Hidden Plant

plant (noun, living thing):

A living thing that grows in the earth, in water, or on other plants, usually has a stem, leaves, roots, and flowers, and produces seeds.

plant (noun, factory):

A factory or a building where an industrial process happens, or the machinery involved in the process.

Source: Cambridge Dictionary. Cambridge University Press.

Hidden Plant

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Abstract

This thesis focuses on the renovation of the abandoned Casalmonferato cement plant, located in the western part of the Giudecca island in Venice. The site holds historical significance as one of the earliest and most advanced Portland cement factories in Italy, symbolizing the industrial evolution of Giudecca and its role in regional development. Over the centuries, the area transformed from a monastic garden to an industrial hub and later became a predominantly residential district. The project proposes to convert the former industrial complex into a multifunctional cultural center, integrating preserved industrial buildings and architectural elements into a unified composition. The implementation of the project will connect all historical layers of the site, creating a harmonious space that respects and preserves its multilayered heritage while introducing contemporary functions that support cultural growth and the sustainable development of Giudecca Island.

Acknowledgements

I would like to express my sincere gratitude to the teaching staff of the IUAV Institute. I am especially thankful to my supervisor, Emanuela Sorbo, and my co-supervisor, Francesco Bergamo, for their structured approach to guiding my work and helping me acquire new knowledge and insights. Their expertise and support have been crucial throughout this process and have greatly contributed to the successful completion of this thesis.

Additionally, I am very grateful to the staff of the Tolentini Library. Their assistance was essential in locating key documents and resources necessary for my research.

I also wish to express my gratitude to my family and friends — Ivan R., Maria T., Ekaterina P. and Samuel G. — for their help and contribution to this work. Special thanks go to my love, Katerina, for her inspiration, advice, and encouragement, which played a significant role in achieving the desired outcome.

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Introduction

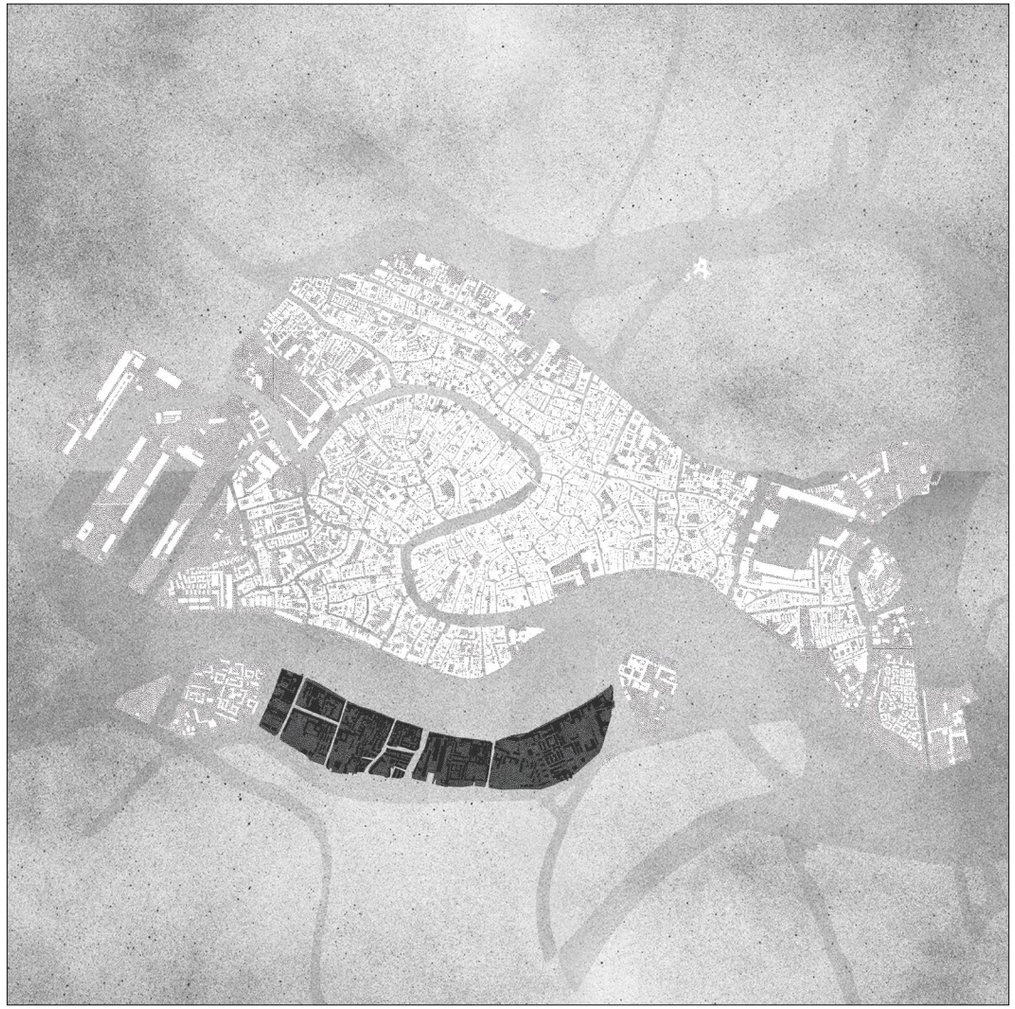
The island of Giudecca occupies a significant position in the historical and morphological development of Venice. As one of the largest islands in the lagoon, located directly across from the historic city center beyond the Giudecca Canal, it has played a vital supporting role in the evolution of the city.

Its formation began in the early Middle Ages (approximately between the 8th and 9th centuries), as a result of gradual settlement on land masses shaped by alluvial deposits. From its earliest stages, Giudecca served auxiliary functions for Venice, hosting craft workshops, storage facilities, and extensive agricultural lands—including orchards and cultivated gardens.

The architectural and spatial structure of the island evolved through a system of autonomous plots, often owned by monastic institutions, hospitals, or private landowners. This decentralized pattern supported a stable and functionally diverse organization of space, where religious, agricultural, and residential uses were interwoven into cohesive local ensembles.

The southern edge of the island, facing the open lagoon, was traditionally dedicated to agricultural use—characterized by enclosed gardens and cultivated fields—while the northern waterfront concentrated logistical, storage, and service activities tied to the city's waterborne economy. This dual zoning gave rise to a unique insular typology, balancing sacred, utilitarian, and natural elements.

From the early 19th century onward, Giudecca experienced significant transformation under the combined influences of secularization and industrialization. Religious and agricultural landscapes gradually gave way to factories, housing, and infrastructure. By the second half of the 20th century, many of the decommissioned industrial areas began to be reinterpreted and adapted for new cultural and public uses, marking a shift in the island's identity and role within the broader urban context.



1. Formation of the historical context

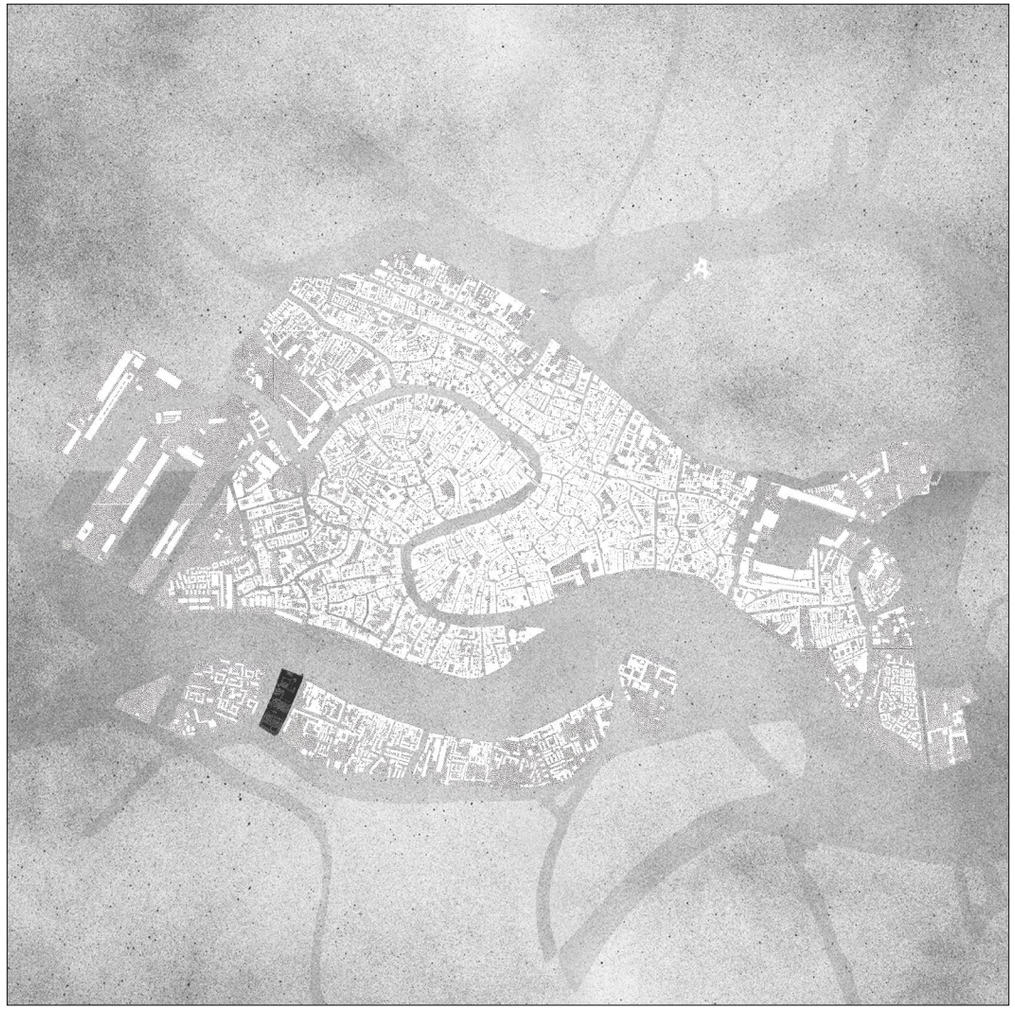
Introduction

This study focuses on a fragment of the southern part of the island of Giudecca, situated between the Lavraneri and San Biagio canals **(hereinafter referred to as the study site)**. Over the course of several centuries, this area has undergone significant transformations—from monastic gardens to industrial facilities and, later, to residential use—while maintaining its spatial boundaries defined by the surrounding waterways. As such, this fragment serves as a representative example of the key stages in Giudecca's historical and spatial evolution.

Through an analysis of this site, it becomes possible to trace the broader development of Giudecca's architectural and functional structure: from medieval monastic complexes and agricultural landscapes to processes of secularization, industrialization, and the emergence of new anthropogenic environments.

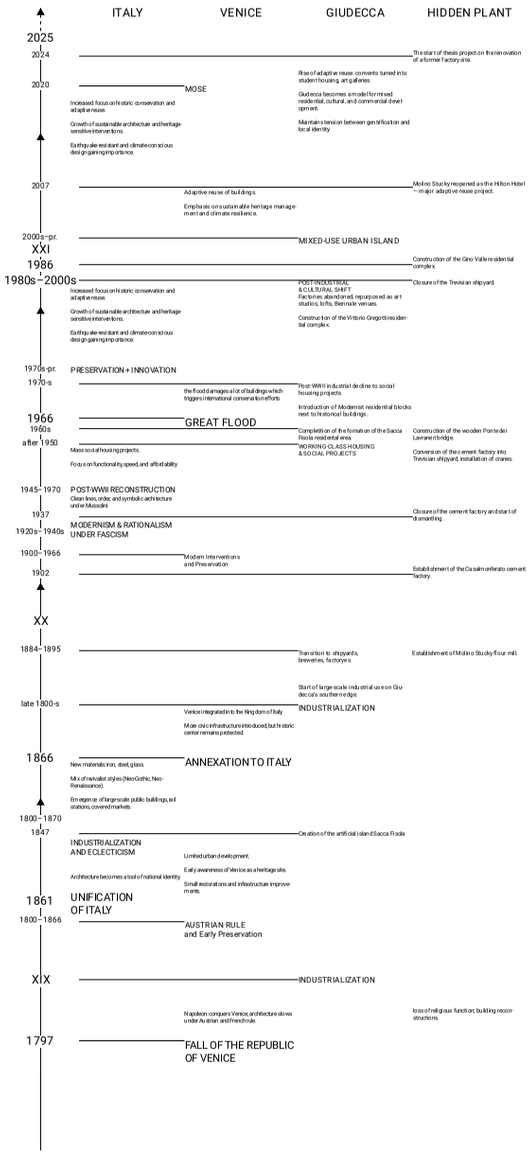
The use of cartographic sources spanning from the late 16th to the early 21st century enables the identification of territorial dynamics, including shifts in functional zoning, transformations in spatial organization, and the evolution of architectural typologies. By comparing multiple historical layers, the study provides deeper insight into patterns of spatial development and the interrelations between architectural, economic, and natural systems.

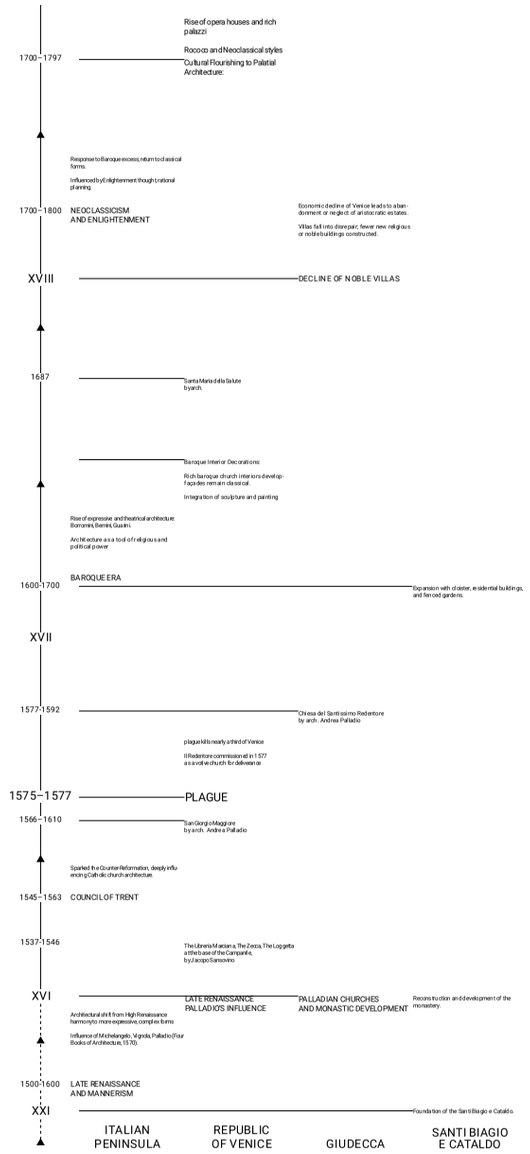
This historical and cartographic analysis forms the foundation for a comprehensive understanding of the processes that have shaped the contemporary urban structure of Giudecca. It also serves as a methodological basis for the development of design strategies that respond to the site's historical-spatial context and the specific character of its transformation.



1. Formation of the historical context

Historical timeline





1. Formation of the historical context

Historical analysis of the study site

XVI

The Church of Santi Biagio e Cataldo was originally founded in the 11th century and underwent multiple phases of reconstruction over the subsequent centuries, with the most significant modifications occurring between the 12th and 14th centuries. By the late 16th century, the church had become part of a larger Benedictine monastic complex, located at the western edge of the island of Giudecca.

On the 1597 map, the ensemble is depicted as a compact structure with a clearly articulated religious core (1). The main volume of the church is elongated in plan and terminates in a simple apse, accompanied by a bell tower—either freestanding or integrated into the body of the structure. The overall silhouette is restrained, exhibiting characteristics associated with the late Romanesque tradition.

At this stage, the surrounding territory of the complex appears undeveloped, with no significant service or residential structures present. The southern portion of the site, based on its layout, indicates the presence of a garden or vegetable plot (2).

Figure 1
Venetian School. (18th century). Church of San Biagio e Cataldo on the Giudecca, Venice [Oil on canvas, 36 x 44 cm]. Private collection.

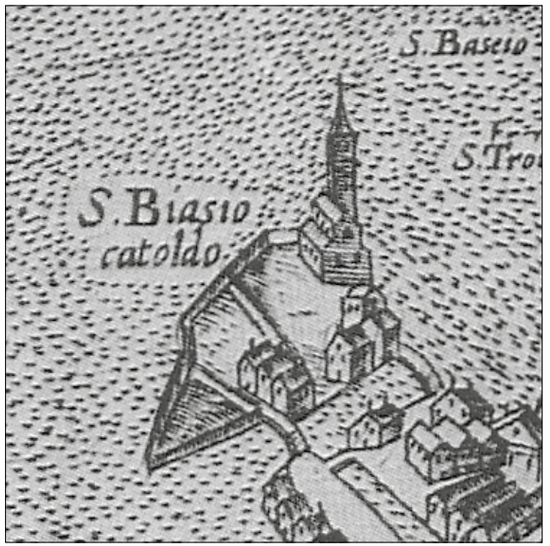


Figure 2
Bernando Salvioni Pianta prospettica della citta e delle lagune (1597).
Note. Courtesy of Laboratorio di Geomatica - CIRCE Cartoteca.

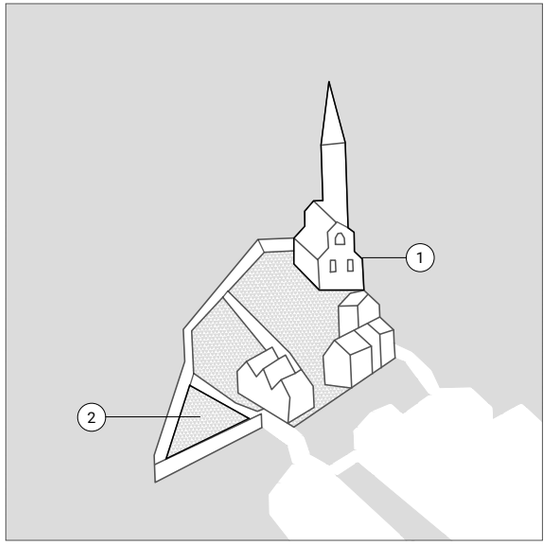


Figure 3
Reconstraction of *Bernando Salvioni Pianta prospettica della citta e delle lagune (1597).*

1. Formation of the historical context

Historical analysis of the study site

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By 1635, the monastic complex of Santi Biagio e Cataldo had undergone substantial expansion. Beyond the church itself, a developed system of residential and service buildings was organized around a central open space—most likely functioning as a cloister (1). The spatial configuration took on a distinctly enclosed monastic character: regular built volumes emerged, internal courtyards were defined, and a coherent network of connections between functional zones was established.

On the southern side of the site, cartographic sources record a series of regularly arranged plots, spatially separated from the core of the complex. These areas consisted of enclosed gardens and kitchen gardens (2), traditionally located on the southern parts of Giudecca and functionally integrated into the monastery's economic system. Their organization reflects the consolidation of the complex as a self-sustaining unit and corresponds to the broader spatial logic of the island, where southern zones were typically reserved for cultivation and support functions.

Figure 4
Carlevarijs, L. (1703). *Veduta del Palazzo Vendramin alla Giudecca* [Etching (acquaforte), from Le Fabriche e Vedute di Venetia].

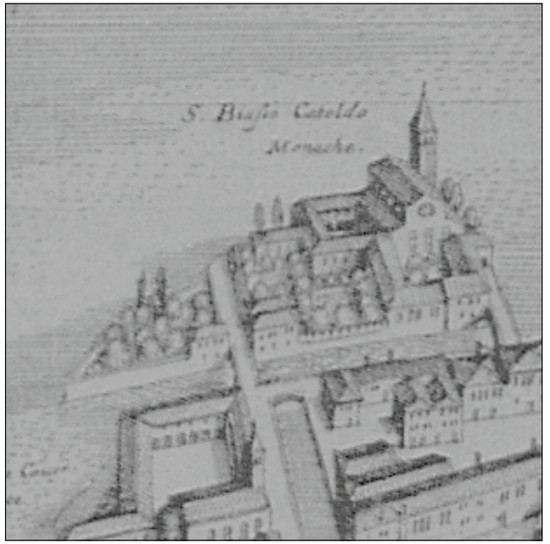

Figure 5
Matthaeus Merian-Pianta prospettica della citta (1635).
Note. Courtesy of Laboratorio di Geomatica - CIRCE Cartoteca.

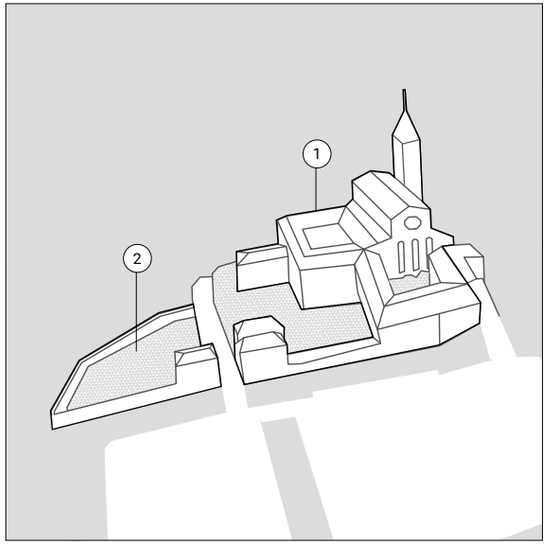

Figure 6
Reconstraction of *Matthaeus Merian-Pianta prospettica della citta (1635).*

1. Formation of the historical context

Historical analysis of the study site

XVIII

By 1729, the Santi Biagio e Cataldo monastic complex retained the architectural and spatial configuration established in the 17th century. The core of the ensemble remained centered around the church and its bell tower (1), enclosed by a series of substantial annexes organized into a compact and cohesive plan. Residential and service buildings densely occupied the site, forming a system of internal courtyards and cloisters typical of mature monastic architecture.

The southern portion of the site continued to function as an enclosed garden and kitchen garden (2), maintaining its connection to the daily life and economic structure of the monastery. These cultivated areas formed an integral part of the broader landscape framework of southern Giudecca, reinforcing the historical role of this zone as a productive and support-oriented territory.

Figure 7
Richter, J. A. (ca. 1700–1745). *Venice, a view of San Biagio and the Church of San Biagio e Cataldo on the Giudecca with elegant figures in a burchiello* [Oil on canvas, 124.4 x 144.8 cm].

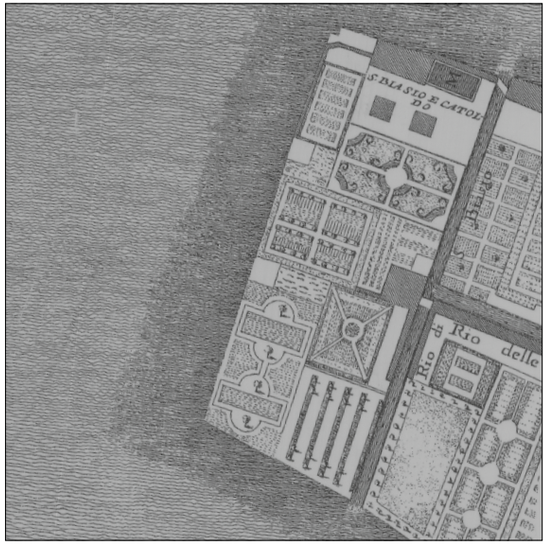

Figure 8
L.Ughi pianta topografica della citta (1729).
Note. Courtesy of Laboratorio di Geomatica - CIRCE Cartoteca.

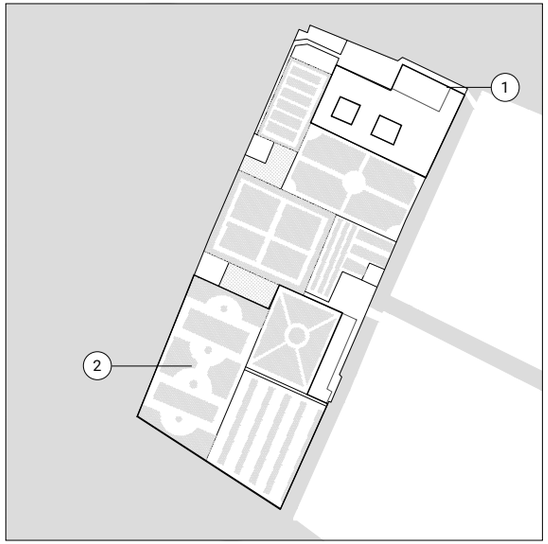

Figure 9
Reconstraction of *L.Ughi pianta topografica della citta (1729).*

1. Formation of the historical context

Historical analysis of the study site

XIX - 1

At the turn of the 19th century, the Santi Biagio e Cataldo complex entered a period of transformation linked to the processes of secularization under Napoleonic administration. While the architectural structure largely preserved its formal outlines, the ensemble lost its religious and monastic function.

Several residential and service buildings (1) were either repurposed or fell into disuse. As a result, the spatial organization began to fragment, gradually losing the internal cohesion characteristic of a functioning monastic complex. The southern part of the site (2), traditionally occupied by gardens and kitchen plots, was increasingly reinterpreted for secular or utilitarian uses.

Although key morphological features of the original ensemble remained intact, its functional identity shifted toward a secular typology, marking a critical turning point in the site's historical trajectory.

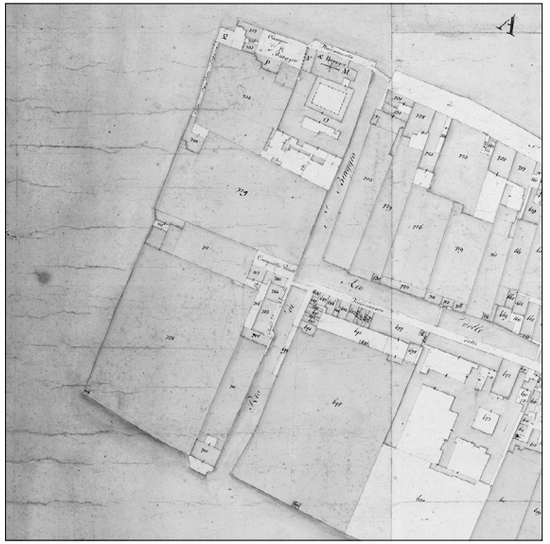

Figure 10
Catasto Napoleonico (1807-1817)
Note. Courtesy of Laboratorio di Geomatica - CIRCE Cartoteca.

