity, important term when connected to modern heritage.

It is important to consider architect complex as a cultural resource in the light of safeguarding, making it necessary to go beyond a static vision of modern architecture as a deposit of memory and adopt an attitude opened to reasonable requires of contemporary living.

There is a dual need to define the common ground for the parties (locals, authorities, tenants...) and to make suitable instruments that can guide the intervention projects whether they involve maintenance or reuse.

It is fundamental to follow the urgency of finding those strategies that are able to ensure a real development of the public heritage, considering the economical crisis and the alienation of public property.

Those strategies have always to face the question “is the image sufficient?” and again “is it enough to ensure a sort of likeness between the built intentions of the architect a century ago?”. Buildings that belong to modern architecture, which had a big influence on the development of it and became a sort of archetypes, have to be treated in a different way, they have to be considered as monuments for the history of the Country in which they are leaving.

⁷ Scavuzzo L., Reuse – Progetti di riuso nel mondo

⁸ Agueda, Beatriz Fernández. “Urban restructuring in former industrial cities: urban planning strategies.” (2015).

⁹ Ascione, P. “Conoscere e riqualificare il patrimonio architettonico del Novecento: esperienze e metodologie/ Cognitive study and upgrading of the 20th century architectonic heritage: experiences and methodologies.” *Technè* 3 (2012): 250.

Reused as an opportunity for urban regeneration

Riuso come occasione di rigenerazione urbana

If it is true that the economic changes in the cities contributed to the disposal of production areas and to the degradation of residential areas close to urban centers, it does not mean that it has also stopped the growth of urbanization in proportion to the new reusable “voids” that were being created. In parallel to the growth of cities beyond the suburbs, many of them present, in addition to large areas not used anymore, many empty properties and neighborhoods in a degradation state even in the centers. In this last case, in the cities in which the most affluent inhabitants leave the areas phenomena of social segregation and speculation may take place. Soils and abandoned properties must be retrained and returned to productive use or housing to minimize new requests settlements or developments outside the urban area. This is because social, economic and environmental costs connected to the abandonment of the territory and properties in urban areas (inner city) are a lot.

From the lexical and conceptual point of view, the “regeneration” differentiates from “redevelopment” or “renewal”, since the latter, in most cases, accompany each other to real estate speculative processes or underlying them, thanks to effective campaigns by urban marketing or targeted propaganda. In this sense the difference between renewal and re-generation, offered by the English language, is as effective as ever emphasizing the difference in approaches to recovery of parts of cities degraded in its multiple matrices constitutive. “Urban regeneration” is part of a lexicon that includes expressions like renewal urban, urban renaissance, urban re-birth, urban reuse, even if they are not synonymous one other. Each of these expressions refers to the natural renewal process of which the cities have been throughout history.

Urban regeneration should be almost like the return to the condition of the city postmodern, in which the city grew exclusively “Inside the walls”, because only the perimeter space was considered suitable for urban life. The relationship between rent and profit in the processes regeneration plays a key role in the address of the processes themselves and in the results of the real estate investments.

The principle of conservation should be applied in accordance with a logic that is no longer sectorial or disciplinary, but integrated and multi-disciplinary, comprising specific project operations. Before re-building, whatever has been cast off by the industrial area needs to be re-utilized, re-introducing an asset “deprived of its original functions into the sphere of the living, snatching it away from its museum fate”; this should be carried out via bold and modern forms of enhancement of heritage that might create a new system of urban identity-centrality within these “non-places”¹⁰

Many of the european areas that follow the reuse practice could be summarized as Marc Auge said «*Suspension in time between uncertainty about the future and the terrain vague of the present, between the important loss of values that they possessed in the past and the potentialities they offer the contemporary city for its regeneration in a key of sustainability*»¹¹

¹⁰ De Giovanni, Giuseppe, Francesca Scalisi, and Cesare Sposito. “Transformation and re-use of urban wasteland: four case-studies.” *TECHNE-Journal of Technology for Architecture and Environment* 12 (2016): 74-81.

¹¹ Augé, Marc. *Oblivion*. University of Minnesota Press, 2004.

The birth of a new aesthetic: the charm of ruin

La nascita di una nuova estetica: il fascino della rovina

“Working with a building which has been thought by someone else is the real difficulty of the reuse project. Even self-identify with the object is limiting. It becomes difficult to understand it, know its material and immaterial values, its weakness and lacks, looking for the balance between empathy and critical distance”.

Understand that an existing building reports the logics of someone else is the first step to make the decision to keep, add or demolish elements.

According to this approach the action of the architect could be seen first as the action of a researcher who aims to know what happened before. Buildings don't speak, but they last and if the architect like a detective is “hungry of clues”¹² through their elements he can understand their story. Then, the detective approach gives to the architects the knowledge to make and support design choices.

Recent architectural reuse projects from practices like Caruso st Jhonn, Sergison Bates, 6a, DVVT or Lacaton y Vassal are based on a consistent research of the building's history, defining new approaches and showing new possibilities of coexistence between the existing main elements and proposals of new and clear additions. In particular from the proposal by Lacaton y Vassal of the project Palais du Tokyo in Paris (Paris, 2001) is constantly growing a trend which tends to show the naked building's architectural elements as integral part of the final proposal. According to this vision the building is considered interesting as it is and generally does not need artificial additions.

It is possible to say that the general taste is going back to consider the ruine as the main architectonic paradigm: naked from any decoration what remains is form, base and foundations of architecture.

Attempts to report buildings to their original state, as the stylistic theories supported¹³, or to avoid demolitions in any case like in the preservation theories, are now rejected by new hybrid and successful approaches.

As 6a architects declare through the writings by the architectural historian Irène Scalbert, “attempts at returning buildings to their original condition, robs them of the very quality for which they are prized, oldness, leaving behind shells that show no sign of wear and tear and are innocent of history.”

This approach is shared by the research, as recognize in it not only an original way to intend the history and the role of contemporary interventions, but also an expression of a new aesthetics. If during Italian Renaissance architects recognized roman ruins as elements of interests, nowadays in Europe the trend is to recognize modern ruins in the same way. In specific, according to the article by Valerio Paolo Mosco on the digital architectural magazine “Gizmo” these stylistic approaches are expression of a new taste which is shared not only by refurbishment operations, but is integral part of the architectural new directions and it even express the new taste of society.

Before the western-world crisis in 2007, he argues, architecture was mainly considered as a commodity and interests were addressed to everything that was considered astonishing and performative. Architecture was a matter of technology, complexity and hyper-efficient solutions, where the paradigm was the feeling of innovation and futurism. After the crisis and today more than ever, the author explains, people tend to prefer over-

¹² Scalbert, Irène. *Never modern*. Park Books, 2013.

¹³ Lamberini, Daniela. *Teorie e storia del restauro architettonico*. Florencia: Polistampa, 2003.

simplification to over design. As Francesco de Santis said in the IX century the taste first tends to radicalize and then to reject itself. As it happened with the abuse of parametric design in the following years after the success of Guggenheim museum by Frank O. Gehry, and the denial of it in the coming period.

In particular, as theorized by the critic Pier Vittorio Aureli, due to socio-economic issues, in the last twenty years architects had to return to simplicity and now, these forms of oppositions are well recognized and welcomed by the critic.

The new taste (aesthetics) find the positive acceptance from both the society and the architects together, because what it's expressed nowadays seems to be free from trend. Going back to the roots of the building, erase from it all the ornament and decorations, brings back the form to an original clarity that gives a sense of credible originality. Looking to the chaotic changes to which society it is subjected, could be clear from which directions is coming this taste.

Furthermore, the mediatic and economic interests in projects like The Tate Modern in London or the Garage Museum of Contemporary Art in Moscow demonstrate the potential of these approaches.

Functional transformation as occasion

Conversione funzionale come occasione

The idea of reuse involve not only the concrete and solid artefact, and its aesthetics value, but also its functional changes.

What transformed the industrial areas in the today ruins is actually the loss of importance for the function they hosted, due mainly to the change between an economy based on productivity to one based on tertiary service.

The change in the production pole in parallel with the technological revolution brought drastic changes in society habits and geo localization, so that the process of dismissal involved also other typologies and infrastructures.

This is why the functional conversion is an actual debate, but it is necessary to take in account the distinction between “functional conversions” and “re - functionalization”. The first relates to the radical change in uses and destination of a space, the second refers to re - activation of the old usage of a building. The two different terms are many times used together because usually the two interventions happen joined.

In both cases, before set in with architectural change, it is necessary a careful observation of the surrounding society, mainly to avoid useless action, and the damaging of the original manufacture in an irreversible way. Nowadays we are seeing rapid and constant change in society and what it is actually needed.

Talking about reuse it is considered not only the pragmatic act, of choose between what to keep and what to remove. The term itself includes different themes, going through the occupation of a dismissed building, with permanent o provisory uses, until project in which the level of the transformation is more complex. In each of this kind of reuse, the functional change plays an important role.

Cesare Brandi in his essay “Modernità debole e diffusa” (Skira, 2006) express the main characteristics of contemporary society, pointing out as the main characteristic the refuse of eternity. Everything nowadays is temporary, and architecture as well refuses to adapt to a fixed function.

Only less and less activities that we brings on during the day need a specific conformation of space, what it is really asked to our surrounding space is to be fluid and adaptable to every change of activity in the fastest way as possible.

New life style’s functions are multiplied but at the same time, they do not really need a designed space to be performed.

The technological revolution plays an important role in this transformation. Due to the “web ways” for enjoying news and images, cities nowadays are composed by facades designed for communication, where in many occasion is more important the good looking of a facade, than its usability and its contextualization inside the urban fabric.

This is what creates new aesthetic values. The new web culture denies the concept of time and space, in the terms that this two concept are subordinated to the object himself.

That has a high influence in architecture and in the practice inasmuch architects need to project something that could be always open to re-think, re-adapt, re-projected., always thinking about what is going to be in the future for the architectural object.

However, the new way of using space, and the re - adaptive use needed from the dismissed building, could became the contemporary link between society and architecture, considering that the opportunity in reuse in the historical cities lays in the possibility of densify and reinforce the urban tissue, limiting the waste of ground and resources.¹⁴

But if it is quite hard to find the perfect function by which this building can rise anew, could became easier if looking to the new necessity of society, and in particular to the subgroups of the society that share activities and interests, what we can call clump.

It is possible to see an example of this process in recent time where the dismissal of old typologies brought to the creation of new hybrid kind of working and living place, among which the SOHO (Small Office, Home Office), or the space intended to be together living place - laboratory - sales space. What is more recent but already more spread is the practice of co – working, that is becoming more and more exploited in the contemporary society.

Co - working spaces, run nowadays because are able to group together secondary activities that wouldn’t have space in normal offices, but at the same time need to be located in close to cities’ center. For this reason came normally to locate this activities in post-industrial dismissed building, that for different reason (but often related to their function) where originally built in city surroundings, areas that today are on the limits of the city center.

This kind of fluidity and no fixed direction in the work – production – fruition process brought an enormous expansion in the arte system and in the way in which art can be elaborated, performed, displayed.

There is not anymore a single fixed way for art exhibition but the way in which art is presented is part of the culture evolution itself.

Going in parallel with the new commonly appreciated charm of the ruin, the wide space proposed by abandoned industrial building has become art’s default preference, enlivened occasionally with exceptional architectural gestures.

¹⁴ Yellowred on Reused Architecture, Silvana Editore, 2017

What projects like Fondazione Prada by OMA (Milan, 2008 - 2018) or the Palais du Tokio by Lacaton e Vassal (Paris, 2012 – 2014), (just to quote two among many others) do is to research and to expand the repertoire of spatial typologies in which art can be exhibited, while reconverting an existing and dismissed space.

Functional transformation shouldn't be seen as a tendency of contemporary architecture to move its focus to the only necessity, or to the pure problem solving of where to put some activities. It is not the rise of a new kind of functionalism, necessity nowadays could be declined following different movement, from economy to sustainability, and bring to the realization of new architectural typologies.

Functional transformations, if done with an accurate analysis of the inner changes in society, can represent for contemporary architecture the opportunity to have a fresh link between the new ongoing virtual culture and the postindustrial architectural ruins.

New spaces for culture

I nuovi spazi della cultura

Speaking about new spaces for culture is required a step back and look to how society has changed in the last years. Taking in account a brief period of time already past, Umberto Eco, in his short Essay "Apocalittici e integrati" summed up the main characteristic of the mass culture, pointing out mainly negative aspect, in parallel with the less impactful positive sides.¹⁵ Some of the main critics where regard the persistent research of something that goes up to the common taste, avoiding originality, and the consequent cultural homologation. However, this tendency implies that massive culture is open to a wider range of public. The enlargement of users of media culture brought a radical change in the way and place the new kind of culture is experienced.

The times in which last cultural news where debates in small parlor between a restricted numbers of intellectual, seemed very far, but thinking about the timeline of the history of massive culture it is interesting to notice the big gap in the evolution of culture ways of distribution.

While in the period in which art were diffused from mouth to mouth, and the exchanging of culture were hosted by small intimate room, today, when everyone can have access to the most various expression of art, there is not a physical place in which this trade can take place.

Even if the digitalization of many content, last society tendency shows how people missed this kind of site.

It could be said that there were not space, before the last decades, enable to host this massive distribution of culture.

The first answer where probably moved by spontaneous and un-organized movements, from dissimilar parts of society, that recognized in the abandoned industrial building, spaces that didn't necessitate of large manufacture interventions, and can be declined to each kind of cultural exposition. Recently this operation became a sort of trend, able to influences not only the architectural intervention, but also the kind of out looking the recovered structure should have, to directly indicate its cultural contents.

The added value where discovered suddenly after: post – industrial

¹⁵ Eco, Umberto. *Apocalittici e integrati: comunicazioni di massa e teorie della cultura di massa*. Giunti, 2011.

building where not just void containers, but what they embodies is the culture and the traditions of the urban fabric they are located in.

The so-called “urban culture”¹⁶ can be considered the link between mass culture and urban renovated spaces.

In the meaning of urban culture, city is the basis in which all cultural values including history, arts, beliefs (folklore, myths), traditions, customs, life style and all in all whatever belongs to a determinate city, can finally cause and shape authentic cultural experiences.

It is not a case if the main attractive cultural center today are located in the outskirts of the cities, on the limits cities’ center; those are the places where it is still possible to find the original characteristic of the city, mixed with a pop culture internationally understandable.

The movement it is been exploited and helped by the architecture world, both with new construction, both with the recovery of dismissed buildings. Lotus¹⁷ magazine dedicates a cover to the issue, stressing out the fact that, with other high-value functions, the entertainment industry occupies the downtown area of many major cities, something that often leads to the flight of its inhabitants to the outskirts.

The title Entertainment District means that these new-discovered suburbs, being the new venue of arts and culture, are growing up around one main function: entertainment.

From the idea that Art is not anymore something just to admire, but something that involve all the senses, and asks for ours active interaction, culture and entertainment are often overlapping.

Architecture is slowly taking part of the transformation, and it is possible to see how architectural spaces are designed to be open to every time more cultural expressions. Recent examples are the Herzog & de Meuron, Elbphilharmonie Hamburg, (Hamburg, 2001 - 2016), where the concert hall function is secondary to the social, cultural and daily life meaning for the people of Hamburg, or the Opera Museum Enlargement, by Natalini Architetti (Firenze, 2010 - 2016), in which the new architecture is sustained and built around the piece of art exposed, and the work of art is not only what you see exposed but also the way in which you move around it.

Part of the cultural transformation is how the spectator relates to the work of art, that is becoming a god open to the largest public.

Grafton Architects move the discussion on a more theoretical ground in the 2018 Venice Architecture Biennale.

The challenge nowadays is to try to make the new spaces a common god, not only a product made by architectural firms and given to the public. The concept expressed implies that, the transformation of a ruin in an active space dedicated to culture, is possible when the entire community have benefits from the operation.

Consequently, the rediscovered space became a precious point for restore the city broken tissue. It is proposed that architectural interventions has to do more with the quality of life more then with the building itself, from here the idea that the creation of a new space for culture is the arrival point for a process of awareness in the society, that recognize that spaces as something that is missing in the city.

Quality in the project is not enough to be successful; the capability to give something to the ones who live it is what really create a “free space”.

¹⁶ Habib, Farah, and Mahdieh Hosseini Nia. “An Analytical Approach to the Role of Urban Space in Attracting Cultural Tourist.” *American Journal of Scientific Research* 71 (2012): 109-125

¹⁷ Lotus 166, 2018

02

REUSE OF MODERN INDUSTRIAL HERITAGE

Interventi di riuso del patrimonio industriale moderno

Rules and cases studies

Politiche e Casi Studio

It is only relatively recently that any attention has been paid to 20th century architecture, and still today, there is all too little awareness of the value of architect-designed districts as urban fragments of the contemporary city, as opposed to the general consensus accorded to historical city centers as cultural heritage sites.

One important move should be done in this direction is the acknowledgement that ancient industries have the value of heritage. Once this is commonly recognized and understood, can come the second step of individuate which is the more fitting function approach for revitalizing them. The importance of knowledge for the conservation of cultural assets is a fundamental concept in the definition of appropriate strategies. Many cases study analyzed around Europe shows that these knowledges were inexistent until 50 years ago, and wrong behavior brought to a partial deterioration of the structure. In many cases the damage where so high to make necessary radical transformation of the manufacture, giving space to high level of architecture intervention, in which the ruin remains visible mainly as an emblem of the past. Caixa Fourm by Herzog and De Meuron (Madrid, 2005) is a spectacular example of the transformations, where the old powerhouse's brick wall is minutely separated from the unnecessary part of the building.

Caixa Forum is an example of interventions in which coexists the recovery of the ruins and the addition. As Elena Giussani says in her essays¹⁸ about addiction in architecture, the act of adding a new element to an old structure, it is not just the apposition of two different element, but has the intrinsic willingness to reactivate the space and to make alive the antique. It is a key theme for Europe, where in the last decades theorists and architects tried to find out a common way to operate with modern and postmodern heritage building. A common way of procedure and of theorization, that today is commonly accepted by the European community was presented in the 2014 Venice Biennale by Rem Koolhaas, where different projects encouraged the capacity of reinterpret and incorporate previous status of the architectural object through continuous metamorphosis. Not formal adaptations of the new in respect to the existing, but rather adjunctions able to bring context's peculiarity in a new configuration.

Among a wide list of cases studies, it is presented a selection of recent architectural works that follows the thesis previously exposed.

