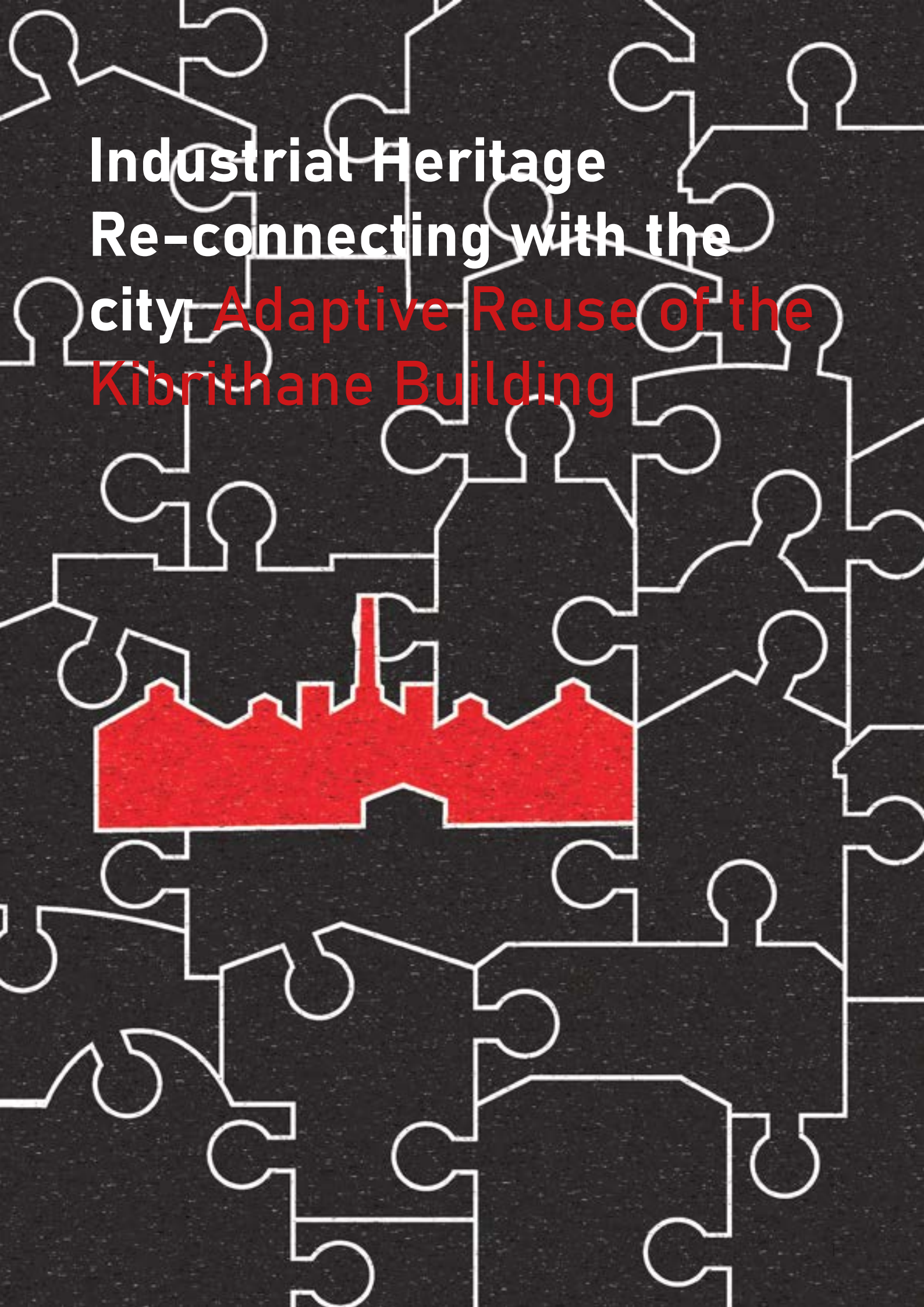
# Industrial Heritage Re-connecting with the city

## Adaptive Reuse of the Kibrithane Building



POLITECNICO DI TORINO

M.Sc. Architecture for Heritage
M.Sc. Architecture for Sustainability
A.Y. 2024 /2025

**INDUSTRIAL HERITAGE**

**RE- CONNECTING WITH THE CITY**

# Adaptive Reuse of the Kibrithane Building

**Speaker:** Manuela Mattone
**Co-supervisor:** Elena Vigliocco

**Candidates:** Burak Yemen, Müslim Enes Fidan

## Abstract

Former industrial areas that once marked the edges of **Istanbul** have now become **lost spaces** within the city, unable to **transform** or **adapt** to current needs. In this context, the **Küçükçekmece** Ottoman Matches Factory, established in 1893 and operational by 1897, stands out as Istanbul's first match factory and a significant example of industrial heritage. This study evaluates the factory's role within the Ottoman **industrialization** process, with a focus on the development of the chemical industry along the Marmara coastline.

Through historical and architectural analysis, the structure is assessed in terms of its cultural and industrial value. Due to the late Ottoman Empire's limited adaptation to the **Industrial Revolution** and the lack of resources in the early Republican period, most of the factory complex has remained **idle** for decades

Located between the **Marmara Sea** and Lake Küçükçekmece, the building holds both **strategic** and **symbolic** importance. This study proposes design **interventions** that **preserve** the structure's historical and architectural **identity** while integrating it with today's **urban life**. By introducing **new functions** to the interior and exterior spaces, the project aims to revitalize the site as a meaningful and **interactive** public space that **reconnects** the **past** with the **present**.

# INDEX

Table of Contents

FIRST CHAPTER

# INTRODUCTION

1. Conceptually "adaptive reuse"
1.1.a Causes of loss of function in structures
1.1.b Justifications and benefits of reuse
1.1.c Principles of adaptive reuse
1.1.d Factors affecting the selection of a new function suitable for the structure
1.1.e Interventions to be made to the building due to new function
1.2 Industrial heritage
1.2.a Industrial heritage in Ottoman Empire

01

## 1. Conceptually “Adaptive Reuse”

Reusing a building has served for a long time, for both the practical as well as symbolic reasons. Known history never looked under the impression that the expense, skills, and time consumed in construction meant that afterward pragmatism initiated the repurposing of buildings for their new functional utility or to imitate contemporary ideas, rather than having the owners invest and label each building as a brand new building. East to West, there are indeed some famous examples of building reuse that holds an obviously symbolic aspect, as in altering the political or religious control.

The Modern Movement of the twentieth century introduced a new approach to architecture and urban planning, which combined the possibilities of industrial production with the availability of cheap energy resources like gas. This approach gained significant traction in Western countries. During this period, cities were often designed from scratch—tabula rasa—with minimal reuse of existing buildings. However, this approach proved to be effective only for a limited time in history. By the 1970s, following the social and economic upheavals of the mid-twentieth century, there was growing criticism of the “clean sweep” planning model.

As energy prices rose and environmental awareness increased, a shift began toward more sustainable practices. This included the integration of conservation principles into architectural thinking. Emerging during this time, adaptive reuse became a key strategy, allowing existing structures to be repurposed rather than demolished. These practices not only preserved historical continuity but also aligned with environmental and economic concerns. In this context, a new architectural discourse and body of literature began to form, reflecting a more progressive and context-sensitive approach to design.
(Lanz & Pendlebury, 2022)

Over time a space might change in way that it is no longer sufficient to meet the needs and expectations of its users. While it is important to remember the space has a memory that forms with the user, integrating with the user is key to its value. Forcing a transformation means having to spatially adapt the space to the new needs of its users. Considering new operations means shaping attempts in the transformation studies that suggest the new process which needs to be remembered.





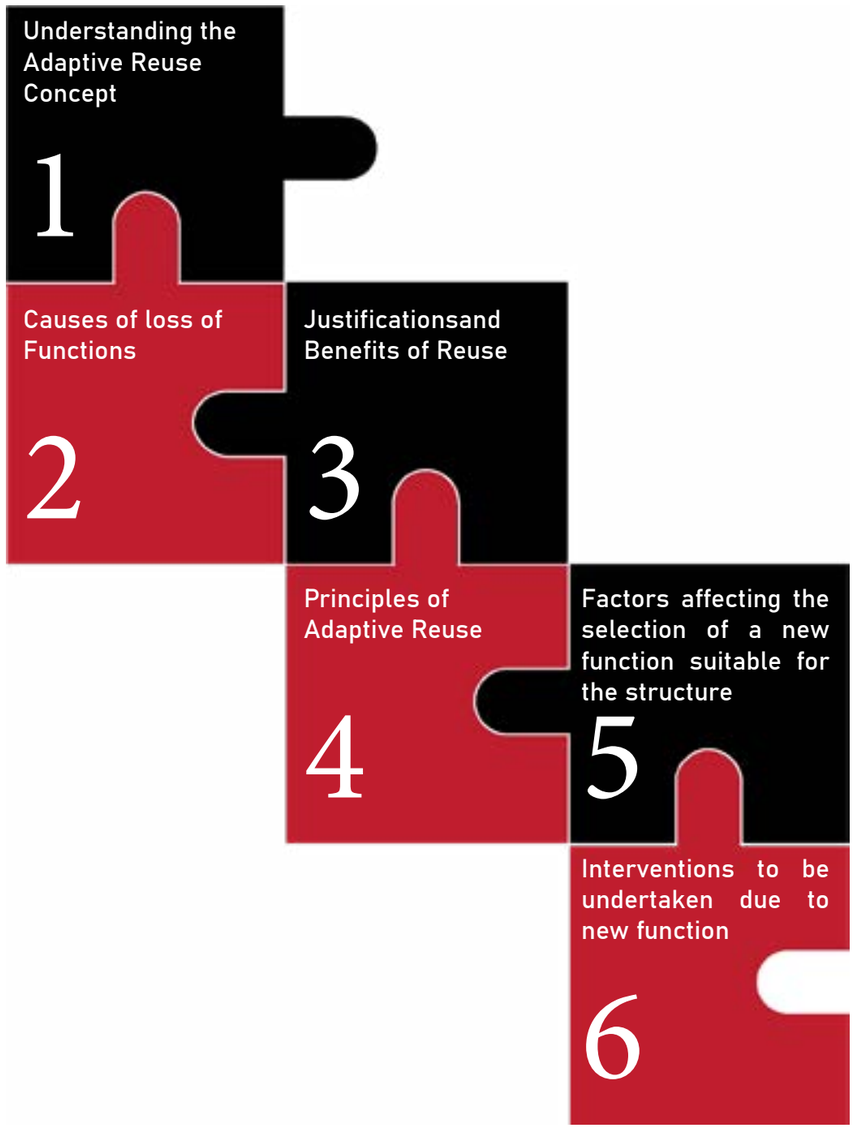



**Figure 1**. Created by the autor (2025). Important points in the adaptive reuse concept

### 1.1.a Causes of Loss of Function

One of the most concrete remains depicting examples of the past period are buildings with cultural and historical value. Therefore, in keeping such structures alive, the care and goodwill shown to protect cultural values through reuse or restoration should be taken into account. In addition, it is a more sustainable way to work on existing building stock where it would be inconvenient to build a new structure. Besides the sphere of economic and environmental sustainability, restoration and adaptive reuse create a bridge towards social and cultural sustainability as well. Cultural knowledge handed down to posterity is acknowledged as a social obligation and a conscious obligation for advancements. Yet management has not always worked toward changing existing buildings through adaptations adjusting users or uses. (Doğan, H. Armağan. 2023)

Urban areas continue to change in line with the socio-economic needs and demands of societies and technological advancements. Factory premises built to serve for the production period in the era of the Industrial Revolution have lost their purpose over time with the change in the mode of production, and more area-demanding factories have been shifted outside the urban area

When we consider it on a more structural basis is caused by several interconnected factors, sometimes due to changes in society, technology, and environment.(Öztürk, 2020)

**Obsolescence** is the primary reason. Indeed, as societies progressive, the original purpose of a structure becomes irrelevant. Old mills or factories from the Industrial Revolution serve very good examples here. Once steam or hydropower was supplanted by electricity and modern machinery, these buildings could not be practically put to any use.