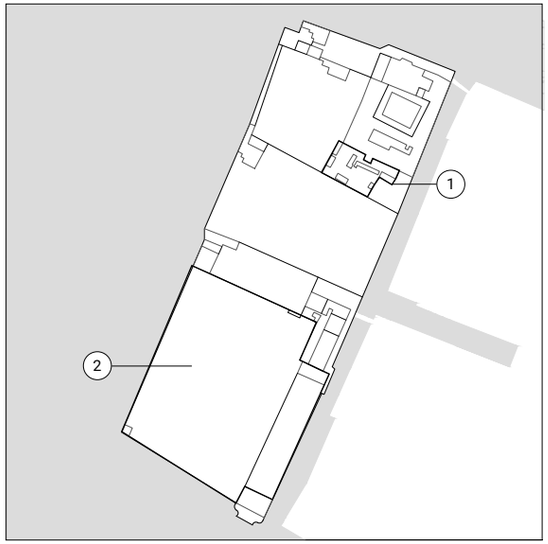

Figure 11
Reconstraction of *Catasto Napoleonico (1807-1817)*

1. Formation of the historical context

Historical analysis of the study site

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By the mid-19th century, the Santi Biagio e Cataldo complex (1) continued to undergo transformation, further distancing itself from its original monastic function. Most of the residential and service buildings were either repurposed, rebuilt, or partially dismantled. The southern portion of the site—previously occupied by structured gardens and kitchen plots—largely retained its productive role, although sections of it were gradually taken over by new secular constructions.

In the western part of the area, the outline of the artificial island of Sacca Fisola (2) began to emerge. This new landform was the result of phased lagoon infill and drainage operations, which were completed by the mid-19th century. On earlier maps, such as that of 1812, reflects the ongoing nature of these interventions. The appearance of Sacca Fisola signals a broader shift in land use across the area, supporting the transition from a monastic-agricultural landscape to one increasingly shaped by industrial and residential development.

While the architectural ensemble retained elements of its historical form, the functions and internal composition of buildings increasingly reflected new administrative and economic uses, marking the continuation of the site's redefinition within the evolving urban fabric of Giudecca.

Figure 12
Combatti Pianta topografica della citta (1847-1855)
Note. Courtesy of Laboratorio di Geomatica - CIRCE Cartoteca.

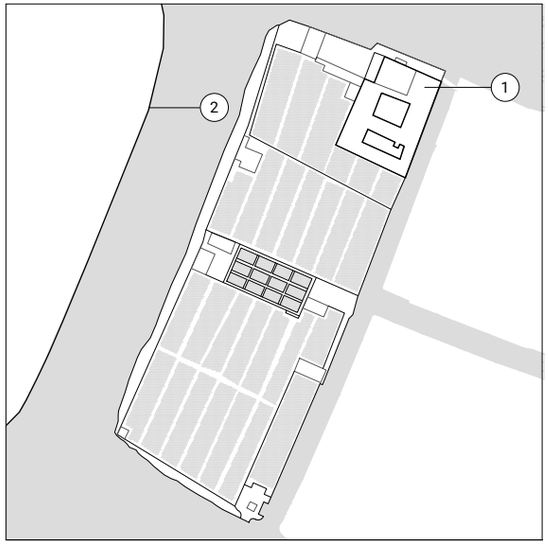


Figure 13
Reconstraction of *Combatti Pianta topografica della citta (1847-1855)*

1. Formation of the historical context

Historical analysis of the study site

Conclusion XVI - XIX

The analysis of cartographic sources from the late 16th to the mid-19th century provides a clear picture of the development and gradual transformation of the area once occupied by the Santi Biagio e Cataldo monastic complex on Giudecca. Throughout the 17th and 18th centuries, the site was characterized by a stable monastic structure, comprising the church, associated residential and utility buildings, and regularly organized gardens to the south—an integral component of the complex's economic system.

The transition to the 19th century, marked by Napoleonic secularization, introduced significant spatial and functional changes. The monastery lost its religious and economic role; parts of the complex were either decommissioned or adapted for secular use. During this period, the importance of the garden areas began to decline, reflecting a broader shift in the perception and use of the southern part of the site.

A particularly significant development was the emergence of the artificial island of Sacca Fisola, formed through phased lagoon infill during the 18th and 19th centuries. This intervention exemplifies the expansion of the shoreline and the active anthropogenic reshaping of the lagoon environment. It also established important preconditions for the site's future transition toward industrial and residential functions.

By the mid-19th century, the site retained traces of its traditional spatial organization, but the structural and functional transformations initiated during the secularization period—along with the creation of new territorial elements—had already set the stage for the next phase of development, oriented toward industrialization and urban integration. While the architectural ensemble preserved elements of its historical form, its evolving program increasingly reflected new administrative and economic roles.

1. Formation of the historical context

Historical analysis of the study site

XX - 1

By the 1930s, the site on Giudecca had undergone profound transformation. The former religious buildings of the Santi Biagio e Cataldo monastery had been completely demolished and replaced by the Mulino Stucky factory (1) and additional industrial facilities, marking a definitive shift from religious to industrial functions.

In the southern part of the site, the Casalmonferato cement factory (2) occupied a substantial area, partially extending over the former monastery gardens. Meanwhile, the artificial island of Sacca Fisola (3) continued to develop, gradually giving rise to new residential neighborhoods.

Green spaces on the site noticeably diminished, making way for industrial construction and infrastructure. These changes exemplify the broader process of industrialization that reshaped the territory during the first half of the 20th century, fundamentally changing the urban morphology and functional landscape of this part of Giudecca.

Figure 14
Stengel & Co. (n.d.). Molino Stucky - Giudecca [Postcard]. Dresda: Author.

Figure 15
Unknown photographer. (c. 1950). La fabbrica di cementi in abbandono nel 1950 [Photograph]

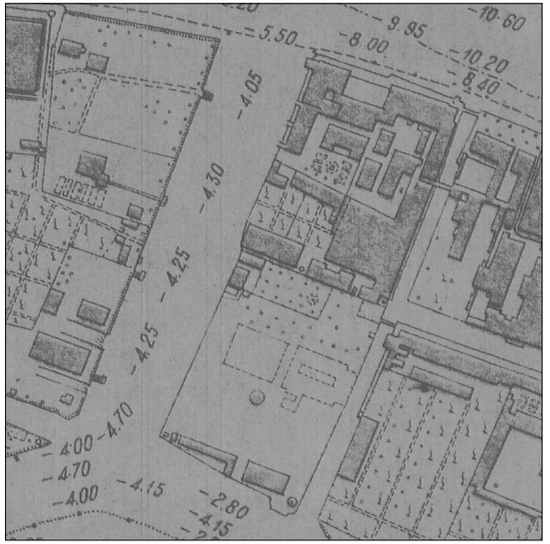


Figure 16
Istituto Geografico Militare cadastral map. Venezia Giudecca (1934)
Note. Courtesy of Laboratorio di Geomatica - CIRCE Cartoteca.

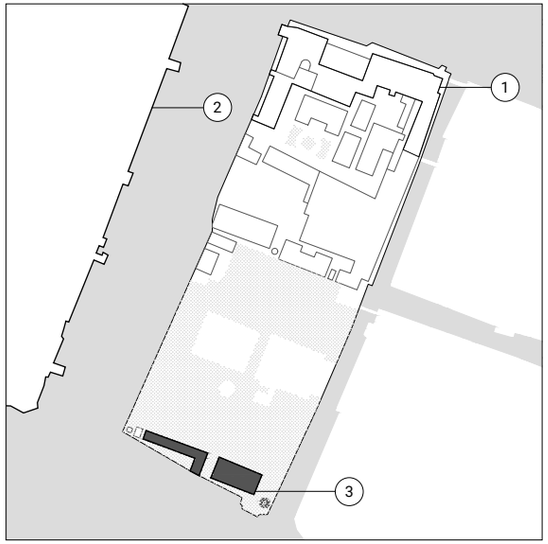


Figure 17
Istituto Geografico Militare cadastral map. Venezia Giudecca (1934)

1. Formation of the historical context

Historical analysis of study site

Cementi e Calce di Casalmonferrato

The Cementi e Calce di Casalmonferrato plant was the primary producer of artificial Portland cement in Venice and stood as one of the most advanced facilities in Italy and Europe at the time.

The plant's design was developed by the Danish engineering firm F.L. Smidth & Co. (Copenhagen). Construction began in 1902, following municipal approval to build a wooden bridge over the San Biagio canal to connect the site. Spanning over 20,000 m², the factory occupied a significant portion of the limited land available in Venice, despite challenging ground conditions.

The production process was complex and largely automated, involving multiple stages: delivery of limestone from Istria and clay from the lagoon, drying, grinding, dosing, mixing, firing in rotary kilns, cooling, further grinding, and final packaging. The plant's designed annual capacity ranged between 300,000 and 500,000 quintals (approximately 30,000 to 50,000 tons) of cement. At its operational peak, the facility employed around 150 workers.

Figure 18
Unknown photographer. [Photograph of the cement factory]. (n.d.).

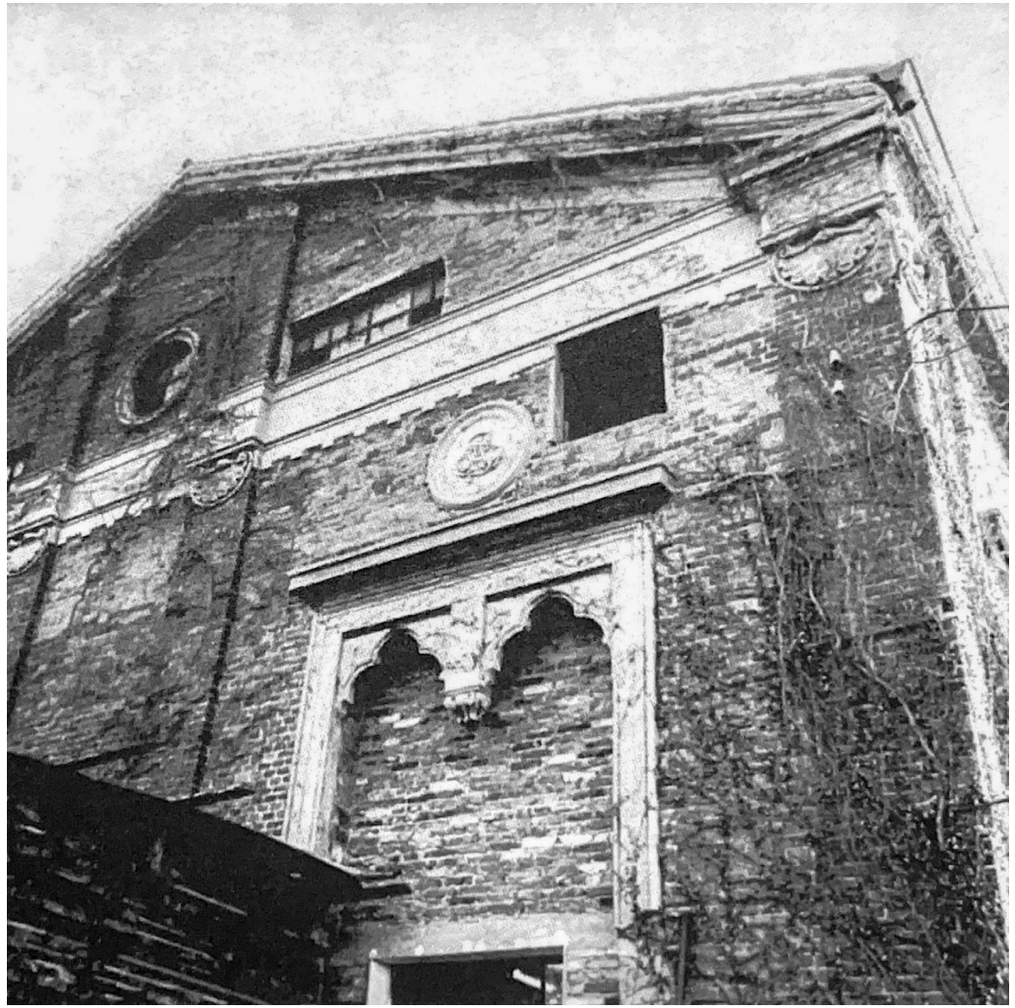


Figure 19
Particolare della facciata della fabbrica cementi in abbandono, verso il 1950 [Photograph]. (c. 1950)

1. Formation of the historical context

Historical analysis of study site

Cementi e Calce di Casalmonferrato

The foundation work posed a complex engineering challenge due to the soft Venetian soil. To ensure stability, the buildings were constructed on reinforced concrete slabs, 20–25 cm thick, supported by conical concrete piles measuring 1.5 meters in length. This solid base was necessary to support the heavy machinery and industrial structures of the plant.

The production complex included several specialized facilities tailored to different stages of the cement manufacturing process. One building housed boilers alongside a powerful 525-horsepower drive engine and a 350 kW electrical generator, providing essential energy at 500 volts. Nearby, another facility contained the rotary kilns, coal grinding equipment, and raw material silos, complemented by clay dryers, cement coolers, and an integrated system for transporting materials throughout the plant.

Additionally, a multi-part building was dedicated to the precise grinding, dosing, and mixing of raw materials. This structure also accommodated the central power station and a room equipped specifically for grinding raw cement. Storage needs were met by silos designed for holding the ground cement before packaging and shipment.

A prominent 42-meter tall brick chimney served as a distinctive architectural and functional landmark of the complex, symbolizing the industrial character of the site.

Logistics were supported by a dock on the Laurineri Canal, which allowed ships and barges to moor directly at the site. Essential storage shelters were provided for coal, clay, and raw cement, ensuring materials were readily available and protected. The complex was further supplemented by auxiliary buildings, including a transformer station and other support structures critical for continuous operation.

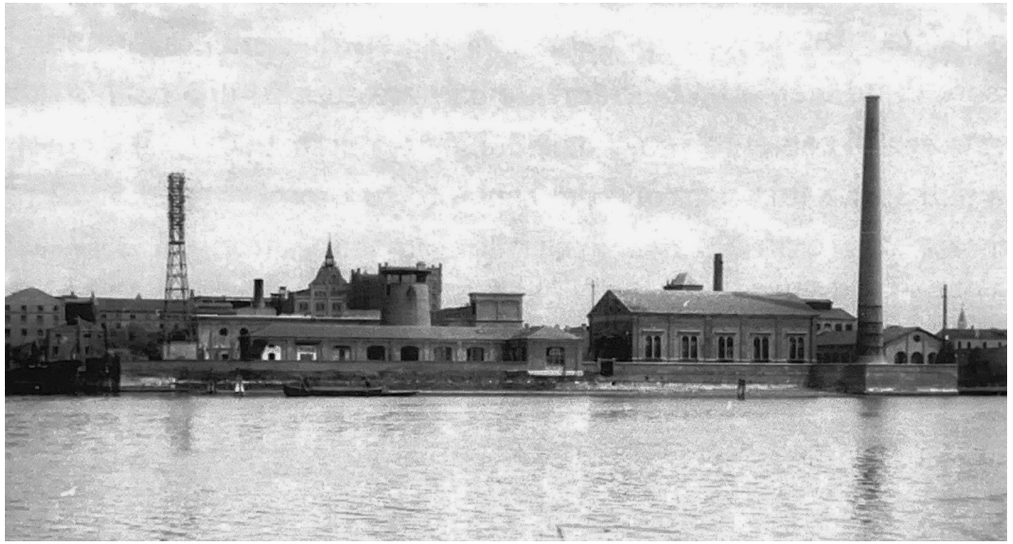


Figure 20
Unknown photographer. Veduta dalla Laguna del cementificio di Casal Monferrato [Photograph]. (n.d.).

1. Formation of the historical context

Historical analysis of study site

Cementi e Calce di Casalmonferrato

The plant faced several significant challenges during its operation. In 1905, a worker suffered severe burns in an accident, highlighting the hazardous conditions of early industrial production. Two years later, in 1907, an attempted arson threatened the facility, while in 1908, the municipality reclaimed a portion of the leased territory known as Sacca di San Biagio, impacting the plant's spatial extent.

In 1923, the company underwent a rebranding, becoming S.A. Fabbriche Riunite Cemento e Calce, and shifted its focus toward the sale and application of building materials. Despite these changes, by the late 1930s, the plant had lost its economic significance and ceased operations. Archival records indicate that dismantling began in 1937, accompanied by incidents of material theft during the decommissioning process. Thus, the operational lifespan of the plant lasted less than forty years.

As one of the first major industrial facilities on the island of Giudecca, the Cementi e Calce di Casalmonferrato plant marked a pivotal moment in the transformation of the southern part of the island. It symbolized the shift from predominantly religious and agricultural uses toward industrial development, significantly influencing the area's layout, infrastructure, and functional character. This early industrial phase laid important groundwork for subsequent 20th-century transformations of the site.

Figure 21
Unknown photographer. La base del camino della ex fabbrica Cementi in una recente fotografia [Photograph]. (n.d.)

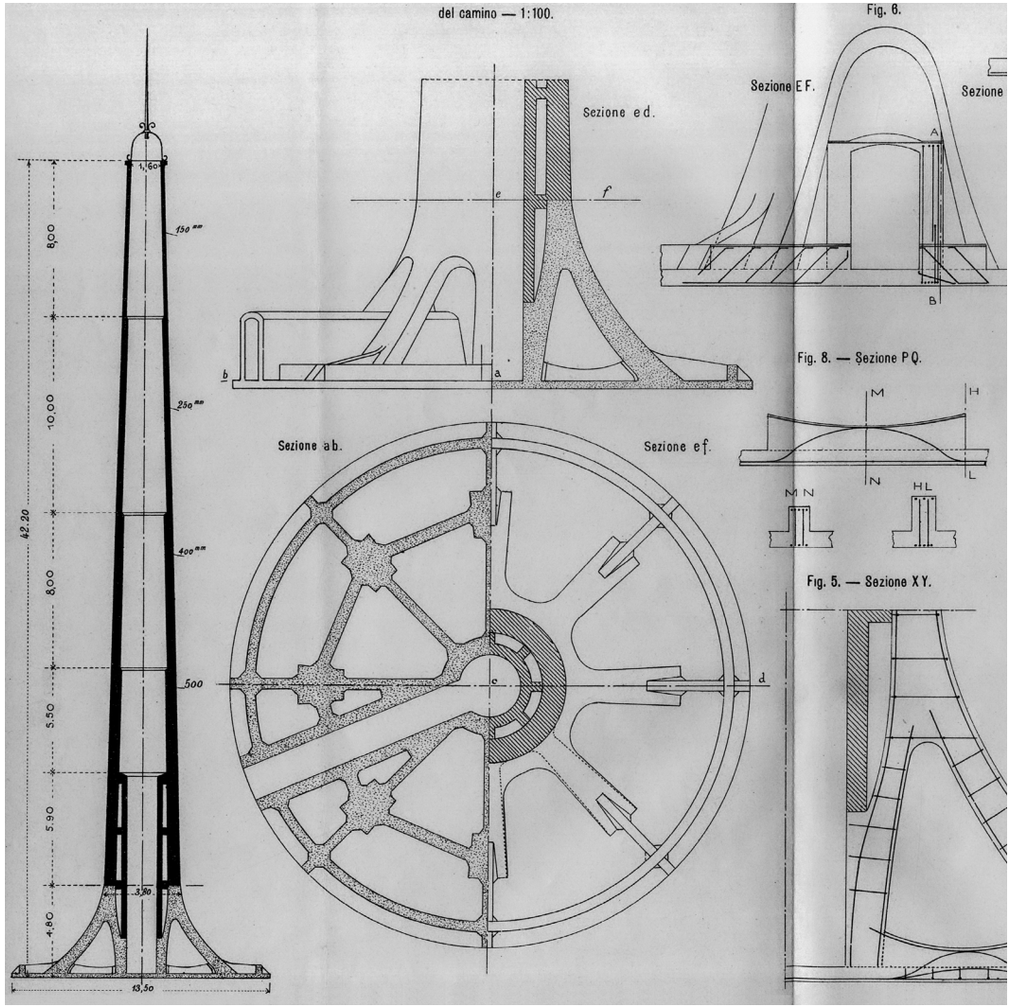


Figure 22
Disegni dello stabilimento di cemento e strutture correlate [Drawings]. (1904). L'Ingegneria Civile e le Arti Industriali: Periodico Tecnico Quindicinale, Anno XXX, Tav. III

1. Formation of the historical context

Historical analysis of the study site

XX - 2

By the early 1980s, the southern part of the Giudecca site preserved its industrial character, albeit undergoing functional transformation. The former Casalmonferato cement factory complex ceased its original operations and was repurposed by the boatbuilding and repair company Trevisian (1). The area remained largely occupied by industrial and storage facilities, with a noticeable reduction of green spaces, reflecting the gradual shift from heavy industry to diversified land use.

Simultaneously, the Mulino Stucky mill, located on the northern edge of the island, stood unused, marking a pause in its historical function. Adjacent to this, the island of Sacca Fisola continued its development as a residential district (2), signaling the broader trend toward urban consolidation and housing expansion within the lagoon's context.

A notable infrastructural element near the site is the wooden Ponte dei Lavraneri bridge (3), constructed in the 1960s. Supported by six piers, the bridge exemplifies traditional Venetian building techniques, executed without formal static calculations, consistent with the artisanal approaches characteristic of similar lagoon structures.

Figure 23
Unknown author. Perspective drowing [Ponte dei Lavraneri bridge]

Figure 24
Unknown author. Satellite image of Venice [Black and white photograph]. (1982)
Note. Courtesy of Laboratorio di Geomatica - CIRCE Cartoteca.

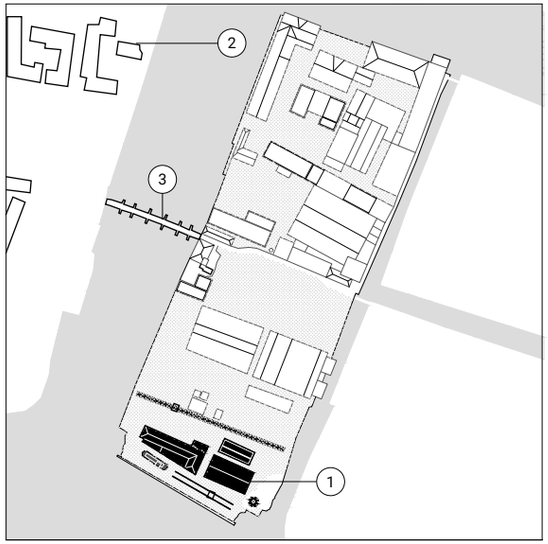


Figure 25
Reconstraction of *Satellite image of Venice [Black and white photograph]. (1982)*

1. Formation of the historical context

Historical analysis of study site

Trevisan shipyard

After the closure of the Casalmonferato cement plant, the site underwent partial reprogramming and was repurposed to meet the needs of the shipbuilding company Trevisan, specializing in boat construction and repair. This phase marked a second wave of industrial activity, now characterized by artisanal and small-scale production.

By this time, the former plant's structure had experienced significant transformation: some buildings were dismantled, while remaining structures—including the main hall, the hangar, and fragments of the ruined facility—were adapted for new uses. The brick chimney remained partially ruined, standing as an important visual element.

Despite these changes, the spatial organization preserved clear traces of its industrial heritage: visual landmarks, the scale of the built environment, and its technical orientation remained legible.

To support shipbuilding operations, two large construction cranes were installed on the site, becoming key components of the production infrastructure. One crane was positioned centrally, facilitating the lifting and movement of boats within the complex, while the other stood along the waterfront, supporting the launch and retrieval of vessels from the canal. These interventions reaffirmed the resilience of the industrial landscape and its capacity for adaptation, avoiding a radical erasure of the existing material environment.

Figure 26
Unknown photographer. (1967). Sacca Fisola, Isola Ponte, laguna veneta, Giudecca, Venezia [Photograph]

1. Formation of the historical context

Historical analysis of study site

Trevisan shipyard

Despite the persistence of limited economic activity, by the late 1970s it became evident that the site's industrial phase was coming to an end. This change laid the foundation for significant spatial transformations, gradually guiding the area toward integration with the island's residential and civic fabric. A prominent example of this shift was the social housing project designed by Gino Valle, which embodied the emerging residential character of the territory.

Figure 27
Unknown photographer. (1990). ["Casa alla Giudecca", Giudecca, Venice].

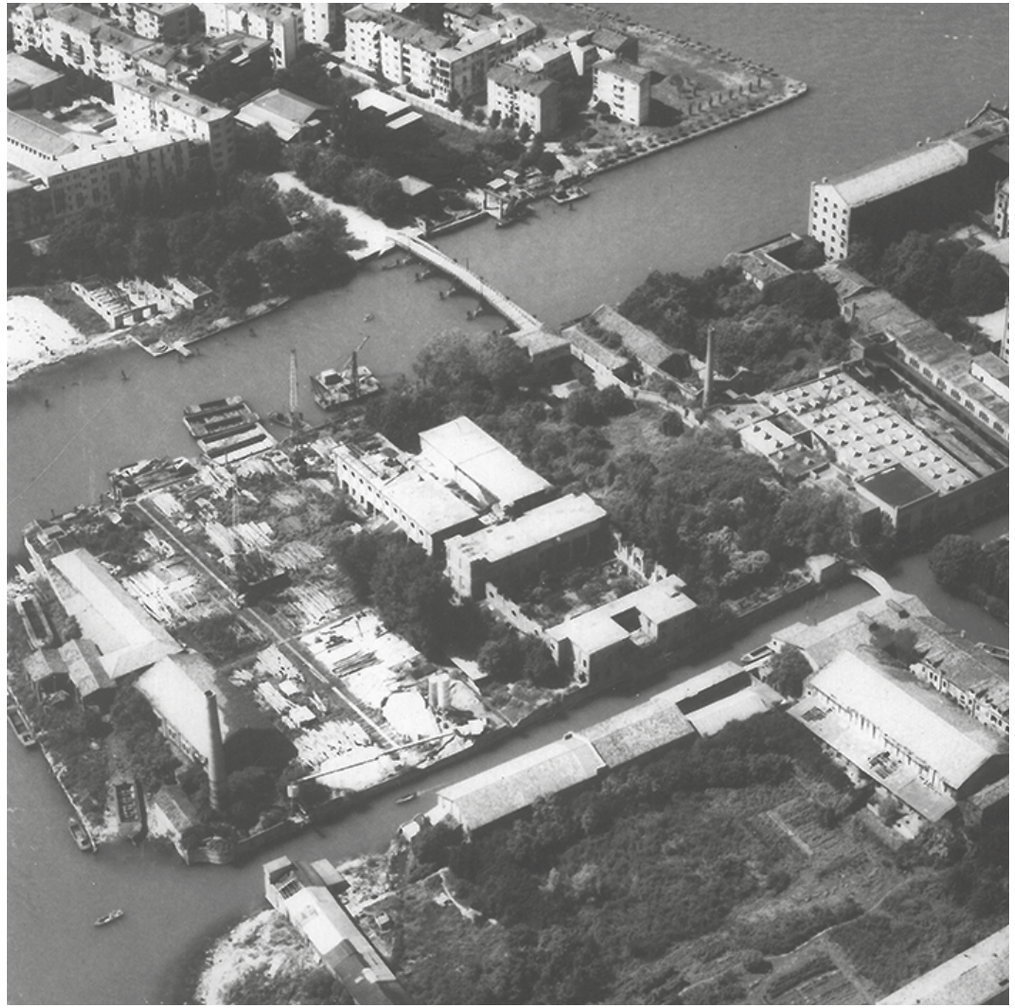


Figure 28
Unknown photographer. (1967). [Photograph of the Trevisan shipyard, Giudecca, Venice].