Behind the general rules recently born to guide the action on modern dismissed building, very different approaches are ongoing.

The cases studies start from a large distance point of view, taking in account Europe, then focus on Spain and the city of Madrid. It is clear that Urban Culture is declined differently from country to country, and that ruins convey the original features of the place.

Spain is not the first region that moved in that direction, but it could be certainly said, that the necessity of recovery and reconversion of postindustrial heritage starts to be rooted in the society. The aesthetic of the ruins is perfectly connected with the general sense of Spanish cities, in which the Mediterranean style mixes with underground culture.

This generate spaces for culture that are themselves an invitation to get in, but also, are really exploited by citizens for social activities.

It is a common feeling perceivable, for example, in places like Tabacalera

¹⁸ Giussani, Elena. *Innesto di architettura contemporanea su edifici preesistenti nei tessuti urbani: separazione o integrazione*. UniversItalia, 2013.

or La Cebada market in Madrid, where social movement are spread in the abandoned space, and attempt to take advantage of these places even if there isn't yet a real recovery project. In some of the area presented, the architectural actions are very limited, and is the performance that transform the space.

Despite all bureaucracy controversial, people tries to use and live these places, giving a good prospect for future works.

The analysis of different examples is fundamental to understand the approach to a structure with such an important historical value.

The focus will be on design strategies and knowledge based on other projects' roles and their studies concerning the adaptive reused in architecture. The goal is to propose a theoretical and practical background for a systematic process to support the following strategy. The research of the projects started considering the ones in Europe until the one in Madrid. It is easy to notice that the variety of reuse project is rich and diverse in terms of the original uses of transformed buildings and their various new uses.

European policies and case studies
Politiche e Casi Studio Europei

Palais de Tokyo

location	Paris, France
client	Paris Municipality
year	2012 - 2014
status	completed
program	site for contemporary creation
architects	Lacaton e Vassal

“The freedom in space creates a general feeling of a place designed for sharing and debating ideas, with a free and transparent ambiance of well being, and a place its visitors can make their own.”

Anne Lacaton

The original Palais de Tokyo, opened in 1937, was left to years of indifference and deterioration.

The interesting point of this project is driven by the approach taken to organize space, which enable every flexible management of the different areas.

The facility of use and its rich programs, all offered in a skillfully organized series of rooms, spaces, and time frames for various uses; all within a container as vast as possible. Though open, it can easily be temporarily partitioned and reconfigured into an immense space or divided into smaller spaces.

Another interesting aspect of the museum is its lack of dictated routes that are typical of other galleries.



Hangar Bicocca

location	Milan, Italy
client	Prelios (Pirelli, RE)
year	2004
status	Completed
program	Gallery for contemporary arts
architects	April Studio

“It was the budget that conditioned the project, creating a precise brief. He pushed us to react to space, with industrial elements found within the former fabric“
Francesco Tiribelli, from April Studio

The story of Hangar Bicocca is a good example of how the architects can emphasize the aesthetics of the ancient building, and in the same time solve problems in the construction process and economy.

The history of Hangar Bicocca is strictly related to Breda industries, that built mainly railway carriages and locomotives.

The Shed, the evocative building of the project, is a typical industrial building, realized with exposed bricks and large skylights. It is already recognizable in imagine from the 1920, when the industries was working at full power.

In the early 1980s, a gradual process of dismantling historic industrial areas began in favor of an almost total urban reorganization of the Bicocca district. With the creation of university buildings and private residences in the area, the Bicocca Project started forecast the redevelopment of the old Pirelli factories. After a decade of abandonment, Pirelli Hangar Bicocca was finally purchased by Prelios, which in 2004 decided to transform it into an exhibition space for contemporary art.

The dynamics of patronage in this case was able to transform a private building in a public resource open to the city, changing the importance of the neighborhood.

The old structure of the fabric, bounded to the permanent exposition, is essential for its spectacularity.

Pirelli HangarBicocca



Les Nefs

location	Nantes, France
client	Nantes municipality
year	2007
status	completed
program	gallery exhibition
architects	Atelier Alexandre Chemetoff

The architect defines this project as an “urban umbrella”.

Located in the western part of the island, the four naves of the Loire are industrial halls made between 1903 and 1946 which served as boiler making for shipyards.

The project could be seen as a metaphor for the urban project of the entire island of Nantes.

This is to create a large open space, covered and crossed by two public streets orthogonal under the umbrella of the translucent roof. Completely emptied, boned and the navies offer three large spaces for future programs. The first hosts the Atelier and the Gallery of the Machine prefabricated modules and a wooden frame fit into the volume of the naves, the other are pole of cultural creation dedicated to the emerging arts (current music, arts digital and other artistic practices).

The term “umbrella” is so used because volumes thus released generate a meeting between a public space and places of programmatic and artistic experimentation.

A in Hangar Bicocca the previous activities conducted in those industry are fitting and enhancing the value of what is exposed or done today in those places.



PARTICLES
DU MUSEUM DE LA BIENNE
DU 10 AU 12 OCTOBRE 2014

Tecnapolo for Industrial Research

location	Reggio Emilia, Italy
client	Reggio Emilia municipality
year	2010 - 2013
status	completed
program	research centre
architects	Andrea Oliva

“Research and investigation become the tool for identifying possible future transformations, by interpreting ruin as a construction site, as a building that in its deterioration reveals its compositional and constructive rules.

People are fundamental part of the process were the residues off the places and buildings of the industrial architecture the noises of the works, the smells, the machines, the memory of workmanship.”

Andre Oliva

The architect said that the most significant damage of the Officine Reggiane was silence.

He stressed out the theatricality of decay, because what most effected those places was the lack of the dynamic component (worker, production), easily replaceable with new dynamic components (student, researchers).

In warehouse 19, the iconic building of the project, the subdivision of spaces is completely independent from the original structure, to underline the respect for the previous structure and function.

In the recovery project, the figurative memory that the population has of this places, has large influence, and the reconversion is guided more form the collective memory of the population, than from square meter need.



Mons Memorial Museum

location	Mons, Belgium
client	Mons municipality
year	2011 - 2015
status	completed
program	museum
architects	Atelier d'architecture Pierre Hebbelinck

The peculiarity of this intervention lays in its urban value.

The project responds to two urbanism element: one is founded on history and take in account the evolution of the city. This notion of hinge will make the building into the articulation of the project.

The urban planning solution is based on the observation as a major turning point this development which still make an impact on the mode of organization in the city .

The second element of influence to the project relates on the environment of the water, on which the building is standing, and the typological peculiarity of the fabric.

This is persecuted by leaving their own identities to ancient buildings and enhancing them. The existing light, open aspect and cantilever symbolize the effort and difficult equilibrium of peace under which we find a memorial space.



Adaptive Reuse in Spain

Il riuso adattivo in Spagna

Palencia Cultural and Civic Center

location	Valladolid, Spain
client	Ministerio de Fomento
year	2011
status	completed
program	cultural centre
architects	Exit Architects

The set of the Old Provincial Prison of Palencia corresponds to a building of the late nineteenth century, built by factory load-bearing walls composed mainly of four pavilions of two floors and others of a height. In this building, an integral rehabilitation is proposed to transform the use of the old prison and turn it into a Center that promotes the cultural and social activity of this part of the city.

In this project it is interesting to see how a building whose function was rigorous and strict it has been converted in a public and very fluid space. The architects proposal aims to turn the Old Prison into a meeting place that puts in value some of its old spaces, incorporating at the same time new structures that make possible the location of the new program of uses. It is a respectful intervention with the building, which is endowed with a more modern, lighter appearance.



BIA Space la Naja

location	Bilbao, Spain
client	Bilbao municipality
year	2014
status	completed
program	cultural and workshop
architects	Garmendia + Iza + Zaballa

The value of the project lays in this deep reasoning on the urban conformation of the city, after which the architectural project came naturally as a consequence.

The project was first conceived in BIA Forum, whose driving theme was urban regeneration, pointing out the possibility of carrying out an ephemeral action to put into value an abandoned space in the city center. The chosen space was the old train station of La Naja. Since the transit of wagons stopped, the station has remained, and remains, unused. Located in a privileged place, on the banks of the estuary, this ephemeral intervention in a point of strategic urban centrality emphasizes the continuity of the riverside docks, pride of the city, providing a note of light on the only point of discontinuity in its developments in the center of the city.

In addition, its disused infrastructure, condition on which to project future plans, serves the BIA as an opportunity to reflect on alternative strategies with which to address today the recovery of these spaces-infrastructures beyond its dismantling, on the possibilities of reuse, on the valuation of its weight in the identity construction of the city.



Centro Psiquiatrico Pamplona

location	Pamplona, Spain
client	Pamplona municipality
year	2017
status	completed
program	Recovery and health center
architects	Aillo + Irigaray Architects + Galar + Velaz

“The project is a reflection on memory: the passage of time and the evolution of architecture.”

Aillo + Igrary Architects

On the contrary, of the previous project, here the interventions are all direct on the architectural strategy.

The proposal is a way to intervene in a 19th century building, the traces of the past are engraved in the new buildings, like a memory of ancient geometries. It is an unfinished architecture that time will end up composing in the place. The proposal maintains and enhances the original values: a pavilion in a 19th century building, pleasantly sized in a landscaped setting, but neglected until now: interesting spaces between pavilions, friendly scale, well proportioned patios: good relationship between the patient and the environment concrete and environmental: optimal relationship between nature and architecture.

The project aims to offer a hybrid between new and old constructions, trying to take full advantage of the existing values and making it viable thanks to new “dressings” that re-vitalize the desired function: as a functional “prosthesis”.



Joan Oliver Library

location	Barcelona, Spain
client	Barcelona municipality
year	2007
status	completed
program	library and cultural centre
architects	RCR Architects

Mission of the architect is to carry out a revitalisation plan in the Barcelona districts to make it more attractive and improve its residents' quality of life. In order to do so, the group has begun the renovation and regeneration of streets and public spaces, the recovery of the inner areas of street blocks to gain new useable space and green areas, and the construction of public service buildings that, as in this case, work to break down barriers between different generations, thus encouraging social cohesion.

The plan also includes the dynamisation of the district as an area that is home to business, culture, tourism and leisure activities, and includes the impulse and promotion of housing initiatives.

Library is a small dowel of this process and is seen as a indoor and chill-out space for reading, retirement home, as a facade of public space, and the interior of the block as playground for children with spatial and relationship richness for a socially dynamic urban project.



New Spaces for Culture in Madrid

I nuovi spazi della cultura a Madrid

Biblioteca Escuela Pia

location	Madrid, Spain
client	Madrid municipality
year	1999 - 2004
status	completed
program	library
architects	Josè Ignacio Linazasoro

“It is an absolutely singular work, of difficult classification, when including restoration, rehabilitation and new plant themes, which, however, form an inseparable unit.”

Josè Ignacio Linazasoro

The group rests on the ruins of the church of the old Pious Schools of San Fernando, destroyed during the Civil War, but includes the adjacent empty lot.

It is also part of a wider action that includes the Plaza de Agustín Lara and an underground car park.

The program consists of university's spaces and a library. The first occupies the empty lot and is, consequently, of a new plant, while the second is located in the ruins, integrating them into the new space.

Complex very complex, therefore, but characterized by a unit that is given by the material and raw character that imposes the ruin of the church and that extends expressively to the entire building. This is also characterized by its ambiguous covered-uncovered character in which light penetrates with a premeditated uncontrolled accentuating the character of ruin. The language incorporates very diverse appointments integrated, however, gives the strong unitary character of the building.

The ruins it is useful to the re-functionalization of the new building, but at the same time has the archeological value of the ruins with its façade on the square.



Tabacalera

location	Madrid, Spain
client	Spanish Minister of Culture
year	2012
status	ongoing
program	exhibition space
architects	Nieto Sobejano

Tabacalera Is one of the most particular example of recovery project. Even if started from the will of Spain Minister of culture, with a regular competitions and call of architects, what makes this place really work is the social cohesion of the neighborhood, and the self-organized activities of inhabitants.

The Tobacco Factory of Madrid was finally vacated in 2009 and the building remained abandoned for ten years, of progressive deterioration and no maintenance, of struggles to open the building to a neighborhood with a lack of public spaces. After years of struggle, the Cabinet approved an agreement in order to found in Tabacalera the National Visual Arts Center.

A part from the pure architectural project, that rehabilitate in the their minimum form the old factory's spaces, the public manifesto of Tabacalera really shows what this place is:

“ LTBC is a social center, promotes the direct participation of citizenship in managing the public domain. A cultural center that understands culture as a concept encompassing creative and social skills of citizenship. These capabilities include not only artistic production, but also social action, critical thinking and the dissemination of ideas, works and procedures that seek to expand and democratize the public sphere. “



MediaLab Prado

location	Madrid, Spain
client	Madrid municipality
year	2012
status	completed
program	co-working
architects	Langarita Navarro Arquitectos

“The ‘Serrería’ vs ‘La Cosa’ is a form of coexistence, a dialectical combat mode, which has allowed going beyond the conventional concept of rehabilitation and inhabit the remaining gap between the two opponents.

It is a coexistence of opposites which has understood this intermediate region not as a finished product but as an open, versatile and activated process that people activate.”

Langarita, Navarro Arquitectos

Prado MediaLab is an example of how technological choices can be the pivot of relation between the ruin and the new.

For the renovation, the architects decided to leave the facade of the old building intact and insert a more flexible structure inside, which they nicknamed La Cosa, or The Thing.

The particular choice materials, colors, and technologies that oppose to the old cement structure, is the strength of the project.

Those spaces today are used for different activities, mostly related to co-working, and the open disposition of the spaces is open to fast changes.

The structure also host a hostel, for people that exploit the co-working spaces.



Daoíz y Velarde Cultural Center

location	Madrid, Spain
client	Madrid municipality
year	2013
status	completed
program	cultural center
architects	Rafael De La Hoz

As part of the Daoiz y Velarde complex of former barracks the main objective of this project is to preserve the architecture; a representative sample of Madrid's industrial and military heritage.

The principal idea has been the preservation of the geometry of the existing building as well as the steel structure and the brick façade, keeping it as the skin of the new program and emptying the interior.

Both programs are developed independently with separate access and circulation, although they are strongly connected visually and spatially and can be adapted to different types of events.

An intermediate space separates the old shed, the skin, from the new uses in order to enhance the character of the existing building creating a gap that filters and protects from the outside.

These gaps allow the creation of visual connections that favor different spatial experiences.

Big importance is given to the gathering place. The architects define it as place of orientation and exhibition that works as a sheltered "agora", conceived as an extension of the outdoor square into the building inside.



Matadero Madrid

location	Madrid, Spain
client	Madrid municipality - Art department
year	2003
status	completed
program	multipurpose space
architects	various

Matadero is a symbolic project for the city of Madrid.

It is the translation of the historical heritage of the city to nowadays, but at the same time, represent one of the first challenge to renovate an urban district thought an architectural project.

The renovation of Matadero, started in 2003, assumes high meanings with the Madrid Rio Project, becoming an important part of the rehabilitation of the all Arganzuela district.

The different old warehouse of the steakhouse system were taken in charge by different architects, all with the purpose to transform it in the new house for arts and culture.

Nowdays the strength of this project stay in the architectural value and in the society value of these places. Matadero is intensely lived from Madrid inhabitants that, as in Tabacalera, are able to transform all the different space as is more comfortable to each activities.

Again, the social strength of the city runs in parallel with the architecture.



Biblioteca Regional Joaquín Leguina

location	Madrid, Spain
client	Madrid municipality
year	1996 - 2002
status	completed
program	library, archive, exhibition space
architects	Tuñón Arquitectos

The project, a part for the high architectural value, is valuable because is part of the political desire to open Madrid to the south and the cultural desire to safeguard the remains of the city's historic industrial heritage.

Developed as extension of the Paseo del Prado cultural axis, the project is organized into three modules: contributions, storage and public attention. It resolves a diverse multimedia library program through the renovation of the ominous industrial spaces.

For Madrid, the integrated Regional Archives and Library complex is like two intertwined hands, a symbol of the desirable future convergence between environment and architecture that has been already implemented in this case. One hand shelters protects the historic heritage and the other provides protection for the local culture, our future heritage.



The project of ruin in Madrid

Il progetto della rovina a Madrid

“Francamente invidio questa opportunità che la cultura progettuale spagnola può utilizzare per costruire un rapporto inedito tra antico e nuovo, riaprendo un dialogo diretto con la storia.”

Franco Purini

In 1985 in Madrid opened the debate about the conservation of cultural heritage. One of the first politics for the safeguard of historical building aimed more to a typological and morphological coherence with the urban fabric than to the real historical – monumental conservation of the buildings.

In fact, reuse was nominate the only possible form of conservation.

This lead to very different approach to the ruins, dominated from the research on how the ruin could be usable again.

Spanish architects face to the ruins as page full of text, on which it is possible continue writing.

It is easy to see how different this approach is from the italian one, in which the memory value of the manufacture predominates in respects of possible solution for new use.

Without saying which is right or wrong, the Spanish movement bring interesting and imaginative solution to the architectural question, which can be resumed in three main action:

- **Subtraction and addiction**, as in Rafael Moneo expansion for Prado museum (Madrid, 2007);
- **Inclusion**, as Emilio Tunon does in the Museum of Royal Collection (Madrid, 2016), reinterpreting the ancient monument;
- **Subordination**, respect the original building, as happens in Matadero (Madrid, 2003), where the features of the antiquity are underlined from the new addiction

After this not exhaustive panoramic of case studies in Spain it is clear how Spanish approach takes more freedom in working on ruins.

It demonstrates that to work with heritage building it is necessary first to understand clearly which orientation they can have to became active part of contemporary life in the cities.

The way in which this could happen are infinitely different, because different is the intrinsic meaning of each ruins.

“The city and the context are intended not as a limiting pre-existing but as an active reference that helps to define a new text, the project, capable of revealing a wider reality and stimulating the architect’s freedom”¹⁹

Even if in a different way, however, both will always deal with modernity as a condition of belonging and spatial quality that derives from precise contextual conditions. Environmental factors, such the strong and durable light in Madrid or building materials such as bricks, are elements that interact in the project from time to time, giving them a condition of urban “adequacy”.

For Rafael Moneo, the city is the origin on which he bases his architecture, that finds its reason to belong to the place. The defense of the growth of the city clearly emerges in the project of expansion of the Atocha station in Madrid (1984) which recovers the IX century building, turning it into commercial spaces and transforming it into a lush glass and iron greenhouse with tropical plants.