**Economic prostration** is another factor. Historical buildings become obsolete when the economic activity associated with it fails. For example, trade routes changed, or shipping means were modernized, which may also render some warehouses in port cities useless. They became mere remnants of a bygone era. Rural churches or manor houses would also lose meaningful purposes as people relocated to main cities, thus vacating the local economy and community which sustained them.





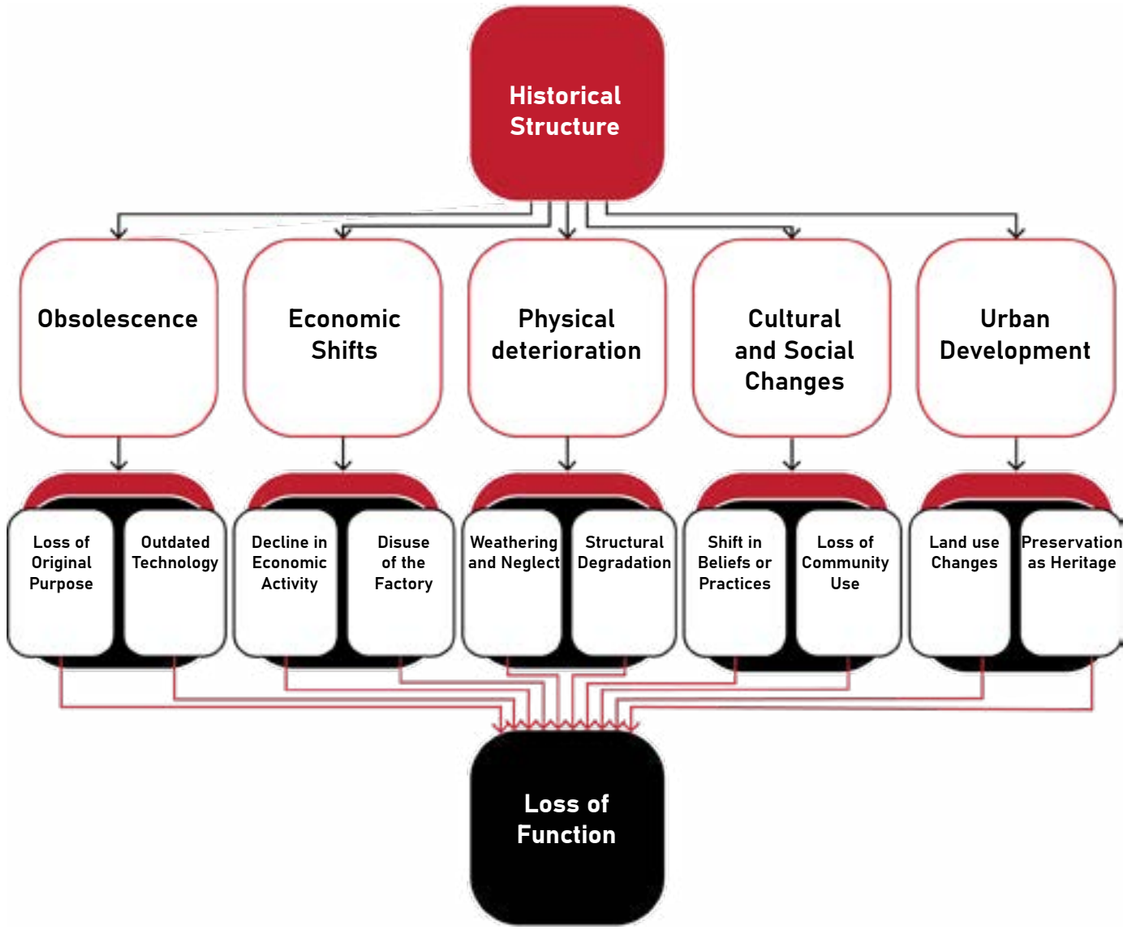



**Figure 2**. Created by the autor (2025). Diagram of Causes of loss of function

It can also be very much affected by **physical deterioration**. Over time weathering or neglect, or just sheer lack of maintenance can cause a structure to be ruined beyond use. As wood rots, stones erode and roofs collapse-especially if the purse strings are tightened because the function of the building no longer seems highly valued. Some natural disasters rapture this process by earthquakes, floods, or even fires, and functionality could be lost overnight.

This also happens with **cultural and social changes**. Places like grand theaters or public bathhouses are replaced by more modern forms of entertainment or cleanliness. Monastery, temple, or chapel buildings become unused simply because the population drops in religion or the influence of secularization emerges.

### 1.1.b Justifications and Benefits of Reuse

Adaptive reuse is a special and more specific form of refurbishment, which is increasingly being referred to for residential, governmental, industrial heritage, and religious buildings. For the preservation of these buildings and their intrinsic heritage and cultural values, the projections of their useful (effective) life for any asset have always been difficult because of the concept of premature obsolescence, namely:

physics; economy; functional technology; and social obsolescence. Therefore, obsolescence may well creep in before any building finishes its physical life.

The rehabilitation of historical buildings and suggesting their adaptive re-utilization has some advantages: **economic advantages**, **environmental advantages**, and finally **social advantages**. Rehabilitation takes, roughly half to three-quarters as long as the equivalent demolition and reconstruction of similar floor area. A faster development period is less costly to finance. This means that the time taken to conduct the rehabilitation of interior space will generally be less than that required to construct new space unless major structural reconstruction is required.

Environmental advantages of rehabilitation accrue from recycling of materials, reuse of structural components and other aspects reducing landfill waste and historical buildings are constructed with good quality materials (e.g. solid stone walls, marble floor coverings). They possess significance and are collective memory of the society, often positioned in profitable city center localities giving social possibilities such as intrinsic heritage values. Adaptive reuse deals mainly with the issue of conservation and supporting heritage policies. When old buildings are unsuitable to provide new life, the new use is considered.





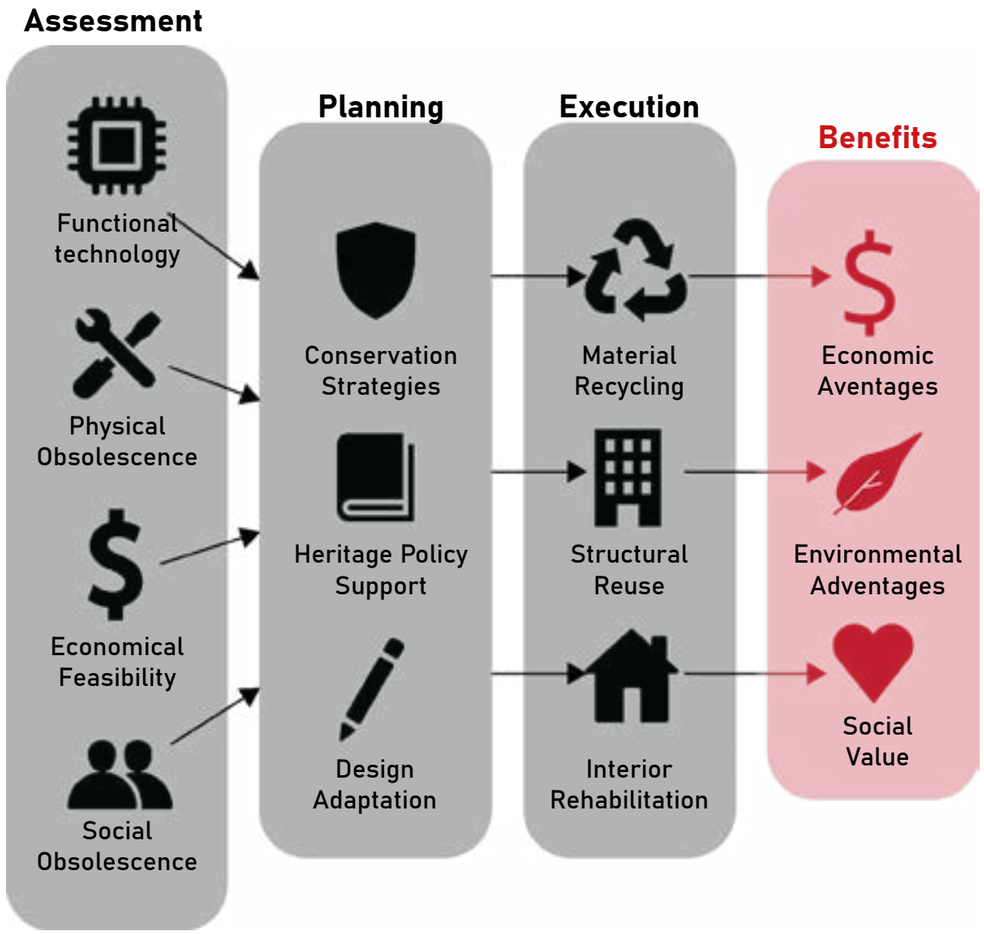



**Figure 3**. Created by the autor (2025). Steps to the benefits of Reuse

### 1.1.c Principles of Adaptive Reuse

The reuse of old buildings for various reasons and needs defines them in terms of their continuing importance in contemporary society as a whole, usually for historical, cultural or architectural reasons. Reuse, in its meaning, takes into account the fundamental elements to balance between preservation and-functionality.

First, saving the **Character** is the most important thing. It is important to understand preservation as structuring and protecting architectural features, materials and structural details that tell the story of the building. It is important to preserve the texture of the period and the values it reflects, and to preserve and transmit its place in the memory of the city.

The second is **Needs.** Adaptive reuse of industrial architecture hinges on balancing a building's character with needs, transforming obsolete structures into sustainable spaces. Industrial heritage offers unique potential due to its scale and historical value but poses challenges. The building's character drives environmental, social, and economic needs, which shape how it's preserved or adapted to stay vibrant and relevant.

The third is **Sustainability**. Adaptive reuse promotes sustainability by repurposing existing buildings, reducing demolition waste and energy use compared to new construction and adapting their purpose to modern needs through adapted designs or systems.

Fourth, **Flexibility**. This involves creatively adapting heritage buildings that were not designed for modern lifestyles to serve the community by converting an Ottoman barn into a shop or an old church into a community centre.

The next step is to make as **little Intervention** as possible a rule that guides all changes. Minimize interventions in changes, preserving the original structure by thoroughly understanding and documenting it. New additions, like lifts or insulation, should be clearly distinguishable from historical parts to maintain their visibility for future generations.

Finally, this combines **Economic Viability**. The project should serve a local need, such as housing, employment or culture, and be truly financially functional. With adaptive reuse, such a building breathes and maintains its usefulness.