1. Formation of the historical context

Historical analysis of the study site

XXI

Since the early 2000s, the Giudecca site has experienced a gradual decline in its industrial significance, ultimately transitioning into a mixed-use area. The building complex of the former Casalmonferrato cement plant remained abandoned (1), while the operations of the Trevisan company had fully ceased by the late 1990s.

Meanwhile, the Mulino Stucky mill, after a period of disuse, was redeveloped into a hotel (2). On the adjacent island of Sacca Fisola, the residential fabric reached full maturity, notably marked by a large-scale residential building (3) designed by architects I. Cappai, P. Mainardis, V. Pastor in the middle of 1990s, with its facades oriented toward the former industrial site.

As a result, this territory increasingly came to be perceived as part of a predominantly residential zone, where preserved elements of the historic architectural fabric contribute to a layered urban landscape within the Venetian Lagoon.

A key architectural milestone in this transformation was the social housing complex by Gino Valle (4), completed in the 1980s. Its spatial organization and formal approach clearly reflected an intention to incorporate industrial heritage into a new residential morphology.

Figure 29
Unknown photographer. [Residential building. Architector I. Cappai, P. Mainardis, V. Pastor, Sacca Fisola , Venice].

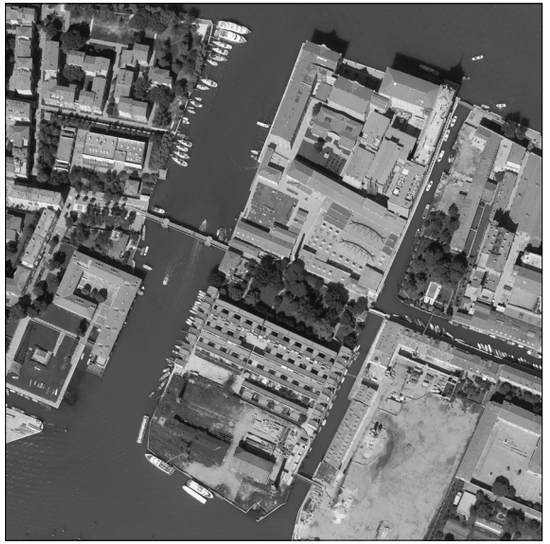


Figure 30
Unknown author. Satellite image of Venice [Black and white photograph]. (2010)
Note. Courtesy of Laboratorio di Geomatica - CIRCE Cartoteca.

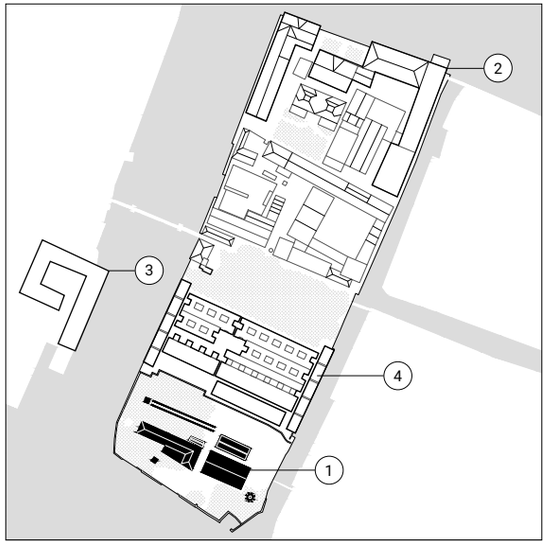


Figure 31
Reconstraction of *Satellite image of Venice [Black and white photograph]. (2010)*

1. Formation of the historical context

Historical analysis of study site

Case alla Giudecca by Gino Valle

An important milestone in the development of the western part of Giudecca island, including the territory of the former Casalmonferato cement factory, was the construction of a residential complex Case alla Giudecca designed by architect Gino Valle and built between 1984 and 1986. The complex comprises 94 social housing units executed in a late modernist style, reflecting a conscious effort to harmonize architecture with the distinctive landscape of the Venetian Lagoon.

This residential project became a notable example of social housing in Venice, praised for its architectural quality and sensitive adaptation to the local context. A defining compositional feature of the complex is the presence of three through-passages that establish visual and functional connections between the lagoon and the internal spaces of the development. Notably, one of these passages is aligned towards the preserved chimney of the former cement factory, emphasizing and preserving this historical landmark and maintaining a tangible link to the site's industrial heritage. Gino Valle's architectural approach reveals careful consideration of building orientation, optimizing natural light and lagoon views while fostering a comfortable living environment focused on interior spatial quality. The complex's rational layout skillfully balances functionality and aesthetic expression, embodying modernist principles thoughtfully adapted to the unique Venetian context.

Figure 32
Unknown photographer. (1987, April). [Photograph of "Casa alla Giudecca" Giudecca, Venice]. L'Industria delle Costruzioni, (186), cover.

Figure 33
Unknown photographer. (1986). [Photograph of the Trevisan shipyard, Giudecca, Venice]. Domus, (678), December.

1. Formation of the historical context

Historical analysis of study site

Case alla Giudecca by Gino Valle

1. Building Frontage

The architectural complex presents a clear and expressive façade line along both sides of the site, forming a visually coherent and organized composition. This alignment seamlessly extends the dense urban fabric to the north, where the Mulino Stucky complex similarly adheres to a strict building line. Together, these elements create a unified architectural identity that bridges historic and contemporary structures within the area.

To enrich the spatial rhythm and articulation, the façades incorporate alternating vertical and horizontal elements alongside variations in depth — including projections, loggias, and arches. These features define the boundaries of the residential complex, emphasizing its distinct character while maintaining integration with Giudecca's historic context.

The established façade line also serves to orient and enclose the interior spaces, fostering a comfortable living environment that maximizes views toward the lagoon and preserves a harmonious dialogue between built form and the natural landscape.

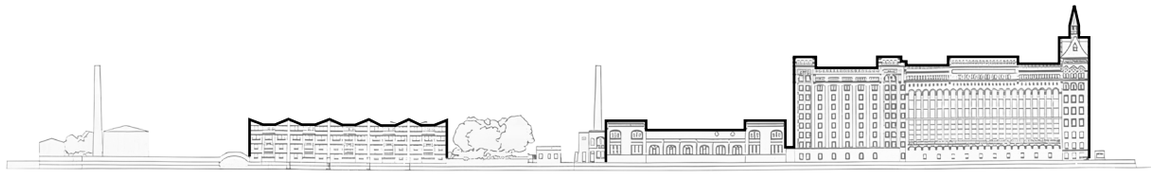


Figure 34
Based on: L'Industria delle Costruzioni. (1987). Facade drowing [Print edition, No. 186, April]. Archive of Gino Valle. Author's own modification: [Igor B], 2025.

Figure 35
Unknown photographer. (1990). ["Casa alla Giudecca", Giudecca, Venice].

1. Formation of the historical context

Historical analysis of study site

Case alla Giudecca by Gino Valle

2. Visual Axes

A central spatial strategy employed by Gino Valle in Case alla Giudecca is the deliberate creation of visual axes that shape both the local experience and symbolic reading of the site. The composition of the complex is structured around three pedestrian passages that cut through the linear form of the development, creating directed sightlines toward the lagoon.

Among these, the right passage holds special significance: it aligns visually with the preserved chimney of the former Casalmonferato cement factory. This intentional connection highlights continuity between the area's industrial heritage and its contemporary residential function. Through this design choice, the industrial past is transformed into a meaningful landmark—serving as a point of orientation and a visual memory embedded in daily life. Here, architecture not only defines space but also activates historical layers, weaving them seamlessly into the everyday experience of residents.

Furthermore, the passages reinforce a direct connection to the lagoon, enhancing openness and fluidity within the urban fabric. This reflects Gino Valle's architectural approach, which emphasizes transitional spaces, thresholds, and visual "corridors" that link the built environment with its surroundings.

Thus, the visual axes transcend mere compositional elements; they become a form of spatial storytelling, setting the pace for how the territory is perceived and helping to define the architectural identity of the place.

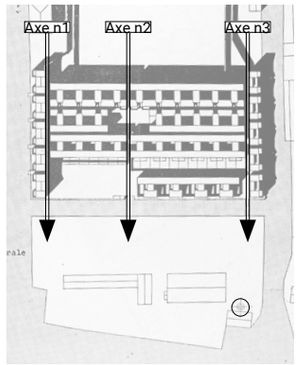


Figure 36
Based on: L'Industria delle Costruzioni. (1987). Plan drowing [Print edition, No. 186, April]. Archive of Gino Valle.
Author's own modification: [Buchkov, I], 2025.

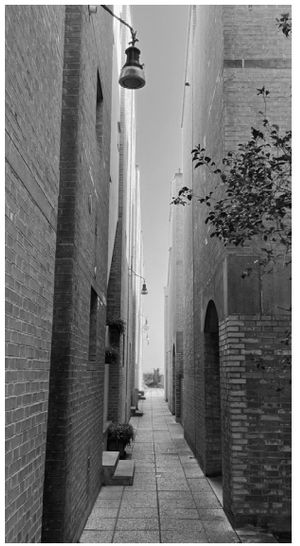


Figure 37
Bychkov, I (2024). *Visual Axe n1* ["Casa alla Giudecca", Giudecca, Venice]

Figure 38
Bychkov, I (2024). *Visual Axe n2* ["Casa alla Giudecca", Giudecca, Venice]

Figure 39
Bychkov, I (2024). *Visual Axe n3* ["Casa alla Giudecca", Giudecca, Venice]

1. Formation of the historical context

Historical analysis of study site

Case alla Giudecca by Gino Valle

3. Impracticable Canal

Archival drawings reveal that the project originally included a narrow canal designed to separate the new residential development from the former Casalmonferato cement factory site. This canal was intended to fulfill a dual role: serving as a physical boundary between two functionally distinct zones, and acting as a spatial mediator that highlights the transition from the industrial past to the contemporary residential environment.

Positioned parallel to the lagoon, the canal was meant to reinforce the compositional axis of the left pedestrian passage, which aligns visually with the preserved factory chimney and was to be connected via a bridge. Although this canal was never realized, the concept underscores the importance of spatial and semantic differentiation between architectural eras and functions, which plays a key role in shaping the current character of Giudecca.

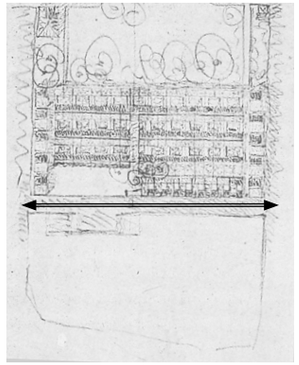


Figure 40
Based on: L'Industria delle Costruzioni. (1987). Plan drowing [Print edition, No. 186, April]. Archive of Gino Valle.
Author's own modification: [Buchkov, I], 2025.

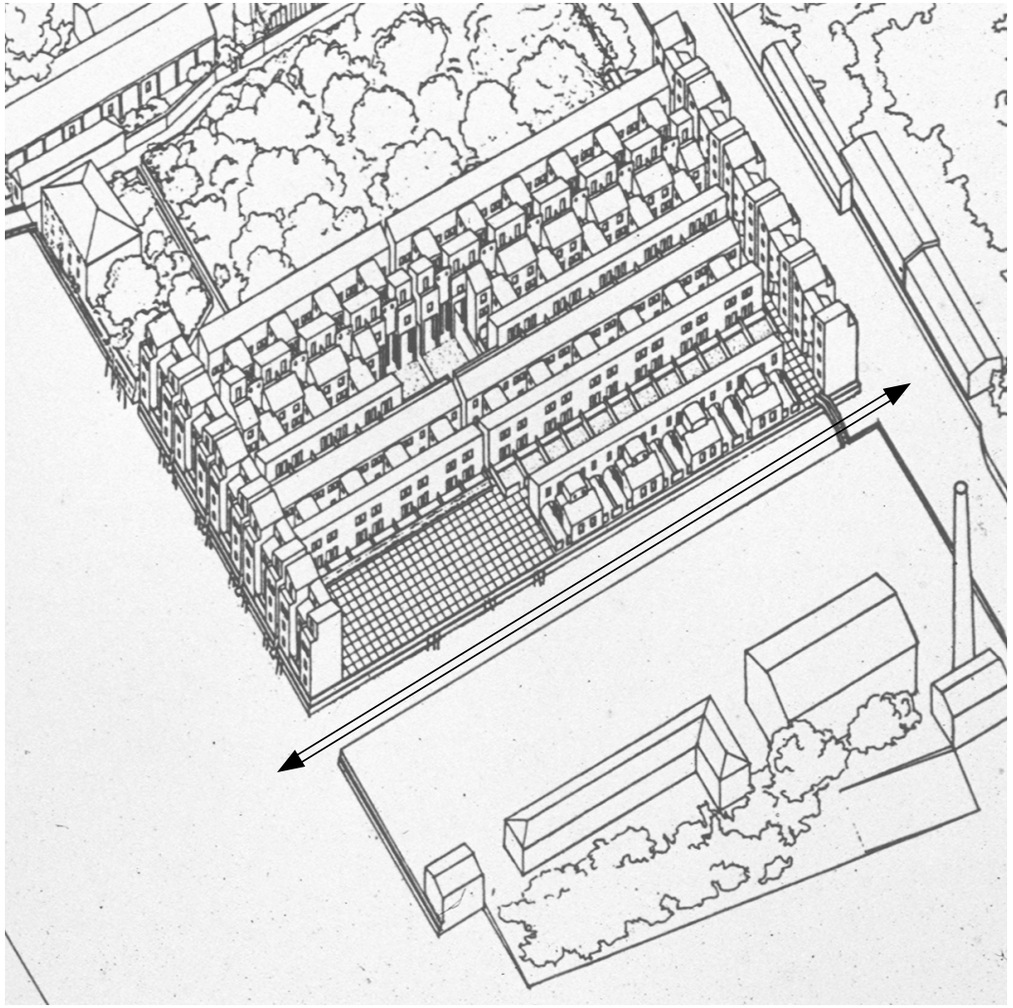


Figure 41
Based on: L'Industria delle Costruzioni. (1987). Axonometric drawing [Print edition, No. 186, April]. Archive of Gino Valle. Author's own modification: [Buchkov, I], 2025.

1. Formation of the historical context

Historical analysis of the study site

Conclusion

The site located between the Lavraneri and San Biagio canals has been shaped over centuries by shifting functions, reflecting broader processes of transformation within the urban fabric of Giudecca. From its origins in the 15th century as a garden-monastic zone associated with the Church of San Biagio, the area has continually evolved, mirroring changing social and economic contexts.

Following a period of neglect, the site paved the way for an important industrial era on Giudecca. In the early 20th century, the establishment of the Casalmonferato cement plant decisively defined the morphology and infrastructural framework of the southern part of the island. Today, remnants of this phase remain visible in the form of abandoned industrial buildings and a brick chimney, which stands as a dominant landmark within the local skyline, embodying the industrial legacy of the site.

With the decline of the cement plant's production function, the site transitioned to a new phase of industrial use under the boatbuilding company Escalera Trevisan. Tangible traces of this second wave of industrial activity survive in the form of two preserved construction cranes, which punctuate the site's landscape and recall its artisanal manufacturing past.

By the late 20th century, the area underwent another significant transformation, gradually integrating into the residential fabric of the city. Key developments such as the completion of the Sacca Fisola island, the construction of the Ponte dei Lavraneri bridge, and notably, Gino Valle's housing complex marked important milestones in this shift. The Case alla Giudecca project, in particular, stands out for its sensitive preservation of references to the industrial past—through visual axes and spatial boundaries—successfully embedding historical layers within a new architectural logic.

Thus, this part of Giudecca presents a unique example of historical and urban stratification. Within a relatively small area, traces of 15th-century monastic gardens coexist alongside 20th-century industrial architecture and contemporary residential environments. Rather than erasing or replacing the past, these layers coexist and reinterpret each other, with architecture acting as a mediator between different temporal dimensions.

Consequently, the site—with its complex historical-spatial structure and multilayered heritage—constitutes a vital case for architectural conservation through the reinterpretation of its history, demonstrating how urban development can honor and integrate the past while adapting to contemporary needs.

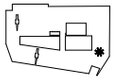
2. Perseption of space

German photographers Bernd and Hilla Becher, known for their series of black-and-white photographs of industrial architecture, viewed utilitarian structures as objects with a high degree of artistic and structural expressiveness. **“We call them ‘anonymous sculptures’,”** is how they referred to the water towers, blast furnaces, mining structures, and other elements of the industrial landscape they documented.

This approach influenced the perception of the abandoned and scattered structures on the project site — not as remnants of decay, but as potentially valuable architectural forms. As part of the project, a method of photographic documentation was applied to support their preliminary qualification, analysis, and identification of their formal and spatial potential.

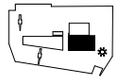
Figure 42
Becher, B., & Becher, H. (1974). Pitheads [Photograph].

2. Perseption of space



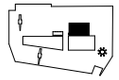
The first element that catches the eye when approaching the site is the outline of a brick chimney. It rises above the landscape, drawing attention and sparking curiosity.

2. Perseption of space



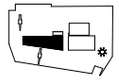
Building of plant seems to directly reflect the legacy of the industrial era — monumental and detailed on the outside, but empty and abandoned inside. The contrast between the exterior presence and the emptiness of the interior emphasize a sense of loss.

2. Perseption of space



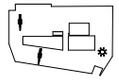
The ruins gradually merge with the landscape, forming a closed and linked ensemble with nature. Openings in the concrete walls, remainders of former industrial processes, create a rhythm — dry, repetitive, as echo of some lost architectural logic.

2. Perseption of space



The hangar building, unexpectedly, evokes a sense of calm and comfort. The interior space feels protected — free from tension.

2. Perseption of space



Two old cranes tower over the site like motionless giants. Their massive silhouettes define the vertical dimension of the entire space. There is a sense that activity finished only recently and traces of human presence still remain.

2. Perseption of space

Immersion in the photo analysis of objects - through the lens of spatial perception, volume, and composition - served as a starting point for further research and classification.

3. Classification of research objects

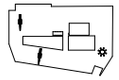
Objects evaluations description

An important stage of the analysis of the design site was the creation of a classification table of the objects identified during the site investigation. Each object was analyzed according to six criteria, which ensured an objective evaluation and made it possible to identify the most promising ones for further study within the framework of the concept.

Architectural Value	Evaluation of the object uniquenes and historical value in terms of architecture and design features.
Cultural Recognition	Cultural significance and recognition of the object.
Physical Condition	The structural state of the object and how much effort is required for restoration.
Adaptability of Object	Simplicity of adaptation or transformation into a new function within the concept.
Functional Potential	The object's future usability for cultural, technical, commercial, or other purposes.
Spatial qualities	The object's spatial qualities (footprint and height), affecting its capacity and flexibility of use.

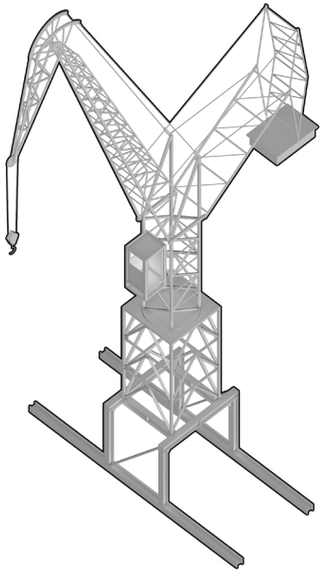
3. Classification of research objects

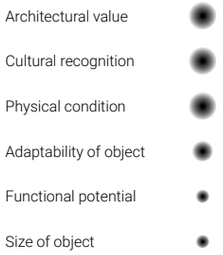
Research of objects evaluations



Crane 1/2

Analysis indicates that no such cranes were present during the cement plant's original operation. These structures were installed when the site was repurposed in the mid-20th century to accommodate the shipbuilding activities of Scalera Trevisan. The cranes remain in relatively good condition, although no information is available regarding the operability of their mechanisms.





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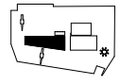
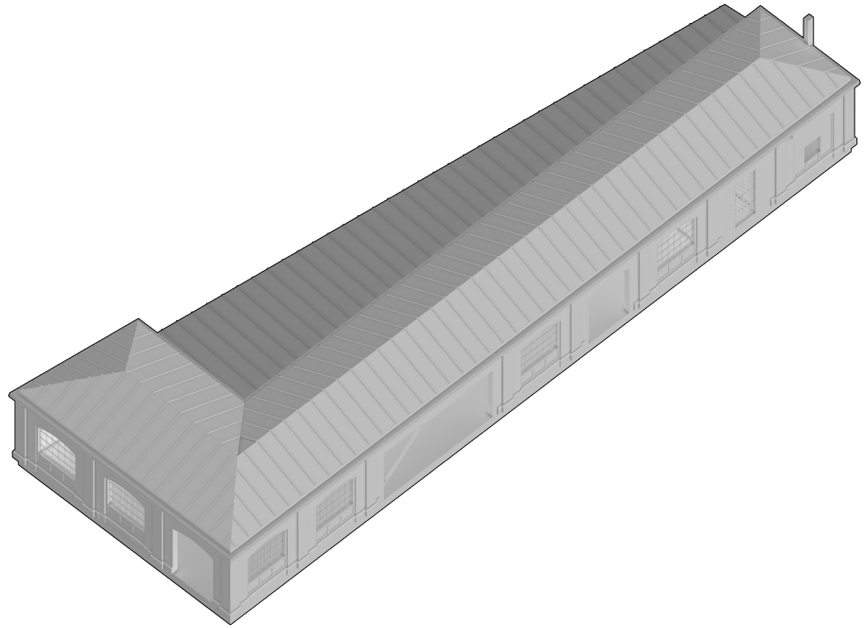
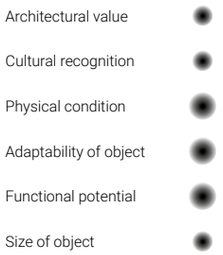


Hangar

The hangar building is located in the central part of the site. Originally, it was a single-story, L-shaped structure featuring numerous window openings. A later extension transformed the building's footprint into a trapezoidal shape. The rafter system remains well-preserved, although the roof covering is now unsuitable. Several open reservoirs are visible on the concrete floor, likely intended to house various mechanisms.





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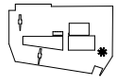
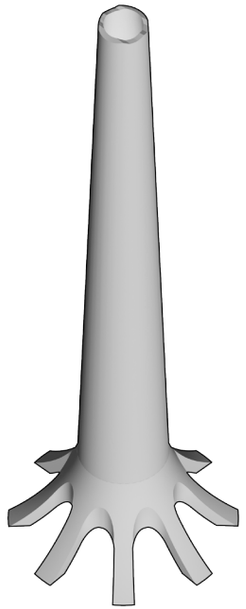
3. Classification of research objects

Research of objects evaluations



Chimney

The chimney was a key component of the cement production process and is located 3 meters opposite the southeast corner of the plant. The overall shape of the chimney remains largely intact, although the top has partially collapsed. Historical drawings reveal that a concrete portal—no longer preserved—was integrated into the chimney, serving either as an access point for maintenance or to house mechanisms.



Architectural value

Cultural recognition

Physical condition

Adaptability of object

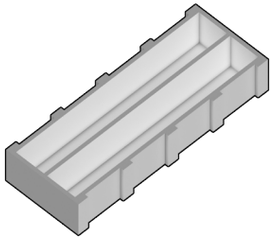
Functional potential

Size of object

0 1 10

Container

Located on the right side of the northern facade of the hangar, this closed concrete structure stands two meters tall and is divided into two sections. No information is available regarding its past use. Over time, the container has undergone deformation and corrosion.



Architectural value

Cultural recognition

Physical condition

Adaptability of object

Functional potential

Size of object

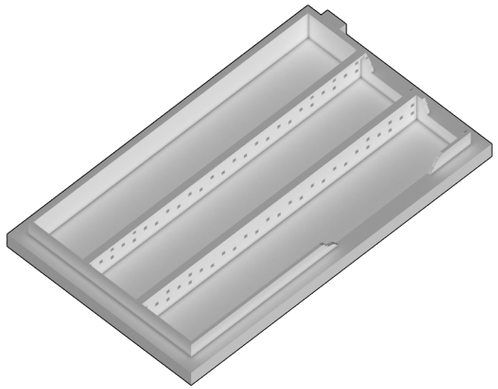
0 1 10

3. Classification of research objects

Research of objects evaluations

Ruins

This object is an open concrete structure divided into three sections. It is presumed to have housed mechanisms related to the cement plant. The interior walls of the structure feature square-shaped openings arranged in a specific rhythm. Currently, the structure is partially destroyed and heavily corroded.