¹⁹ C. Diez Medina, *Di difficoltà in virtù: la libertà dell'architetto*, in R. Moneo, *L'altra modernità. Considerazioni sul futuro dell'architettura*, Christian Marinotti Edizioni, Milano 2012.

On the right: Atocha Station, Madrid



03

ANALYSIS OF THE AREA:

Madrid, Arganzuela and the market

Analisi dell'area di studio: Madrid, Arganzuela e il mercato

Historical lecture of Madrid: stratification and expansions

Lettura storica della città: stratificazioni ed espansioni

The starting question for this research is how an architect of today can help cities, starting from a zero point.

The Italian design tradition is closely linked to the analysis of the territory, to the understanding of the urban systems that become architecture generators. A modern method, but also used today in the recovery of abandoned areas and, within the contextual limits, in the design of the suburbs.

At the beginning of the present thesis we asked ourselves how a theme so familiar to us can be declined to a different architectural culture, even if presenting the same problems of recovery and reuse, typical of contemporary European cities.

In particular, Spain, that present traditionally almost monolithic and solitary architectural projects, able to fit elegantly into the urban context, appears to be an appropriate territory for experimenting with a new type of design process, in which the true protagonist is the architectural element.

In order to address this issue in Madrid, the present analysis on the city and its urban development was necessary, also for the identification of strong themes that could guide the project activity from the larger to the smaller scale.

The starting point was study the urban features of Madrid as a historic European city, understanding its expansion dynamics and the contemporary role that abandoned areas have in evolution and social dynamics.

These reflections, have led to the awareness that the natural expansion of cities cannot be directed only to the expansion of the suburbs, but must be focused on historical centers, trying to reactivate the numerous areas that, due to different historical dynamics, have remained excluded from flows and evolution.

Often this evolution occurs in areas once flourishing for use and function, which today, due to the hasty urban expansion of the last century and the relocation of industrial and infrastructural services, has been forgotten as significant and fundamental places for cities.

Many areas once linked to the secondary sector, are today abandoned, and generate a movement of disaggregation from the urban and social fabric. Hence, the second search engine, which concerns the focus on areas that are effectively devoid of a destination of use and completely detached from the context.

According to these characteristics, the abandoned areas can be grouped under the post-industrial theme, a phenomenon present in all European cities that have undergone their maximum expansion during the late 1800s, the period of industrialization.

Some cities are responding coherently to the new needs of recovery of post-industrial areas, managing to adapt to contemporary lifestyles, in others, where the historical influence is stronger, and pre-existences is more complicated to be managed, the reuse becomes complicated.

A peculiarity, but also a resource from the architectural point of view, of the city of Madrid is being able to transform fragments of historic architecture into new buildings, with a unique sensitivity.

After studying the previous presented case studies about this topic, the question arises as to how the same level of design detail can be applied

even in large post-industrial areas, whose peculiarity is often the raw and poor character.

For this reason it was necessary to identify themes that concerned the architectural scale, but that moved the research starting from the urban scale.

“Recovery” is not only intended as a re-valorization of an area, but also as what has remained on the site, and as the acknowledgement of the importance it has had within the urban context.

Conceiving recovery as a process, we want to show that critical addition and conservation are not just changes applied on an existing building, but also social changes.

We are looking for an expressive architectural language appropriate to the place, so that each intervention is not only a design gesture, but is integrated into the life of the city.

The research is therefore also aimed at finding a public and cultural feature that encompasses the historical reason of the building and the modern needs of the Madrid community.

Urban Development

Sviluppo Urbano

The urban growth of the city has confirmed the centrality of its most ancient nucleus, squeezed between the two poles of the city towards the river, the Royal Palace rebuilt in the eighteenth century by Filippo Juvara, and on the opposite side by the El Retiro that had been recently renamed “museum city” for its important exhibition buildings.

To the north of the oldest nucleus, there is the nineteenth-century extension, conceived as a concentric area to the city, consolidated in the plan of 1860 by Carlos Maria Castro.

The diagonal roads that cut the orthogonal fabric are in fact made to allow continuity with the routes already present in the historic city.

Within the dense body of the built city, emerges a large and regular architectural void, due to the eighteenth-century intervention of the Plaza Mayor by Juan de Villanueva, which lowering the height of the building that surrounds the square and closing the corners through large arches for the access, creates a public space with an international character.

Another important element, realized as a subtraction gesture within the dense urban fabric, is the Gran Vía, which extends from east to west.

Almost a vertebral column supporting the entire contemporary urban layout, La Castellana is the long and winding road, which, like a seismograph, records all the phases of growth of the city as it develops continuously from south to north. The shape of the contemporary city, however, is strongly indebted to the planning of the eighties, for the described methods and for a great attention to the morphology of the city and to the elements as well as to general systems, bringing out a renewed idea of urban structure.

Since the beginning of the 20th century, the urban fabric that delimited the canal has experienced a constant evolution, caused largely by the works that have involved the river. In the first half of the century (1914), the Manzanares was channeled, when its banks were still practically free

On the right: Cuatros Caminos garages are the first examples of workshops on the Madrid metro. Its construction began in 1918, during the construction of the first Spanish suburban railway.

from surrounding the built-up area.

After the Civil War during the defense of Madrid, the construction of a bed of reinforced concrete and granite and seven dams favored the rapid development of the new districts, giving rise to a high-density urban continuum, which progressively compacted the peripheral nucleo of the southeast of the capital.

The development of Madrid has never related to the limits of the river as lovable places, on the contrary, it ignored them and departed the development of the city from them.




The different topographical and social conditions of the two shores have caused the urban fabric approximation to its edges in a different way.

In the left margin, starting in 1950, the buildings leaned just a short distance from the limit, leaving a small, rigid and linear band free, extending from north to south.

In the right margin, instead, the historic city has remained separate, establishing a chain of spaces on the slope that gently faded to the base of the building.





-  Preesistenze Verdi
-  Città Antica
-  Espansione urbana

Per il suo ruolo di capitale, Madrid si è sempre distinta, rispetto alle altre città spagnole, per l'emblematicità degli interventi architettonici e per l'impiego rivolto alla creazione di una monumentale immagine urbana. Madrid rappresenta forse l'esempio più evidente e costante nel tempo degli esiti di un processo di transizione da una dittatura durata quarant'anni al più fervido europeismo.

Nowadays studying Madrid means confronting a dynamic and a complex system of a city that continuously renews and reworks the linguistic registers of its history as a European capital and, at the same time, it always welcomes new ones, in a lively and social context. That is the reason why it is considered one of the most interesting case studies for contemporary architecture in Europe.

It seems obvious that in the last two decades the city has been hit by a strong wave of urban and architectural renewal that is changing its image through a vast series of experiments, a sample of contemporary architectural languages that holds together both national experiences and international ones.

Important is not to forget the fact that Madrid is therefore a part of a process of national renewal which started from the economic boom of the Nineties, following the entry of Spain into the European Union in 1985, but at the same time it shows the distinctive and peculiar features of a great occasion of typological and linguistic experiments that make the city an interesting repertoire of contemporary architecture. Here, there is the coexistence among major interventions for the service sector and skyscrapers and we can observe from high-tech factories to social housing experiments to the residential suburbs, with numerous interventions on the historical heritage and the open space in the center.

So, the image of a city becomes a "collection" rather than an organic one, a common condition for most of the contemporary urban experiences in which the themes of the fragment and the exception refer to the juxtaposition that Paul Valéry proposes between the city and the museum which is composed of singular but hostile wonders.

«Il grandioso caos del museo, mi segue e si fonde col movimento animato della strada (...). Noi siamo, e ci muoviamo nella stessa vertigine della mescolanza che infiggiamo come supplizio all'arte del passato»²¹

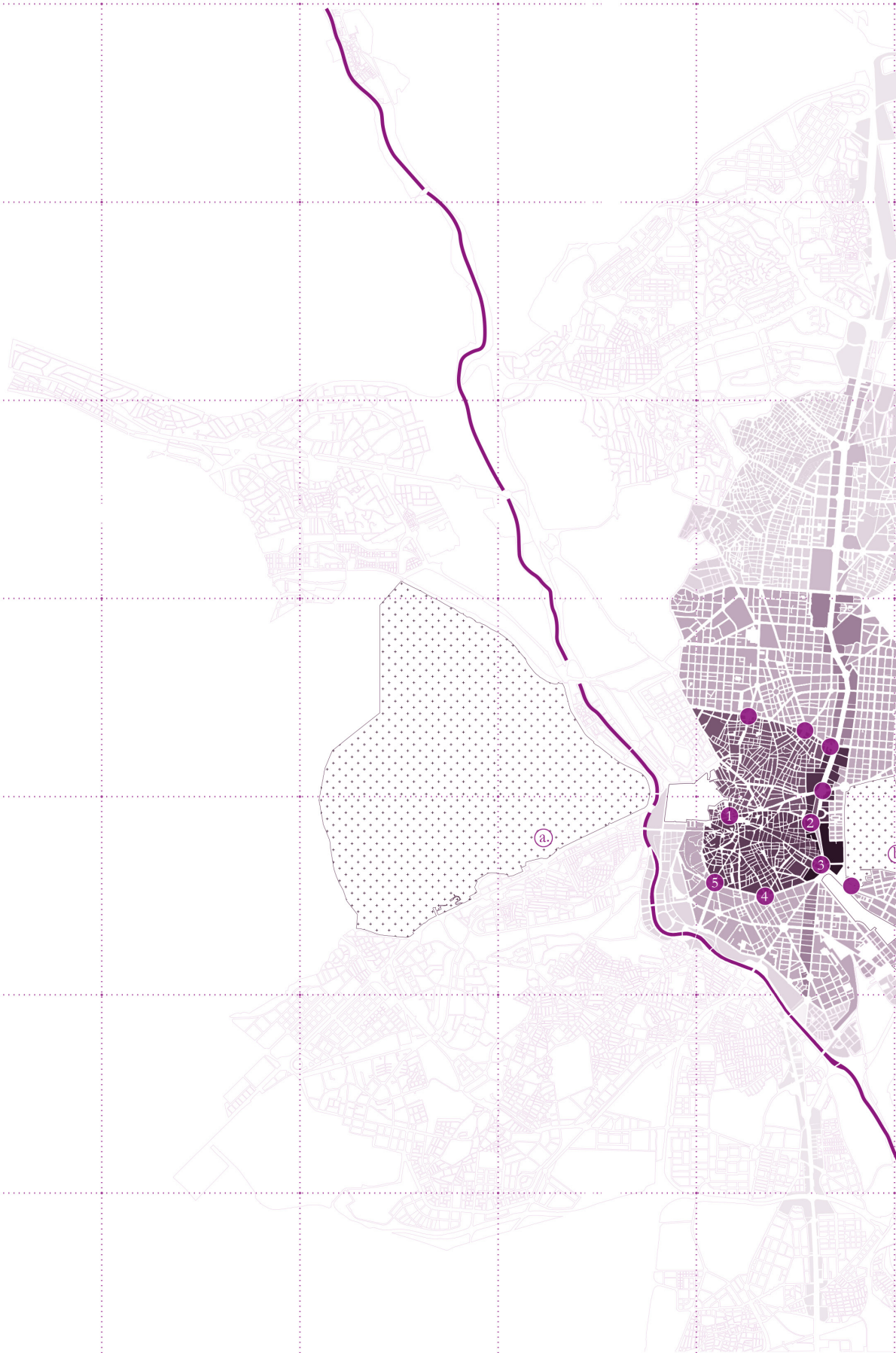
The exceptional production of contemporary architecture in Madrid continues to transform its image as a capital through a series of works that emerge independently in the panorama of the city and in different ways in the last recent years.

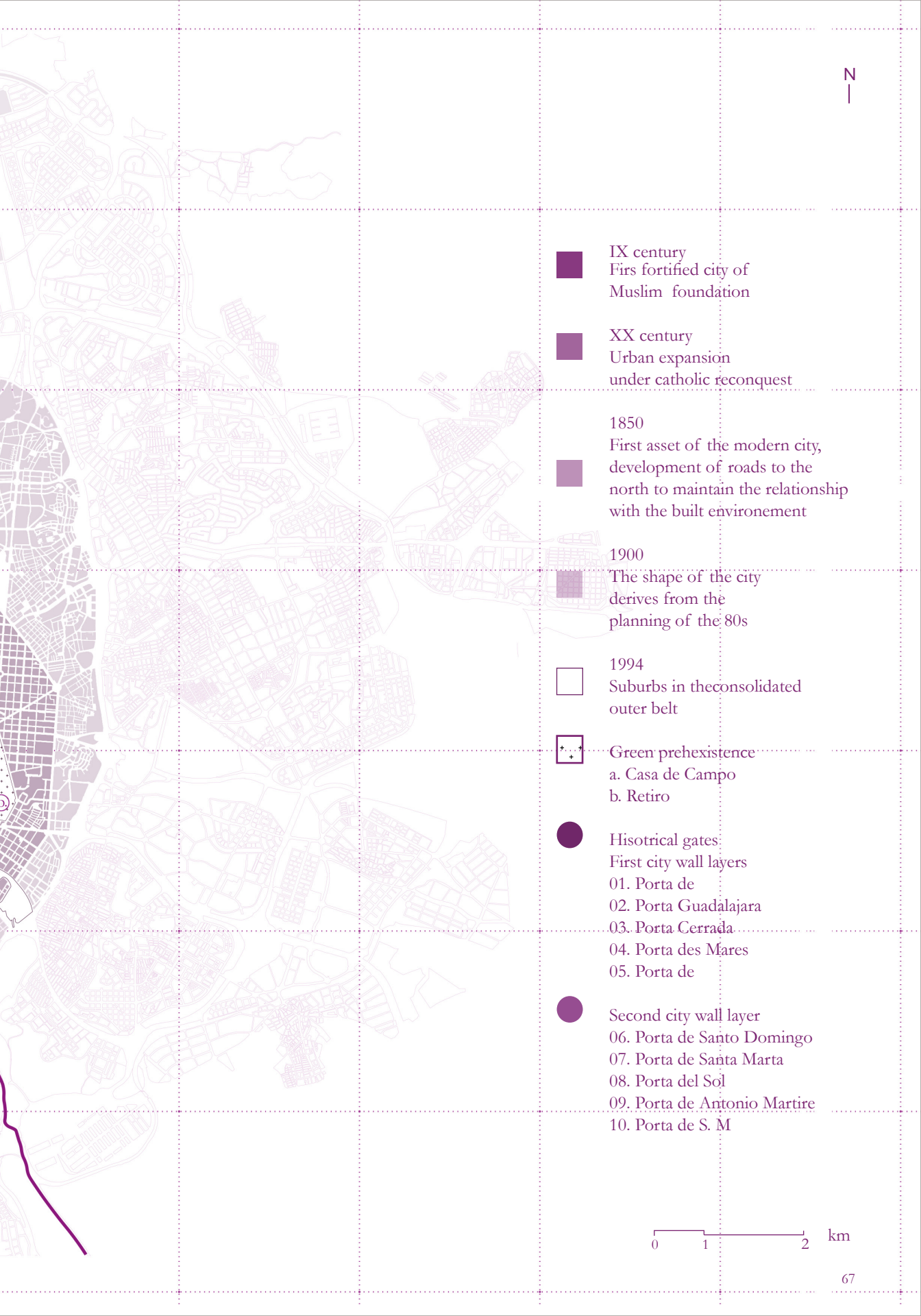
The result is a collection of the greatest names in contemporary architecture enclosed in a container that can be considered a condensate and therefore a symbol of the fragmentary effect of contemporary global architecture on cities.

²⁰ P. Pisapia, Madrid Barcellona Siviglia 1975-1997. Architettura contemporanea, EdR, Napoli 1999.

²¹ P. Valéry, Le problème des musées, in «Casabella», n. 717-718, 2003.

On the left: scheme of the urban development of the city of Madrid (García Casas, Jose Ignacio. "Orígenes del arco de acodamiento en la arquitectura romana." Tercer Congreso Nacional de Historia de la Construcción (2000), p 357-364. Instituto Juan de Herrera, CEHOPU, Universidad de Sevilla, 2000.)