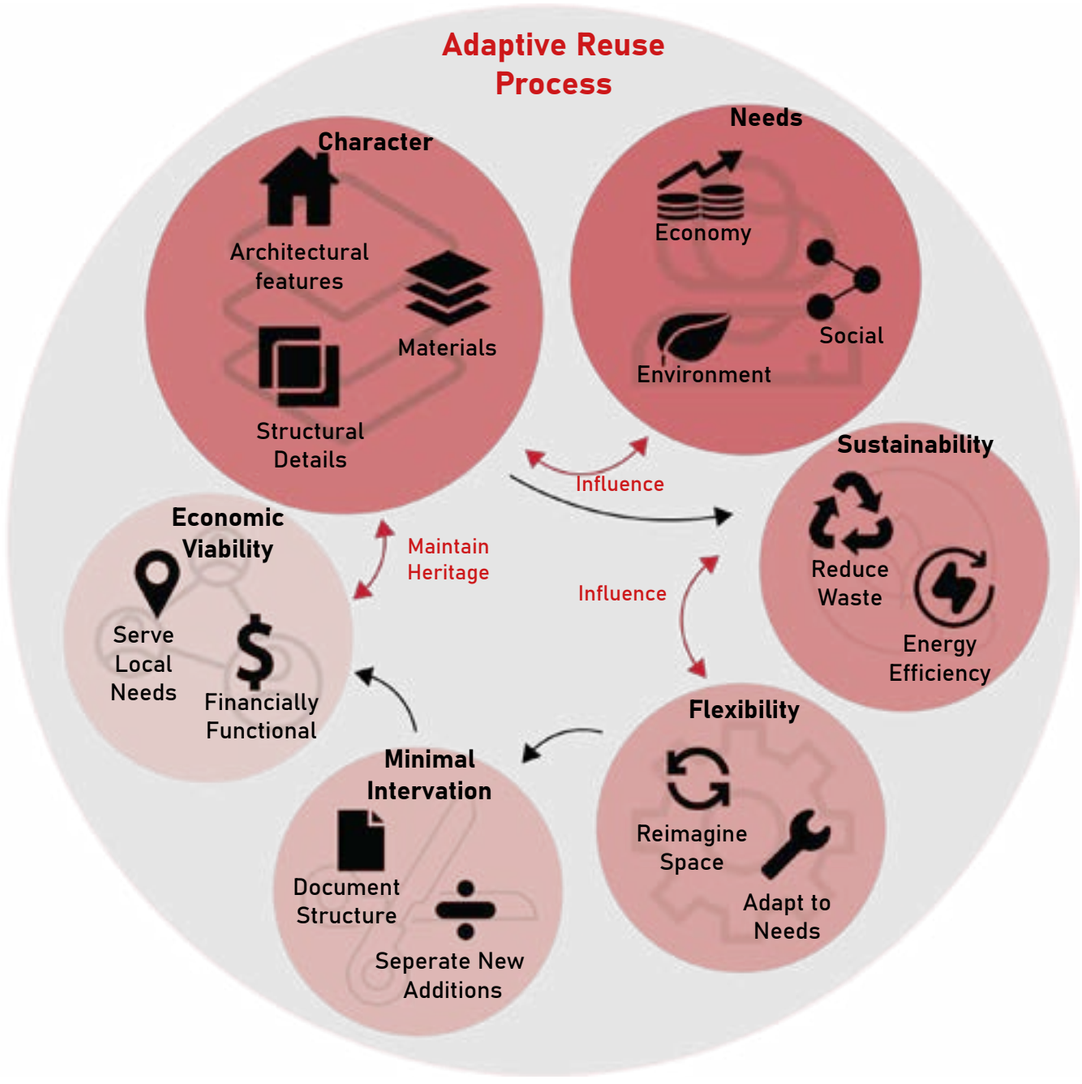



**Figure 4**. Created by the autor (2025). Steps to the benefits of Reuse

### 1.1.d Factors affecting the identification of a new function suitable for the structure

Success in adaptive reuse is measured in the extent to which the new use becomes successfully realized. Unquestionably, therefore, the new function within adaptive reuse is vital: but it must also fit with the established form. Furthermore, the compatibility is not only mutual or cross-use-function oriented; it should also include the new use with the former form and historic character of old heritage buildings. Buildings without people mean little, and one has to consider them in terms of user engagement through the function of heritage buildings and establishing new activities-in-kind in these buildings for their satisfactions, aspirations, and needs. (Vafaie, F., Remøy, H., & Gruis, V. 2023)

**The new functional compatibility with the old use,** A new use must be compatible with the original use and must also respect the original use and transfer existing memory.

**Compatibility of the new use with the original structure.** In the new use, the historical/artistic character and form of the heritage building should be respected as a priority.

**Social participation and Cultural value,**
The success of a new use is often fuelled by the dynamic interaction between people and the architectural heritage building.

**Human activity in new use,**
Understanding the pairing of user requirements with the preferences and expectations of the new user.

**Usefulness of spaces,**
The new function has to use different areas of the original building logically.

“Active community participation in planning reinvention projects” is frequently mentioned among socio-cultural factors because it carries the weight of giving credence to the justification of people’s participation in the decision-making process. As for the economic success of adaptive reuse projects, the increase in property value and the amount of accessibility within the environmental category that a given building has are indicators of real success. For “successful authenticity” in reuse, a great deal of attention must be paid to architectural history: its materials, features, histories and narratives are of great importance.





### 1.1.e Interventions to be made to the building due to new function

It will become increasingly important to place a little more emphasis on the adaptation of buildings in the creation of a sustainable environment. But this is not the only option. Every building will go through many adaptations until it reaches the end of its life. This should not necessarily be seen as a failure of the building. There will come a time when everything must give way to something else.

The change requested for new uses of heritage buildings will be one that meets current needs without affecting the historical, cultural and architectural significance of the building in the past. Such requests will vary according to the existing condition of the building at a particular time, the original design of the building and the demands of the new use. The following are the main categories of interventions, their purposes and the considerations related to their implementation.

**Environmental Interventions**
The new function focus is to increase sustainability and efficiency, while reducing operational and operating costs and at the same time reducing environmental impact.

**Functional Interventions**
To ensure the order and harmony of the interior and exterior areas in an integrated manner with the needs of the current time, along with the transition of the space from its old function to its new function.

**Structural Interventions**
Existing loads, or more specifically spatial requirements, may be needed to determine whether the structure can safely support its intended new function, for example converting the building into a gallery or perhaps some form of school use.

**Legal Interventions**
It is important to follow current legislation, safety responsibilities, methods applied in renovation works and local regulations.

## 1.2 Industrial Heritage

Until the end of the 18th century, Britain's main economic activity was agriculture. But with the industrial revolution, this changed completely. By the early 1800s, Britain had become one of the world's largest industrialized economies. This led to a huge boom in the construction of factories and warehouses across the country, while also triggering a migration from the countryside to the cities.

In England, where the industrial revolution began, the term industrial heritage only came into use in the middle of the last century; at that time, many industrial buildings and landscapes were being destroyed. For societies, the term heritage had outgrown the industrial era and entered a much more recent past. Since then, much effort has been made to define what should and should not be included under the definition of industrial heritage.

**Figure 5**. Created by the autor. (2025). Industrial Heritage



According to the "**Nizhny Tagil Charter**, industrial heritage is the remnant of culture whose remains have historical, technological, social, architectural or scientific value", and the historical period of primary interest extends from the beginning of the Industrial Revolution in the second half of the eighteenth century to the present day, also taking into account its earlier pre-industrial and proto-industrial roots. (Saner 2012)

Industrial heritage, a notion that came into being in the last decades of the century and has captivated special attention since the end of the 1970s, particularly in countries undergoing industrial revolution, has recently been visible in countries introducing industrialization much later and in a very limited context. One of such countries is Turkey. (Saner 2012)

Turkey was introduced to the idea of solidifying older industrial structures by 1990s. It increased the efforts to protect some of the pre-Republican production structures especially factories established during industrialization movement occurring within the early Republican period about industrial heritage after losing their production functions. This paper seeks to study the evolution of the concept and its institutionalization regarding international contexts and also evaluate the approaches in Turkey in this regard. (Saner 2012)

The British school helped to stimulate international exchange in the preservation of ancient industrial structures. In 1973, Neil Cosson, a prominent expert in industrial archaeology in the UK and active at the Ironbridge Gorge Museum between 1971 and 1983, organised the First International Congress on the Preservation of Industrial Monuments (FICCIM) with 61 delegates from 8 countries . This congress, which brought together interested parties and invited guests from museums, universities and government institutions in the UK and Canada, East and West Germany, Ireland, the Netherlands, Sweden and the United States, is considered important because it opened the subject to international discussion. (Saner 2012)

From 1975 onwards the Second International Conference for the Protection of Industrial Monuments (SICCIM) was held in Bochum, Germany. This was followed in 1978 by a third leg, organised as a new organisation in Stockholm, Sweden (TICCIH). At this stage the name of the Third International Conference for the Protection of Industrial Monuments was changed to the Third International Conference for the Protection of the Industrial Heritage and a committee with the same acronym as the meeting was established at that time, the International Committee for the Industrial Heritage (TICCIH). (Saner 2012)

### International Organizations Concerning Industrial Heritage

**TICCIH**
The International Committee for the Industrial Heritage

Its goals are to promote international cooperation in preserving, conserving, investigating, documenting, researching, interpreting, and advancing education of the industrial heritage (European Heritage Alliance. n.d.)

Figure 6. TICCIH

**ICOMOS**
International Council on Monuments and Sites

ICOMOS is a global NGO dedicated to preserving cultural heritage sites by promoting advanced conservation techniques for architectural and archaeological heritage.
(International Council on Monuments and Sites. n.d.)

Figure 7. ICOMOS

**UNESCO**
The United Nations Educational, Scientific and Cultural Organization

UNESCO heritage refers to sites, traditions, or cultural practices recognized by the UNESCO for their outstanding value to humanity. (United Nations Educational, Scientific and Cultural Organization. n.d.)

Figure 8. UNESCO

**ERIH**
European Route of Industrial Heritage

Is the tourism information network of industrial heritage in Europe. the interconnectedness of European industrial history and its common roots.(European Route of Industrial Heritage. n.d.)

Figure 9. ERIH

**DOCOMOMO**
The documentation and conservation of buildings, sites, and neighborhoods of the Modern Movement

Docomomo International is a non-profit organization dedicated to the documentation and conservation of buildings, sites and neighborhoods of the Modern Movement
(Docomomo US. n.d.)

Figure 10. DOCOMOMO

**E-FAITH**
European Federation of Associations of Industrial and Technical Heritage

EFAITH is a platform promoting contacts and co-operation between volunteers and non profit volunteer associations in the field of industrial and technical heritage in Europe.(European Heritage Alliance. n.d.)

Figure 11. E-FAITH





Such a significant change, involving the change from the term “industrial monuments” to “industrial heritage” and the new organisation focusing on the concept of industrial heritage, cannot be understood in isolation without considering how they included all the old industrial building organisations and how they ensured a wider range of activities in this field.