Architectural value

Cultural recognition

Physical condition

Adaptability of object

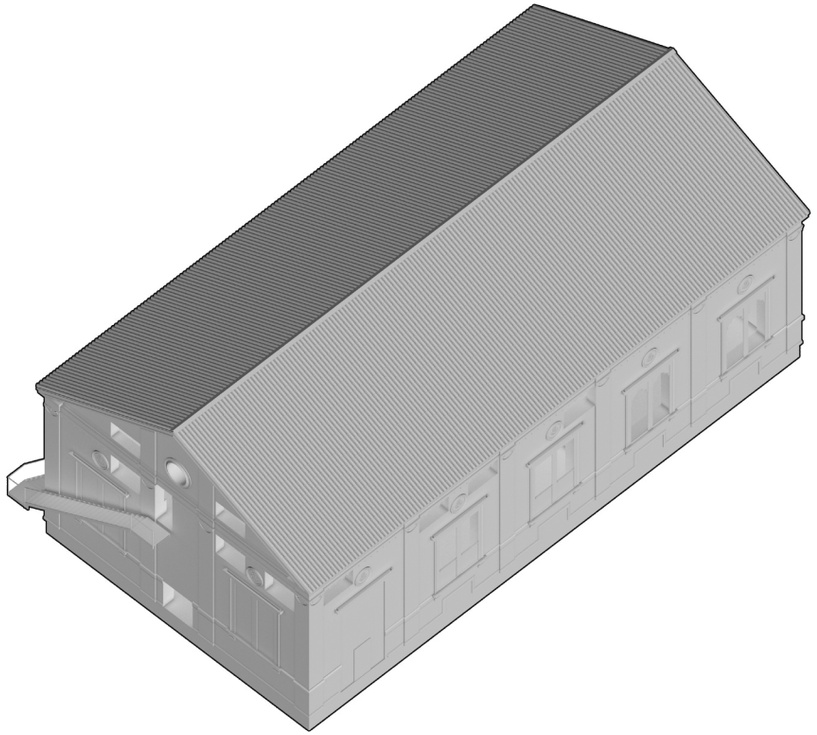
Functional potential

Size of object

0 1 10

Cement Plant

The plant building was once a key element in the cement production process. It is a two-storey structure with a gable roof. The entire interior space is in poor condition due to numerous interventions and modifications. Although the exterior has undergone some changes, it retains its decorative gypsum elements on the facades, reflecting the architectural style of the early 20th century. The roof has been better preserved, likely as a result of previous restoration efforts.



Architectural value

Cultural recognition

Physical condition

Adaptability of object

Functional potential

Size of object

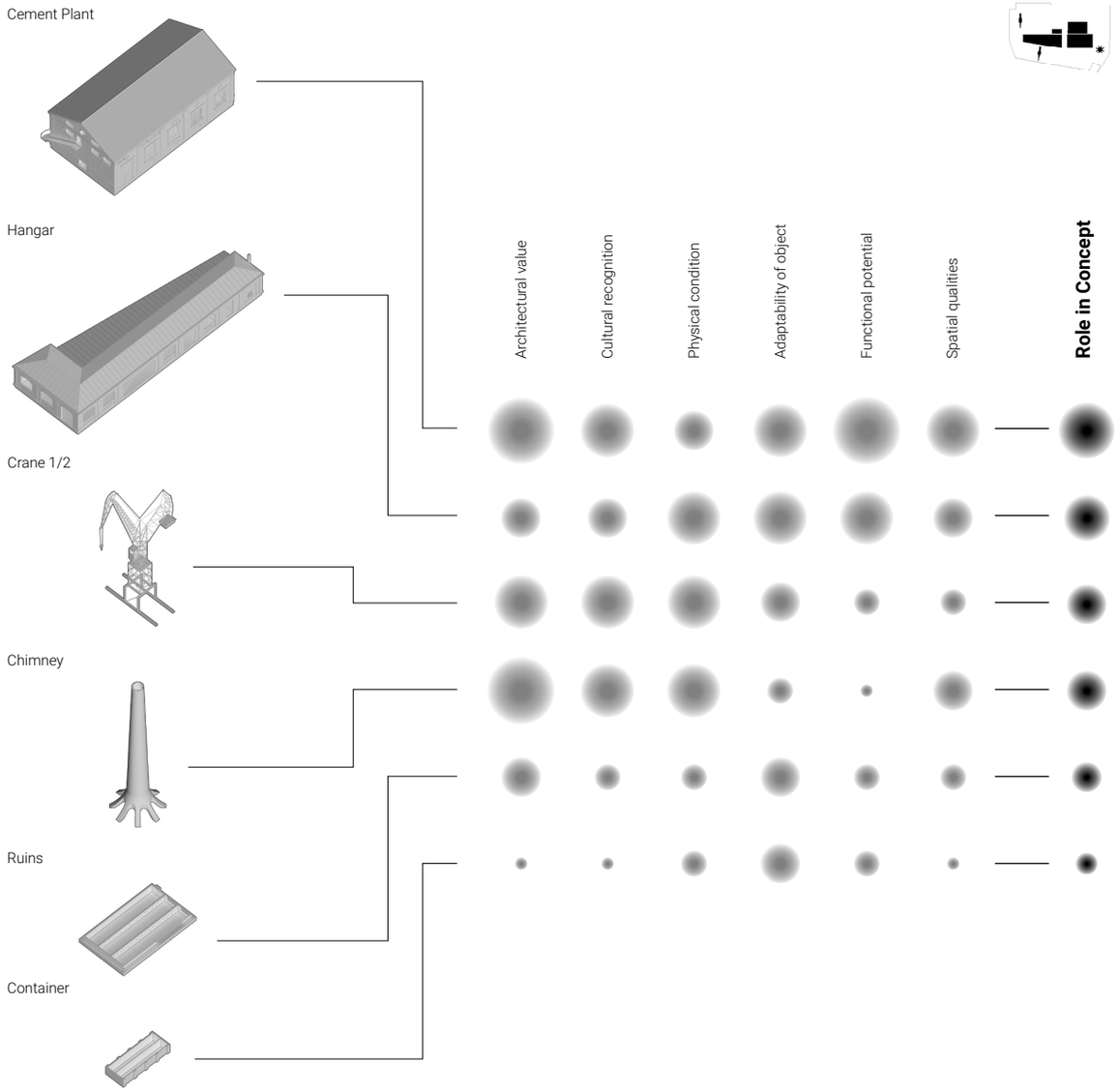
0 1 10

3. Classification of research objects

Result of objects evaluations

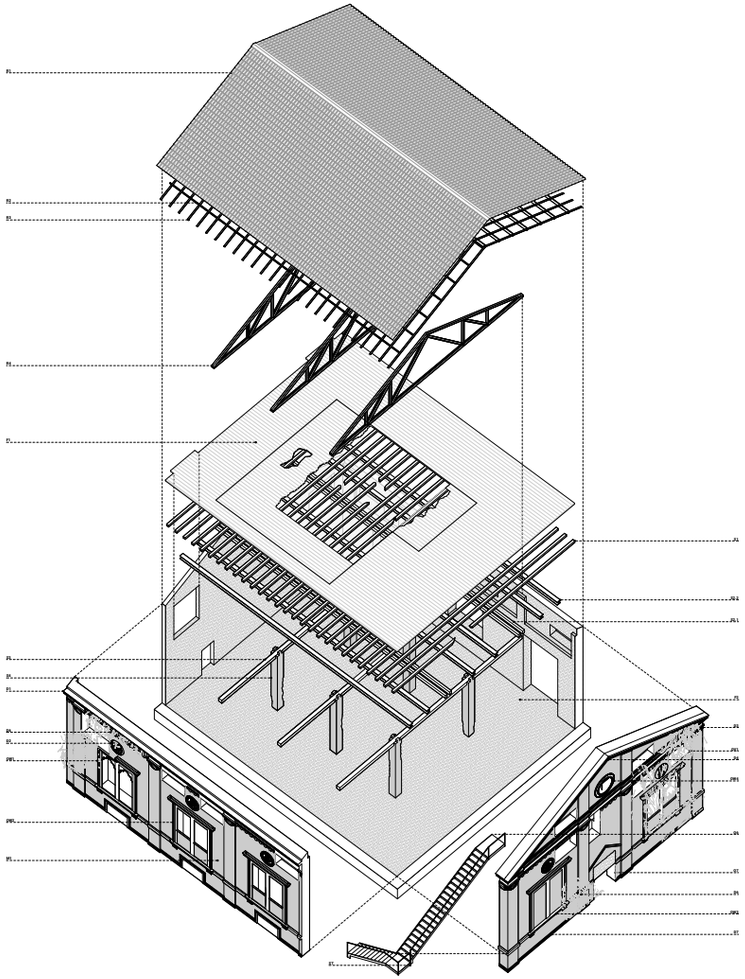
The classification of objects based on previously established criteria demonstrated that all objects hold significance for the further development of the site's architectural concept, however with varying degrees of importance.

Among them, the former plant building emerged as the most promising according to the aggregate evaluation, thus becoming the primary focus for further investigation within the framework of conservation analysis.



4. Conservative Evaluation

Historical Technical Architectural Evaluation



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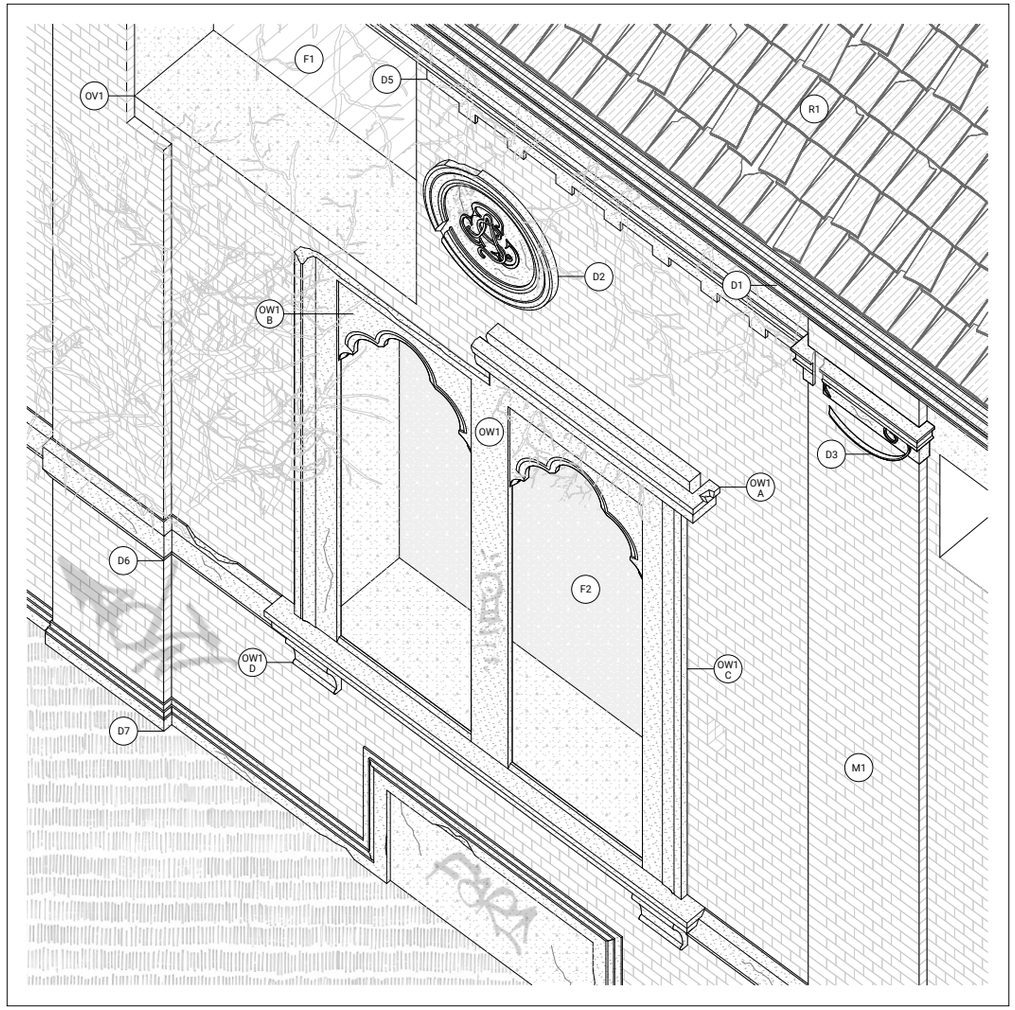

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4. Conservative Evaluation

Historical Technical Architectural Evaluation

R - ROOFING SYSTEM

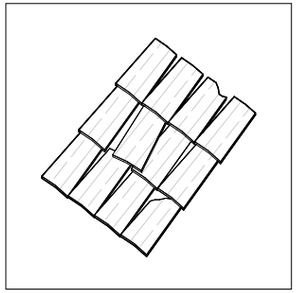
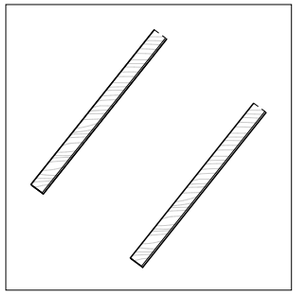
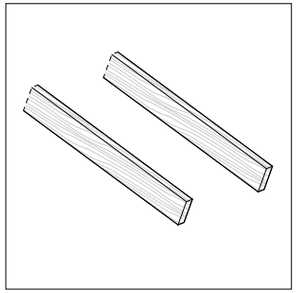
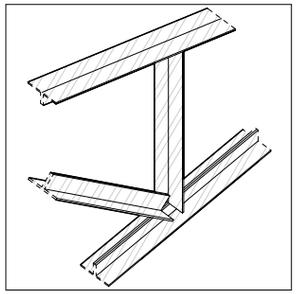
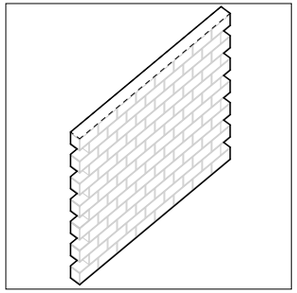
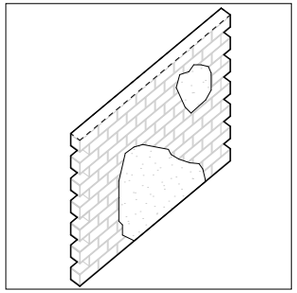
IMAGE	CODE	ELEMENT	DESCRIPTION	EVALUATION
	R1	Roof covering	Ceramic terracotta tiles: approximately 27 × 17 × 5 cm.	
	R2	Roof battens	Wooden strip: cross-section 8 × 2 cm.	
	R3	Secondary structure	Wooden bar: cross-section 5 × 15 cm.	

IMAGE	CODE	ELEMENT	DESCRIPTION	EVALUATION
	R4	Primary structure	Triangular metal truss: composed of L-shaped channels, each 10 × 10 cm in cross-section.	

M - MASONRY WALL

IMAGE	CODE	ELEMENT	DESCRIPTION	EVALUATION
	M1	Regular masonry bricks.	Brick belt: composed of brick elements.	
	M2	Regular masonry bricks + stucco.	Brick belt with stucco: a belt made of brick elements, partly covered by a layer of stucco.	

4. Conservative Evaluation

Historical Technical Architectural Evaluation

S - STRUCTURAL SYSTEM

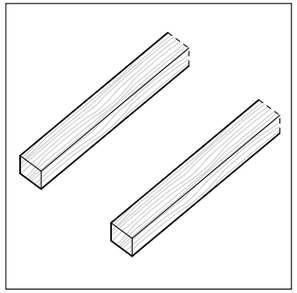
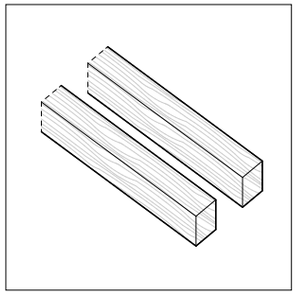
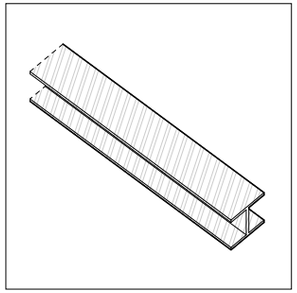
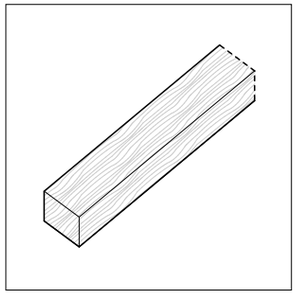
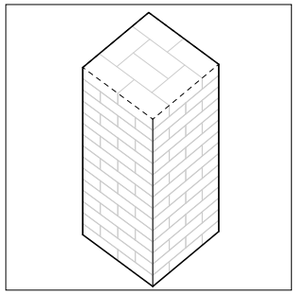
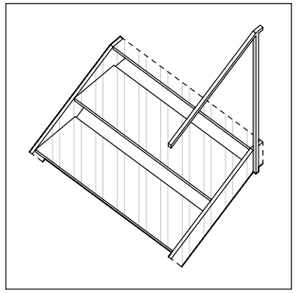
IMAGE	CODE	ELEMENT	DESCRIPTION	EVALUATION
	S1	Secondary structure	Wooden beam: cross-section 15 × 15 cm.	
	S2.1	Primary structure type 1	Wooden beam: cross-section 15 × 25 cm.	
	S2.2	Primary structure type 2	Metal H-shaped channel: cross-section 25 × 25 cm.	

IMAGE	CODE	ELEMENT	DESCRIPTION	EVALUATION
	S3	Primary structure type 3	Wooden beam: cross-section 25 × 25 cm.	
	S4	Masonry column	Brick masonry column: cross-section 50 × 50 cm.	

ST - STAIRCASE

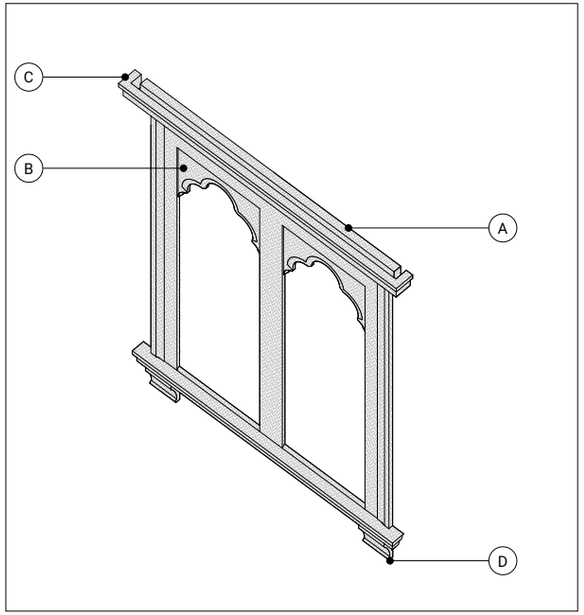
IMAGE	CODE	ELEMENT	DESCRIPTION	EVALUATION
	ST	Exterior staircase	Metal ladder: with one landing, featuring a handrail on one side, consisting of 33 steps.	

4. Conservative Evaluation

Historical Technical Architectural Evaluation

O - OPENINGS

IMAGE



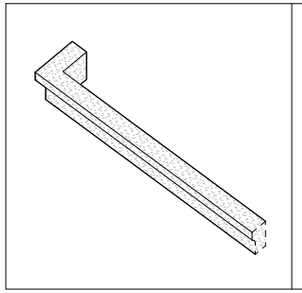
CODE	ELEMENT
OW1	Windows type 01

DESCRIPTION

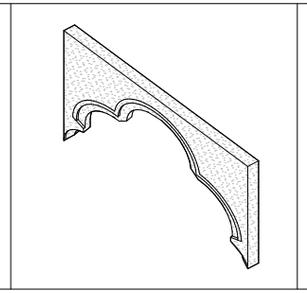
Rectangular opening: window composed of A — plaster cornice, B — plaster molding, and C — frame. The lower part of the frame acts as a middle string course with D — decorative plaster elements.

EVALUATION

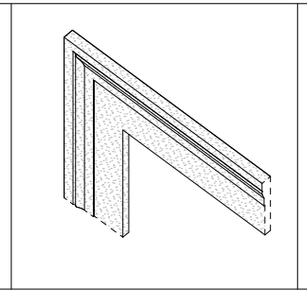
OW1 A



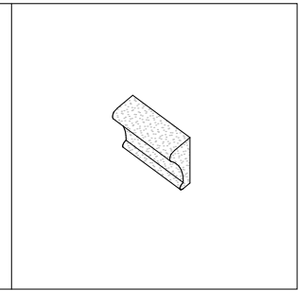
OW1 B



OW1 C

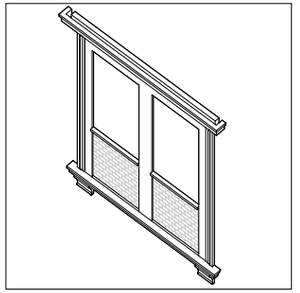


OW1 D



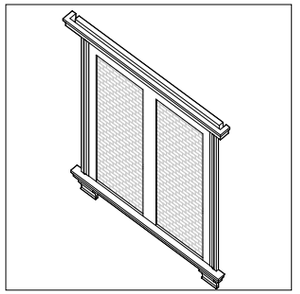
O - OPENINGS

IMAGE



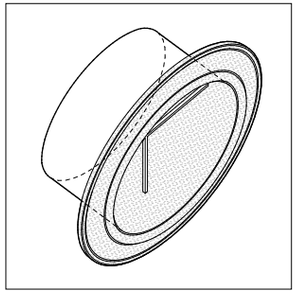
CODE	ELEMENT	DESCRIPTION	EVALUATION
OW2	Windows type 02	Rectangular opening: window with carved reinforced plaster frames, partly closed by brick masonry.	

IMAGE



CODE	ELEMENT	DESCRIPTION	EVALUATION
OW3	Windows type 03	Rectangular opening: window with carved reinforced plaster frames, fully closed by brick masonry.	

IMAGE

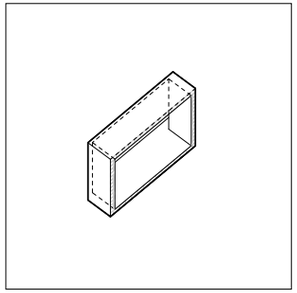
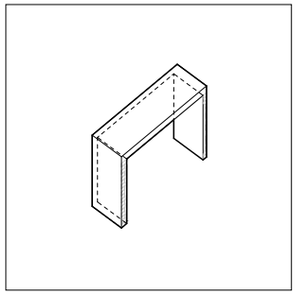
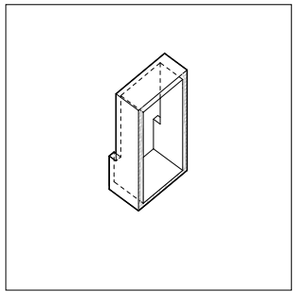


CODE	ELEMENT	DESCRIPTION	EVALUATION
OW4	Windows type 04	Circular opening: window with carved reinforced plaster frames	

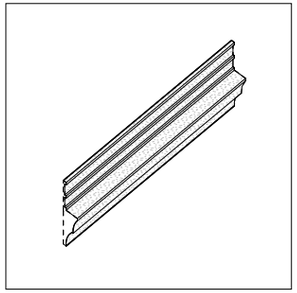
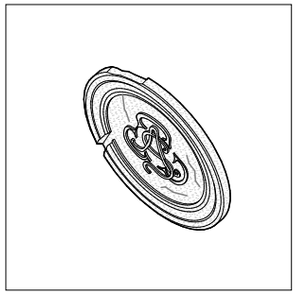
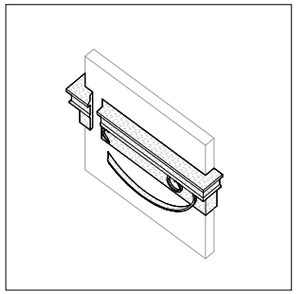
4. Conservative Evaluation

Historical Technical Architectural Evaluation

O - OPENINGS

IMAGE	CODE	ELEMENT	DESCRIPTION	EVALUATION
	OV1	Open wall void	Wall void: originally a window.	
	OV2	Open wall void	Wall void: originally a door.	
	OV3	Open wall void	Wall void: originally a passage to a demolished structure.	

D - DECORATION

IMAGE	CODE	ELEMENT	DESCRIPTION	EVALUATION
	D1	Horizontal cornice	Cornice: made of reinforced plaster.	
	D2	Rosette	Rosette: made of plaster with decorative letters.	
	D3	Capitel	Capital: made of plaster with decorative elements.	

4. Conservative Evaluation

Historical Technical Architectural Evaluation

R - DECORATION

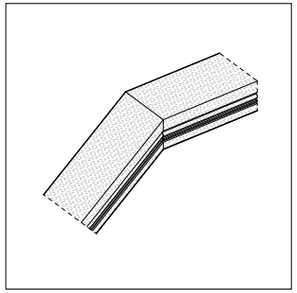
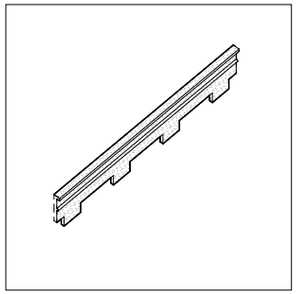
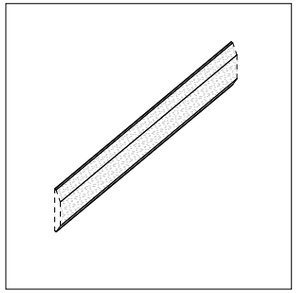
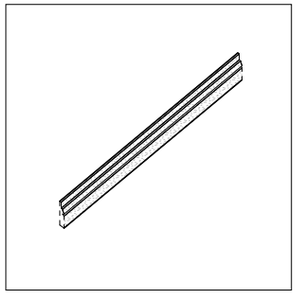
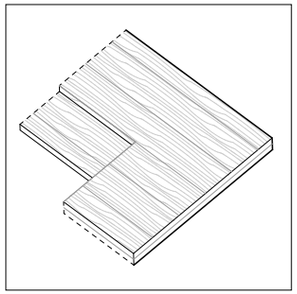
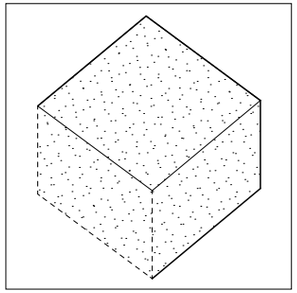
IMAGE	CODE	ELEMENT	DESCRIPTION	EVALUATION
	D4	Pediment cornice	Cornice: made of reinforced plaster.	
	D5	Upper string course	Decorative string course: made of plaster, running along the building perimeter, connecting the capitals.	
	D6	Middle string course	Decorative string course: made of plaster, running along the building perimeter, connecting the openings.	