N
|

- IX century
 First fortified city of
 Muslim foundation

- XX century
 Urban expansion
 under catholic reconquest

- 1850
 First asset of the modern city,
 development of roads to the
 north to maintain the relationship
 with the built environment

- 1900
 The shape of the city
 derives from the
 planning of the 80s

- 1994
 Suburbs in the consolidated
 outer belt

- Green preexistence
 a. Casa de Campo
 b. Retiro

- Historical gates:
 First city wall layers
 01. Porta de
 02. Porta Guadalajara
 03. Porta Cerrada
 04. Porta des Mares
 05. Porta de

- Second city wall layer
 06. Porta de Santo Domingo
 07. Porta de Santa Marta
 08. Porta del Sol
 09. Porta de Antonio Martire
 10. Porta de S. M

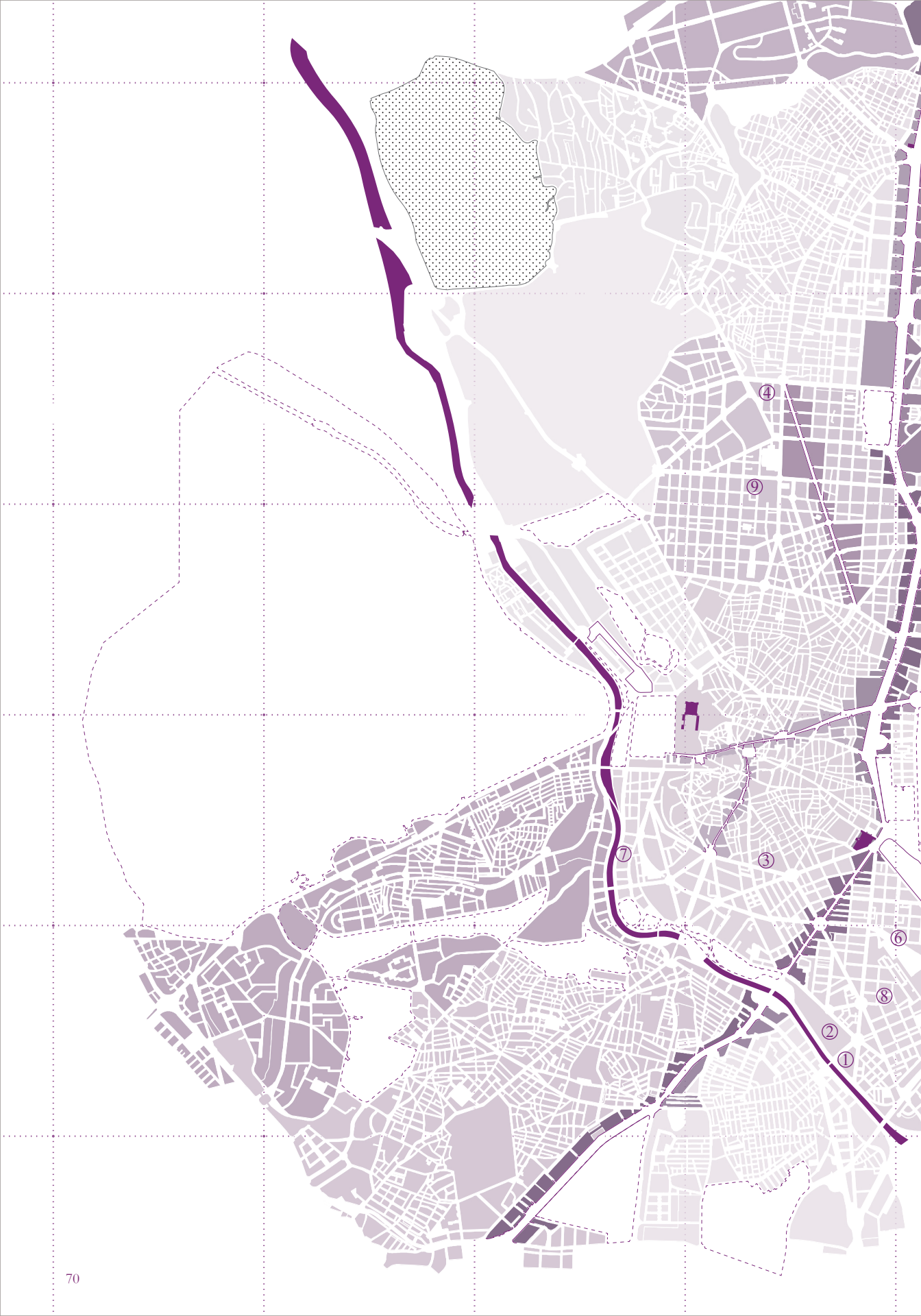
0 1 2 km



Manzanarre and Madrid relationship



Development of the urban fabric
along both banks of the river





N



Green Areas



Primary Axes



Meaningful buildings

Post-Industriale buildings

- 01. Mercado Legazpi
- 02. Matadero
- 03. Tabacalera de Lavapies
- 04. Cuatro Caminos
- 05. Fàbrica en Alcalà
- 06. Mrcado de Motores
- 07. Old industrial zone
- 08. Old Brewery
- 09. Dismissed Fbrica
- 10. Municipality multipurpose center



Recovery and Regeneration

Recupero e rigenerazione

The recovery of post industrial areas is a theme on the agenda in design strategies, so much so that today we can talk about “post - industrial architecture”²². Abandoned areas are an image of the post-industrial society, characterized by an exponential development of tertiary activities and the progressive reduction in the number of people employed in industrial activities.

This process is leaving a void in the field of manual activities, concretely visible within the cities. The industrial areas of today cannot be forgotten or neglected, since they are incorporated into a process of transformation of the cities, which places them as protagonists of the city flows.

Their position, once peripheral to the city, linked to strategic points of energy production, today, with the progressive development and expansion of the urbanized part of the city, is a strategic and central position for the life of the community.

Very often these are key points of connection between the historical part and the new suburbs, and for this reason it must be characterized the point that it can function as a link between the two aspects of the modern city.

Our research starts from an important city in the European context, in which all the development phases of the industrialized metropolis have been experimented, but at the same time maintains a strong historical identity.

Like any modern city, the presence of urban voids can be read in its fabric, but in the search and cataloging of these, the selection of abandoned post-industrial areas comes naturally. In fact, these are areas whose potential is not linked to a function and which do not have a defined use, either because of the isolated position or because of the characterizing morphology.

A peculiar element is that these are often buildings for public use, due to their open architectural character and historically designed to accommodate many workers and visitors.

These characteristics represent a potential for us, since they give us the opportunity to work for society and at the same time to prove how an architecture can not only be restored, but also reactivate an abandoned urban component that had never existed before.

To understand how to act in these areas it was necessary to study the city on a large scale, and also to understand how post-industrial areas interact with each other in the life of the city.

Each requires a different approach at a functional level, but in particular, it was decided to act by giving a transitory character and to proceed through the processes of selection and conservation of the pre-existing elements.

The river is not a specific element of the capital and, at the same time, Madrid is one of the many contexts belonging to the river. The interaction between these two factors has changed throughout history, although it can be said that, until recently, the Manzanares did not stand out as a point of attraction for the city, but, on the contrary, it was characterized as a place to which it has turned its back.

²² F. Bruni, G. Zucchi, “Madrid, città e architettura”. Clean Edizioni, (2015)



Cuatro Caminos

Its location was chosen for its natural slope (which facilitated the entrance to the tunnel) and for its orientation (to capture more light from the North). Garages expanded southward as the urban network and, consequently, the number of cars stored grew. After the last major expansion, in the 1960s, a phase of progressive abandonment of the structures we see today began.

Parque Movil de Estado

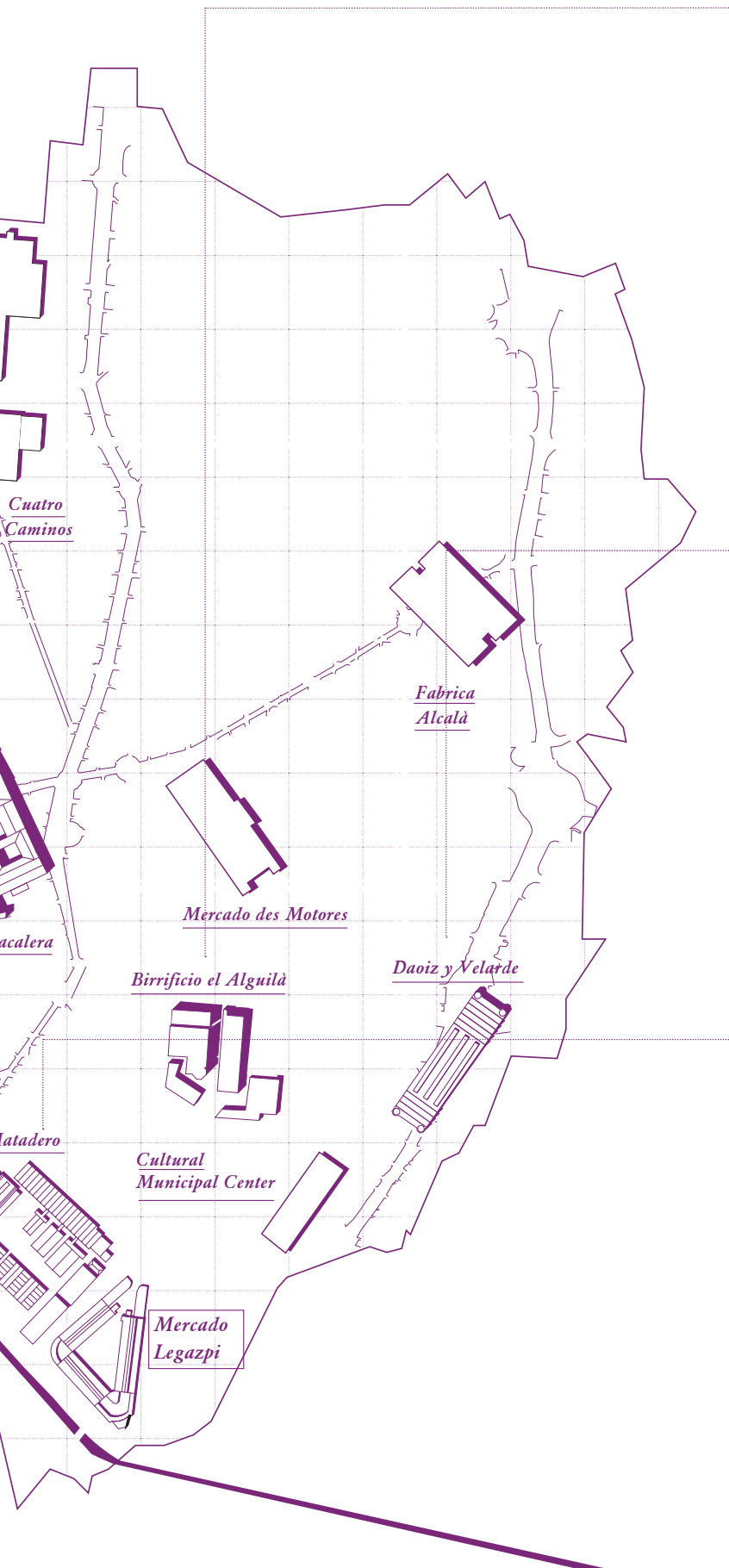
It represents one of the most striking and successful cases of industrial paternalism, a customary practice that spread under the Franco regime and saw the rise of many self-sufficient working districts. The scheme offered additional jobs through the creation of residences and common spaces. In the case of the Parque Movil and the neighboring residential complex (San Cristobal), the workers settled with their families and here carry out all the social functions.

Tabacalera

The building was built between 1780 and 1792. Initially it became a real factory for distillates, after a short period of operation, it was transformed into a tobacco factory (from 1809 until the end of the twentieth century).

The building was vacated in 2000 after the privatization of La Tabacalera / Altadis and abandoned for almost a decade. Nowadays it is managed by the Ministry of Education, Culture and Sport.





The old Brewery

The El Águila Brewery has now become the Joaquín Leguina Regional Library, right in front of the Delicias station.

The factory began its construction between 1912 and 1914 based on the plans of the German technician Langeloth and initially under the technical direction of the architect Eugenio Jiménez Correa (author of the Church of San Fermin de los Navarros). Later it was extended between 1915 and 1935 by the architect Luis Sainz de los Terreros, adding garages, process modules, warehouses, silos, etc.

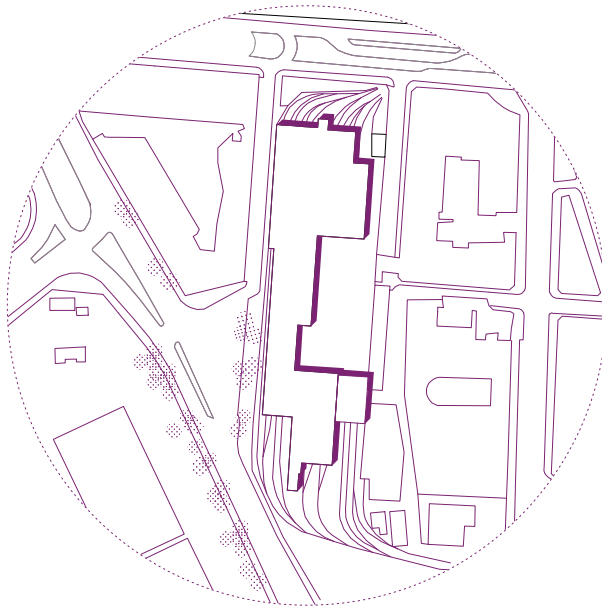
Cultural Center Daoiz y Velarde

This cultural center in the Retiro district hosts all kinds of cultural and social activities. Renovated in 2015, it boasts 6,800 square meters in which there are two theatrical rooms, one of which is in Italian style and the other has the shape of a configurable cross, as well as various multi-purpose spaces, common areas and storage rooms. This space is located in a former industrial shed, part of the former Daoiz and Velarde barracks.

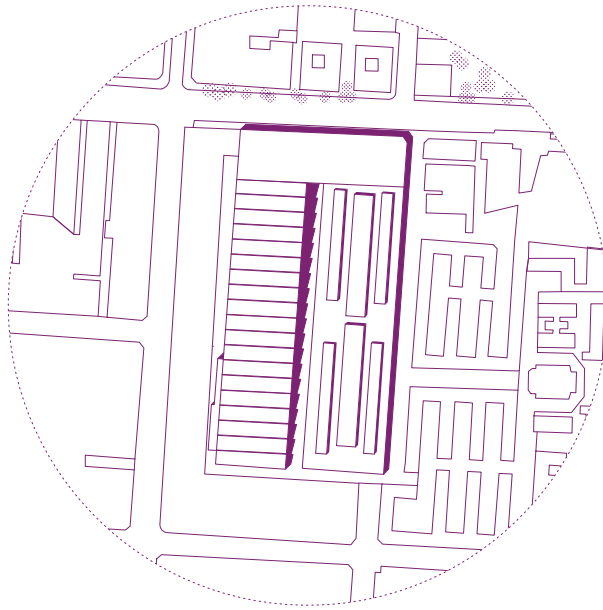
Matadero Madrid and Legazpi Market

It was built on land belonging to the Arganzuela district.

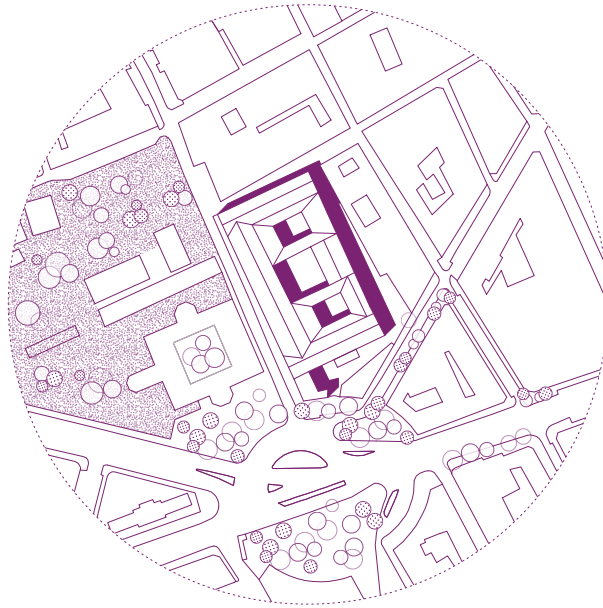
Initially delimited by the Paseo de la Chopera, by the river Manzanares and the promenade of Santa María de la Cabeza. The land had twelve hectares of surface constructed with various industrial buildings in the period between the XIX and the XX century. This was an answer to the needs of the growing population of the city and to replace the old municipal slaughterhouse on behalf of the Madrid city council.



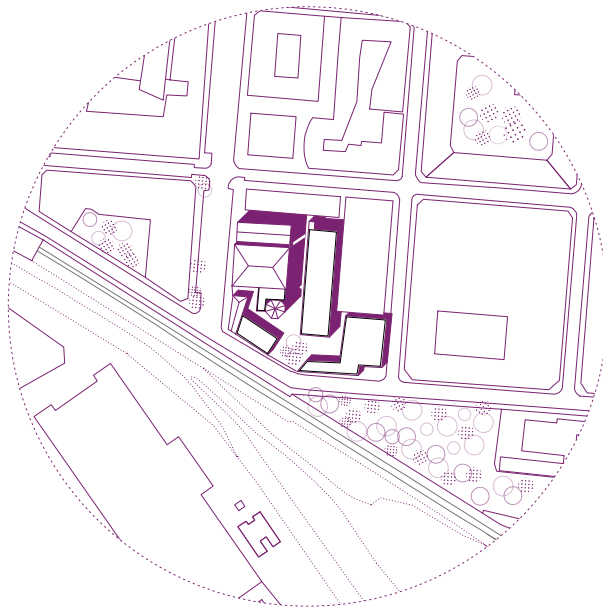
	first	later
name	Cuatros Caminos	
year	1919	2018
Architect	Miguel Otamendi, Antonio Gonzalez Echarte Antonio Palacios	platform“Salvemos Cuatro Caminos”
Program	Office and garage	Deposit / dismissed
Area	39 000 m2	



	first	later
name	Parque Móvil del Estado Madrid	PME
year	1935	1999
Architect	Antonio Arroyo, José Ponseca Llamedo	Autonomy organization
Program	Works on statalmachine	Transportatiom service gestion
Area	22 500 m2	



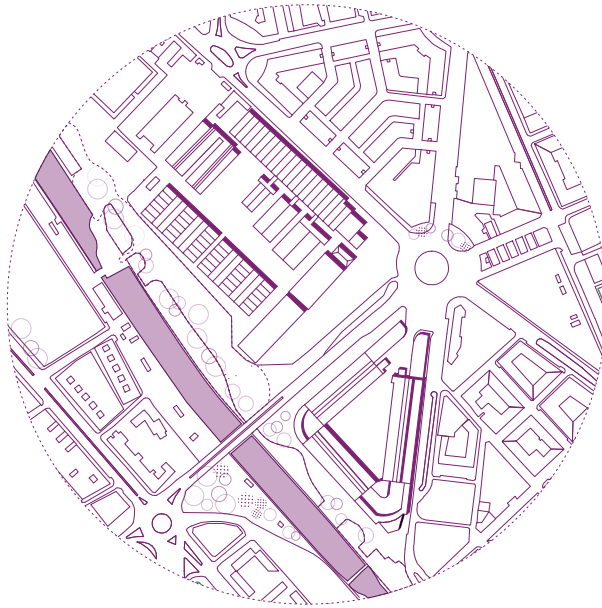
	first	later
name	Fabrica de Tabacos de Embajadores	la Tabacalera
year	1780 - 1790	2017
Architect	Manuel de la Ballina	CSA Asociacion Culturale La Tabacalera de Lavapies
Program	Tobacco factory	Selforganized cultural center
Area	38 000 m2	



	first	later
name	Birrificio el Alguilà	Biblioteca regionale Joaquin Leguina
year	1900	2012
Architect	Augusto Comas y Blanco	Madrid Emilio Tuñón e Luis Mansilla
Program	food factory, silos, storages, garage, offices	Municipal library
Area	13 000 m2	



	first	later
name	Caserma Daoiz y Velarde	Centro Cultural Daoíz y Velarde
year	IX century	2013
Architect	Luis Daoiz	Rafael De La-Hoz
Program	Military house	Social center self organized
Area	7 000 m2	



	first	later
name	Matadero y mercado municipal de Ganados de Madrid	Matadero Madrid y Mercado Legazpi
year	1910 - 25	2003 - 07
Architect	Luis Bellido y Gonzales	Fundacion COAM
Program	Slaughtery and fruit market	Workshop, multipurpose center. Legazpi market is today dismissed
Area	165 500 m2	

Three Limits Areas

Tre aree limite

Mercado Legazpi

The market of supplies dedicated to the sale of the vegetable was in the old Mercado de la Cebada. At the beginning of the twentieth century in Madrid, the City Council of Madrid promoted a General Market Plan where the construction of different markets was promoted.