### The Council of Europe and Industrial Heritage

The issue of industrial heritage has been part of the agenda of the Council of Europe since the second half of the 1980s; this local institution, limited to the European continent, probably has more power of sanction over its member countries than most international organizations. In examining the grounds that have permitted an inclusion of the concept of industrial heritage within the Council of Europe recommendation, the notion of “heritage,” undeniably, has played a huge role in the early days of the Council and has grown in meaning through time along with the innumerable and varied texts produced by the council and its scope expanded by further definitions and agreements.
(Saner 2012)

In some events and organizations held within the European Union, the protection and promotion of industrial heritage often finds its place under the headings of culture and cultural heritage. Both the organizations established outside Europe and pioneering in raising heritage awareness, as well as the organizations that emerged in Europe, have signed expert collaborations with each other and continue to share their expertise with each other. (Saner 2012)

### Protection of Industrial Heritage in Turkey

The concepts of industrial heritage have been known in Turkey for the last thirty years and have been increasingly brought to the agenda. The concepts first came to the agenda in Turkey in the early 1990s. During this period, although the terms “industrial heritage” or “industrial archaeology” were not directly mentioned, conservation approaches to old industrial structures began to take shape, and the conservation awareness that would later come under the umbrella of industrial heritage was nourished by these approaches that emerged approximately simultaneously.
(Saner 2012)

## 1.2.a Industrial Heritage in Ottoman Empire

In 1771 developer Richard Arkwright opened up the initial cotton weaving manufacturing facility in Derbyshire England making use of an equipment trademarked by him. This was a substantial action in the direction of the automation of labor-intensive markets as well as likewise announced the start of the'Age of the Factory'in England. By 1781 James Watt had actually made an advancement that would significantly modify the existing globe order therefore starting a procedure in which brand-new perspectives ari-

Watt made a radical development as well as created the single-piston steam-powered engine created by Newcomen. Although it might appear like an extremely easy advancement contrasted to today's innovation this engine established by Watt was among the most significant enter the Industrial Revolution which was an essential landmark in human background "The Industrial Transformation, which began in England in the 18th century and afterwards spread Europe together with America, did not just alter manufacturing; It has actually carried out a result on nearly every facet of life, consisting of individuals's living setups as well

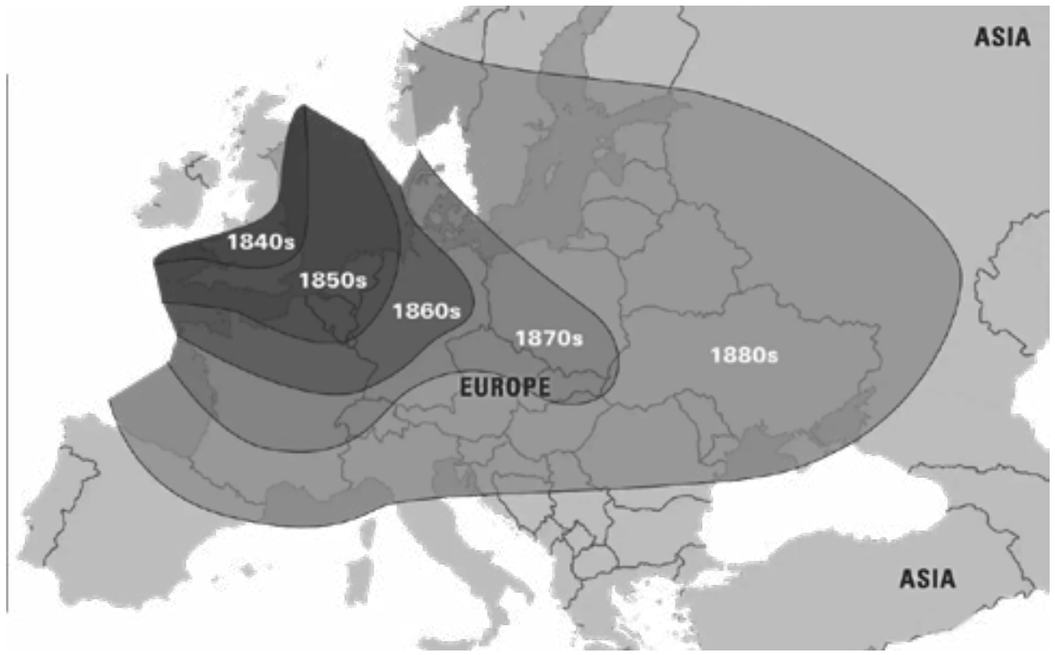



**Figure 12.** Spread of industrial revolution in Europe





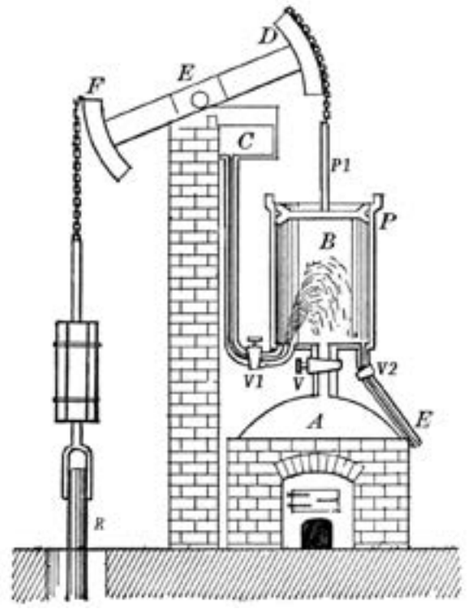



**Figure 13.** Principle of Newcomen's steam engine from (1712)

The manufacturing facility system that arised with this change sped up movement from backwoods to cities coupled with with this advancement the structures these days contemporary cities were laid. On top of that, moving from backwoods to cities led the way for the introduction of brand-new social courses, specifically the proletariat.

The wonderful adjustment that began in textiles was adhered to by the growths in transport and afterwards various other commercial devices were associated with the adjustments together with improvement procedures that happened in the transformations.

In an extremely brief time, virtually all commercial branches began manufacturing within the manufacturing facility system sustained by steam-powered equipments. This transformation process, which started in the west, was realized when the Ottoman Empire fell behind the west in various issues, could not adapt to rapid change, and industrial attacks manifested themselves at a later time than in the west.

The essence of the industrialization initiatives in the Ottoman Empire is a kind of import substitution industrialization, triggered by the innovation movement initiated in the state and social life, especially in the military field, and mostly related to the production of clothing such as fez and weapons such as cannons and rifles to be used by the soldiers. However, these policies and facilities could not be sustained because they were not built on an effective sourcing and supply chain system as in the West.

**Early factories established during the Ottoman industrialization process**

The wave of the industrial revolution that extended from Europe to the Ottoman Empire was generally concentrated in the heart of the empire, Istanbul, then known as Constantinople, and its surroundings Although the period of intensi- industrialization began after 1826, factories were established in and around Istanbul before this date, almost all of which were established with state initiative. However, mechanization in the western sense, mass production volume and diversity were integrated into the Ottoman Empire later than in Europe..


**Figure 14.** Created by the autor. 2025. Locations of early Ottoman industrial buildings on the Istanbul map.





1

Figure 15.

**Beykoz Paper Factory**

(1804)

2

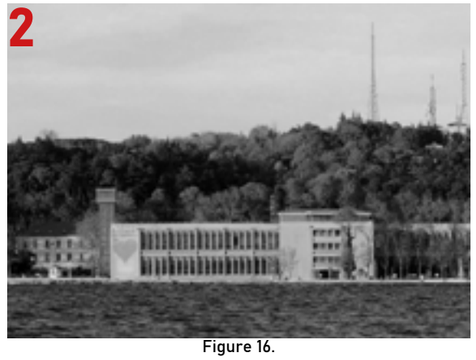


Figure 16.

**Beykoz Leather and Shoe Factory**

(1812)

3

Figure 17.

**Paşabahçe Tekel Raki Factory**

(1822)

4

Figure 18.

**Feshane Weaving Factory**

(1837)

5

Figure 19.

**Hereke textile factory**

(1843)

6

Figure 20.

**Zeytinburnu Iron factory**

(1843)

The Cibali Régie Factory (1884) was one of the largest tobacco processing and cigarette manufacturing factories in the Ottoman Empire.

**Figure 21**. Balsoy. 2009. The Cibali Régie Factory, Istanbul, early 20t century (From Collection Kadir Has Museum, n.d.).

The depot of the Cibali Régie Factory, with workers and their superintendents carrying, counting, and stacking the large tobacco bales.

**Figure 22.** Balsoy. 2009. The Cibali Régie Factory, Istanbul, early 20th century (From Collection Kadir Has Museum, n.d.).

.The hand-cutters, who were responsible for cutting the finest tobacco leaves, had young apprentice boys helping them.

**Figure 23**. Balsoy. 2009. The Cibali Régie Factory, Istanbul, early 20th century (From Collection Kadir Has Museum, n.d.).

Female workers employed in the tobacco-packaging department of the Cibali Régie Factory.

**Figure 24.** Balsoy. 2009 The Cibali Régie Factory, Istanbul, early 20th century (From Collection Kadir Has Museum, n.d.).

Large hall with young female workers rolling cigarettes.

**Figure 25.** Balsoy. 2009 The Cibali Régie Factory, Istanbul, early 20th century (From Collection Kadir Has Museum, n.d.).

The machine shop of the Cibali Régie Factory.

**Figure 26.** Balsoy. 2009 The Cibali Régie Factory, Istanbul, early 20th century (From Collection Kadir Has Museum, n.d.).





in 1876, the population of a small fishing town called Samsun was only a few thousand, while Erzincan became a city of 30,000 thanks to factories producing textiles, leather and shoes. (Ekinci. 2024).

While industrialization, which tried to adapt rapidly, created budget deficits, financial difficulties and borrowing from other countries, the birth of the working class was also attributed to this. Although there was not enough qualified labor in the country, it contributed to the accumulation of experience and knowledge for the future. In other words, state factories, which aimed to satisfy without making a profit from their goods, produced high-cost goods and then stagnated and became a burden by being indifferent to market prices. The state supported private sector factories and for this reason, important enterprises such as Feshane, İzmit cotton, Veliefendi calico, Hereke fabric and Bursa silk factories were established. These include the olive oil factory in Msallata (Libya), the Söke licorice honey (1849), the Beirut silk (1851), the Bitola barley water (1862), and the Edirne silk (1864) factories. The fabric produced by the Rize fabric factory won first prize at the 1855 Paris World Fair. (Ekinci. 2024).

Ottoman industrialization, which began in the early 18th century and became a vibrant activity towards the end of the century, did not achieve success comparable to that of England, France or Germany. The Ottoman economy lacked the dynamics present in Western European industrialization.
.

Between 1883 and 1913, the Ottoman Empire witnessed the establishment of 46 national and 39 foreign industrial enterprises, reflecting a push towards industrialization after the Constitutional Era. During this period, foreign capital investment became more prominent and adopted a flexible, mutually beneficial model that allowed the Ottomans to maintain some economic growth while cooperating with foreign entities. industrial statistics, the industrialization process of the Ottoman Empire up to World War I; in 1915, there were 283 factories in the country; in Istanbul (149), Izmir (61) and others (73). One fifth of these were state-owned; one fifth of individually owned factories were owned by Muslims. the data does not take into account small workshops and artisanal production. There were approximately 15,000 workers in the factories who had the right to strike. (Ekinci. 2024).

SECOND CHAPTER

# STUDY CASES



02

## 2.1 Introduction of Case Studies

This section presents a curated selection of adaptive reuse case studies, each chosen to examine different strategies and architectural approaches to transforming existing buildings into new functional and cultural entities. The goal is to investigate how structures—often originally built for industrial or infrastructural purposes—have been reimagined and reintegrated into their contemporary urban contexts through thoughtful architectural interventions.

To ensure consistency and clarity across the analysis, each case study follows a standardized format. The introductory page for each project includes a site plan that highlights the building's geographical location and its spatial positioning within the surrounding urban or natural environment. This provides a foundational understanding of how the building relates to its broader context and how its reuse may contribute to the site's transformation.

Accompanying the site plan are a series of photographs that document both the exterior and interior conditions of the building. These images serve to convey the overall architectural character, material palette, and atmosphere, as well as to illustrate how the intervention negotiates between old and new elements. such as floor plans, sections, and elevations are included. These provide insight into the internal spatial configuration, the distribution of functions, circulation routes, and the integration of newly added volumes or components within the existing fabric.

In addition to architectural drawings and images, each project includes a diagram that summarizes the current physical state of the building. These diagrams clearly identify preserved, demolished, and newly added components, helping to visualize the type and extent of interventions involved. This diagrammatic layer is crucial for understanding the conceptual and spatial logic behind the transformation.