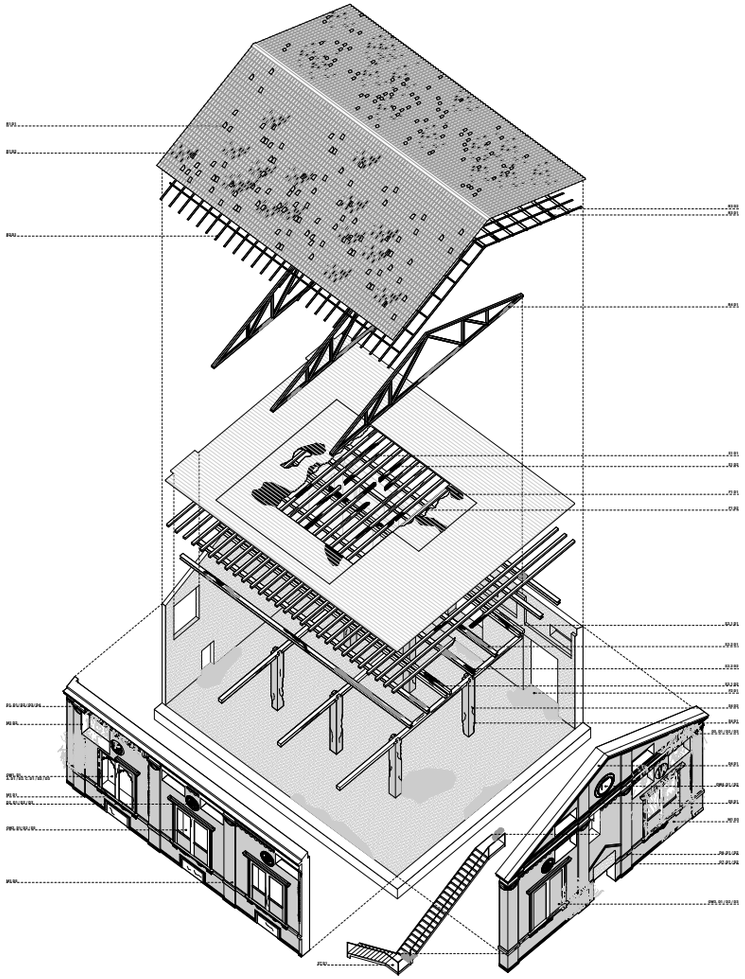
IMAGE	CODE	ELEMENT	DESCRIPTION	EVALUATION
	D7	Plinth string course	Decorative string course: made of plaster, running along the plinth of the building perimeter.	

F - FLOORING SYSTEM

IMAGE	CODE	ELEMENT	DESCRIPTION	EVALUATION
	F1	Wood covering	Timber planks (2 layers): cross-section 10 × 5 cm; used as flooring on the first floor.	
	F2	Concrete floor	Poured concrete: used as flooring on the ground floor.	

4. Conservative Evaluation

Technical Conservative Architectural Evaluation



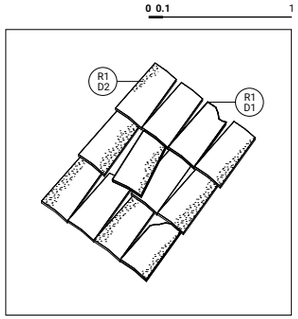
0 1 10

0 0.1 1

4. Conservative Evaluation

Technical Conservative Architectural Evaluation

R - ROOFING SYSTEM

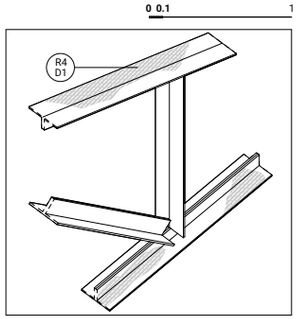


ELEMENT	CODE	PATTERN	DETERIORATION	CAUSES	PHENOMEN
Roof covering	R1 D1		Physical modification	Direct rainfall	Detachment
	D2		Biological degradation	Direct rainfall	Black crust

ELEMENT	CODE	PATTERN	DETERIORATION	CAUSES	PHENOMEN
Roof battens	R2 D1		Biological degradation	Moisture	Putrefaction

ELEMENT	CODE	PATTERN	DETERIORATION	CAUSES	PHENOMEN
Secondary structure	R3 D1		Biological degradation	Moisture	Putrefaction
	D2		Physical modification	Moisture	Cracks

R - ROOFING SYSTEM



ELEMENT	CODE	PATTERN	DETERIORATION	CAUSES	PHENOMEN
Primary structure	R4 D1		Chemical modification	Corrosion of metals	Brown staining

M - MASONRY WALL

ELEMENT	CODE	PATTERN	DETERIORATION	CAUSES	PHENOMEN
Regular masonry bricks	M1 D1		Chemical modification	Weathering, Acid deposition, Direct rainfall	Black crust
	D2		Anthropogenic modification	Human intervention	Loss of materials
	D3		Biological degradation	Biological colonization	Biological patina
	D4		Biological degradation	Biological colonization	Higher plant
	D5		Anthropogenic modification	Human intervention	Graffiti

4. Conservative Evaluation

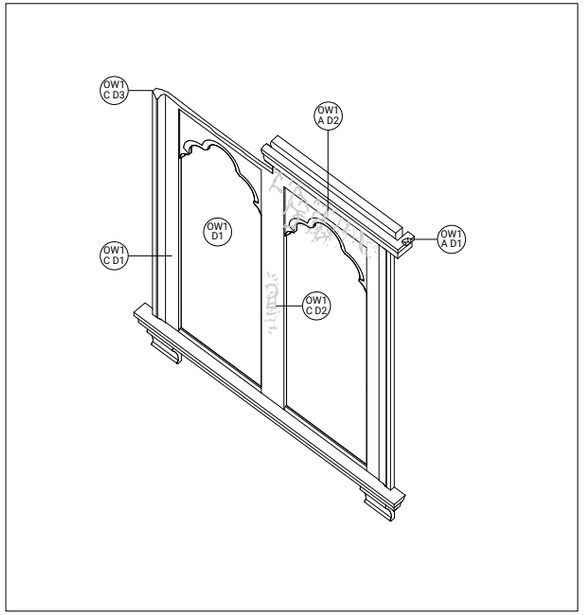
Technical Conservative Architectural Evaluation

S - STRUCTURAL SYSTEM

ELEMENT	CODE	PATTERN	DETERIORATION	CAUSES	PHENOMEN
Secondary structure	S1 D1		Physical modification	Moisture	Cracks
	D2		Biological degradation	Moisture	Putrefaction
ELEMENT	**CODE**	**PATTERN**	**DETERIORATION**	**CAUSES**	**PHENOMEN**
Primary structure type 1	S2.1 D1		Physical modification	Moisture	Cracks
	D2		Biological degradation	Moisture	Putrefaction
ELEMENT	**CODE**	**PATTERN**	**DETERIORATION**	**CAUSES**	**PHENOMEN**
Primary structure type 2	S2.2 D1		Chemical modification	Corrosion of metals	brown staining
			Biological degradation	Dampness, Acid deposition	disintegration
ELEMENT	**CODE**	**PATTERN**	**DETERIORATION**	**CAUSES**	**PHENOMEN**
Primary structure type 3	S3 D1		Physical modification	Moisture	Cracks
ELEMENT	**CODE**	**PATTERN**	**DETERIORATION**	**CAUSES**	**PHENOMEN**
Masonry column	S4 D1		Physical modification	Moisture	Detachment
	D2		Physical modification	Moisture	Cracks

O - OPENINGS

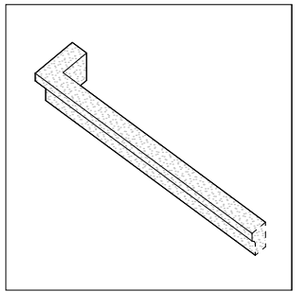
IMAGE



ELEMENT	CODE
Windows type 01	OW1 D1

DETERIORATION	CAUSES	PHENOMEN
Physical modification	External demages	Missing glazing

OW1 A

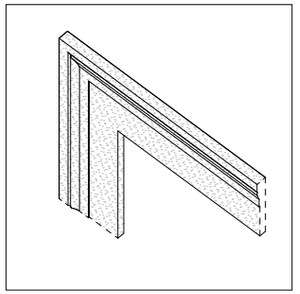


CODE	DETERIORATION
D1	Physical modification
D2	Biological degradation

CODE	CAUSES
D1	External demages
D2	Biological colonization

CODE	PHENOMEN
D1	Chipping
D2	Higher plant

OW1 C



CODE	DETERIORATION
D1	Physical modification
D2	Anthropogenic modification
D3	Physical modification

CODE	CAUSES
D1	Moisture absorption, Drying
D2	Human intervention
D3	External demages

CODE	PHENOMEN
D1	Cracks
D2	Graffiti
D3	Chipping

4. Conservative Evaluation

Technical Conservative Architectural Evaluation

O - OPENINGS

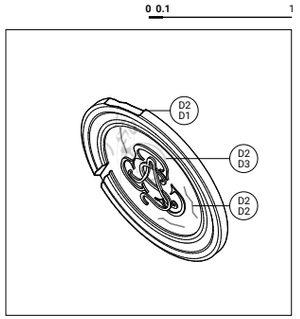
ELEMENT	CODE	PATTERN	DETERIORATION	CAUSES	PHENOMEN
Windows type 02	OW3 D1		Physical modification	external demages	Missing glazing
	D2		Physical modification	Moisture absorption, Drying	Cracks
	D2		Physical modification	External demages	Chipping

ELEMENT	CODE	PATTERN	DETERIORATION	CAUSES	PHENOMEN
Windows type 03	OW3 D1		Physical modification	External demages	Missing glazing
	D2		Physical modification	Moisture absorption, drying	Cracks
	D2		Physical modification	External demages	Chipping

ELEMENT	CODE	PATTERN	DETERIORATION	CAUSES	PHENOMEN
Windows type 02	OW2 D1		Physical modification	External demages	Missing glazing
	D2		Physical modification	Moisture absorption, Drying	Cracks

D - DECORATION

ELEMENT	CODE	PATTERN	DETERIORATION	CAUSES	PHENOMEN
Horizontal cornice	D1 D1		Physical modification	Direct rainfall, Material aging, Thermal cycles	Chipping
	D2		Physical modification	Moisture absorption, drying	Cracks
	D3		Biological degradation	Biological colonization	Higher plant
	D4		Biological degradation	Biological colonization	Biological patina

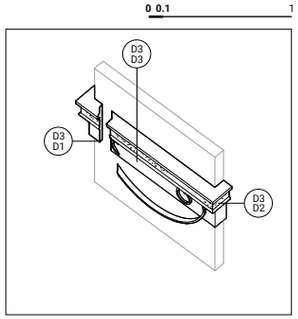


ELEMENT	CODE	PATTERN	DETERIORATION	CAUSES	PHENOMEN
Rosette	D2 D1		Physical modification	Direct rainfall, Material aging, Thermal cycles	Chipping
	D2		Physical modification	Moisture absorption, drying	Cracks
	D3		Anthropogenic modification	Human intervention	Graffiti

4. Conservative Evaluation

Technical Conservative Architectural Evaluation

D - DECORATION



ELEMENT	CODE	PATTERN	DETERIORATION	CAUSES	PHENOMEN
Capitel	D3 D1		Physical modification	Direct rainfall, Material aging, Thermal cycles	Chipping
	D2		Physical modification	Direct rainfall	Black crust
	D2		Chemical modification	Moisture absorption, Drying	Cracks

ELEMENT	CODE	PATTERN	DETERIORATION	CAUSES	PHENOMEN
Pediment cornice	D4 D1		Physical modification	Direct rainfall, Material aging, Thermal cycles	Chipping

ELEMENT	CODE	PATTERN	DETERIORATION	CAUSES	PHENOMEN
Upper string course	D5 D1		Physical modification	Direct rainfall, Material aging, Thermal cycles	Chipping

D - DECORATION

ELEMENT	CODE	PATTERN	DETERIORATION	CAUSES	PHENOMEN
Middle string course	D6 D1		Physical modification	Direct rainfall, Material aging, Thermal cycles	Chipping
	D2		Physical modification	Moisture absorption, Drying	Cracks

ELEMENT	CODE	PATTERN	DETERIORATION	CAUSES	PHENOMEN
Plinth string course	D7 D1		Physical modification	Direct rainfall, Material aging, Thermal cycles	Chipping
	D2		Physical modification	Moisture absorption, Drying	Cracks

F - FLOORING SYSTEM

ELEMENT	CODE	PATTERN	DETERIORATION	CAUSES	PHENOMEN
Wood covering	F1 D1		Chemical modification	Moisture	Putrefaction
	D2		Anthropogenic modification	Human intervention	Loss of materials

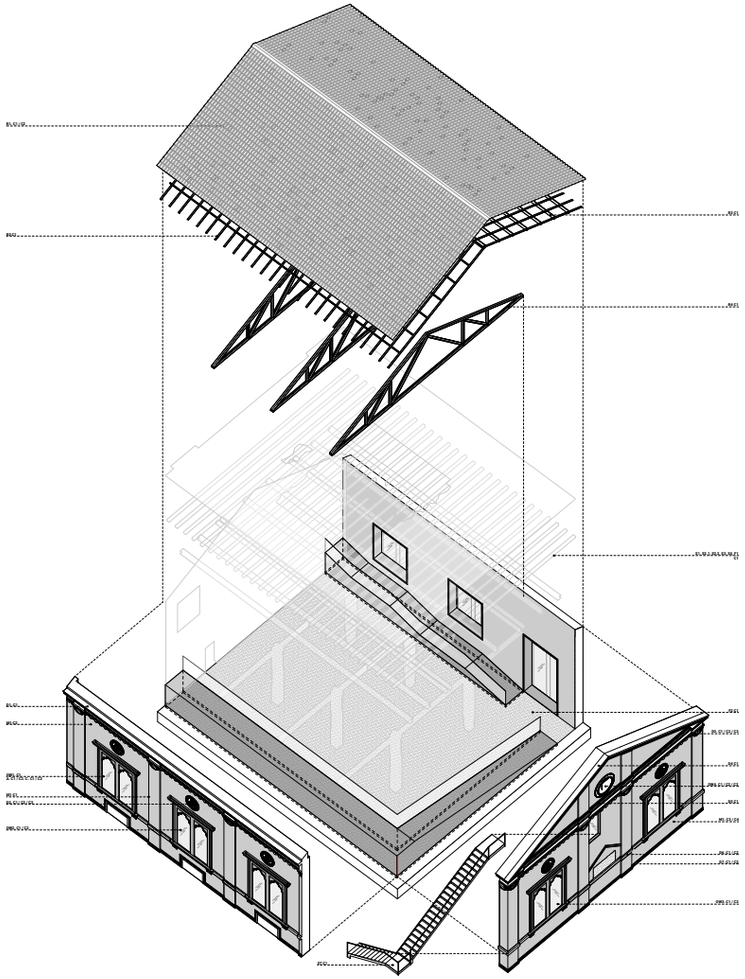
ELEMENT	CODE	PATTERN	DETERIORATION	CAUSES	PHENOMEN
Concrete floor	F2 D1		Chemical modification	Cement degradation, Corrosion of reinforcment	Detachment

ST - STAIRCASE

ELEMENT	CODE	PATTERN	DETERIORATION	CAUSES	PHENOMEN
Outside staircase	ST D1		Chemical modification	Corrosion of metals	Brown staining

4. Conservative Evaluation

Conservative Design Process



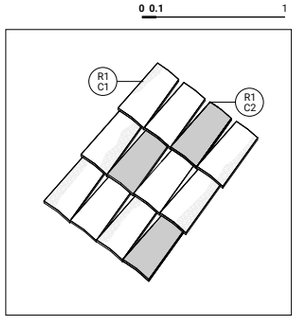
0 1 10

0 0.1 1

4. Conservative Evaluation

Conservative Design Process

R - ROOFING SYSTEM

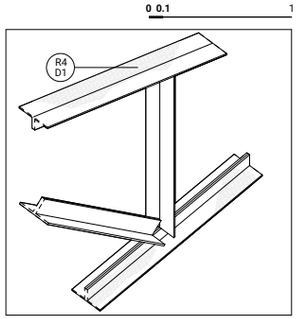


ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Roof covering	R1 C1	REPLACEMENT	The most damaged tiles were replaced with new ones. An additional water-proofing layer was applied.
	C2	CLEANING + PROTECTING COATINGS	Tiles affected by black crust were first cleaned either chemically using antiseptics or mechanically, followed by a protective treatment with hydro-phobic and antiseptic properties.

ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Roof battens	R2 C1	REPLACEMENT + PROTECTING COATINGS	The most rot-prone wooden battens were replaced with new elements of the same dimensions, while the remaining battens were treated with oil impregnation to protect against moisture and rot.

ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Secondary structure	R3 C1	REPLACEMENT + PROTECTING COATINGS	The most affected wooden beams were replaced with new elements matching the original dimensions, and others received oil impregnation for protection.

R - ROOFING SYSTEM



ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Primary structure	R4 C1	CLEANING + PROTECTING COATINGS	The corroded metal truss was mechanically cleaned to remove rust deposits, treated with an anti-corrosion primer, and coated with a protective paint layer.

M - MASONRY WALL

ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Regular masonry bricks	M1 C1	CLEANING + PROTECTING COATINGS	Black crust was removed from the brick masonry using controlled mechan-ical cleaning, low-pressure micro-abrasion, or soft brushing, ensuring no damage to the original brick texture and mortar joints.
	C2	REINTEGRATION	Missing parts of the brick wall were reintegrated using new brick masonry compatible in size and composition, aligned with the existing bond pattern, with new work distinguished by slight variations in color or texture.
	C3 / C4	REMOVAL + CLEANING + PROTECTING COATINGS	Higher vegetation and roots were removed from the surfaces, followed by gentle mechanical and chemical cleaning to eliminate biological patina and deposits. A breathable protective coating was applied to reduce moisture retention and prevent regrowth
	C5	CLEANING	Graffiti was gently cleaned using appropriate solvents tested for compatibili-ty with gypsum, soft brushes, and low-pressure water rinsing. Abrasive methods were avoided to preserve the original surface.

4. Conservative Evaluation

Conservative Design Process

S - STRUCTURAL SYSTEM

ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Secondary structure	R1 C1	REMOVAL	Due to advanced deterioration and the lack of historical value, the secondary structure was completely dismantled.

ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Primary structure type 1	R1 C1	REMOVAL	Due to advanced deterioration and the lack of historical value, primary structure type 1 was completely dismantled.

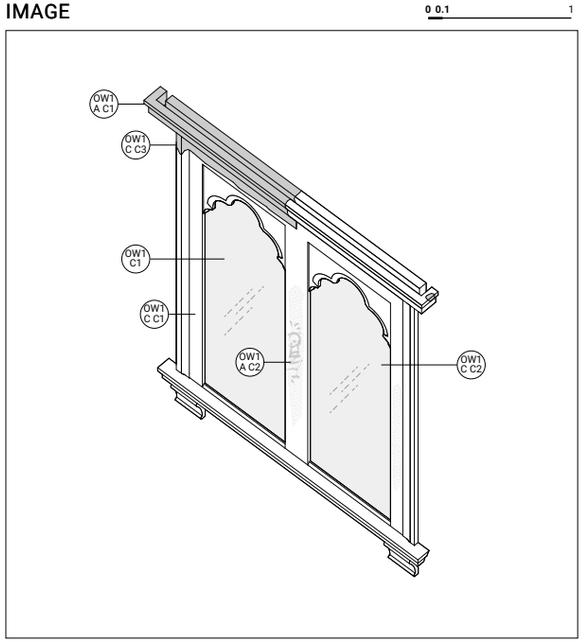
ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Primary structure type 2	R1 C1	REMOVAL	Due to advanced deterioration and the lack of historical value, primary structure type 2 was completely dismantled.

ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Primary structure type 3	R1 C1	REMOVAL	Due to advanced deterioration and the lack of historical value, primary structure type 3 was completely dismantled.

ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Masonry column	R1 C1	REMOVAL	Due to advanced deterioration and the lack of historical value, the masonry columns were completely dismantled.

O - OPENINGS

IMAGE



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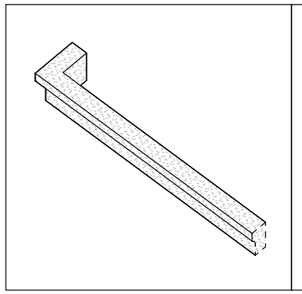
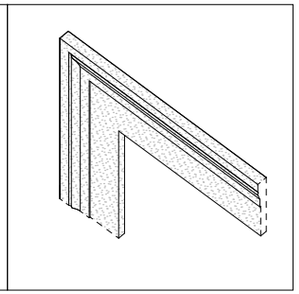


C



ELEMENT
Windows type 01

CODE
OW1 C1

CONSERVATION METHOD
REPLACEMENT

DESCRIPTION
The new window frame was recessed behind the historic gypsum frame to preserve the original architectural appearance. The selected glazing system is compatible with the structure, ensures vapor permeability, and prevents moisture accumulation.

ELEMENT
Windows type 01 A / C

CODE
OW1 A C1 / C C3

CONSERVATION METHOD
REINTEGRATION

DESCRIPTION
Missing parts of the element were reintegrated using compatible, durable, and reversible materials. Joints with the original were prepared and secured to ensure reliable adhesion. New parts were intentionally differentiated in color and texture to visually separate restoration from the original.

ELEMENT
Windows type 01 C

CODE
OW1 C C2

CONSERVATION METHOD
REMOVAL + CLEANING + PROTECTING COATINGS

DESCRIPTION
Higher vegetation and roots were removed from the surface, followed by gentle mechanical and chemical cleaning to eliminate biological patina and deposits. A breathable protective coating was applied to reduce moisture retention and prevent regrowth.

ELEMENT
Windows type 01 C

CODE
OW1 C C1

CONSERVATION METHOD
CONSOLIDATION

DESCRIPTION
Cracks were cleaned with a brush to remove dust, then injected with a compatible lime-gypsum grout using reversible materials. Localized crack stabilization and restorative filling were performed as necessary, maintaining vapor permeability.

4. Conservative Evaluation

Conservative Design Process

O - OPENINGS

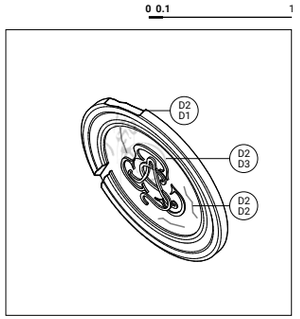
ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Windows type 02	OW2 C1	REPLACEMENT	Due to the loss of the historic glazing, it was decided to fully replace it. The new window frame was recessed behind the historic gypsum frame to preserve the original architectural appearance. The selected glazing system is compatible with the structure, ensures vapor permeability, and prevents moisture accumulation.
	C2	CONSOLIDATION	Cracks were cleaned with a brush to remove dust, followed by injection of compatible lime-gypsum grout. Reversible materials were used for localized crack stabilization, with restorative filling applied if necessary, maintaining vapor permeability.

ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Windows type 03	OW3 C1	REPLACEMENT	Due to the loss of the historic glazing, it was decided to fully replace it. The new window frame was recessed behind the historic gypsum frame to preserve the original architectural appearance. The selected glazing system is compatible with the structure, ensures vapor permeability, and prevents moisture accumulation.
	C2	CONSOLIDATION	Cracks were cleaned with a brush to remove dust, followed by injection of compatible lime-gypsum grout. Reversible materials were used for localized crack stabilization, with restorative filling applied if necessary, maintaining vapor permeability.
	C3	REINTEGRATION	Missing parts of the element were reintegrated using compatible, durable, and reversible materials. Joints with the original were prepared and secured to ensure reliable adhesion. New parts were intentionally differentiated in color and texture to visually separate restoration from the original.

ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Windows type 03	OW4 C1	REPLACEMENT	Due to the loss of the historic glazing, it was decided to fully replace it. The new window frame was recessed behind the historic gypsum frame to preserve the original architectural appearance. The selected glazing system is compatible with the structure, ensures vapor permeability, and prevents moisture accumulation.
	C2	CONSOLIDATION	Cracks were cleaned with a brush to remove dust, followed by injection of compatible lime-gypsum grout. Reversible materials were used for localized crack stabilization, with restorative filling applied if necessary, maintaining vapor permeability.
	C3	REINTEGRATION	Missing parts of the element were reintegrated using compatible, durable, and reversible materials. Joints with the original were prepared and secured to ensure reliable adhesion. New parts were intentionally differentiated in color and texture to visually separate restoration from the original.

D - DECORATION

ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Horizontal cornice	D1 C1	REINTEGRATION	Missing parts of the element were reintegrated using compatible, durable, and reversible materials. Joints with the original were prepared and secured to ensure reliable adhesion. New parts were intentionally differentiated in color and texture to visually separate restoration from the original.
	C2	CONSOLIDATION	Cracks were cleaned with a brush to remove dust, followed by injection of compatible lime-gypsum grout. Reversible materials were used for localized crack stabilization, with restorative filling applied if necessary, maintaining vapor permeability.
	C3 / C4	REMOVAL + CLEANING + PROTECTING COATINGS	Removal of higher vegetation and roots from the surface, followed by gentle mechanical and chemical cleaning to eliminate biological patina and deposits. A breathable protective coating was applied to reduce moisture retention and prevent regrowth.

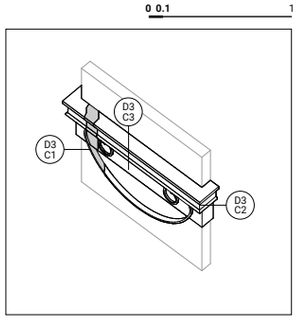


ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Rosette	D2 C1	REINTEGRATION	Missing parts of the element were reintegrated using compatible, durable, and reversible materials. Joints with the original were prepared and secured to ensure reliable adhesion. New parts were intentionally differentiated in color and texture to visually separate restoration from the original.
	C2	CONSOLIDATION	Cracks were cleaned with a brush to remove dust, followed by injection of compatible lime-gypsum grout. Reversible materials were used for localized crack stabilization, with restorative filling applied if necessary, maintaining vapor permeability.
	C3	CLEANING	Gentle cleaning of graffiti with appropriate solvents, testing compatibility with gypsum, use of soft brushes and low-pressure water rinsing, avoiding abrasive methods, careful removal to preserve original surface.