The architect, Luis Bellido, was assigned as the responsible for the execution of the Plan.

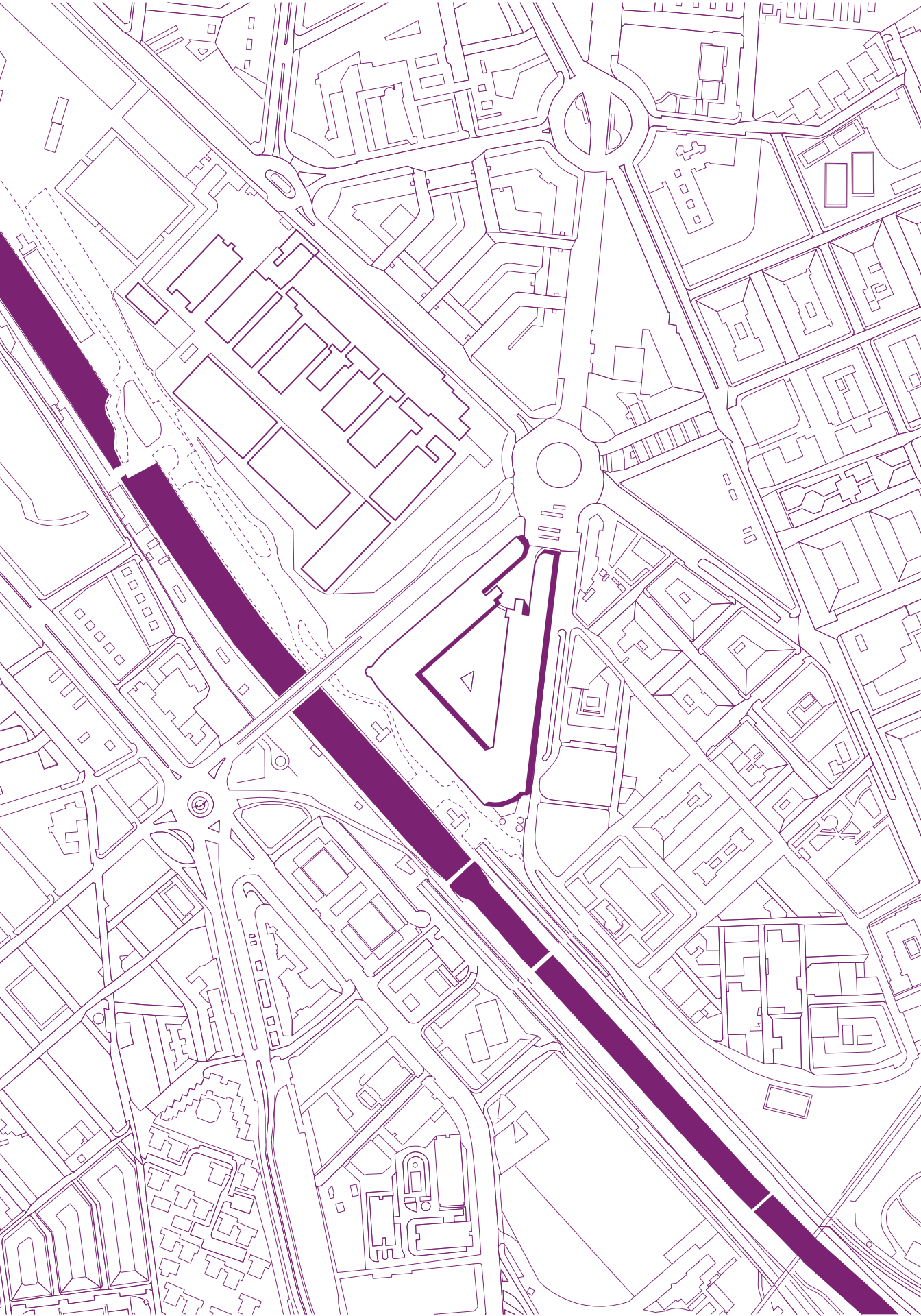
The works begin in 1926 and show an example of a rationalist style. On April 23, 1935, on the same day that the old Mercado de la Cebada was closed, The “New Central Market for Fruits and Vegetables” was inaugurated.

The building, still conserved, occupies a triangular site formed by the streets of Vado de Santa María and Maestro Arbós and the Manzanares river. The structure was built in reinforced concrete (two floors) on a plot of thirty thousand square meters.

It was designed and built by the architects Luis Bellido González (author also of the Slaughterhouse and Cattle Market), Francisco Javier Ferrero (introducer of the technology of the reinforced concrete in the Madrid constructions), and the engineer Alfonso Peña Boeuf. Its construction began in 1926 and finished in 1935.

 Area of interest:
Mercado Legazpi
Matadero

 Green areas





Axes

The building is located in a strategic position from the point of view of the axes that connect it to the gates of the ancient city. In particular, the axis between the area of the mercado and the Reina Sofia / Atocha station is strong, both two recovery interventions of recent post-industrial areas.



Grid

The market has an important shape within the urban morphology, evident also for the breaking of the grid and continuation of the nineteenth-century urban expansion of the ensanche.



Masterplan

The Legzpi market represents a strategic area also because it is included in an urban plan focused on the creation of parks and public gardens.

The remodeling of the river borders has affected the north coast of Manzanares for a stretch that goes from the Estadio Vicente Calderon to the Mercado, transforming these two buildings into two opposite poles of urban design.

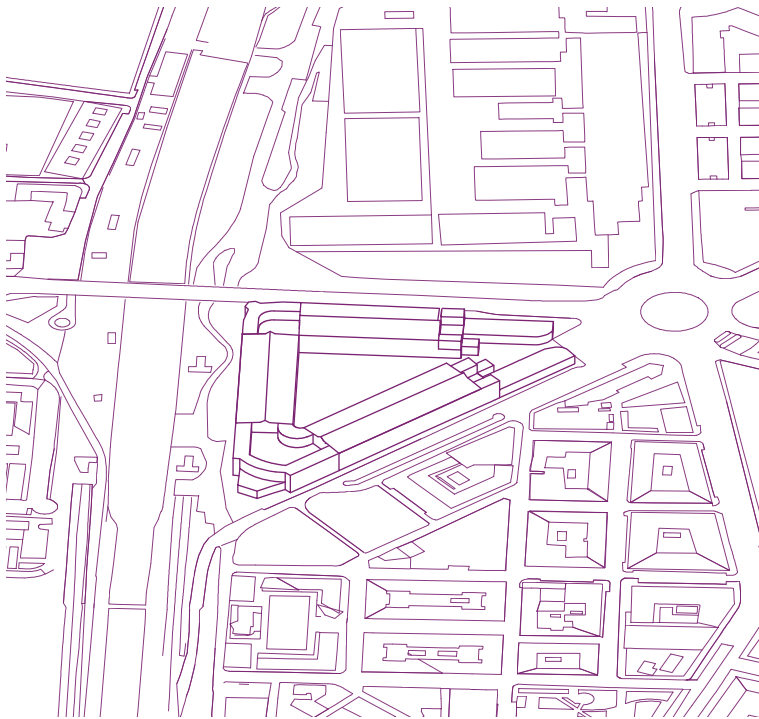
■ Relevant building
(Reina Sofia, Atocha
Station)

— Calle Toledo

■ Relevant Building
(Stadio Vicente Calderon)

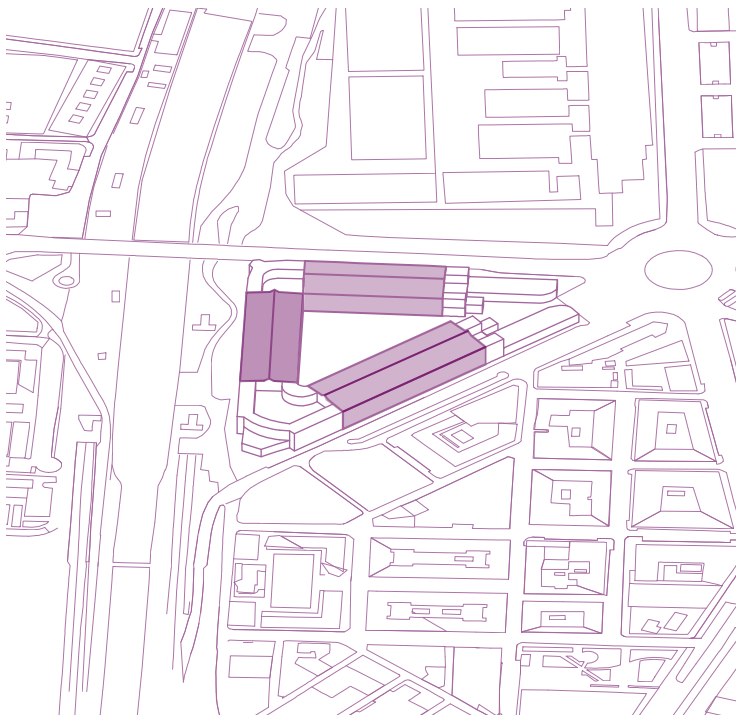
■ Masterplan Limits





Actual state

The Legazpi market complex is located on a triangular lot due to the adjacent axes that determined its shape. It is the conclusion of a much broader master plan that aims to animate the banks of the Manzanares river.

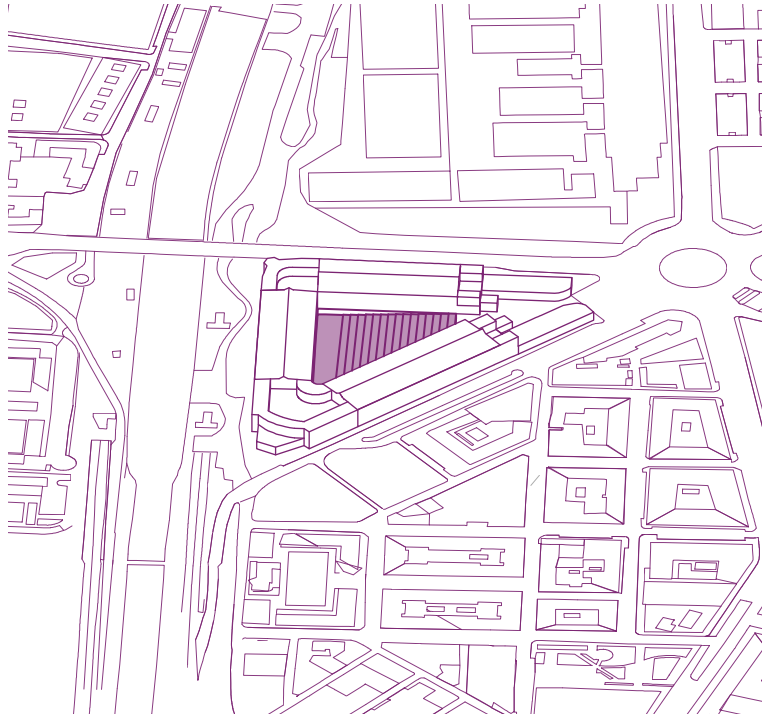


Maintain

The project does not foresee the total demolition of the building, the purpose is to give value to the abandoned area by making additional modifications.

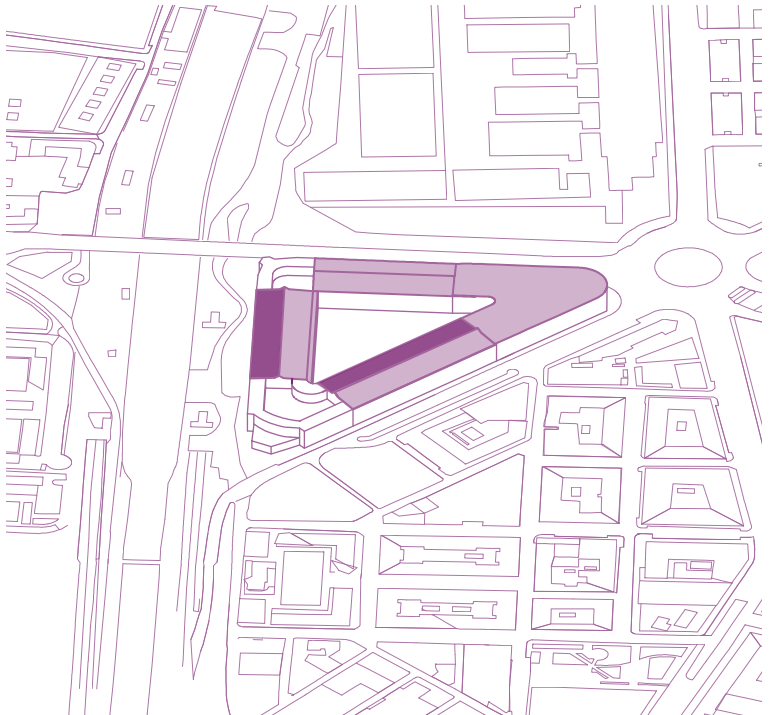
Discover

The concept provides that the visitor, once crossed the entrance threshold, can find an unexpected landscape. The idea is to treat the complex as a theatrical scene, in which a series of sets follow.



Complete

The addition, in the first place, may be to complete the shape of the building located on a triangular lot. This action makes the architecture more homogeneous and in agreement with its final objective.







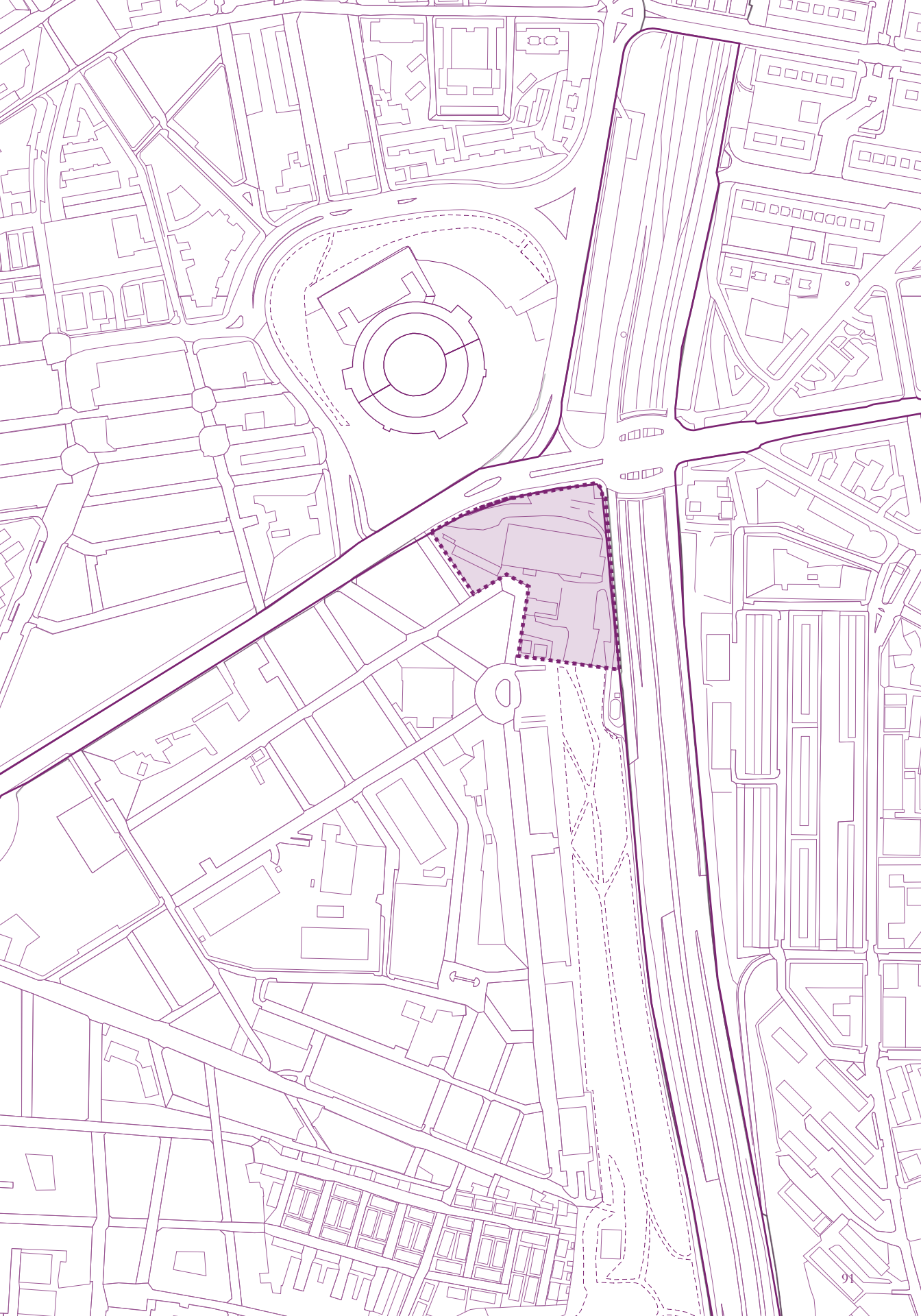
Arena de Las Ventas

Located in Salamanca district, Las Ventas has an almost perfectly circular structure. The central arena is one of the largest in the world, with about 60 m in diameter. All around the arena there are seating tiers, divided into 10 compartments called tendidos, the most prestigious of which are covered.

The arena is accessed from five different gates, plus three toriles, reserved for the entrance of the bulls.

The famous Puerta Grande is the most important gate; only the toreros who stand out in a particular way are granted the honor of leaving the arena through this door. Next to the Puerta Grande, on the facade to the outside, there is a plaque with a list of bullfighters who have had this honor in the history of the arena.

-  Area of interest
-  Buildings of public relevance - The Arena
-  Green Areas
-  Primary axes





Axes

The position of the old tramway is in front of the Toro de las Ventas arena and is strategic both from an architectural and urban point of view. Architectural due to the imposing presence of the arena to the north, urban as it is located at the meeting point of two relevant axes. To the east the last layers that delimitates the urban context, perpendicular to this, calle de Alcalá that reaches the first circle of walls delimiting the ancient city.



Grid

The area is located in the same neighborhood as the Retiro park, the hub of the city, and is the conclusion of a green design that starts from the arena and extends southwards. The disused area is a void inside the masterplan that could become a link between the arena and the green system.