The case studies analyzed in this section include a diverse range of projects, both in terms of geographic location and design strategy:

**Feshane ArtİIstanbul** (Istanbul, Turkey),
**Bomontiada** (Istanbul, Turkey),
**OGR Torino** (Turin, Italy),
**Tate Modern** (London, UK),
**Zeitz Museum of Contemporary Art Africa** (Cape Town, South Africa),
**Battersea Power Station** (London, UK),-
**Luma Arles** (Arles, France)

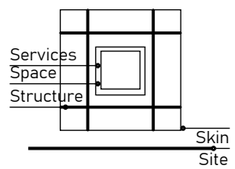
These projects were selected not only for their architectural value but also for their varied approaches to scale, context, and programmatic adaptation. Some preserve the memory and materiality of the original structure almost entirely, while others employ more radical transformations. By examining these examples through a unified analytical lens, this chapter aims to extract meaningful insights that can inform and support the design thinking and methodology developed throughout this thesis.

**Diagram Explanation**

To support each case study, a comparative diagram is provided on its introductory page. It assesses the adaptive reuse process through four key aspects: existing condition, structural integrity, type of action, and level of intervention—offering a clear and concise overview of the transformation.

**As Found**

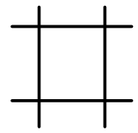
This diagram layer illustrates the initial state of the building at the time of intervention, specifically its functional layers such as structural grid, service cores, envelope, and relationship with the site. It helps to understand how the spatial and functional components were configured before any architectural transformation took place.




**Structure**

This part of the diagram evaluates the structural condition of the building. It indicates whether the existing structure was fully preserved, partially modified, or reinforced. A designation of "complete" implies that the original structural framework remained entirely intact and was able to support the new program without substantial intervention.

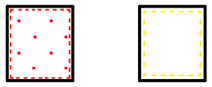
Structure



Complete

**Action**

Shows what kind of change was made inside the building, such as adding new volumes or reorganizing spaces. It helps to understand whether the intervention was subtle or transformed the spatial layout significantly.



Constructive Deconstructive

**Intervention Level**

Indicates how much was changed—whether the intervention was minimal or more extensive.

Low Mid High

## 2.2.a ArtIstanbul Feshane

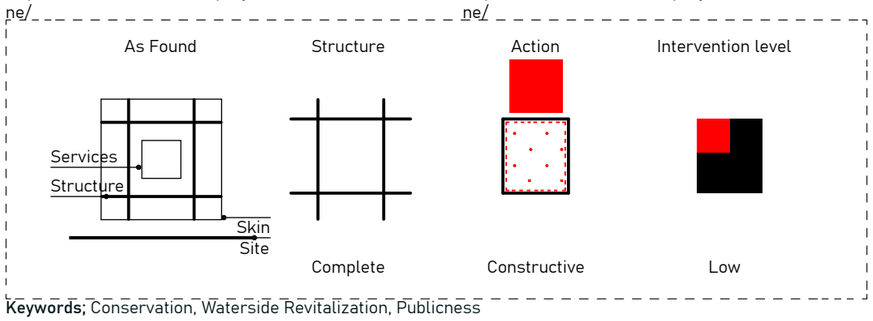
Original function: Power Plant | Date of construction: 1911
New function: Museum/ exhibition space
Date of adaptation: 2007 | Location: Istanbul, Turkiye


**Figure 27.** Arkitera Architecture Center https://www.arkitera.com/proje/artistanbul-feshane/

**Figure 28.** Arkitera Architecture Center https://www.arkitera.com/proje/artistanbul-feshane/

**Figure 29.** Arkitera Architecture Center https://www.arkitera.com/proje/artistanbul-feshane/

**Figure 30.** Arkitera Architecture Center https://www.arkitera.com/proje/artistanbul-feshane/




**Keywords;** Conservation, Waterside Revitalization, Publicness





**ArtIstanbul Feshane Adaptive Reuse Process**

Usually associated today with the approximately two-centuries-old history of ArtIstanbul Feshane, this edifice stands out as one of the most manifest symbols of Istanbul's industrial heritage in its continuous increase of urban identity. The journey of adaptive reuse from an Ottoman textile factory to a contemporary cultural space is also a great case of preservation combined with innovation. This text delineates the original construction followed by renovation stages, the structural transformation caused by adaptive reuse, and how it now assumes the lively public space.

**Initial Construction Process**

Feshane's origins date back to 1833 when Sultan Mahmud II ordered a fez production facility in the Kadırga district of Istanbul to support the newly established Asâkir-i Mansûre-i Muhammediyye army (Eldem, 1990). Known as Feshane-i Âmire, this small workshop quickly got too small, leading to its relocation in 1839 to the Haliç waterfront in Eyüpsultan as part of the auxiliary buildings of Hatice Sultan Palace. By the year 1843, equipped with steam-powered machines imported from Europe, it evolved into one of the earliest modern textile factories in the Ottoman Empire (Kıray, 1995).

The original structure featured a robust masonry framework with large open interiors suitable for looms and workers, depicting typical geometry of early industrial building. Although a fire in 1866 wiped out much of the building and its reconstruction in 1868 introduced better structural reinforcements and updated machinery, its role in Ottoman industry has increased(Eldem, 1990). Until 1921, it remained as the "Fez and Military Apparel Factory," under the military and produced several textiles which primarily moved on to different usages in the Republican era.

**Renovation Process**

The adaptive reuse transformation started in 1985, with the transfer of ownership of Feshane to the Istanbul Metropolitan Municipality (IMM), and that was the end of it as an industrial facility (İKSV, 1989). Most of the buildings were dismantled-including those highlighted-performing except for the main weaving hall-and this was its conversion from a place for machines into one to be used by the public. This major renovation project was completed in 1989-with funds from the Istanbul Culture and Arts Foundation (İKSV)-that intended to be a cultural venue and in the process bringing back the hall's exterior layering of bricks and spacious interior (İKSV, 1989). That initiative came to a halt in 1994 when there were major changes in politics, leaving the fabric of the structure partially modified. From 2005 onward, it was repurposed by the IMM into an exhibition center, maintaining its open-planned design for fairs and festivals (İBB, 2023).

Most of such renovations happened in the year 2018 under the IMM's Heritage Department(İBB, 2023). This five-year project interned under it, completed in June 2023, converts Feshane to "ArtİstanbulFeshane," a cultural complex. While paving the way for the latest modernization, it has been made sure to preserve crucial architectural elements. The 56.000-sq.m. site now can boast of exhibition spaces, a conference room, a library, a café, and landscaping-all straddling the modern and historical fabric.

**Architectural Features and Adaptive Reuse**

The adaptively reused building is noteworthy due to the preservation of its original brick and stone masonry walls, which reflect 19th-century industrial aesthetics (Tanyeli, 2007). The 8,000-square-meter weaving hall, having high ceilings and devoid of columns, is now a flexible exhibition space. Restored arched windows let natural light in. New interventions made of glass allow the entrance to be canopied and include modular partitioning for flexible design configurations. Skylights create a bright environment in what is now a reinforced roof, while the old courtyard was replaced by a landscaped plaza with inclusive access through ramping.

**Current State**

ArtİstanbulFeshane emerges as an important cultural center in Istanbul. To conclude, the adaptive reuse of ArtİstanbulFeshane turns an industrial site into a cultural landmark that incorporates preserved walls, the hall, and windows, juxtaposed against contemporary canopy and skylights.





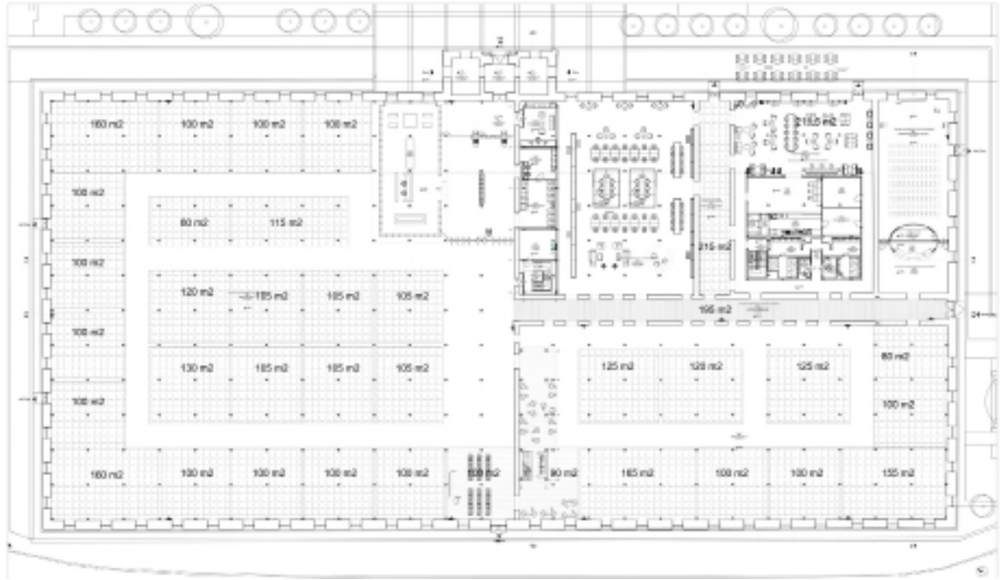


**Figure 31.** Arkitera Architecture Center https://www.arkitera.com/proje/artistanbul-feshane/

**Figure 32.** Arkitera Architecture Center https://www.arkitera.com/proje/artistanbul-feshane/

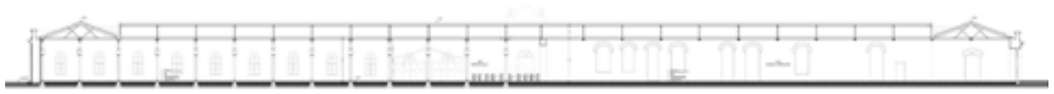


**Figure 33.** Arkitera Architecture Center https://www.arkitera.com/proje/artistanbul-feshane/

## 2.2.b Bomontiada

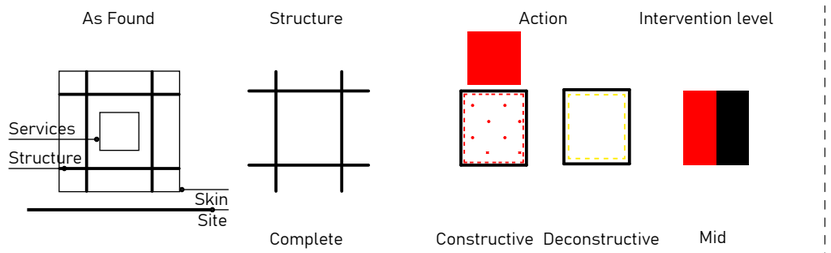
Original function: Beer Factory | Date of construction: 1890
New function: Cultural/ entertainment complex
Date of adaptation: 2015 | Location: Istanbul, Turkiye


**Figure 34.** Arkitera Architecture Center (2024, april 19) https://www.arkitera.com/proje/artistanbul-fes-hane/

**Figure 35.** Arkiv https://www.arkiv.com.tr/proje/bomonti-fabrikasi-ortak-alanlari/5808

**Figure 36.** Arkitera Architecture Center(2024, april 19) https://www.arkitera.com/proje/artistanbul-fes-hane/

**Figure 37.** Arkitera Architecture Center(2024, april 19) https://www.arkitera.com/proje/artistanbul-fes-hane/




**Keywords;** Courtyard, Hybridization





**Bomontiada Adaptive Reuse Process**

Bomontiada, located in Istanbul's Bomonti neighborhood, realizes the industrial heritage of the city into a modern cultural destination. It was originally the Bomonti Beer Factory. The adaptive reuse rests on retaining history while introducing contemporary innovation. This text chronicles the origins of construction works, renovation phases, characteristics of reused architecture, and contemporary daily life as a public space.