4. Conservative Evaluation

Conservative Design Process

D - DECORATION



ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Capitel	D3 C1	REINTEGRATION	Missing parts of the element were reintegrated using compatible, durable, and reversible materials. Joints with the original were prepared and secured to ensure reliable adhesion. New parts were intentionally differentiated in color and texture to visually separate restoration from the original.
	C2	CONSOLIDATION	Cracks were cleaned with a brush to remove dust, followed by injection of compatible lime-gypsum grout. Reversible materials were used for localized crack stabilization, with restorative filling applied if necessary, maintaining vapor permeability.
	C2	CLEANING	Black crust was removed from gypsum surfaces using soft mechanical methods, low-pressure dry cleaning, or soft brushing, avoiding abrasive tools and preserving the original surface texture and details.

ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Pediment cornice	D4 D1	REINTEGRATION	Missing parts of the element were reintegrated using compatible, durable, and reversible materials. Joints with the original were prepared and secured to ensure reliable adhesion. New parts were intentionally differentiated in color and texture to visually separate restoration from the original.

ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Upper string course	D5 D1	REINTEGRATION	Missing parts of the element were reintegrated using compatible, durable, and reversible materials. Joints with the original were prepared and secured to ensure reliable adhesion. New parts were intentionally differentiated in color and texture to visually separate restoration from the original.

D - DECORATION

ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Middle string course	D6 C1	REINTEGRATION	Missing parts of the element were reintegrated using compatible, durable, and reversible materials. Joints with the original were prepared and secured to ensure reliable adhesion. New parts were intentionally differentiated in color and texture to visually separate restoration from the original.
	C2	CONSOLIDATION	Cracks were cleaned with a brush to remove dust, followed by injection of compatible lime-gypsum grout. Reversible materials were used for localized crack stabilization, with restorative filling applied if necessary, maintaining vapor permeability.

ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Plinth string course	D7 C1	REINTEGRATION	Missing parts of the element were reintegrated using compatible, durable, and reversible materials. Joints with the original were prepared and secured to ensure reliable adhesion. New parts were intentionally differentiated in color and texture to visually separate restoration from the original.
	C2	CONSOLIDATION	Cracks were cleaned with a brush to remove dust, followed by injection of compatible lime-gypsum grout. Reversible materials were used for localized crack stabilization, with restorative filling applied if necessary, maintaining vapor permeability.

F - FLOORING SYSTEM

ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Wood covering	F1 C1	REMOVAL	Due to advanced deterioration and the absence of historical value, the wood covering was completely dismantled.

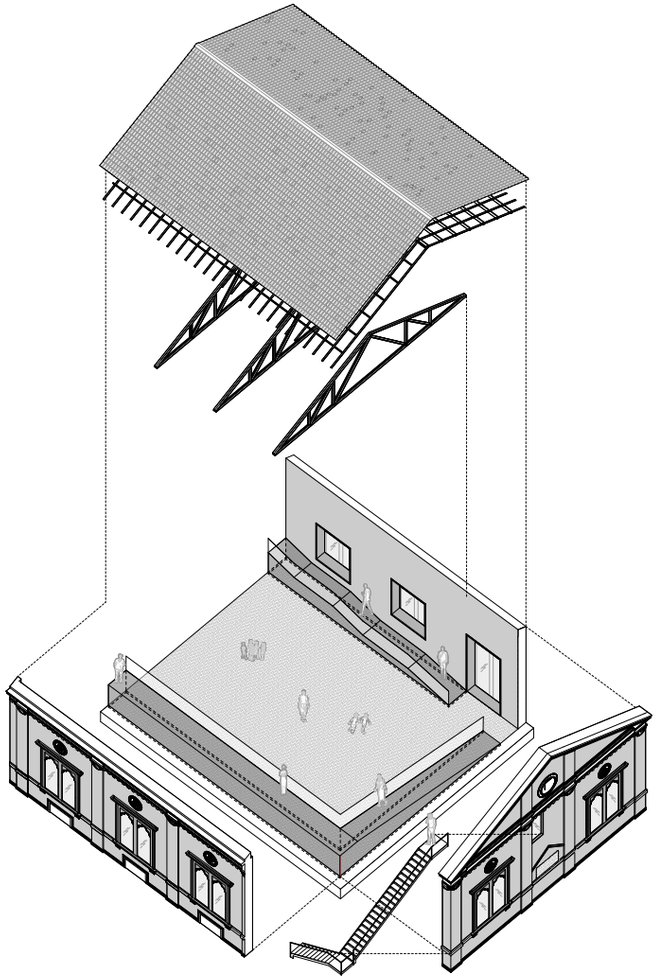
ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Concrete floor	F2 C1	CONSOLIDATION	Concrete surfaces were cleaned from dust and dirt; delaminated concrete was removed and ground to level. Strengthening impregnation based on lithium or silicates was applied. After drying, a water-repellent treatment was performed. Light polishing improved appearance, leaving concrete as the finished surface.

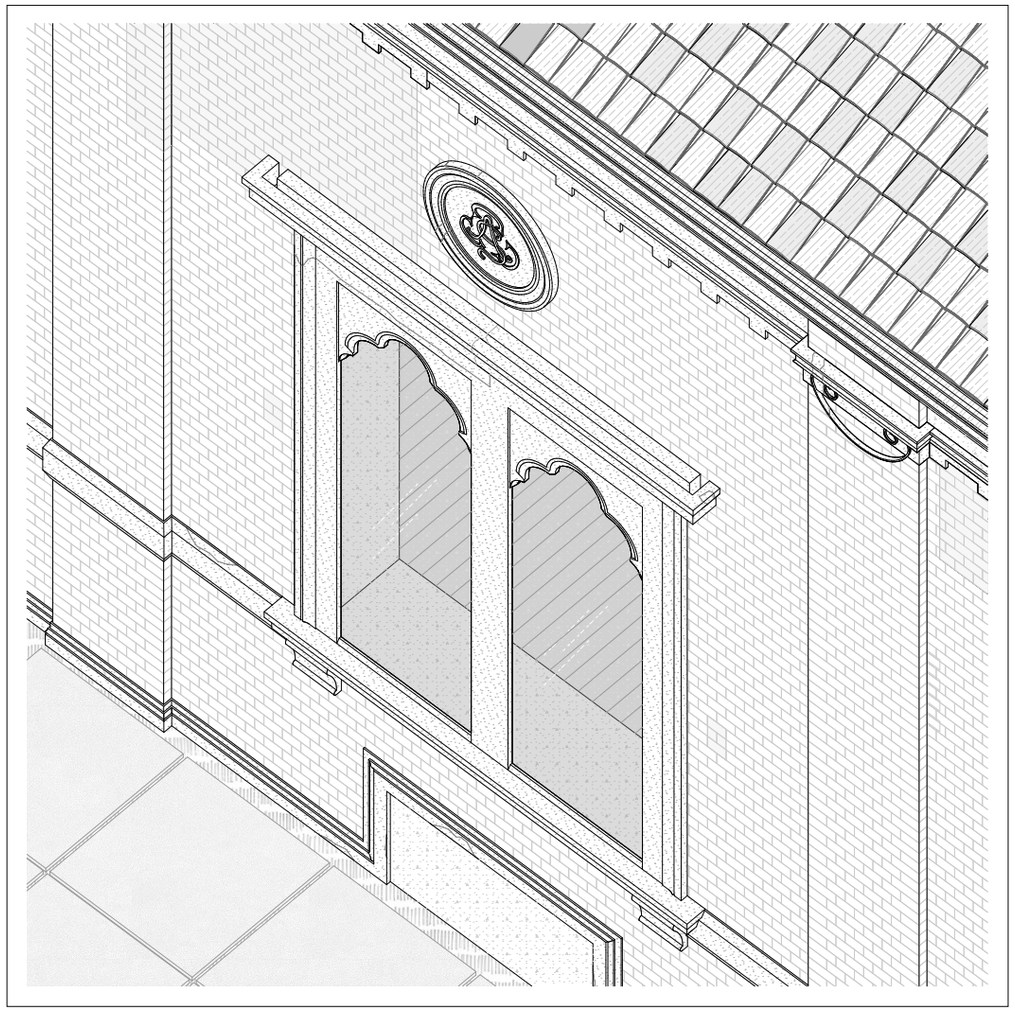
ST - STAIRCASE

ELEMENT	CODE	CONSERVATION METHOD	DESCRIPTION
Exterior staircase	ST C1	CLEANING + PROTECTING COATINGS	The metal truss affected by corrosion was mechanically cleaned to remove rust deposits. It was then treated with an anti-corrosion primer and coated with a protective paint layer.

4. Conservative Evaluation

Conservative Design Result





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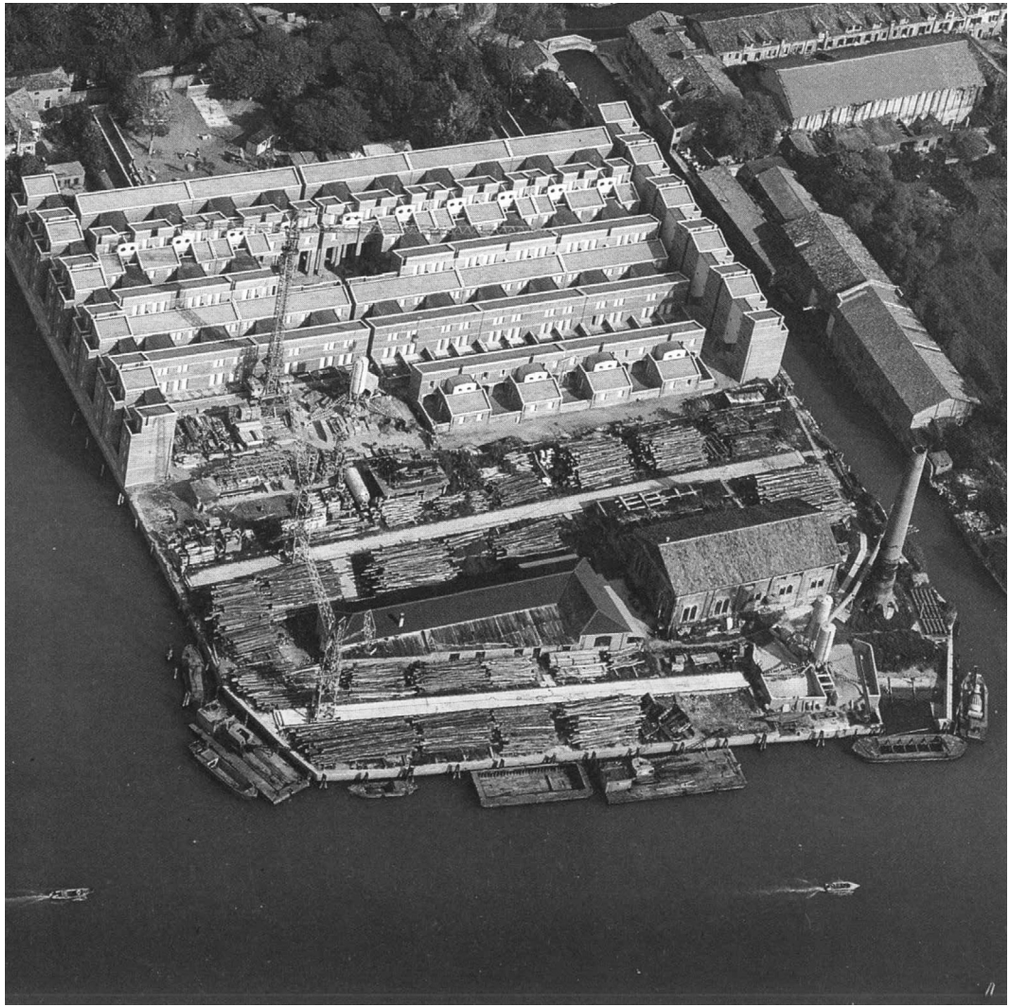
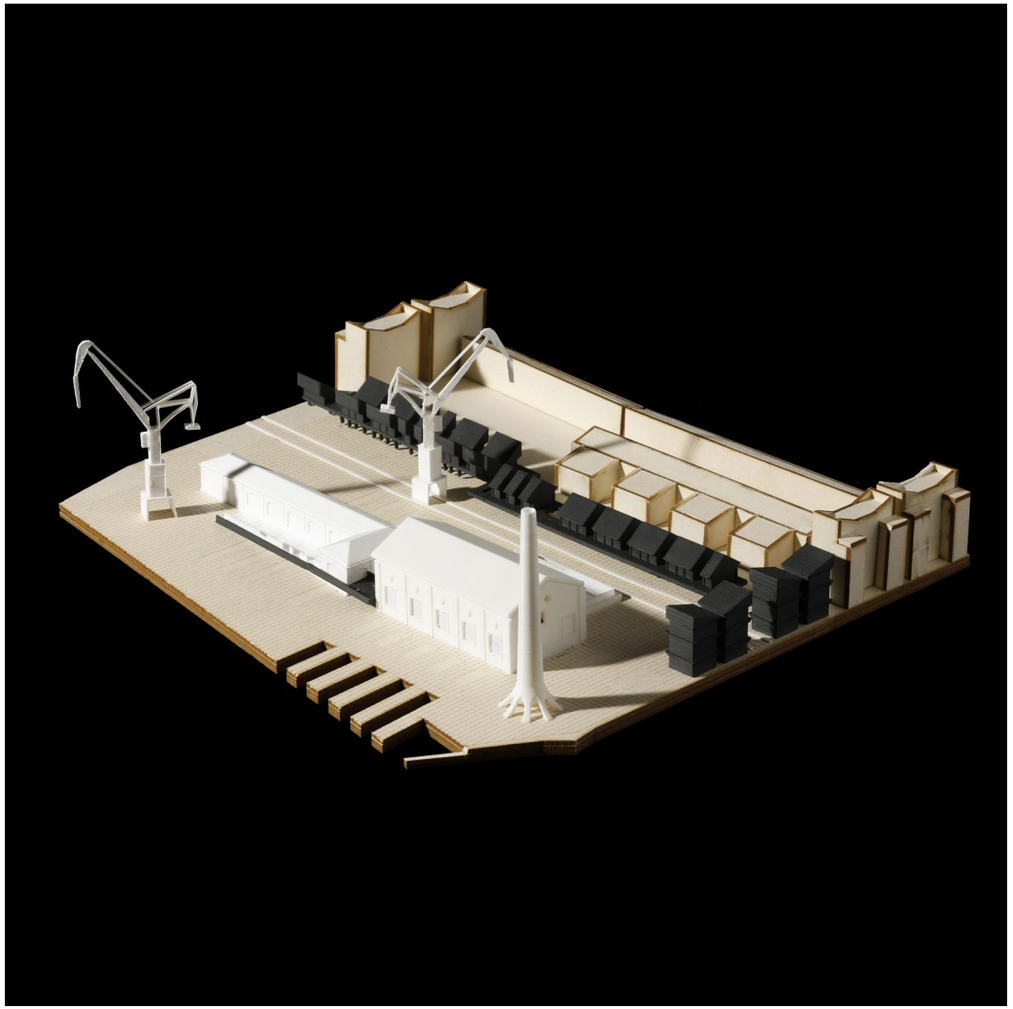
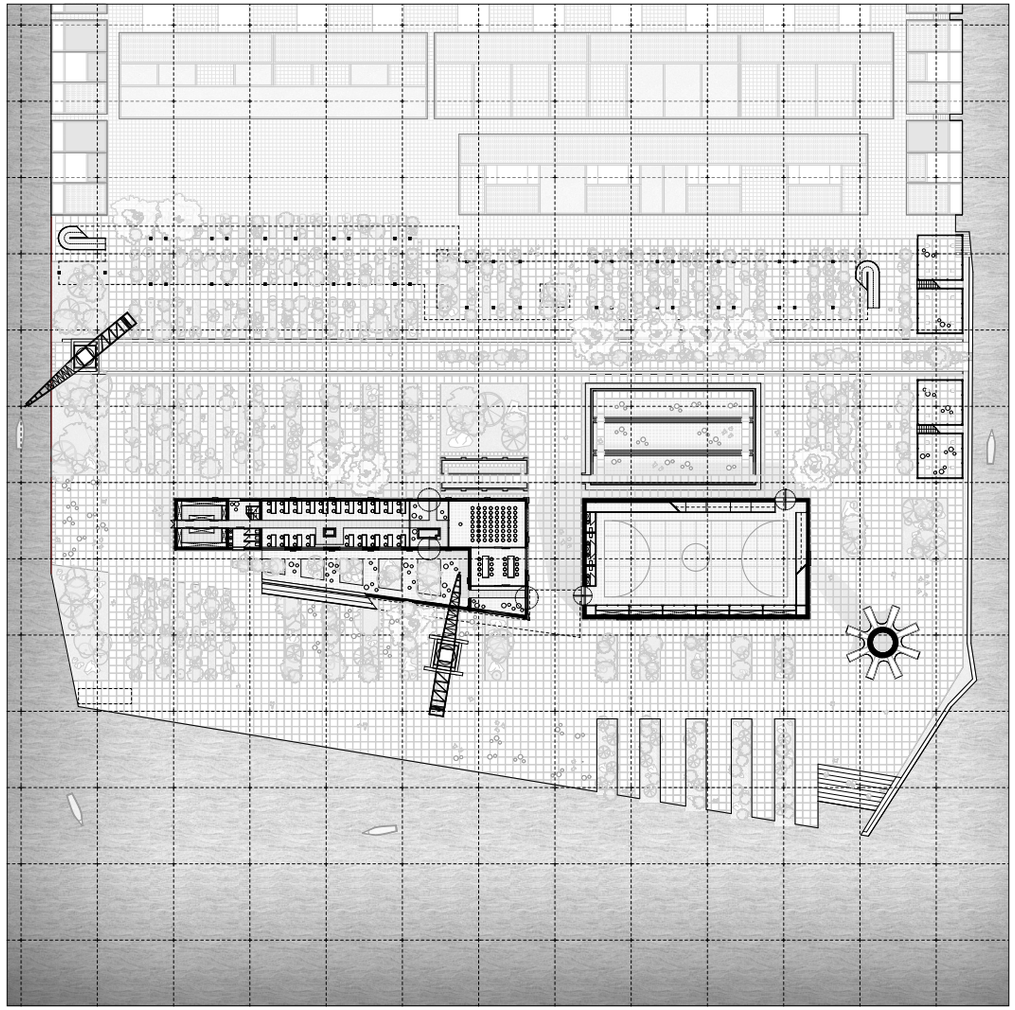
5. Design Development and Intervention Strategy



Photograph of the Trevisan shipyard, mid of 20 centure

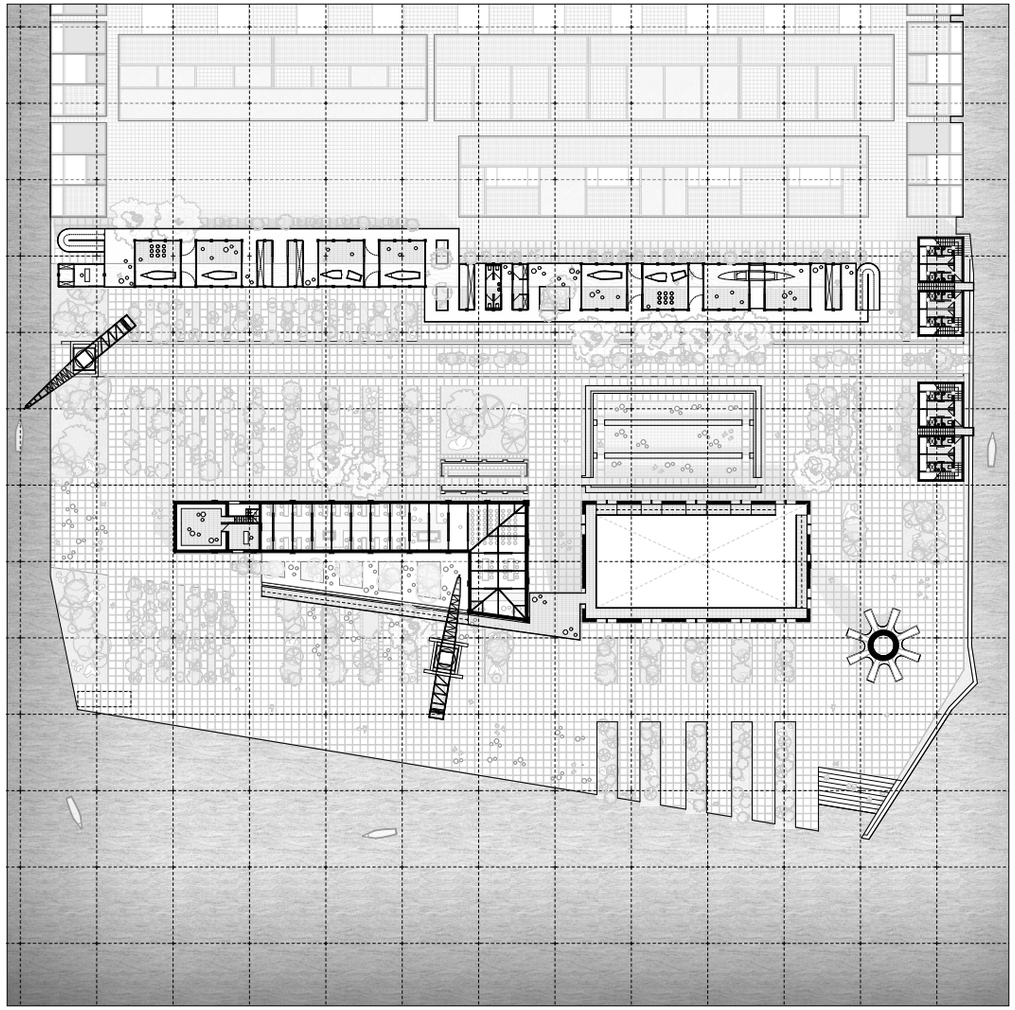


Physical model of a site proposal



Ground floor of the site

0 5 20



First floor of the site

0 5 20

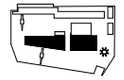
5. Design Development and Intervention Strategy

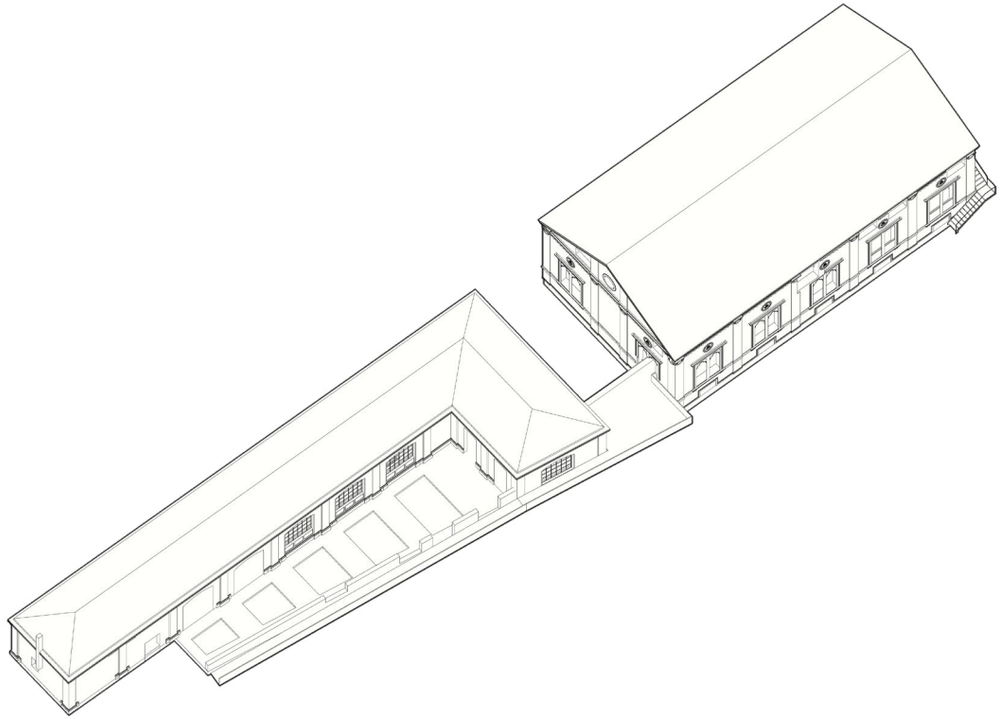
Industrial Echoes

The hangar and factory buildings are the main architectural landmarks of the project. Historically, the cement plant's operations involved interaction between these two structures, which served as the starting point for the concept of connecting them with a unified circulation path. This approach expands the functional possibilities of the project and creates a cohesive architectural composition.

The interior space of the hangar has been well preserved, allowing for minimal architectural interventions. The hangar was adapted into a working space with a library, preserving the original spatial structure and aesthetic features. The exterior part of the building was converted into a garden due to the unsuitability of some structural elements, and aimed at restoring the hangar's original form from the period when the cement plant was functioning. This approach helps to integrate the building more naturally into the landscape and maintains a connection with the historical character of the site.

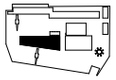
The factory interior was completely lost due to significant reconstructions, which allows for the creation of a flexible open plan. Considering the building's original function, where the main cement production processes took place, the internal space is organized around an atrium. At the same time, holding the outer walls and roof helps to establish and maintain a connection with the historical and cultural context, keeping the memory of the place and its era. A lightweight volume introduced along the inner contour of the building allows for technical rooms on the ground floor and a passage on the first floor that acts as a viewing platform, offering views both inside the building and towards the lagoon. The central space is emphasized as a multifunctional area for exhibitions, lectures, fashion shows, sports events, etc.