Masterplan

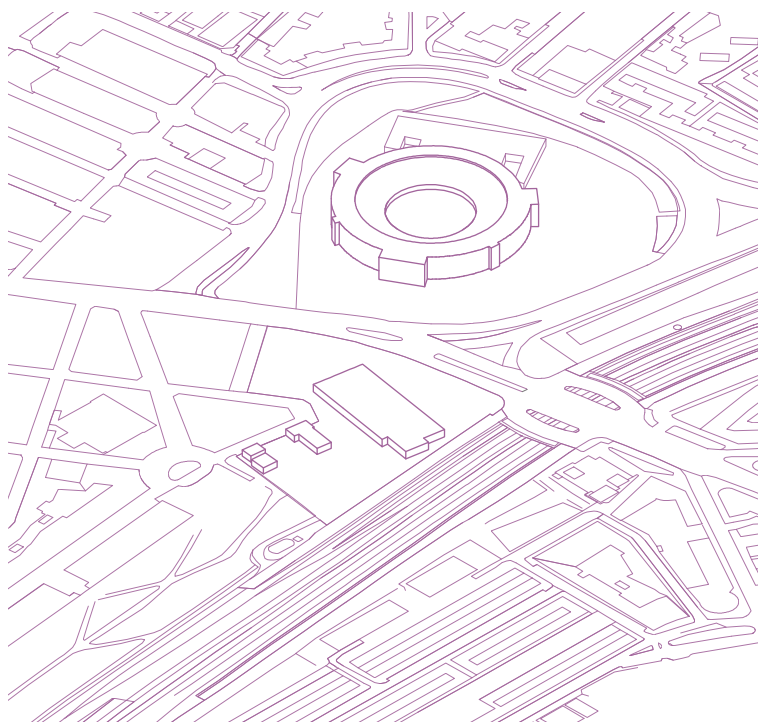
The intersection between the two primary and secondary axes creates an entrance door to the city where the arena and the area in front of it are two possible doors and landmarks for the city.

- City wall IX century
- City wall 1500 - 1600
- Traces urban limit 1800
- Relevant buildings
Arena de las Ventasa
- Primary urban axes
High speed street
- Secondary urban axes
Calle de Alcalà

- Masterplan limit
- Green ares:
 01. Parck Eva Duarte de Peron
 02. Park del Retiro
 03. Park Fuente del Berro

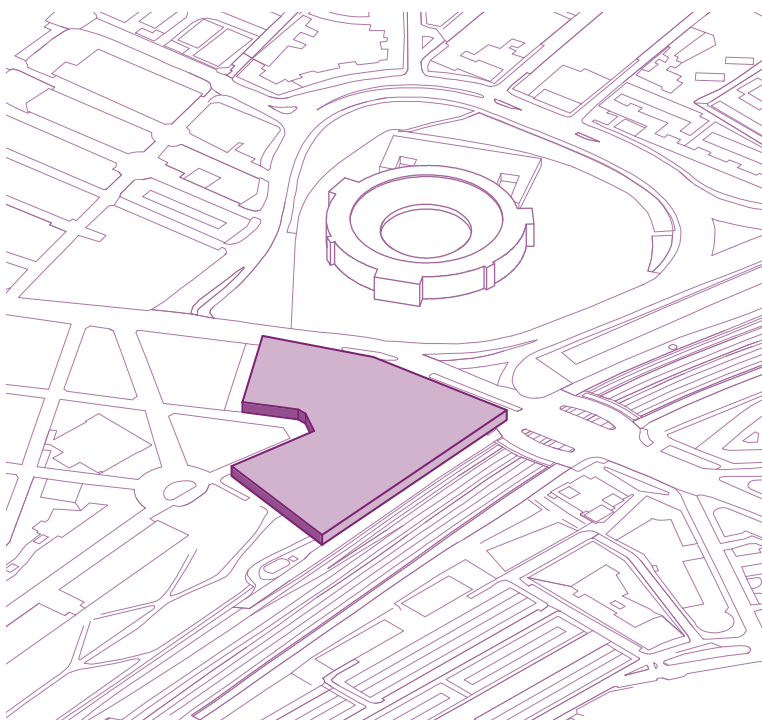
- Relevant buildings
Arena de las Ventasa
- Primary urban axes
High speed street
- Secondary urban axes
Calle de Alcalà





Actual State

The area adjacent to the Las Ventas arena is a place with a lot of potential as, in addition to having a building of so much public and traditional interest nearby, it can become a new gateway to the city.

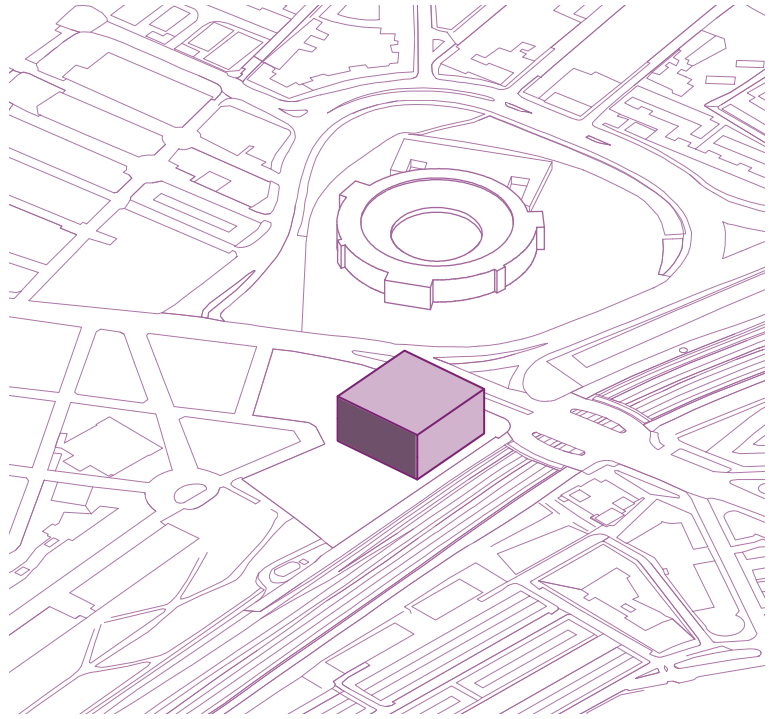


Maintain

This is the only action of the three studied analyzes in which a demolition is expected and the following construction of a building of important dimensions. The fundamental factor that unites all the actions explained is the reinterpretation of the monument with which one is closely related.

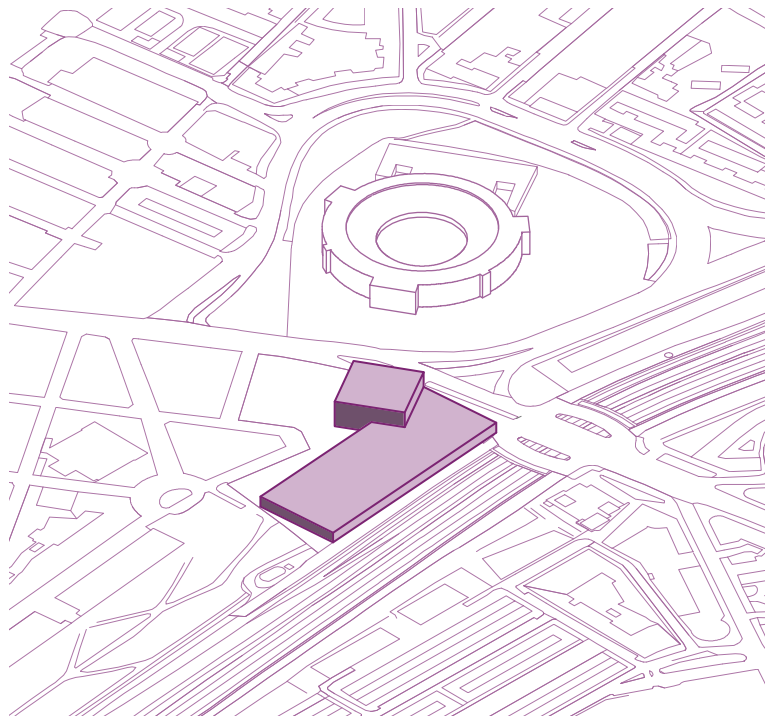
Discover

The construction of the following building can be erected in a compact way, in the tangent angle to the high-speed road in order to dialogue with all the elements present.



Complete




The shape that architecture will take will have to dialogue with more sides and elements present, contrasting the arena and its historicity, dividing from the street and continuing the urban green design.

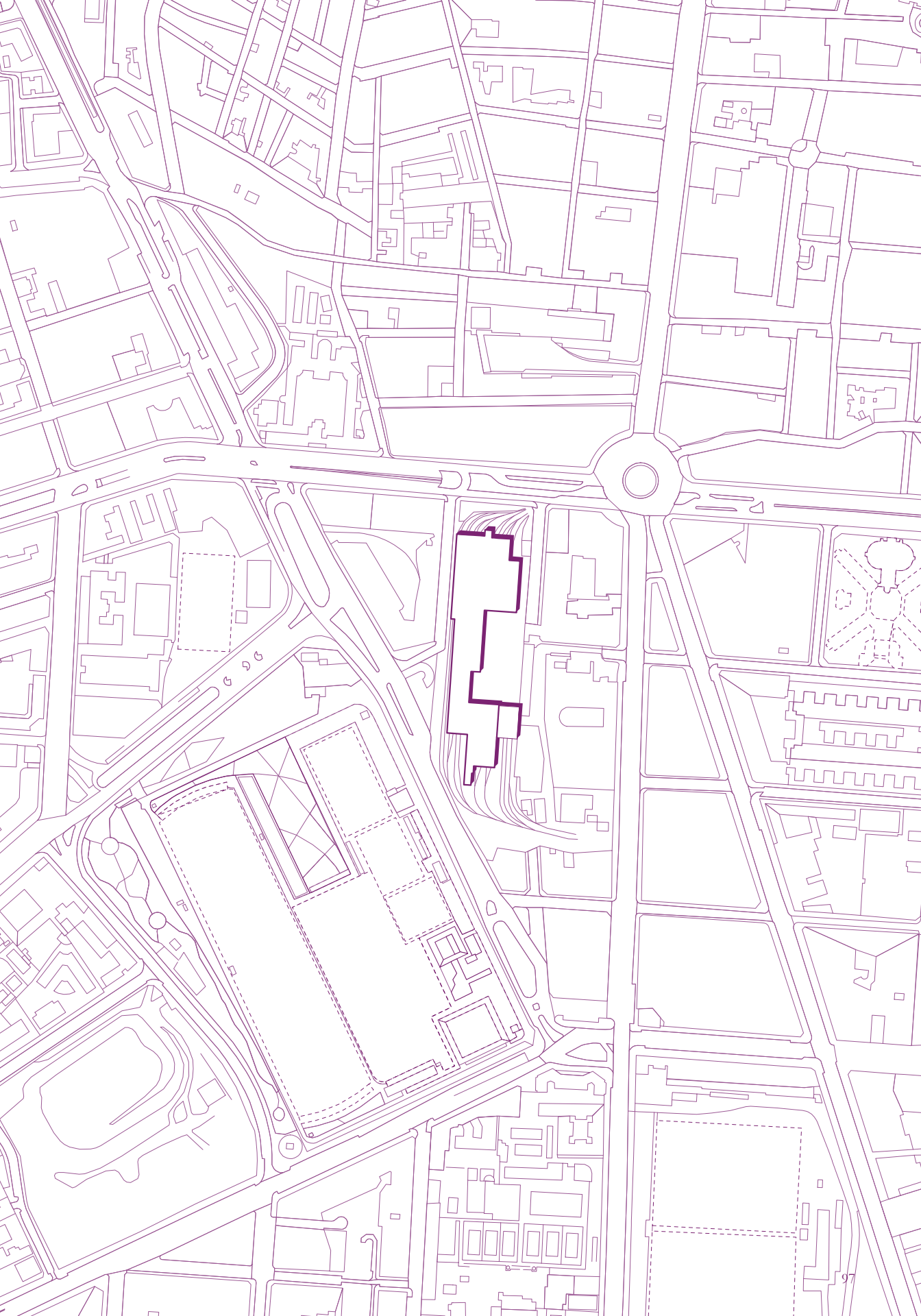


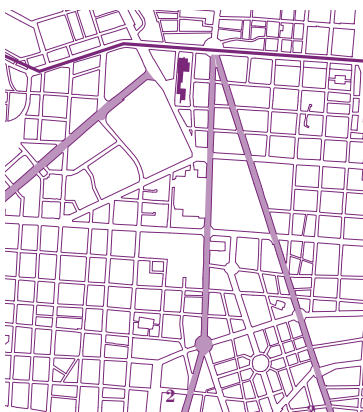
Cuatro Caminos Garages

They are the first garages and workshops of the Madrid Metro. Their construction began in 1918, during the works of the first Spanish suburban railroad that were, therefore, the oldest underground facilities in Spain and some of the oldest in Europe, being also an important element of industrial heritage of the city of Madrid. The inaugural convoy of line 1 left these garages on October 17, 1919. Currently there is a plan for the demolition of these, parallel to the creation of the association "Save the carriage houses of Cuatro Caminos". This position was chosen for its natural decline (which facilitated the location of the access tunnel) and for its cardinal orientation (ideal for having a sawtooth or shed craft, which seek to capture the northern light, the most propitious to illuminate a workspace). The route of the tunnel traced a 90° curve before ending at the maneuvering beach. This entrance -thought for the trains of the time- currently prevents access to most of the Metro de Madrid mobile materials.

Abandoned in the mid-1900s, what remains are the characteristic industrial buildings and other buildings of lesser value. The underground position with respect to the rest of the neighborhood has isolated the lot and created a void for the entire urban fabric, which makes the space unusable.

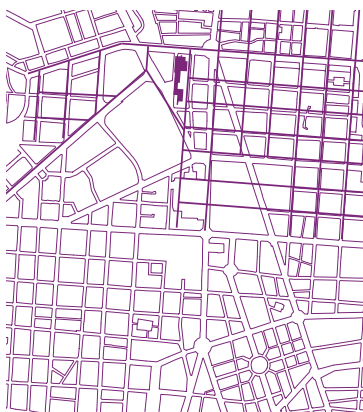
-  Area of interest
-  Buildings of public relevance - Matadero
-  Green Areas





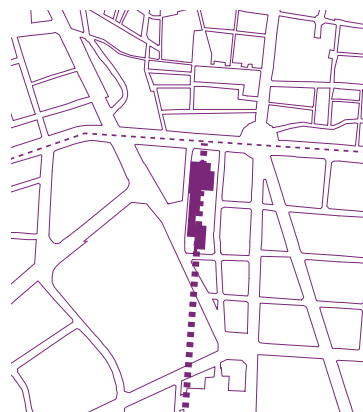
Axes

The abandoned complex of the old Cuatros Caminos station is located at the meeting point of three important roads for the city. The three routes start from the city walls of the city and arrive on Calle Villaverde, the grid limit of the 1800s urban plan.



Grid

The urban morphology follows the direction of the axes, creating the meeting between two grids. The lot of the old station is exactly where the two grids meet and break the regularity of the urban fabric.



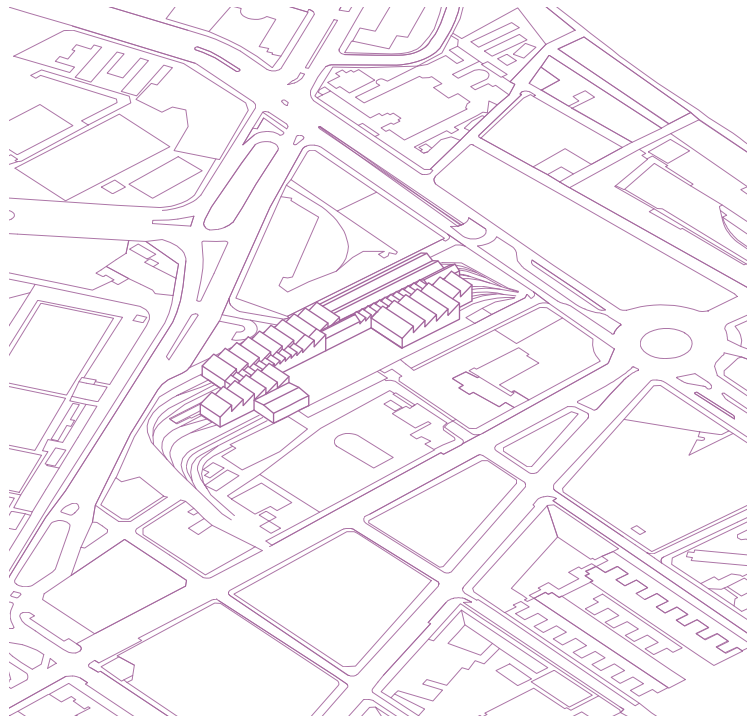
Masterplan

The particular conformation of the lot means that there is a preferred direction of travel. The longitudinal direction of the lot connects the urban park of Santander, with the old abandoned buildings, while it creates a tension with the residential buildings that follow the two east and west fronts.

- Primary axes
Calle Villaverde
- Secondary axes
 - 01. Paseo de Sales
 - 02. Calle de Murillo
 - 03. Calle de Sta Engracia

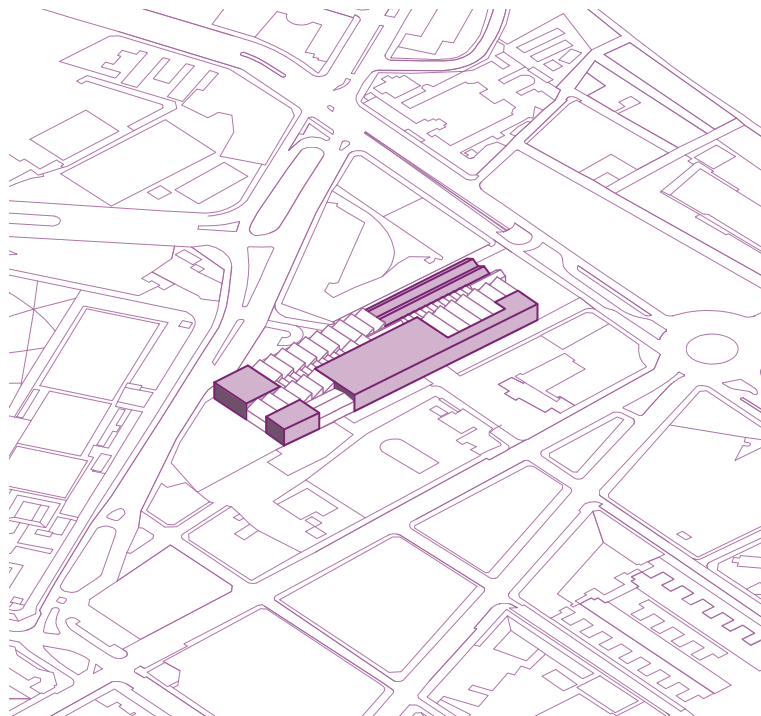
- Edifici rilevanti
- Limite Masterplan 2000





Actual State

The peculiarity of this area is the trace that history has left. The shape of the sheds and the sign of the rails are a relevant starting point for the architecture that will take shape.