**Initial Construction Process**

What would later be called the Bomonti Beer Factory dates from 1890, when Swiss brothers Adolf and Walter Bomonti founded Istanbul's first industrial brewery along Feriköy, then a burgeoning suburb (Çelik, 2015). The construction was completed in 1902 for the purpose of production for the Ottoman market, with applied European brewing technology (Yılmaz, 2020). The construction originally bore massive red-brick walls, a high ceiling with a large volume airspace seemingly typical of early 20th-century industrial architecture, housing gigantic fermentation vats and bottling lines. By 1910 it had become a leading producer in the area, supplying beer throughout most of the region. The brewery continued operation throughout the Republican era, but with recent economic changes since the 1990s and loss remaining idle for years, with building and other infrastructure being rundown beyond repair, awaiting new life (Erbaş, 2018).

**Renovation Process**

The adaptive reuse of Bomontiada began in 2014, with the purchasing of the grounds by Doğuş Group, which attracted the company to begin the transformation of the long-abandoned factory into a cultural lifestyle destination (Doğuş Group, 2016). The focus, at the beginning, was to secure the very old buildings from further dilapidation, and major construction truly began in 2015. With architects and heritage experts at the forefront, the project kept the guts of the factory while interfacing it with modern solutions. Phase I was inaugurated in late 2015 with the opening of venues such as the Babylon music club and Populist pub, and this kicked-off the public program of the site. Between 2016 and 2017, further extensions brought in art galleries, restaurants, and event spaces under the overall concept of "A Corner in the World," greatly enhancing its cultural vision (A Corner in the World, 2017). Unlike previous industrial activities, the renovation sought to enhance accessibility and social engagement, establishing an urban oasis from a previously isolated factory.

**Architectural Features and Adaptive Reuse**

The Bomontiada steadfastly maintains its distinctive red-bricked sartorialism and deeply evocative heavy industrial mood, serving as a lasting tribute to commemorate the vibrant spirit of the early 20th century, a time marked by innovation and transformation (Çelik, 2015). With its remarkable spaciousness and impressively high ceilings, the former brewing halls, once dedicated to the production of beer, have been thoughtfully repurposed and are now buzzing with an array of lively performances, cultural events, and gatherings that breathe new life into the historic space. The original massive factory windows, a testament to the building's industrial heritage, have undergone careful renovation, allowing generous streams of natural daylight to flood the interior and enhance the ambiance. The addition of sleek glass-clad new entrances and inviting outdoor terraces, which skillfully blend the old architectural perspectives with more contemporary design elements, represent the most recent and striking interventions to the site (Yılmaz, 2020). Furthermore, ramps have been thoughtfully integrated into the previously operational courtyard, transforming it into a fully landscaped, accessible, and vibrant social space where people can gather, relax, and connect.

**Current State**

As of March 2025, Bomontiada is a bustling cultural center in the Bomonti district of Istanbul. Its opening in 2015 marked a new lease of life for the Bomonti Beer Factory and events like the 2017 A Corner in the World curation (Bomontiada Official Website, 2025). Open daily and admission-free, it houses Babylon club, Populist pub, and a lively courtyard, owing to its industrial character.

In conclusion, Bomontiada's adaptive reuse has turned a long-defunct factory into a creative landmark. The red-brick walls and enormous interiors of the complex speak of history, while modern venues and plazas provide an ongoing dialogue. It is truly a wonderful testimony to Istanbul's innovative ways of heritage renewal.





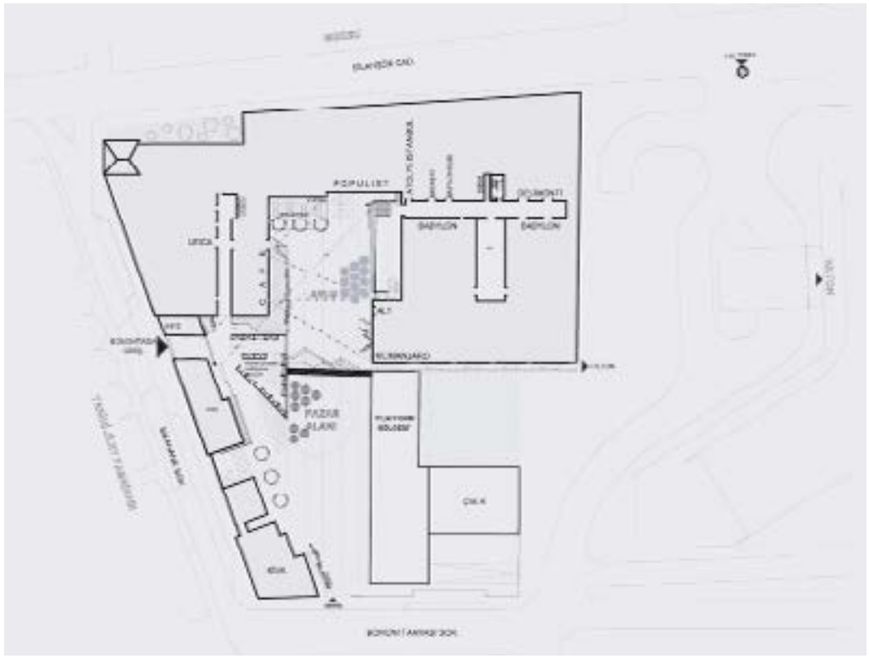



**Figure 38.** Arkitera Architecture Center (2024, april 19) https://www.arkitera.com/proje/artistanbul-feshane/

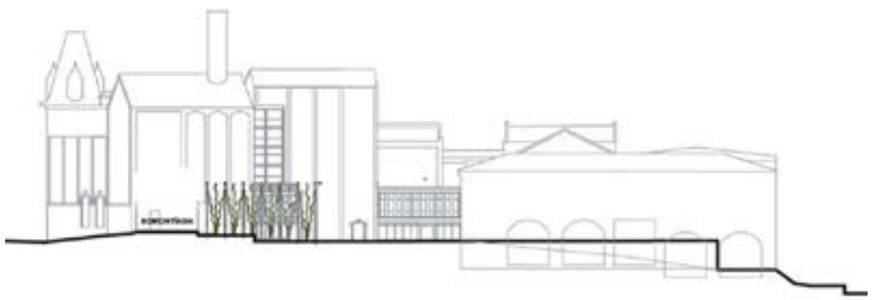


**Figure 39.** Arkitera Architecture Center (2024, april 19) https://www.arkitera.com/proje/artistanbul-feshane/

**Figure 40.** Arkitera Architecture Center (2024, april 19) https://www.arkitera.com/proje/artistanbul-feshane/

## 2.2.c OGR Turin (Officine Grandi Riparazioni of Turin)

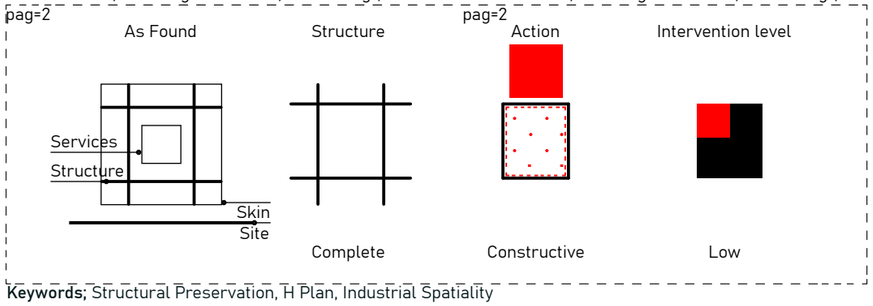
Original function: Railway repair | Date of construction: 1885- 1895
New function: Cultural and innovation hub
Date of adaptation: 2017 | Location: Turin, Italy


**Figure 41.** Daniele Ratti https://simete.com/progetti/complesso-delle-ex-officine-grandi-riparazioni-ogr/

**Figure 42.** Gruppo Building https://building.it/en/ogr-the-architectural-project/

**Figure 43.** Artribune (2020,may 4) https://www.artribune.com/museo-galleria-arte/cantieri-ogr/?pag=2

**Figure 44.** Artribune (2020,may 4) https://www.artribune.com/museo-galleria-arte/cantieri-ogr/?pag=2




**Keywords;** Structural Preservation, H Plan, Industrial Spatiality





**OGR Torino Adaptive Reuse Process**

OGR Torino in Turin, Italy, is a symbol of the city's industrial heritage, reimagined as a living cultural and technological center. It began as an extensive train repair facility, with a story of adaptive reuse that strongly exemplifies marrying historic preservation and contemporary innovation. This text highlights the building's original construction, phased renovation programs, architectural features affected by its transformation, and its present role as a multifunctional public space in downtown Turin.

**Initial Construction Process**

OGR Torino was constructed in 1895, strategically located between Turin's Porta Nuova and Porta Susa railway stations (Italian Railway Foundation, 2015). The complex covered an immense 190,000 square meters, making it the largest industrial complex in the city for the upkeep of locomotives and railcars for the Strade Ferrate dell'Alta Italia, which became Ferrovie dello Stato. Modeled for functional intent, the original building had solid brick walls, reinforced with iron, large workshops with 16-meter-tall ceilings, and open space to accommodate the repair of steam locomotives and early electric locomotives. It was at the height of its productivity in the mid-20th century, with more than 2,000 workers making it a bedrock of industrial economy in Turin (Città di Torino, 2020).

In the early 1990s, with development in rail technology and dwindling in demand for such facilities, it was closed down, leaving the vast expanse unattended and potentially slated for demolition.

**Renovation Process**

Renovation works for OGR Torino, a center for contemporary culture, began in 2013 when Fondazione CRT bought from RFI Sistemi Urbani the 35,000 square meter H-shaped core of the complex (Fondazione CRT, 2017). The construction works sought a bold €100 million investment and aimed at converting the former derelict workshops into spaces of culture and technology and community involvement. Structural stabilization was the first work done on-site, followed by first-phase completion in September of 2017, when a "Big Bang" opening introduced restored areas for art exhibitions, live music and innovation labs (OGR Torino, 2025). The southern wing was further developed between 2017 and 2019 to provide flexible spaces for workshops and performances. In an unexpected twist, in 2020, OGR transformed into a COVID-19 hospital, evidencing its multipurpose capability. Boffa, Petrone & Partners handled the renovation, preserving historical elements while incorporating contemporary design, with a redefined complex to be ready by 2021 (Boffa, Petrone & Partners, 2021).

**Architectural Features and Adaptive Reuse**

Its adaptive reuse retains the industrial character of OGR from the 19th century, with preserved brick and iron facades which hark back to its railway heritage. It is these mammoth repair halls of such soaring ceilings and spans, which were once free of columns, that have now been put to some quite interesting uses as venues for exhibitions and concerts. Fully restored large arched windows flood the interiors with natural light, complementing their modern utility. Among the new features are sleek glass entrances for accessibility, flexible interior partitions to multi-use configurations, and a refurbished roof with sustainable insulation and skylights. Previous rail yards are now being reimagined as landscaped courtyards with seats for the public, integrating industrial roots into a design friendly for the public.

**Current Status**

As 2025, OGR Torino is a great cultural and technological hub for the city of Turin (EXPOSED Festival, 2025). The opening in 2017 of "Big Bang" and the expected "EXPOSED" photography exhibition in 2025 are high points in the history of the OGR as an institution in the world of arts and innovations. Open daily for tickets free of charge, it is outfitted with galleries, performance spaces, a technology accelerator, and coworking spaces-all urban location in close proximity to major transportation hubs.

Thus, OGR Torino adapts the place of an obsolete industrial site that is converted into a new moving landmark. The preserved brick halls and arched windows combined with modern glass entrances and green courtyards integrate the historically rich fabric of Turin with contemporary purposes, and this is manifested in making the community and heritage alive through revitalizing its industrial legacy for posterity (Boffa, Petrone & Partners, 2021).