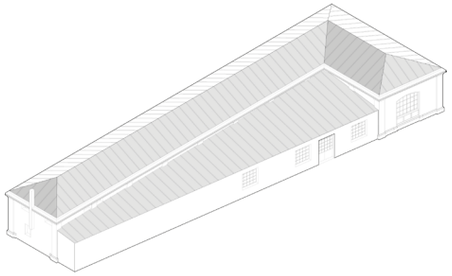




5. Design Development and Intervention Strategy

Industrial Echoes





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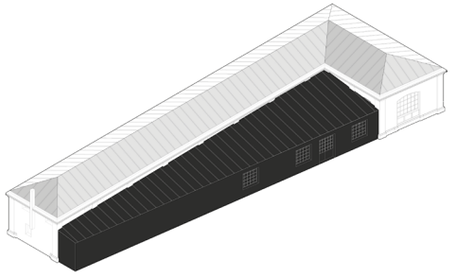
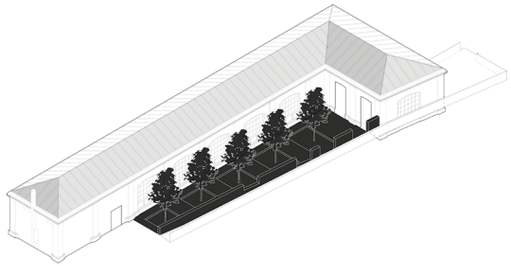
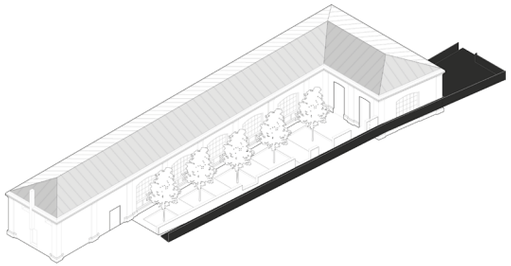


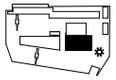
2. Stripping back to the historical form

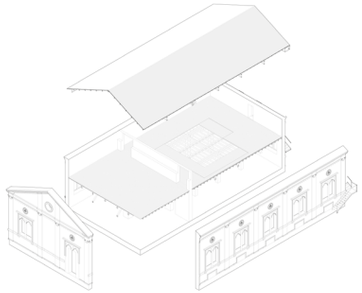


3. Creation of gardens



4. Creation of connection





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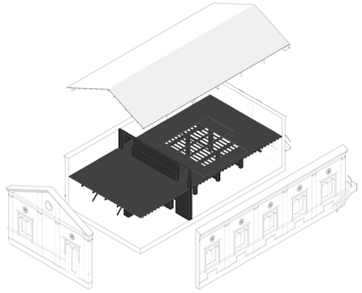
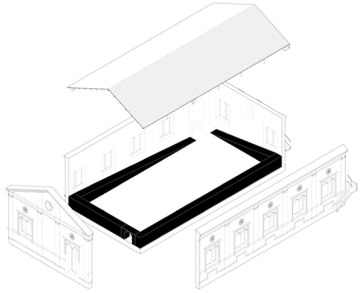


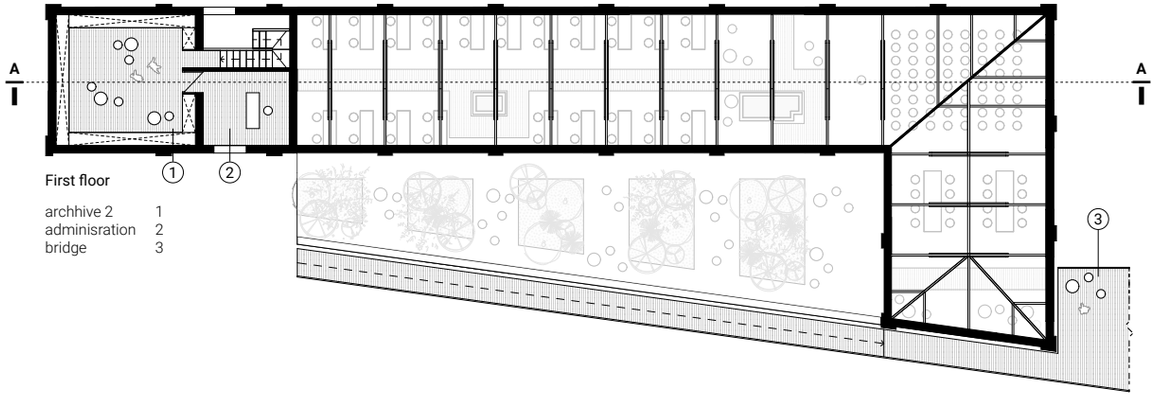
2. Stripping back to the historical form



3. Creation of connection

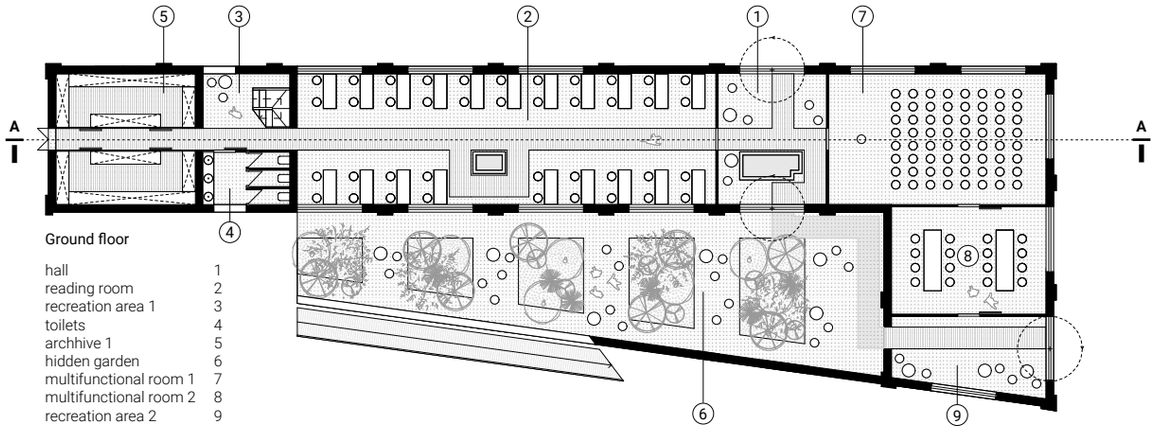
5. Design Development and Intervention Strategy

Industrial Echoes



First floor

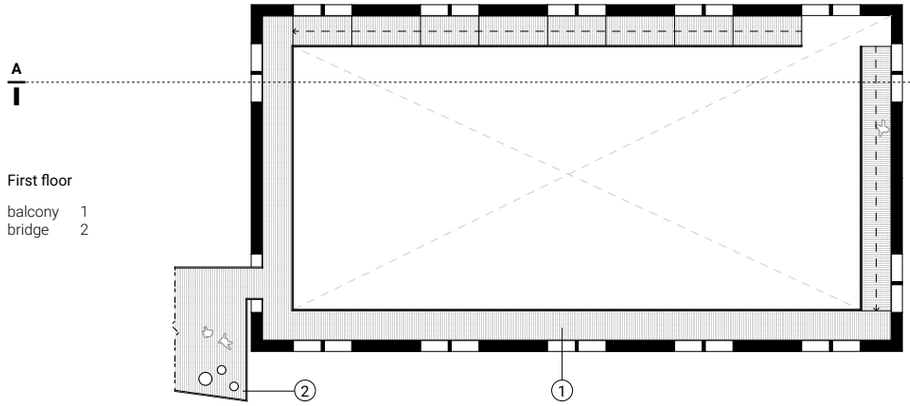
archhive 2	1
adminisration	2
bridge	3



Ground floor

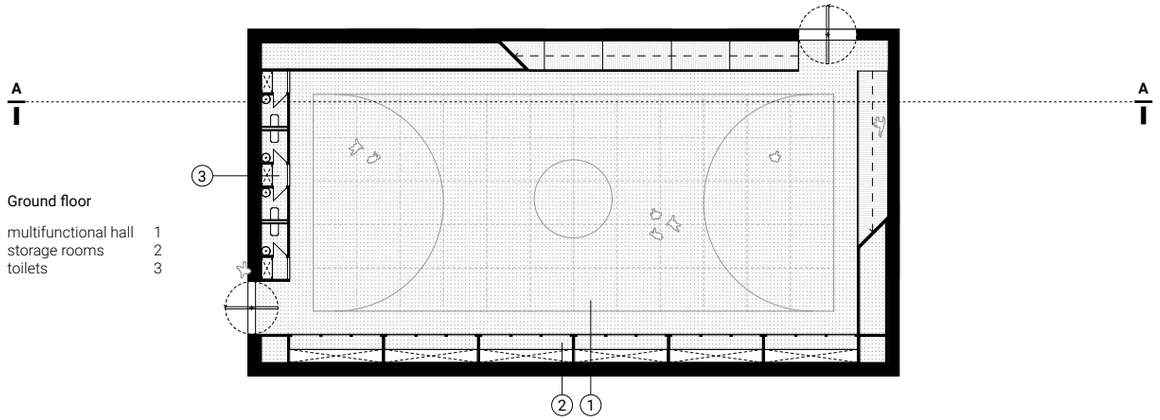
hall	1
reading room	2
recreation area 1	3
toilets	4
archhive 1	5
hidden garden	6
multifunctional room 1	7
multifunctional room 2	8
recreation area 2	9

0 1 10



First floor

balcony	1
bridge	2

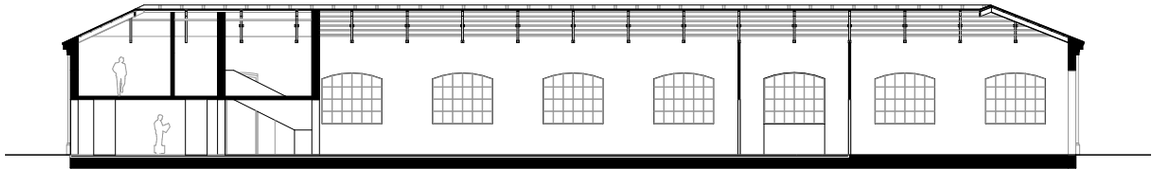


Ground floor

multifunctional hall	1
storage rooms	2
toilets	3

5. Design Development and Intervention Strategy

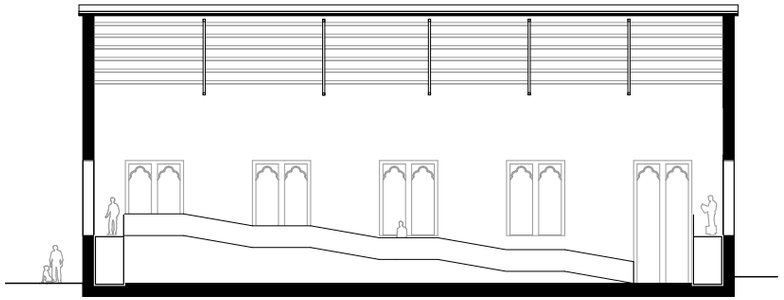
Industrial Echoes



Section A-A

Facade

0 1 10

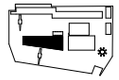


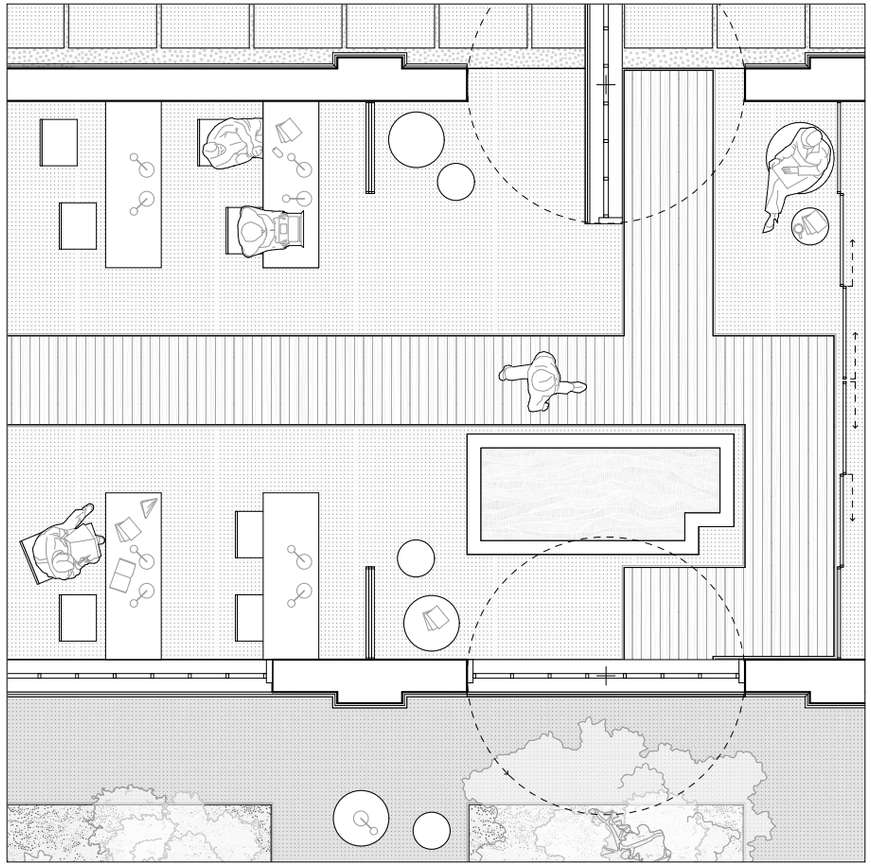
Section A-A

Facade

5. Design Development and Intervention Strategy

Industrial Echoes





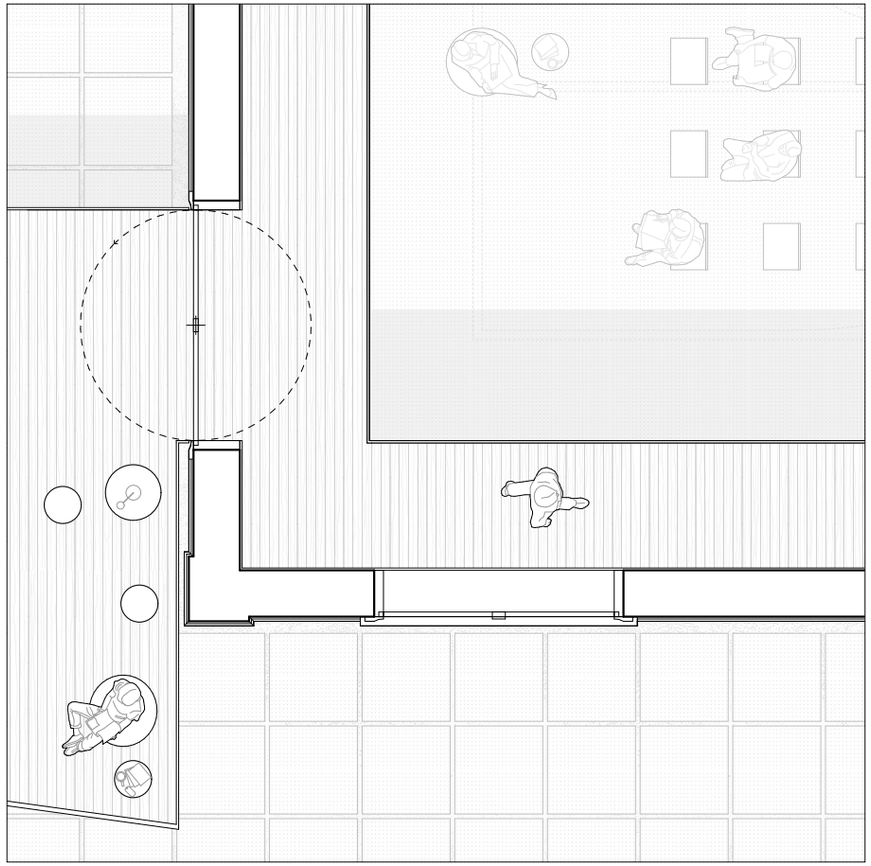
Plan detail

0 0.1 1

View of the reading room

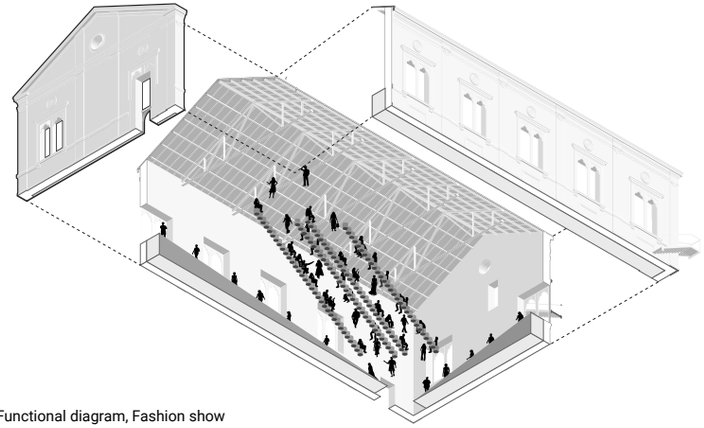
5. Design Development and Intervention Strategy

Industrial Echoes

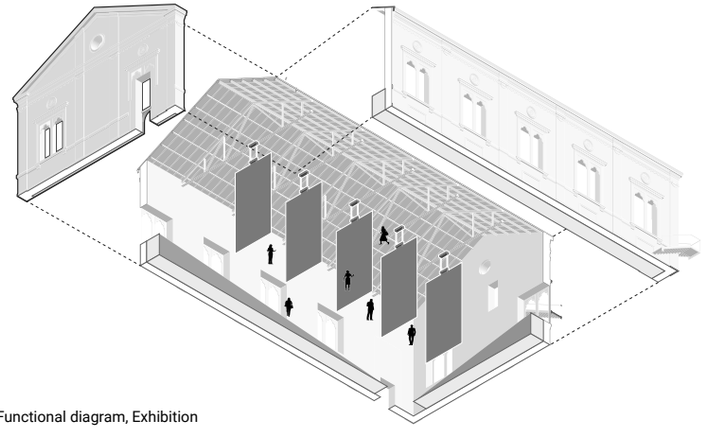


Plan detail

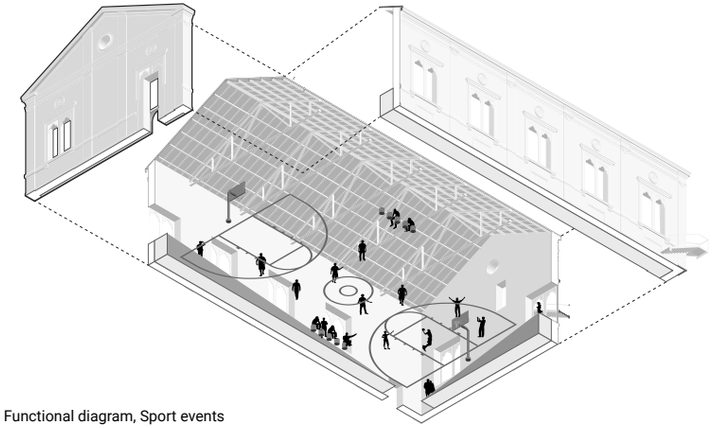
View of the multifunctional hall



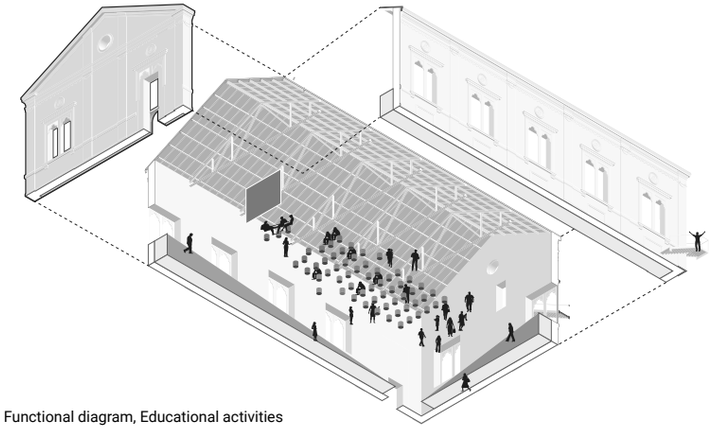
Functional diagram, Fashion show



Functional diagram, Exhibition



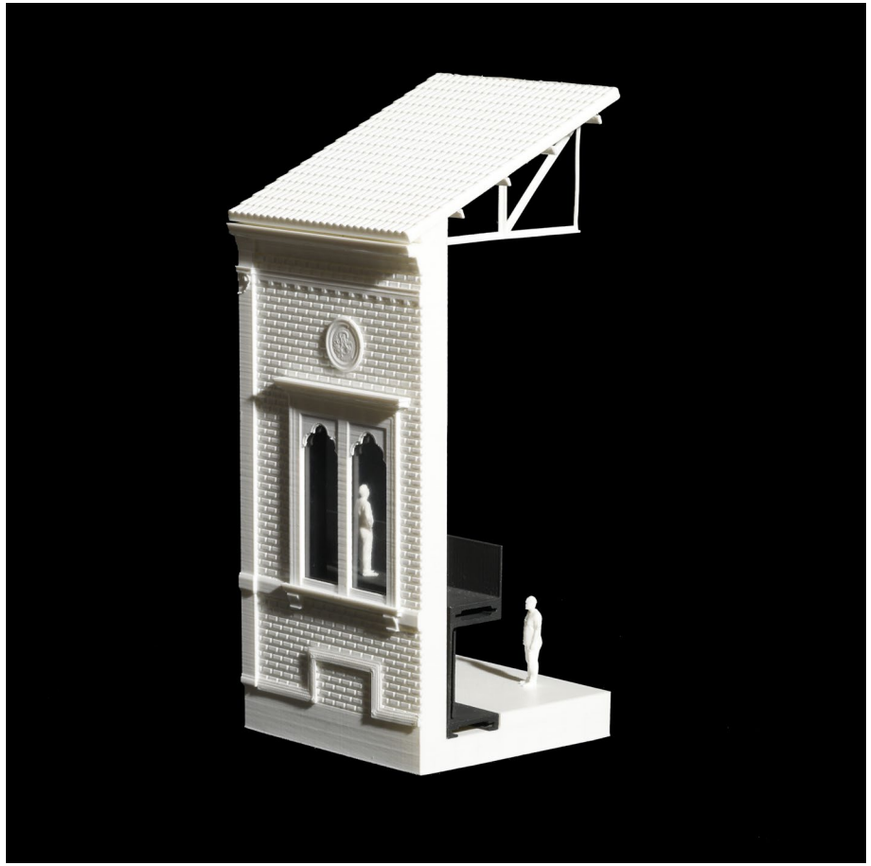
Functional diagram, Sport events



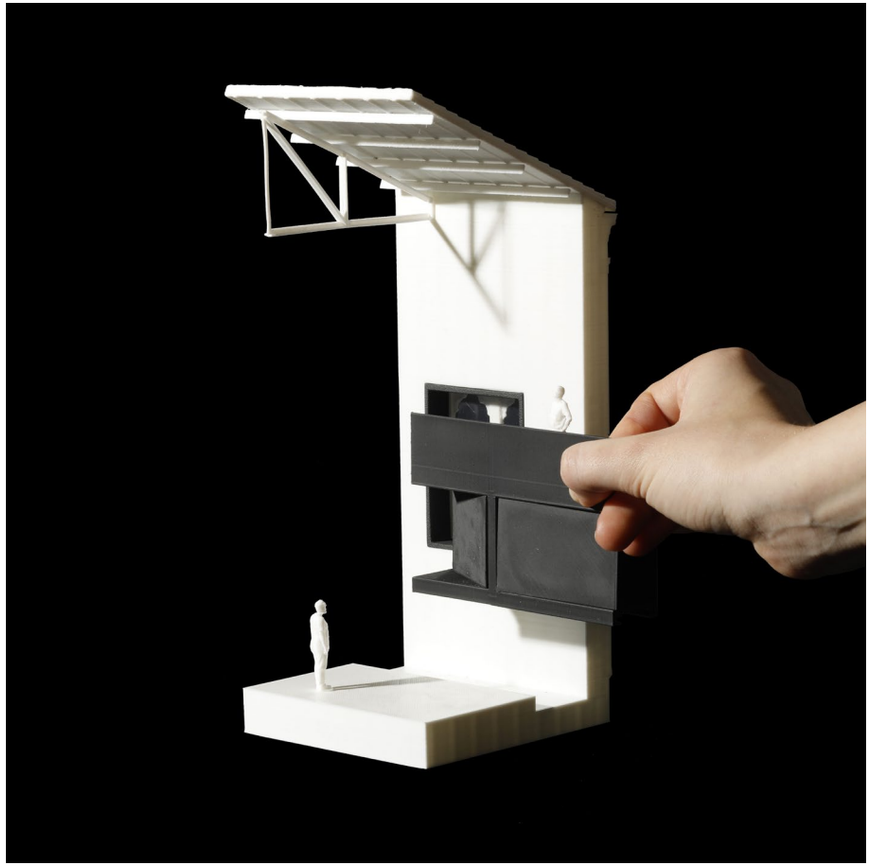
Functional diagram, Educational activities

5. Design Development and Intervention Strategy

Industrial Echoes



Physical model of a plant section



Physical model of a plant section

5. Design Development and Intervention Strategy

Above the Canal

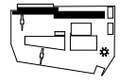
The starting point for creating a new volume, intended to become the site's dominant feature, was a reinterpretation of Gino Valle's idea of a canal that was supposed to separate the industrial zone from the residential complex, but was never implemented. In this project, the unrealized concept receives a new reading: the canal becomes not a boundary, but a connecting element defining the architectural logic of the building.

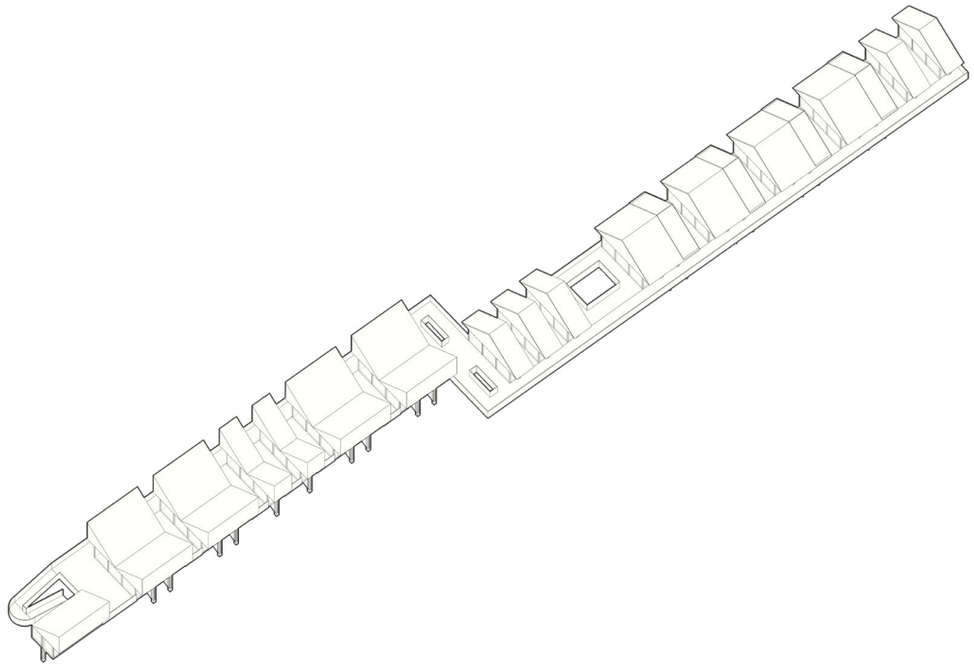
The volume consists of a series of blocks — workshops for boat repairs connected by a continuous pathway. The architecture is elevated above ground level, referencing the canal idea but interpreting it differently: now it is not an element of isolation, but a structure that unites the site. This allows free passage through the territory and links its different parts through a system of gardens and open spaces.