Addition and cover

The protection policy provides for the reuse of existing buildings as a form of conservation; this allows restructuring, replacement, demolition and integration with contemporary interventions to adapt them to a new use.

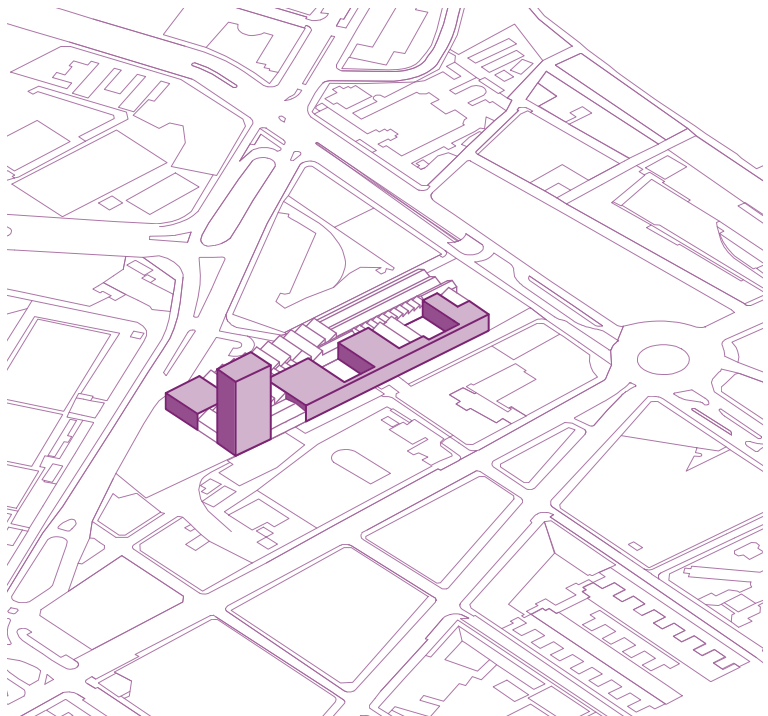
Addition and fragmentation

The aim is to guarantee a typological coherence of the building within a new condition. Two key points for design are conceptual realism and creative freedom. In this case the addition of multiple parts does not affect the original direction of the plot.



Addition and model

Only when the lot is occupied and there is a clear tension between the new and the pre-existing, the buildings can take different forms, be modeled according to the different program and the different role within the planned enclosure.



Investment policies for new cultural spaces in Madrid

Politiche di investimento in nuovi spazi per la cultura a Madrid

After a deep analysis of the infrastructure and fabrics situation of Madrid City, what we wanted to take in consideration are also the actual necessities for the city, from a political and economic point of view.

Even if it is hard to understand where actually economical founts are going in relation of cultural development, there is an investment project developed by the municipality of Madrid that involve the cultural expansion of the city, mainly in the southern part. This new project follow the political and social changes that are nowadays affecting Spain, about the Catalan will of division and the other small movement of independence spread around the country. It has become e need for the city of Madrid to try to strength its image of european capital, and the attempts are going mainly in the cultural direction. For this reason, Madrid Rio project is part of bigger vision to expand in the south of the city as cultural district, made of different dowels with different function. Matadero is the manifesto part of this idea, but is accompanied from other project like El Alguila municipal library (Madrid, 2002), Daoiz y Velarde Cultural Center (Madrid, 2013), and others, that tent to create e net of cultural link.

In the effort to make Arganzuela neighborhood been known as the cultural district of Madrid, piazza Legazpi's market is a big lack, whose transformation can fit carefully in the plan.

We therefore think that, piazza Legazpi necessitate of a project, supported, not only form the architectural lack of the damaged structure, but from the public needs of the city. That can actually have a final reply once inlaid in the Arganzuela district.

Legazpi market: a strategic project

Il mercato di piazza Legazpi: un progetto strategico

The old fruit and vegetable market of Legazpi is of enormous importance for Madrid City due to the combination of its architectural, artistic, historical and heritage values, as well as being one of the few examples that has managed to preserve its collective memory.

The strategic relevance of this area is due to a combination of factor. From the urban point of view, the Mercado Legazpi in effectively the end point of bigger Madrid Rio masterplan, and at the same time is the hinge able to connect this park to the southern green areas, now disconnected from the rest of the city.

The architectural conformation helps the urban drawing, because the triangular shape seems to naturally continue and confirm the strength of the urban axes.

The basic shape of the triangle, clearly give the idea of a public space, related to an internal piazza, easily divisible in three different main corps, all linked to a common center. The main entrance of the triangle addressed to the piazza Legazpi, naturally became a strong landmark, which could be emphasized from architectural intervention. This is all helped from the common feeling that are rooted around the old Market, as explain the

work of Platform FyV in defense of the Legazpi market. This public will is strongly felt around the neighborhood, and bring the project on the main attention, for its potentiality. The Mercado Legazpi platform, claim that the new project should propose a gradual and collective reactivation of space. Plurality is based on the wealth of uses and its ability to adapt to space in its current characteristics, guaranteeing its opening to the whole society, its inclusivity, its public character and social return. Ensuring that the space comes alive again and remains a large public and open space, thus recovering its original conception and memory as a great center of exchange and distribution of common goods. The combination of the urban, architectural, and social values, make the piazza Legazpi market an important strategic project.





04

The project

Mercado Madrid

Social historical dynamics

Dinamiche storico-sociali

“Architects, sculptors, painters—we all must return to craftsmanship! For there is no such thing as “art by profession”. There is no essential difference between the artist and the artisan. The artist is an exalted artisan. Merciful heaven, in rare moments of illumination beyond man’s will, may allow art to blossom from the work of his hand, but the foundations of proficiency are indispensable to every artist. This is the original source of creative design.”²³

Before introducing the industrial asset it is fundamental defying the concept of heritage due to its changing and evolution in time.

During XIX century the heritage was meant as historical monuments such as cathedrals, castles or palaces. In the following century, instead, this concept started spreading towards other fields, mostly as a consequence of the destruction left by war events.

UNESCO defines the heritage as material goods in which:

- Monuments: architectural, plastic or monumental pictorial works, archaeological elements or structures, inscriptions, caves and groups of elements of universal value, exceptional from a historical, artistic or scientific aspect,
- agglomerates: groups of isolated or reunited constructions that, due to their architecture, unity or integration in the landscape, have an exceptional universal value from the historical, artistic or scientific aspect,
- sites: works of man or conjugated works of man and nature, as well as areas, including archaeological sites, of exceptional universal value with a historical and aesthetic, ethnological or anthropological aspect.

In 1975 Europe commission extended the definition affirming that the entire European cultural heritage is not based just on the most important monuments, but it is built on all those elements that constitute cities, traditions and citizens. That was the reason why from that moment on architectural works started considering the context as well as the building to recover, preserve or reuse.

The industrial Heritage itself, on the other hand, is a much more recent phenomenon, born in Great Britain during the XX century.

Industrial heritage is about the recycle of buildings, formed by the ruins (material and immaterial) that have historical, technological, architectural, social or scientific value. These remains exist in the form of territory, buildings, machinery, files, and oral testimonies transmitted by workers. The immovable material remains can be factories, workshops, mills, mines, haciendas, places where energy is processed, buildings related to transportation and infrastructure, as well as places where basic and complementary activities of people related to these sites are carried out. : housing, education, commerce and religion.

It is therefore reasonable to consider the Legazpi market with such a huge value and consequently act with the right knowledges.

In 1936, Javier Ferrero published an article in which he showed the political development of the creation of all the markets in Madrid and their difficulties until the year 1926.

It was common in that period find markets scattered throughout the city, such as Mercado del Carmen, de San Idelfonso, de San Anton... Last

²³ Manifesto of the Staatliches Bauhaus
Walter Gropius, April 1919

markets to be built were Cebada Market, in 1868, and Mercado de los Mostenses, in 1875.

This situation, plus a strong price increase of general price of goods, brought Madrid municipality to create a new plan for all the markets in the territory. It predicted the presence of just one and only market for each district and it had to be close to a station so to be easy to reach. The Direccion the Arquitectura Municipal, run by Luis Bellido, divided the design of markets in two groups. First, those ones with a unique kind of production useful for the entire city. It was so immediate to make a further division based on the specific products to sell. The second group corresponded to a more general structures intended to citizens services.

Even though in 1926, the city of Madrid saw the growth of several markets, El Mercado de Frutas y Verduras knew its origins just in 1930, thanks to a substantial budget increase

The built markets of Madrid have suppressed everything that can be meant as expensive, to replace it with a studied and finished hygienic sense; the great heights have been reduced to an absolutely necessary aesthetic proportion and never exceed in the possible reach of an irrigation hose, in order to be able to wash away even the ceilings; they have disappeared both outside and inside, the moldings, the decorations, the corners, the twisted irons, etc.

In general, all that can mean useless attachment, a dust and trash collector, the large surfaces of stained glass or blinds, hardly affordable and always dirty, have been changed by metal windows of the current type; the penumbra has been replaced by clarity, but softening the light by wide ruffles that prevent the sun from entering

and by greenish glass, which absorbs the heat rays of the red range; the floors have been made impermeable and with springs and gutters; the baseboards, unassailable even by acids and proof of strong shocks; the coatings and plasters, persistent... In other words: markets were not meant for the public's astonishment, but for their service, treating the construction and installation as it could be done with an operating room.”

Those projects proposed a break with the previous architecture built by municipality, breaking the link with the Madrilenian regional architecture. This was a new step for the modern architecture.²⁴

The history of Legazpi square

La storia di piazza Legazpi

The square already existed at the beginning of the twentieth century, although without a specific name, as a crossing point of the Paseo de las Delicias with the Paseo de la Chopera axis - Paseo del Molino.

From this node came out an access, which crossed the meadow of Arganzuela, to the ford of Santa Catalina where it was possible to surpass the Manzanares River.

In 1901 the bridge of the Princess, located on the ford of Santa Catalina, began to be built. The bridge, made of iron, was inaugurated in 1909, connecting the Paseo de las Delicias with the road from Madrid to Cádiz, that caused an immediate increase of the transit through the still unnamed square of Legazpi.

²⁴ Serrano, Florencia Torrego. El Mercado Central de frutas y hortalizas de Madrid. Universidad Complutense, 1981.

In 1910 Matadero and Municipal Market of Ganados started their constructions, whose southeast corners also face to the place.

Between 1924 and 1925 started working. However, until July 14, 1926, the city council of Madrid did not name the square, it took the name of the conqueror of Manila, Miguel López de Legazpi, who was renamed Plaza de Legazpi. On April 23, 1935, the Central Fruit and Vegetable Market was inaugurated with the main access in the Plaza de Legazpi.

In January 1931 the Legazpi cinema, designed by the architect Vicente Agustí Elguero, was inaugurated on the corner of Calle Bolívar. It disappeared in the early 1950s and an office and housing building was erected instead.

Nowadays the square hosts an important Metro stop; the station of line 3 that was opened to the public on March 1, 1951, two years later than expected due to import problems of auxiliary materials from abroad. The line 6 station was opened in the same square to the public on May 7, 1981 with the Pacific-Porto section.

The history of the market

La storia del mercato

The history of the market took place in 1924, when Sociedad Anonima de Deposito Generales (SADG) offered to the municipality a plot for a Market to sell goods, coinciding with the request of the mayors of Cebada Market who was asking more space as a warehouse where to put products which did not fit in the one located in Paseo Imperial.

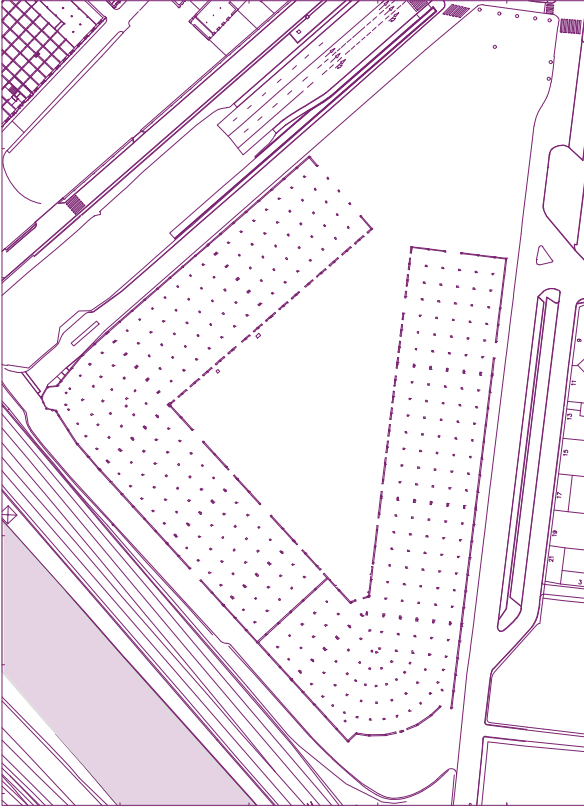
The municipal architect, Luis Bellido made an appraisal of it, proposed to buy another one in the South if it was necessary.

In 1925 the acquisition of the plot had not yet been resolved, it was a contest to decide the destiny of the purchase of a plot. The characteristics of this one had to fit with the indications of the contest: easy access, possibility of entering railroad cars, proximity to the railway network and an approximate area of about 3000 m².

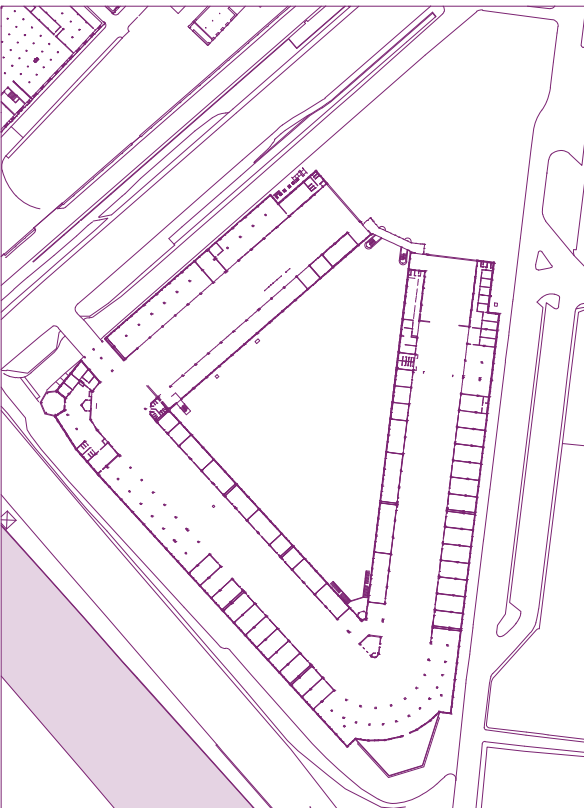
On June 15, on September 12, the resolution was not obtained, without a winner and all the proposals presented were refused.

Later on, however, a site was found, close to Manzanares River between the Puente de la Princesa and the Antiguo Camino del Vado, which had all the requested requirements and also, it had the branch line of railway that reached Matadero. The lot was owned by the City Council, reason to save money.²⁵

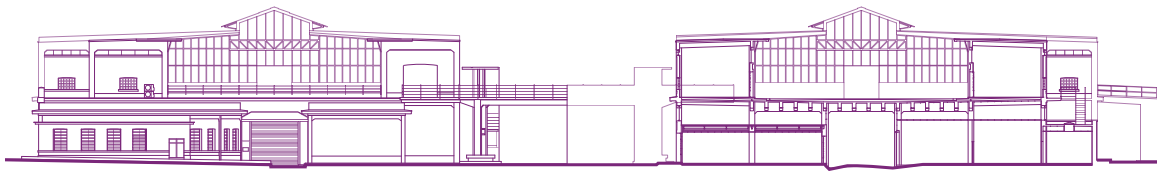
²⁵ A. Martini Garcia, Master Thesis “Patrimonio Industrial, El mercado de Fruta y Verdura”, Madrid, 2017



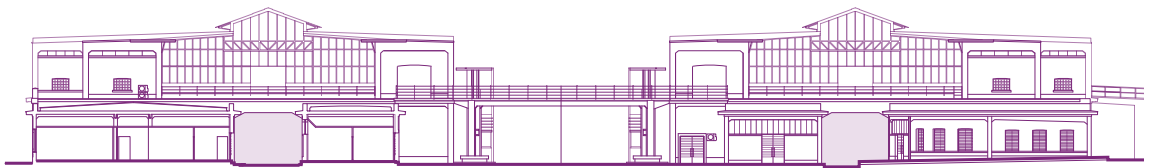
Groundfloor original project plan



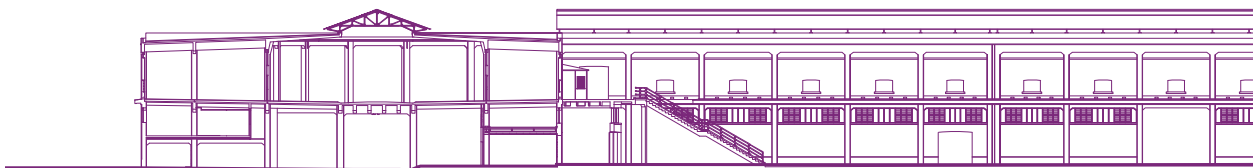
First Floor original project plan

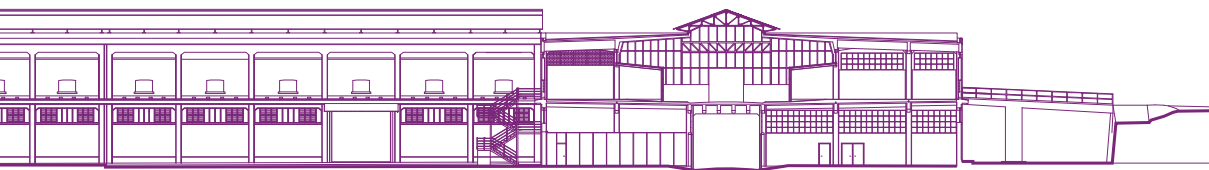


Actual situation North facade

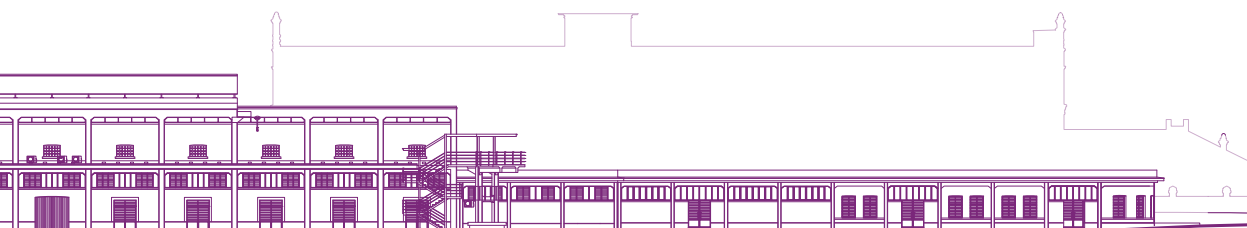


Actual situation North facade

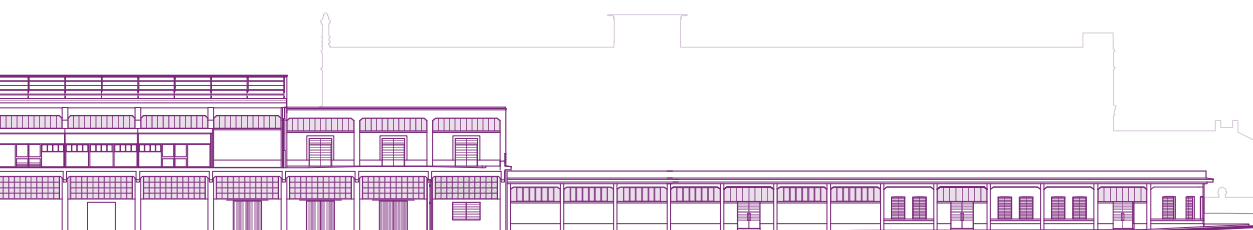




Actual situation North facade
view from the inner courtyard



Actual situation West facade
view from the inner courtyard



Actual situation West section
view from the inner courtyard

Market today

Il mercato oggi

The market maintains its activity as a market until the year 1983 with hardly any changes in its functioning. The development of an infrastructures network caused the disappearance little by little of the use of the railway useful in the transport of goods in front of the truck, eliminating the roads inside the market as well (nowadays there is just a small part of them).