**Figure 45.** flickr (2010, may 18)
https://www.flickr.com/photos/lfphotos/4618833502/

**Figure 46.** flickr (2010, may 18)
https://www.flickr.com/photos/lfphotos/4618833502/

## 2.2.d The Tate Modern

Original function: Power station | Date of construction: 1947-1963
New function: Modern and contemporary art gallery
Date of adaptation: 2000 | Location: London, England

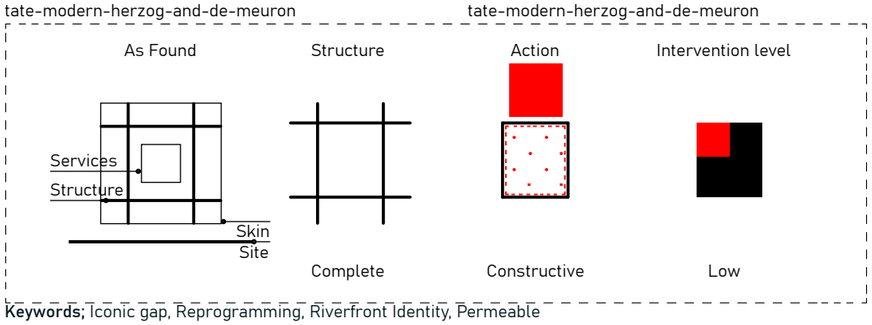


**Figure 47.** AD Classics (2013, september 17) https://www.archdaily.com/429700/ad-classics-the-tate-modern-herzog-and-de-meuron

**Figure 48.** AD Classics (2013, september 17) https://www.archdaily.com/429700/ad-classics-the-tate-modern-herzog-and-de-meuron

**Figure 49.** AD Classics (2013, september 17) https://www.archdaily.com/429700/ad-classics-the-tate-modern-herzog-and-de-meuron

**Figure 50.** AD Classics (2013, september 17) https://www.archdaily.com/429700/ad-classics-the-tate-modern-herzog-and-de-meuron




**Keywords;** Iconic gap, Reprogramming, Riverfront Identity, Permeable





**The Tate Modern Adaptive Reuse Process**

The adaptation of a former power plant into a cultural center is exemplified at Tate Modern, London. The existing building fabric, dating from the old Bankside Power Station, has been used in a process that sees a balance between old and new design approaches to redefine the new function. The text traces its original construction and phases of renovation, architecture reflecting that transformation, and current status as one of the celebrated art galleries of the world.

**Initial Construction Process**

The Bankside Power Station, which became Tate Modern, was commissioned in 1947 and completed in phases until 1963 (English Heritage, 2004). Sir Giles Gilbert Scott, who was known for the design of the Battersea Power Station, was commissioned to work on Bankside, which once served to generate electricity for Central London with oil-fired turbines (Sudjic, 2000). Located along the banks of the River Thames in Southwark, the building spans 200 meters in length, with its monumental brick exterior, 99-meter chimney, and vast internal space in the Turbine Hall, a 35-meter-high, 152-meter-long chamber originally housing generators (Glancey, 2000). A steel framework clad with 4.2 million bricks, Bankside presented an example

It served until 1981, powering landmarks such as St. Paul's Cathedral, when the increasing oil prices and environmental concerns made it obsolete, leaving the power station vacant on and off by the late 1980s.

**Renovation Process**

Bankside's adaptive reuse began in 1994, when the Tate Gallery selected it as the site for a new museum for modern art (Herzog & de Meuron, 2000). Herzog & de Meuron won the international competition, which was the first museum conversion of its kind in Britain. Funding of £134 million was set aside for the four-year renovation project that would seek to conserve the industrial character of the building while refitting it for public use. Phase one was opened in May 2000, with the Turbine Hall forming an impressive entrance and exhibition space, with galleries hewn from the former boiler room (Tate, 2016). Between 2010 and 2016, the Switch House (later renamed Blavatnik Building) extension added 60% more space incorporating the oil tanks of the station along with a new 10-story tower. This, completed in 2016, and with a price tag of £260 million, wrapped up augmenting the capacity and sustainability of the Tate Modern. In the process, conservation of heritage was balanced with the innovative design that would breathe new life into an industrial relic.

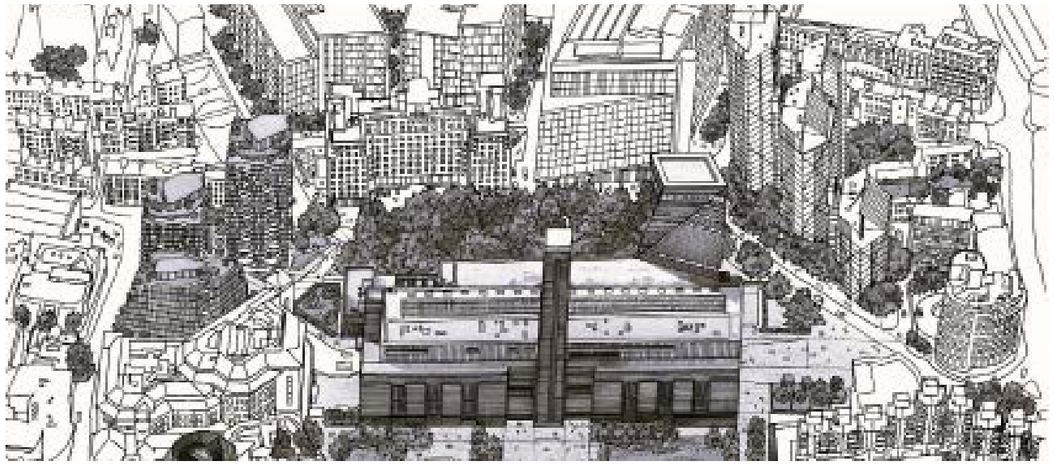


**Figure 51.** Architects Journal (2014, december 2)https://www.architectsjournal.co.uk/archive/squire-and-partners-reveals-plans-for-scheme-behind-tate-modern

**Architectural Features and Adaptive Reuse**

The undoubted industrial heritage of the Tate Modern is apparent in its heavy brick facade and landmark chimney; hardly anything distracts from such unyielding materials-once coarse, aggressive-tyven in their treatment-by the investor. The Turbine Hall--huge slabs of unadorned concrete flooring with a lofty ceiling of steel beams--is a grand location designed to accommodate mammoth-scale installations. The original steel girders were exposed, the brickwork bared, and the restored windows allow daylight to flood in. The new additions are the glittering Blavatnik Building's lattice-brick tower, glass-walled views, and sunken oil tanks now converted into raw circular exhibition spaces. Extensive use of daylight in the atrium space and sustainable systems complete its utility, successfully integrating old and new.

**Current State**

By March 2025, Tate Modern has become an international leader in contemporary art, attracting millions on London's South Bank. There are cultural significance and relevance in its opening in 2000, extension in 2016 with the Blavatnik building, and upcoming exhibition, "Future World," opening in 2024 (Tate Modern, 2025). It is open every day with free entry into the key collections and has galleries, Turbine Hall, shops, cafes, and gorgeous views of the Thames from its wonderful riverside location.

In summary, Tate Modern indicates an adaptive reuse from a defunct power plant to an art powerhouse. Its retained shell of brick and the Turbine Hall, along with the brand-new towers and tanks, are binding industrial heritage to modern design, showcasing London's vision for cultural rejuvenation.





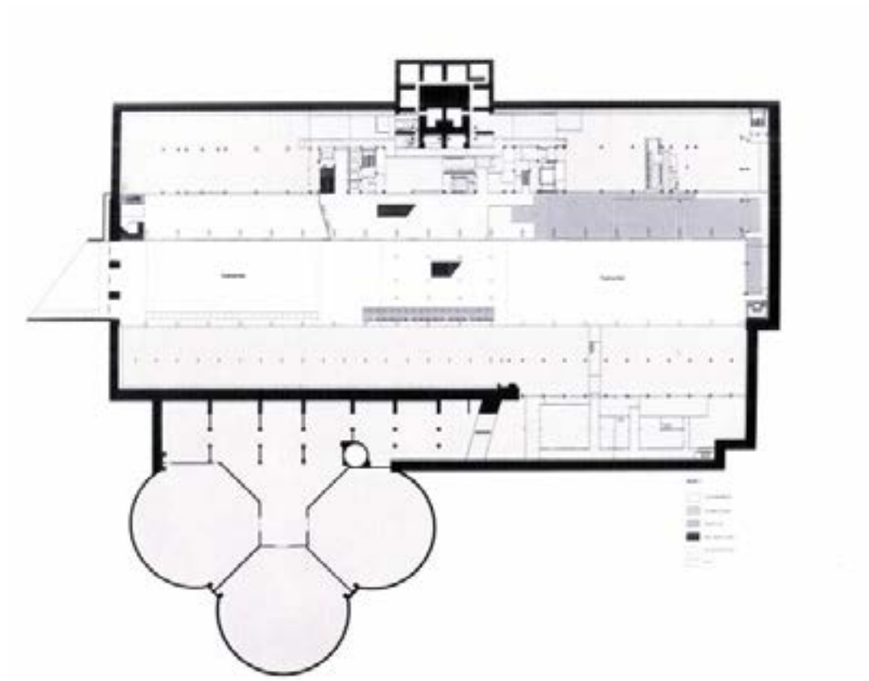


**Figure 52.** AD Classics (2013, september 17) https://www.archdaily.com/429700/ad-classics-the-tate-modern-herzog-and-de-meuron

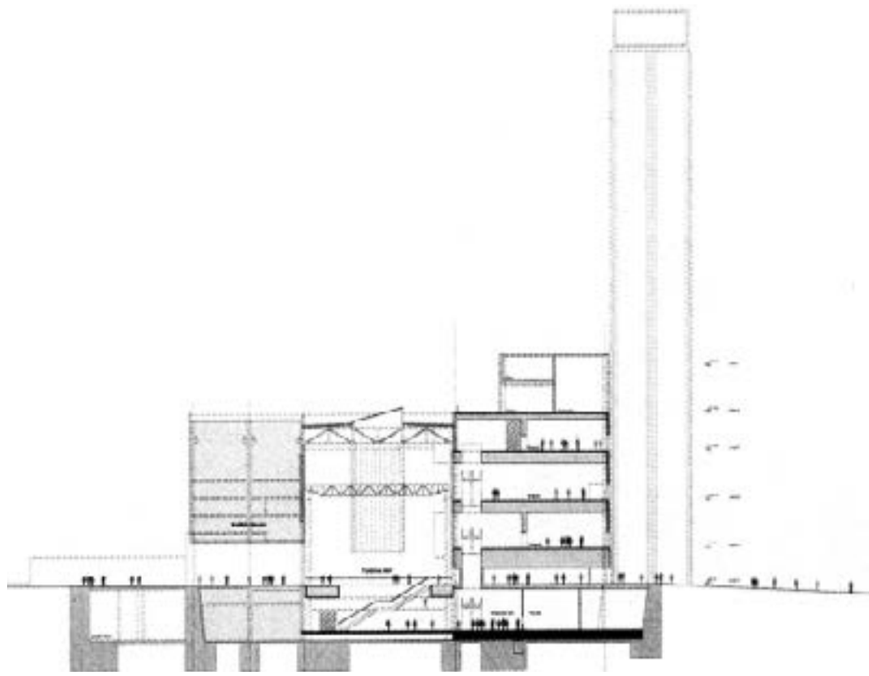


**Figure 53.** AD Classics (2013, september 17) https://www.archdaily.com/429700/ad-classics-the-tate-modern-herzog-and-de-meuron

## 2.2.e Zeitz Museum of Contemporary Art Africa

Original function: Grain Silo | Date of construction: 1921- 1924
New function: Art Museum
Date of adaptation: 2014- 2017 | Location: Cape Town, South Africa