The project acts as a mediator between Gino Valle's architecture and the factory area. This is supported by visual integration: the roof shape and proportions of the volumes intersect with the architecture of the factory and the residential buildings.

Sightlines between the workshops create visual corridors and recreational zones. The blocks remain adaptable due to movable elements: sliding walls allow the interior space to be transformed depending on the size of the boats being repaired, while a sliding roof enables vertical loading of boats using the existing crane, preserved from the shipyard's operational period.

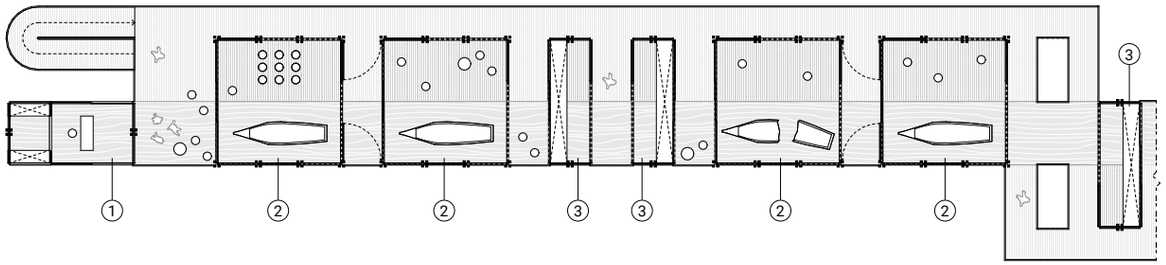
The materials also reference the local context. The main structure is wood, echoing Venice's traditional craft workshops. The roof is made of wooden shingles — a reinterpretation of the familiar material that dominates the urban fabric. Semi-transparent plexiglass provides a balance between privacy and visual permeability, filling the workshops with natural light and softening the building's presence in the landscape.





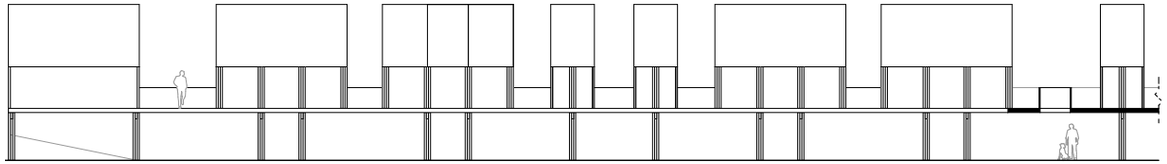
5. Design Development and Intervention Strategy

Above the Canal



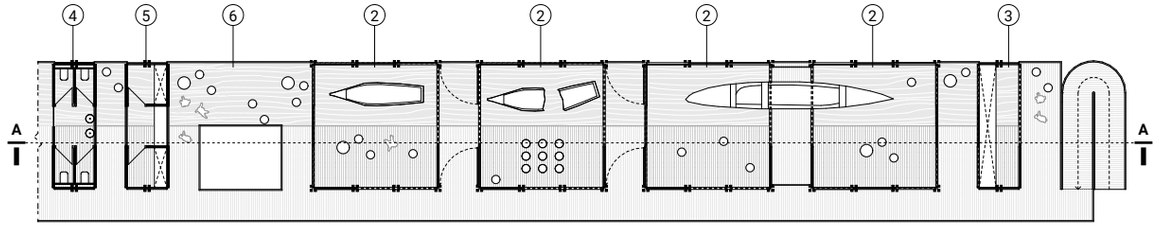
First floor

adminisration	1
workshop	2
storage room	3
toilets	4
coffee shop	5
recreation area	6

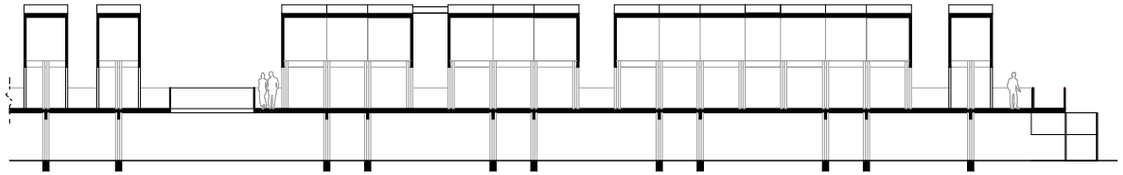


Facade

0 1 10



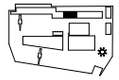
First floor

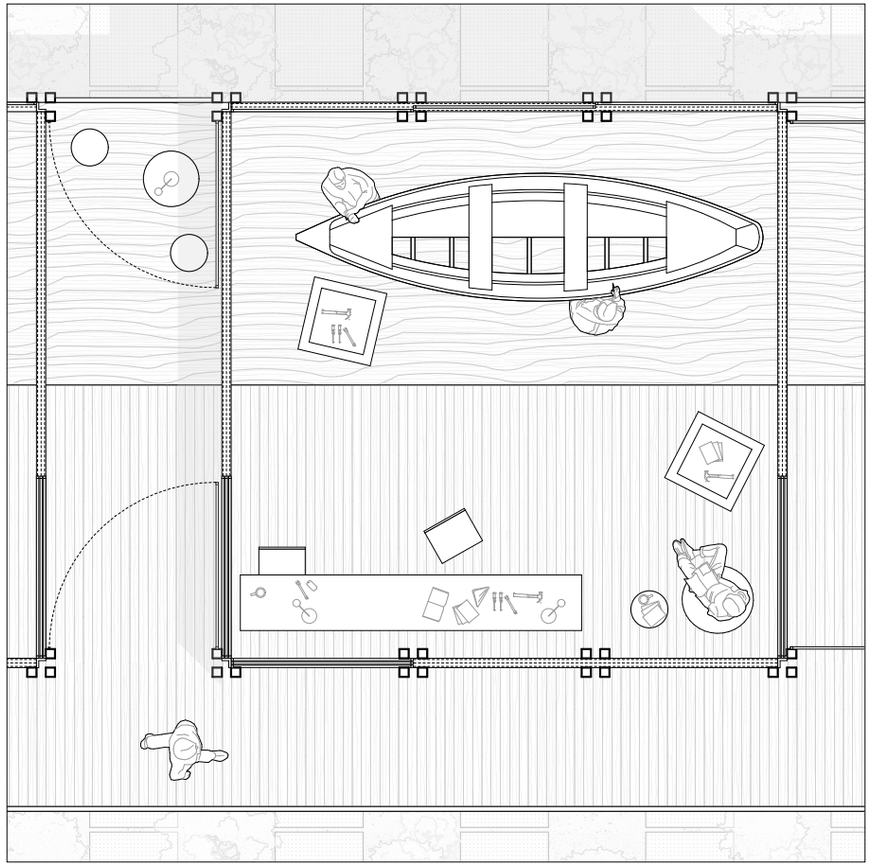


Section A-A

5. Design Development and Intervention Strategy

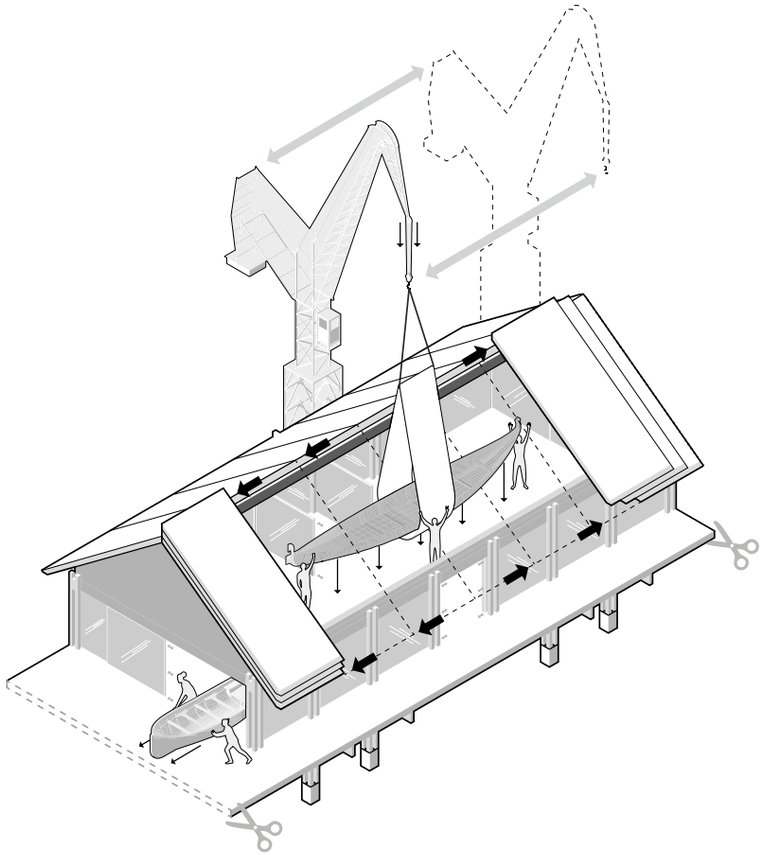
Above the Canal





Plan detail

0 0.1 1



Functional diagram of a workshop unit

5. Design Development and Intervention Strategy

Above the Canal

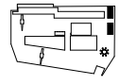
Physical model of a workshop unit

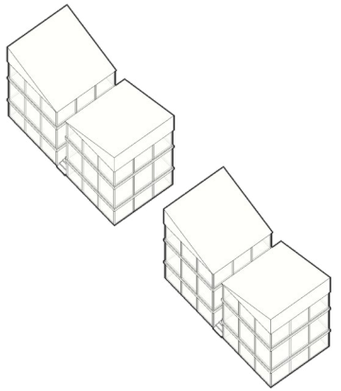
Physical model of a workshop unit

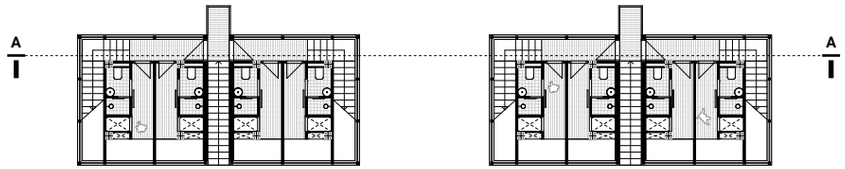
Two residential towers introduce a flexible system of temporary accommodation for students and visiting boatbuilding specialists, supporting the site's educational and craft-based activities. Compact vertical structure minimizes footprint, while transparent enclosures allow for integration into the landscape with minimal visual impact.

The positioning of the towers continues the spatial logic of the Giudecca–Gino Valle complex. Placed on the quieter edge of the site, they respond to both urban and perceptual considerations: this zone offers greater privacy and seclusion, while the opposite side remains open towards the island of Sacca Fisola, forming a visually accessible public space. This spatial strategy establishes a clear balance between private and public zones.

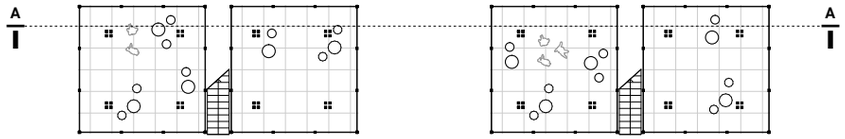
The space beneath the towers remains open and glazed, enabling a variety of scenarios — from quiet individual work to collective activities such as workshops, lectures, or temporary exhibitions.





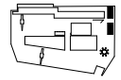


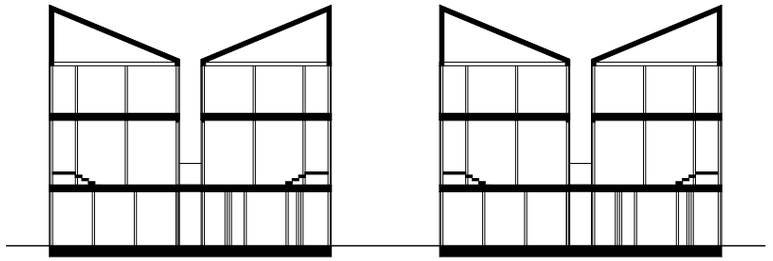
First floor



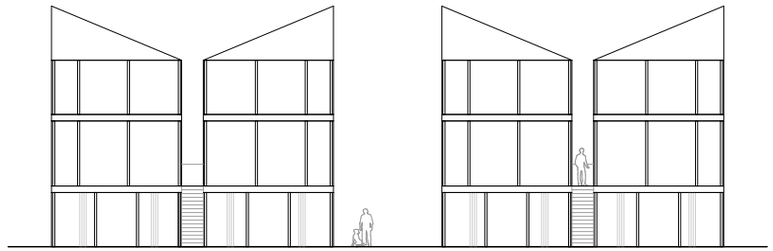
Ground floor

0 1 10

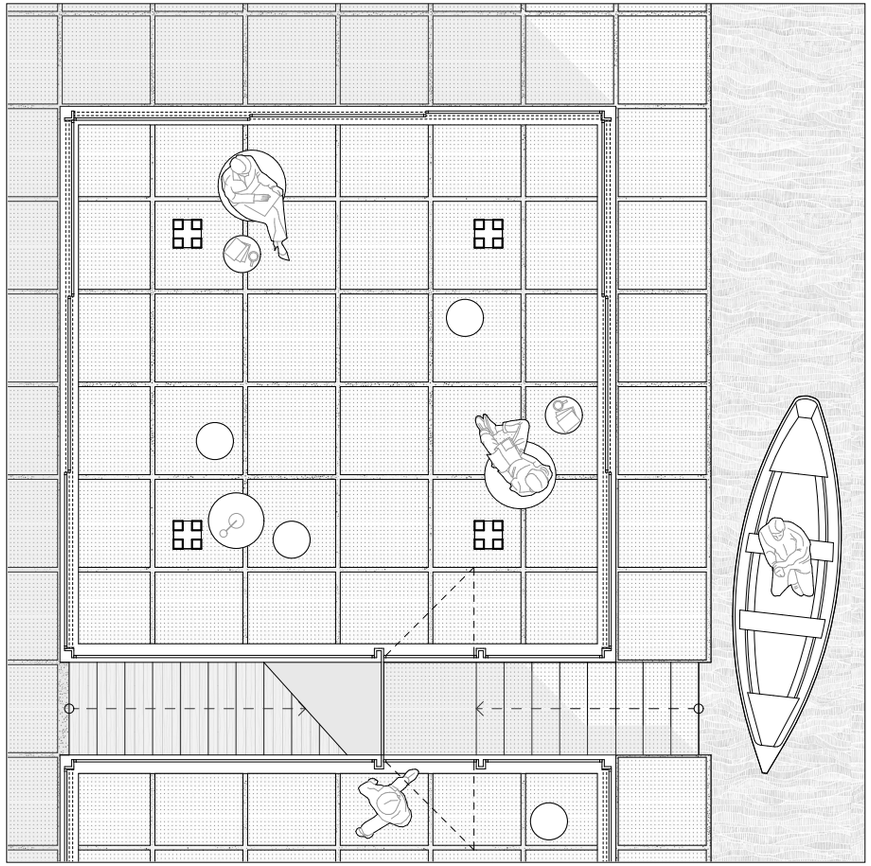




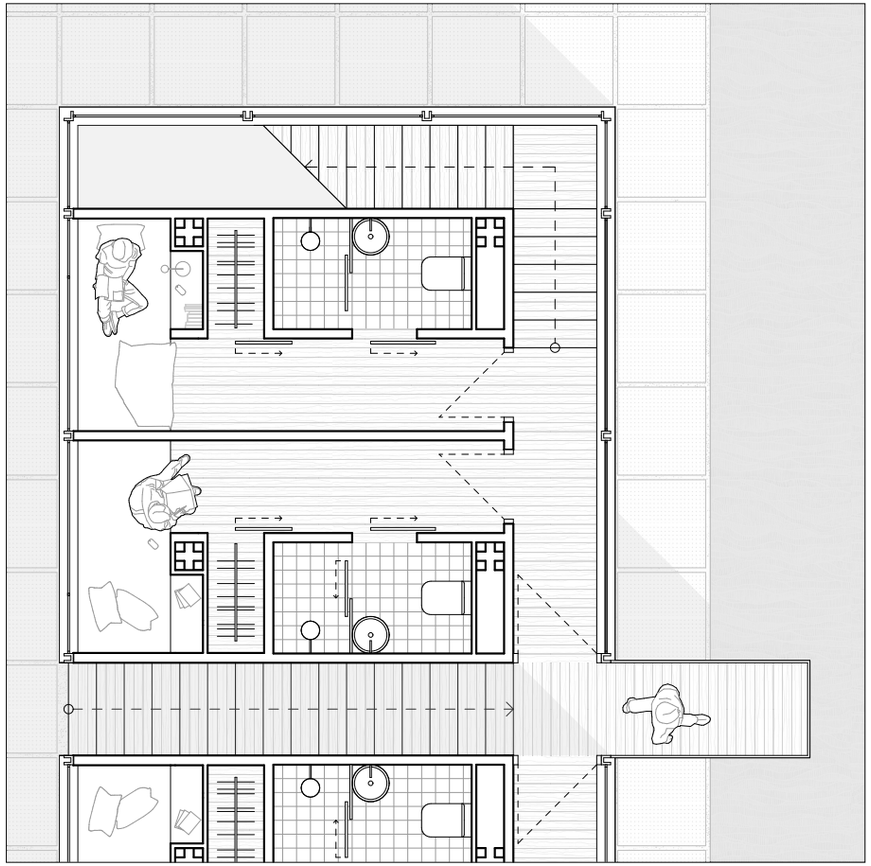
Section A-A



Facade

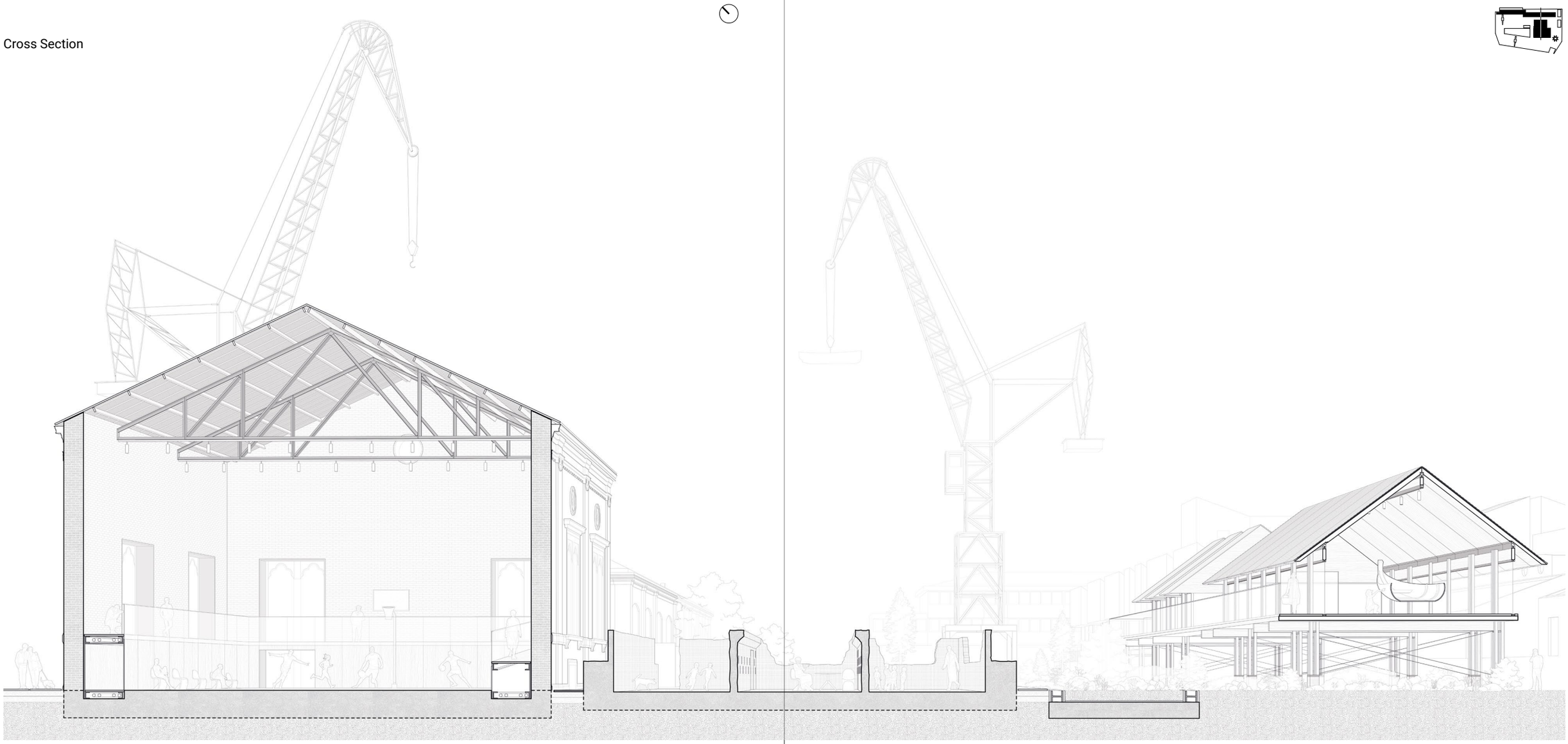


Plan detail of the Ground floor



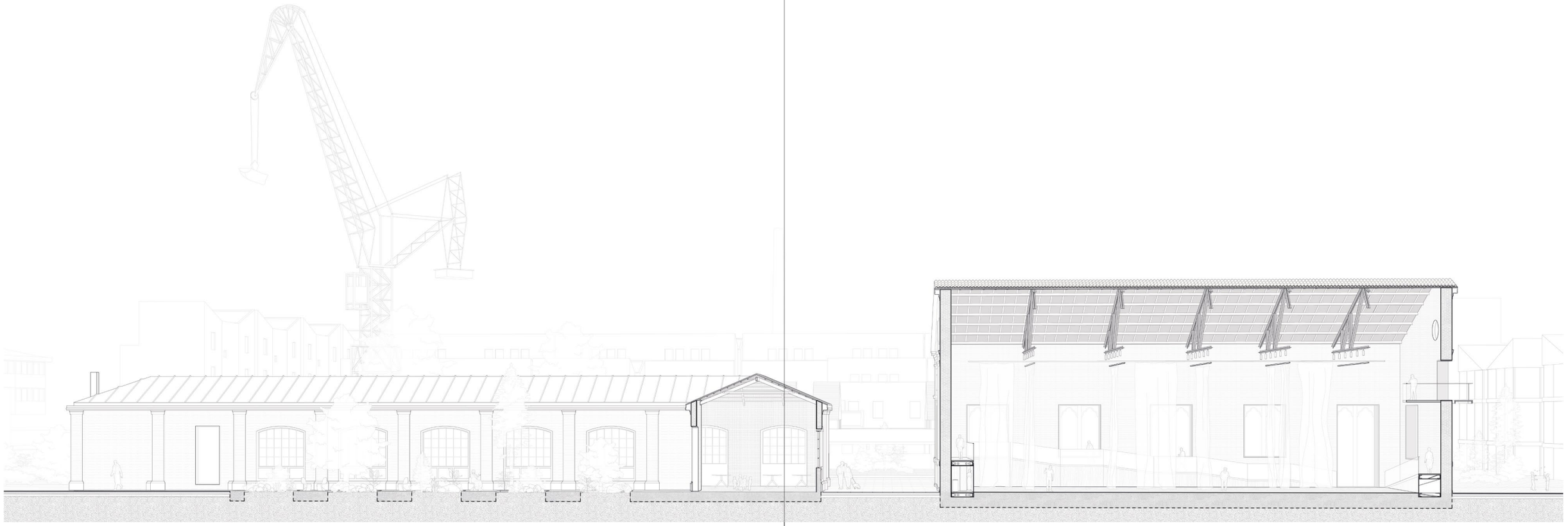
Plan detail of the First floor

Cross Section



5. Design Development and Intervention Strategy

Longitudinal Section



View from the lagoon

Conclusion

The territory between the Lavraneri and San Biagio canals on the island of Giudecca represents a unique example of historical-architectural and urban stratification, where centuries of cultural and socio-economic transformations intertwine. From its origins as a monastic and garden zone in the 10th century, through stages of intensive industrialisation in the early 20th century marked by the construction of the Casalmonferato cement plant, and later the shipbuilding era, the site has continuously evolved, preserving important architectural traces of its past.

The former industrial infrastructure is perceived not as decayed remnants, but as significant architectural forms with high cultural and spatial value, possessing potential for preservation and adaptation within a new architectural concept. Classification of objects based on several criteria allowed the identification of the most valuable elements for conservation and further transformation, with key industrial buildings playing a leading role.

The developed architectural proposal is based on a respectful approach to the historical heritage and the ambition to integrate different temporal layers into a cohesive whole. Preserving key industrial structures, the project aims to create a modern multifunctional complex with flexible spaces for cultural, educational, and craft activities. Of particular importance is the innovative reinterpretation of Gino Valle's unrealised canal concept, which in this project becomes not a dividing, but a unifying element of the site, emphasising the dialogue between history and modernity.

A significant part of the concept is the interpretation of the historic landscape through landscape design, reflecting the era of monastic gardens. Conservation efforts focus on preserving and presenting the industrial heritage of the cement plant period, while the architectural development of the complex reveals the shipbuilding phase, creating a synthesis of three historical layers.

The inclusion of residential towers for temporary accommodation of specialists and students enhances the educational and craft potential of the complex, forming a lively environment and supporting connection with the urban fabric.

Thus, the project on Giudecca demonstrates how architectural heritage can become a foundation for sustainable development of the territory, where history is not only preserved but also reinterpreted, enriching the contemporary urban environment. This approach serves as an example of conservation and adaptive reuse of industrial objects within the context of limited urban space and the unique landscape of the Venetian Lagoon.

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