On the occasion of its opening, in 1983, it was forced to dismantle its activity, being relegated to other different functions.

Various activities were so moved inside the market, such as parking, mobile park of the City Council, the Office of Lost Objects of the municipality, SAMUR facilities, warehouses...

These changes of usage generated the highest number of problems suffered by the market comparing to its original state.

Outside, the triangular services pavilion once in the patio was eliminated, metal exterior stairs on the main access walkway have been added and, different gaps are now opened and other locked in the facades that face the patio. Inside, on the upper floor, it saw the closure of the exterior street through a sheet metal roof over trusses metallic. Glazed enclosures are also added at the ends of the longitudinal bodies. The original partitioning is eliminated in the area occupied by the City Hall warehouses, compartmentalizing the space for the addition of deposits and facilities, other reinforcements have been added on pillars, especially joints and metal brackets. On the ground floor, there was an extensive addition of partition walls, floorings, false ceilings and new carpentry, creating new partitions through factory elements that cover the free height of the plant. The holes of communication in the floors are blinded by concrete boards on metal joists.

- **Relation with the square**

Plaza de Legazpi, where the market is located, has been subject to various changes according to its growth. The square was formed during the XX century as the crossing point of the Paseo de Delicias with the Paseo de la Chopera.

In 1901, Santa Catalina ford started building an iron bridge, which would have connected both banks of the river, ending in 1909. In 1910 the construction of Matadero Madrid began, finishing in 1925. A year later the plaza was officially named with Plaza de Legazpi. The square, where the tram tracks passed, saw its transport infrastructure increased with the openings of the metro station on line 3, which was inaugurated in 1951, and then line 6, in 1981. The tram disappeared from the square due to the increase in traffic in the whole city. Currently the square, supports a large amount of road traffic, along with the passage of urban and intercity bus lines that strongly influence the perception of the square. The bus stops represent a constant barrier with the other elements of the square, especially with the market. The enormous scale of the square, 125 meters in diameter, distorts the main landmarks of the square, such as the Pegasus statue. The petrol station on the corner of the Paseo de la Chopera, the preceding statue and the canopies, serve as focal points for visual attention, especially highlighting the Matadero water deposit.



Report of the project

Relazione di progetto

- Main topic of the project

The project tends to be an occasion for an ongoing, bigger transformation inside the district of Arganzuela, as it is one other piece of puzzle to add for the advancement of the city. Its optimal position is certainly helpful for the entire development, but the the connection to Madrid Río reinforces its importance.

The interventions could be summarized into two big architectural actions: the reuse of the old structure and the addition of some parts.

In this case it is necessary to introduce the term of adaptive reuse, referred to “the process of reusing an existing building for a purpose other than which it was originally built or designed for. Adaptive reuse is an effective strategy for optimizing the operational and commercial performance of built assets”.

This kind of reuse is not immediate in the design process, since it introduces other conditions that bring to variations which are not always simple and clean to handle, especially if the structure was thought for other aims. This difficulty does not exclude the potential attractiveness the building could reach. Legazpi market wants to find in the previous structure the strength to become something new. It does not attempt to deny history, it underlines the importance of it.

The action of reuse is so necessary considering the fact that in nowadays cities there will be more and more building to recover.

The first step for the success of the action is to accept the physical condition of the original structure, then it is important to study the qualities of it not to forget some possible and fundamental peculiarities during the design process. The size, the rhythm and the form of the existence structure could provide opportunities for balance or counter points

The second action the strategy of intervention foresees, is the addition of some new elements, creating so a collision among the parts. All the masses of each part are in tension with the other: the horizontal trend of the market is thus in contrast with the height of the tower and how this is opposed to the different in height of the other lower building.

The project wants to become a sort of micro city composed by various functional pieces for the community. The goal, in fact, was from the beginning to overcome the fear of the intervention directly on the building. “Cause the city always grows”²⁶, the idea of continuity must not be preserved, but it must be transformed with the contemporary. And form is not as important as a concept of overwriting new texts and programs. Architectural pre-existence is meant therefore as body, resource or text. Contemporary addition dependent on it concretely but not in terms of identity: endogenous or exogenous, it attacks the existing from the outside or germinates inside it. Reconfigurations, superfetations: at the base of all these architectural interventions there is an ideal of sincerity towards the passing of time and a positive vision of contamination.

A positive and purposeful concept of a return to originsm leads to the reactivation of the present, also through smallness, small urban episodes that fit into an idea of the flow of time that never goes backwards.

²⁶ Koolhaas, Rem. “Cronocaos.” Log 21 (2011): 119-123.

- **Relationship with the contest**

As already written, the market is inserted in an area full of potential due first of all to the presence of the new landscape project of Madrid Rio that surround it.

In 2003, Madrid Council decided to build a tunnel for a 5 mile stretch of the main ring road around the city, which ran along the banks of the River Manzanares. This was a consequence of the fact that the highway construction, started 30 years ago, removed the city's connection to its river, rendering it inaccessible and invisible. Madrid could finally have a river again and create a dialogue with it; the project includes the re-organising of public spaces along both of the banks.

The work included the construction of vehicular tunnels that allowed the city to have some natural surroundings to fill with vegetations and green areas. It established a physical and conceptual link between the city centre and the valuable countryside that surrounds it, and the River Manzanares has been transformed into the point that connects the city with its geography. Thus, south façade of the market underline this relationship. The structure provides a wide opening not to deny this connection.

One other important presence in the proximity of the market is Matadero Madrid. It was built between 1912 and 1925, nowadays is completely renovated into laboratories for multidisciplinary contemporary creation.

This involves the participation of various architectural firms. All of them respected the idea of adaptive reuse, in fact the visitor can observe from the outside the original structure of the historic building and enjoy different functions once inside.

With its firm emphasis on citizen participation, the complex acts as a social and cultural catalyst and for this reason the design strategy predicts a physical connection with the market it through an underground square that works as an entrance for both.

The market also acts as a hinge, intended as a generator node for a wider system. It is located at the intersection of main axes and near important 'cultural' buildings of the city, such as Reina Sofia Museum or Caixa Forum. For this reason one of the functions that will inhabit the project will be the one of a museum or a library. It also includes several pedestrian passages that do not interrupt the continuity of these urban directions.

- **Design Strategies**

The complexity of the project is based on the mix of different typologies that dialogue together.

From the outside it is clearly visible the presence of a tower that overlooks the entire square, but at the same time it serves as the main entrance. This is in opposition to a 5-storey building that, in a more delicate way, sticks to the old structure with a different use of materials and language. The structure of the market, from the inside, sees the presence of several patios created by subtraction of original parts, but at the same time the design does not delete the rhythm given by the pillars that divide the complex into three main naves.

From the compositional point of view, each object has its own features. Considering the tower it is important to notice the strong collision it creates with the original structure. The building considers a material and structural change in all its development. There is also a kind of basement

on which the tower leans, occupied by two cinema rooms. The building is composed by several floors for residences or offices, that follow a module that is one and a half the one of the other.

Concerning the 5-storey building it keeps the division given by the original pillars as basement, while it stands out from the previous thanks to a steel pillar system, whose number is a submultiple of the pillars light. It interacts closely with the old constructions. This volume tries to break down the site's symmetry and tends to draw together all the different functions. Constructed out of a glass surface, the structure is covered with a web of vertical elements made of a dark-colored metal that shelter the interiors from the sunlight: the intention of the building sets up powerful chromatic relations with the red-colored exposed bricks of the warehouses. For the market volume the strategy foresees different interventions for each wing. All dialogue with the idea of keeping a enlightening corridor in the middle, where the previous roof stood. In this way all the building can enjoy natural light, enjoyed in the groundfloor, as well, thanks to a patios system that creates holes in the original slab. The triangular shape of the market was born following the geometry of the plot. The final form of the project is indeed a U, open at its end, towards to the city.

The interior of the market in the plant low is organized into six bays through a central one like a main central street that runs the whole building under the natural light quoted before. The repetition of the structural module, together with the great length of each side, creates the effect of a linear leak, like a triangular ribbon. On the first floor there is still the concept of main central road, in the museum this idea is less visible since the strategy removed a part of the floor to insert the block for the exposition. The visitor could get inside the structure with a circular ramp, situated right in the south east corner. There are two other slides that both break the original scheme and help the visitor to reach one point or one other.

From the structural point of view, Legazpi Market kept the original of reinforced concrete, organized in a grid of pillars of 6x6x6 meters approximately, with joists also of reinforced concrete. The part of the market that faces the river lost a portion of its façade, so that it was possible to highlight the idea of connection through glass walls. The structure of the new lower building is conceived with circular steel pillar that gradually take the place of the pillars in the original structure where they were missing. There is no replacement but mix of new and old items, mostly visible in the first floor.

The tower concrete pillars are 60x60 cm, with a V system in the basement and a concrete central staircase body that help the vertical structure of the volume. To cover the light given by the lack of pillars in the cinema it was necessary to introduce a 1m high steel beam. Its outer surface shines with flickering light that changes with the time of day and the weather situation, sometimes contrasting, sometimes complementing its surroundings. Windows have different sizes and shapes and they are grouped together and cut from the building's outer skin made of ripple glass and aluminum sheet metal. The arrangement of the rooms inside the residence in the building follows the orientation: the northern part is occupied by sleeping areas, in the southern the living ones. The façade's seemingly random appearance is the result of the systematic combination of the different types of apartments and orientation: the north façade does not present any kind of balcony as the three other do.

Quantitative data

Dati quantitativi

The following data represents the amount of construction the projects takes into account. The table is basically divided into three parts. Each one is dedicated to a single part: the original structure of the market, the 5-storey building and the tower.

First it was important to analyse the whole complex from a general overview, so that it was easier to understand the dimension of the building, how much the design adds and how it deals with the outdoor and public spaces.

Concerning original structure of the market, the resume in the table highlights every single intervention considering the functional point of view. For each part the strategy foresees a specific amount of squares metres (services such as toilets or staircases are not included in the single calculation). The 5-storey building is based on just the additions, since the basement of it was already existing and, last, the tower is divided into the first two floors, its basement (the cinema), the offices floors and the apartments' ones with their own typologies.

Despite the abundant original sizes offered by the market, the project has nevertheless taken into consideration the addition of spaces or loft areas to allow greater liveability.

Furthermore, the lengths of the individual functions proposed are not strictly proportionate to the original ones (see housing sizes), to allow better use of these and better usability.

			m ²
Outdoor			27 770
Existing buildings		Groundfloor	16 725
		First floor	15 600
Additions	Tower	3 rd to 23 rd floor	13 360
	Five - storey building	2 nd to 5 th floor	2 205
Total			76 990

Market	Groundfloor		m ²
		Workshop	1 505
		Theatre	555
		Library office	700
		Caffè	1050
		Restaurant	1 085
		Museum hall	2 725
		Museum office	505
		Exposition	1 600
		Cinema	700
	First floor	Artists' residence	7 090
		Library	3 270
		Museum hall	2 530
		Exposition	1 325
		Cinema	700
Total		25 340	

Tower	Groundfloor	Hall	520
		Auditorium	300
	First floor	Storages / services	290
		Offices	395
	3 rd to 23 rd floor	Two bedrooms apartment	85
		Three bedrooms apartment	185
		Restaurant	290
		Caffè	190
Total		13 360	

Five - storey building	Groundfloor	Hall	655
		Auditorium	390
	2 nd to 5 th floor	Auditorium	655
Total		3 535	













La Spagna ha un modo suo proprio di essere presente nell'arte e nella cultura moderna: niente scuole, niente teorie, niente polemiche, niente movimenti ma Picasso, Mirò, Dalì, Juan Gris, García Lorca sono spagnoli. Nell'architettura moderna niente programmi, niente avanguardie teoriche ma la più moderna essenziale purezza architettonica.

(Spagna, «Domus», 260, 1951)

Bibliography

Acierno, Antonio, and Angelino Mazza, eds. "Citta in trasformazione: L'esplosione urbana di Madrid." Aracne, 2008.

Branzi, Andrea. *Modernità debole e diffusa: il mondo del progetto all'inizio del XXI secolo/*. Skira, 2006.

Bruni, Francesca. Zucchi, Giovanni. *Madrid. Città e architettura*. Clean Edizioni, 2018.

Camocini, Barbara. "Conversione funzionale e ri-funzionalizzazione come strategia di rigenerazione urbana. Il progetto "La Città delle culture" di David Chipperfield per l'isolato ex Ansaldo." *Tafer Journal* 1.23 (2010): 1-7.

Caputo, Paolo. *Madrid, Milano: forma della città e progetto urbano*. Elemond-Electa, 1998.

Eco, Umberto. *Apocalittici e integrati: comunicazioni di massa e teorie della cultura di massa*. Giunti, 2011.

Giussani, Elena. *Innesto di architettura contemporanea su edifici preesistenti nei tessuti urbani: separazione o integrazione*. UniversItalia, 2013.

Habib Hosseini Nia, Farah. "An Analytical Approach to the Role of Urban Space in Attracting Cultural Tourist", *American Journal of Scientific Research* ISSN 2301-2005 Issue 71 (2012), pp. 109-125.

Koolhaas, Rem. "Junkspace." *October* (2002): 175-190.

Portoghesi, Paolo. *Postmodern: l'architettura nella società post-industriale*. Electa, 1982. - Raja, Raffaele. *Architettura post-industriale*. Ed. Riuniti, 1986.

Mangurian, R., and Ma Ray. "Levels, plan for the gran center of St Louis . Site plan, drawings, models and photographs of the strategies of the masterplan for the art and entertainment district. *Lotus International* 75 (1993): 78-103.

Martí Arís, Carlos. "Le variazioni dell'identità. Il tipo in architettura." *Città Studi* (1990).

Medina, Carmen Díez, and ORSINA SIMONA Pierini. *L'altra modernità. Considerazioni sul futuro dell'architettura*. Christian Marinotti Edizioni, 2012.

Mosco, Valerio Paolo. *Nuda architettura*. Skira, 2012.

Portoghesi, Paolo. *Dopo l'architettura moderna*. Vol. 838. Laterza, 1981.

Scalbert, Irénée. *Never modern*. Park Books, 2013.

Scalbert, Irénée. "The New Art Gallery and its geography." 2002) *The New Art Gallery Walsall*. London: Batsford (2002): 40-57.

Scavuzzo, Giuseppina. "Fundamentals: Parchitettura ci riguarda Visita didattica alla Biennale di Architettura di Venezia." (2015).

Munoz-Vinas, Salvador. *Contemporary theory of conservation*. Routledge, 2012.

Caruso, Adam, and Adam Caruso. *The feeling of things*. Ediciones Polígrafa, 2008.

Venturi, Robert. *Complessità e contraddizioni nell'architettura*. Vol. 11. Edizioni Dedalo, 2002.

Articles and sitography

Allan, John. "Points of balance: Patterns of practice in the conservation of modern architecture." *Journal of Architectural Conservation* 13.2 (2007): 13-46.

Ascione, Paola. "Conoscere e riqualificare il patrimonio architettonico del Novecento: esperienze e metodologie/Cognitive study and upgrading of the 20th century architectonic heritage: experiences and methodologies." *Techne* 3 (2012): 250.

Rogério-Candelera, Miguel Angel, Massimo Lazzari, and Emilio Cano, eds. *Science and technology for the conservation of cultural heritage*. CRC Press, 2013.

FURRER, BERNHARD. "How to Deal with Halen Estate." *Docomomo Journal* 51 (2014).

Boncinelli, Giovanni. *Simmetria e funzione nell'architettura*. Maggioli Editore, Santarcangelo di Romagna, 2009.

<https://www.labiennale.org/it/news/presentata-la-biennale-architettura-2018-freespace>

<http://mercadolegazpi.org/documentos/>

https://www.domusweb.it/it/architettura/2014/06/06/grafting_architecture.html

<https://www.domusweb.it/it/architettura/2012/11/02/innesti-matrioske--c-.html>

<https://www.domusweb.it/it/architettura/2009/06/17/modern-ruins.html>