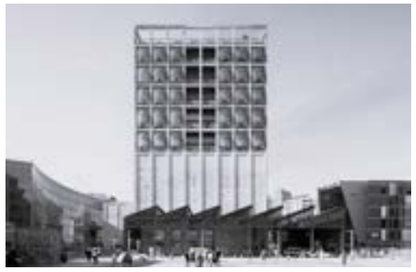
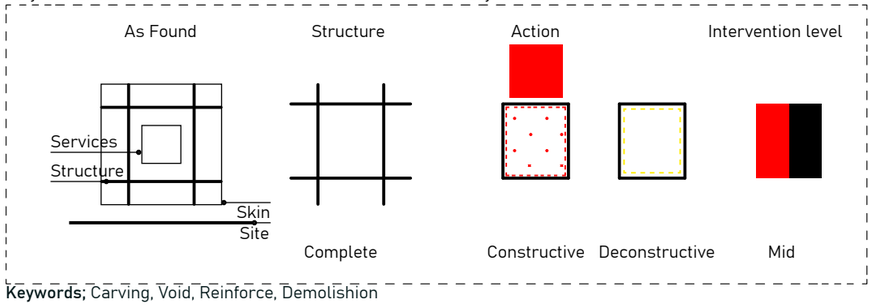



**Figure 54.** AD (2017, september 18) https://www.archdaily.com/879763/zeitz-museum-of-contemporary-art-africa-heatherwick-studio

**Figure 55.** AD (2017, september 18) https://www.archdaily.com/879763/zeitz-museum-of-contemporary-art-africa-heatherwick-studio

**Figure 56.** AD (2017, september 18) https://www.archdaily.com/879763/zeitz-museum-of-contemporary-art-africa-heatherwick-studio

**Figure 57.** AD (2017, september 18) https://www.archdaily.com/879763/zeitz-museum-of-contemporary-art-africa-heatherwick-studio




**Keywords;** Carving, Void, Reinforce, Demolishion





**Zeitz Museum of Contemporary Art Africa Adaptive Reuse Process**

Zeitz Museum of Contemporary Art Africa (Zeitz MOCAA) is an innovative establishment where contemporary African art is exhibited within an old industrial building. A former grain silo, the adaptive reuse intertwines the preservation of history and contemporary design, creating a structure that accounts for the art and culture of today. This text outlines the initial construction, the journey to renovation, the architecture and design consequences of the transformation, and what the building is today: a lively public space.

**Initial Construction Process**

The Victoria & Alfred Waterfront Grain Silo Complex housing Zeitz MOCAA was built from 1921 until Feb. 1924 (V&A Waterfront, 2017). It was to serve as a primary grain storage and grading facility for corn from different provinces in South Africa and was a significant cog in the industrial and maritime economy of Cape Town (Forbes, 2018). The original structure consists of 42 cylindrical concrete silos, each rising 33 meters, with a grading tower, rendering it the tallest building in sub-Saharan Africa for many decades.The building itself, a bland utilitarian structure in reinforced concrete, had a dense cellular layout for holding millions of tons of grain, conveyed directly by conveyor belts to waiting

It ran until 1990, then fell into disrepair when the industrial functions became obsolete, yet remained standing, with a slanted roofline and ready for a makeover; a monument to the city of Cape Town awaiting some kind of act of redemption.

**Renovation Process**

Gestation of a new life was given to the grain silo structure in 2013 when the V&A Waterfront became a partner with German philanthropist Jochen Zeitz, who was seeking a home for his vast collection of African art (Zeitz, 2017). With a £30 million (R500 million) investment, British architect Thomas Heatherwick and his studio were commissioned to rethink the site. Renovation started in 2014 with the intention of preserving the industrial heritage and evolving it into a contemporary museum (Heatherwick Studio, 2017). The first phase opened on 22 September 2017, featuring 6,000 square meters of exhibition space over 9 floors. From 2017 to 2020, refinements for functionality were made, including areas for conservation work and education (Zeitz MOCAA, 2025). By carving into the silo core, Heatherwick's team balanced structural integrity with artistic vision, creating a previously dormant icon the center of culture to which millions are annually drawn.

**Architectural Features and Adaptive Reuse**

The reuse of the Zeitz MOCAA preserves the silo's weathered concrete exterior and cylindrical forms, echoing its industrial origins. The central atrium, carved from 22 of the 42 silos, rises 27 meters with a cathedral-like grandeur (Heatherwick Studio, 2017). Above, a glass roof with fritted patterns inspired by artist El Loko filters light beautifully. A Turbine Hall-style space hosts large installations, while 80 galleries within the remaining tubes display art. Modern additions, like pillowed glass windows bulging outwards on upper floors for light and views, contrast the raw structure, and underground tunnels are repurposed for site-specific works. A rooftop sculpture garden offers stunning views and an open-air experience. Sustainable systems enhance its modernity, blending old utility with new creativity seamlessly. This fusion makes Zeitz MOCAA a striking cultural landmark that honors its past while embracing the present.

**Current State**

Zeitz MOCAA-dedicated, consecrated to contemporary African art, is the big one among such museums worldwide, to walk in glory over the V&A Waterfront of Cape Town in March 2025. The opening exhibitions, "All Things Being Equal" (2017) and "When We See Us" (2024), de-





There are galleries, rooftop restaurants, education centres, and views across the harbour to the fine arts, luring so many global visitors (Art Africa Magazine, 2024).

In conclusion, Zeitz MOCAA's adaptive reuse has transformed a grain silo into a cultural dynamo (Forbes, 2018). Preserved concrete tubes and atrium combined with modern glass and gardens marry industrial heritage and creative innovation, demonstrating Cape Town's commitment to celebrating African creativity.

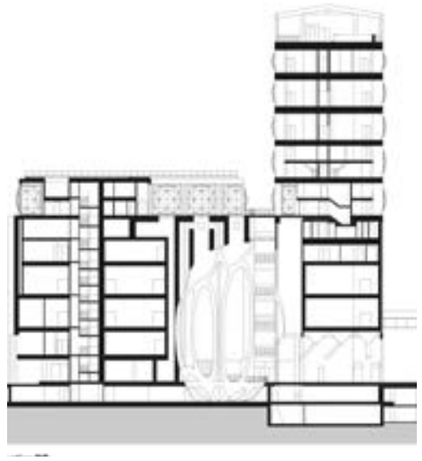


**Figure 58.** Tomà Berlanda (2018). Zeitz geist: Zeitz MOCAA, Cape Town, South Africa by Heatherwick Studio From: https://www.architectural-review.com/buildings/zeitz-geist-zeitz-mocaa-cape-town-south-africa-by-heatherwick-studio

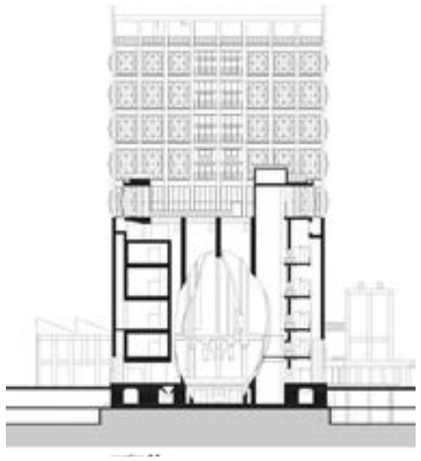


**Figure 59.** Tomà Berlanda (2018). Zeitz geist: Zeitz MOCAA, Cape Town, South Africa by Heatherwick Studio From: https://www.architectural-review.com/buildings/zeitz-geist-zeitz-mocaa-cape-town-south-africa-by-heatherwick-studio

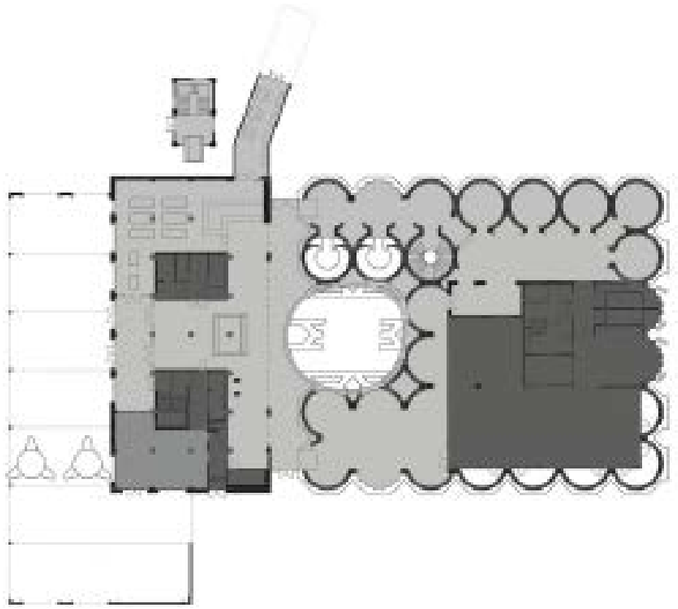


**Figure 60.** AD (2017, september 18) https://www.archdaily.com/879763/zeitz-museum-of-contemporary-art-africa-heatherwick-studio

## 2.2.f Battersea Power Station

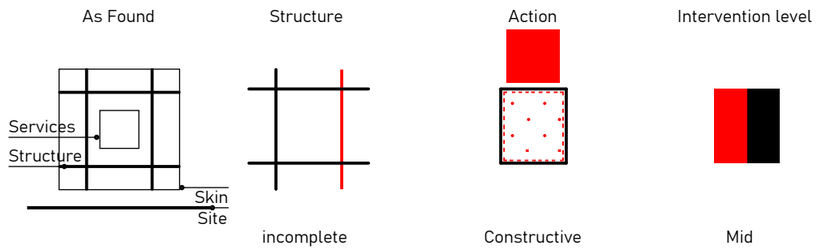
Original function: Coal- fired power station | Date of construction:1929- 1955
New function: Mixed- use depelopment
Date of adaptation: 2014- 2022 | Location: London, United Kingdom


**Figure 61.** AD (2022, october 17) https://www.archdaily.com/990615/battersea-power-station-wilkinsoneyre

**Figure 62.** AD (2022, october 17) https://www.archdaily.com/990615/battersea-power-station-wilkinsoneyre

**Figure 63.** AD (2022, october 17) https://www.archdaily.com/990615/battersea-power-station-wilkinsoneyre

**Figure 64.** AD (2022, october 17) https://www.archdaily.com/990615/battersea-power-station-wilkinsoneyre




**Keywords;** Recontextualizati, Waterfront Integration, Heritage





**Battersea Power Station Adaptive Reuse Process**

An iconic structure on London's Thames South Bank, Battersea Power Station represents the city's industrial past which has emerged as a versatile urban hub. Once a coal-fired powerhouse, its adaptive reuse carefully blends the preservation of history and bold modern design, re-invigorating a cultural symbol. This paper examines its original building, renovation journey, architectural features formed during its metamorphoses, and finally its current glory as a vibrant mixed-use destination.

**Initial Construction Process**

The origin of the Battersea Power Station goes back to 1929, when the London Power Company (LPC) commissioned its construction in order to supply the ever-increasing electricity requirements of the capital (English Heritage, 2007). It was designed by Sir Giles Gilbert Scott, the creator of the red telephone box, and was built in two phases, Battersea A (1929–37) and Battersea B (1941–55), the latter being delayed by World War II. It occupies 2.5 hectares with steel framing clad in golden-brown brick among a total of six million bricks and four chimneys of 103 m tall, allowing for its characteristic silhouette (Glinert, 2019). Massive generators occupied the Turbine Halls-great spaces of concrete floors and steel trusses- Control Room In the 1950s, it reached its peak generation of 509 MW, lighting close to one-fifth of London including Buckingham Palace. Due to increasing oil prices and changes in the environmental situation, it was decommissioned in 1983, after standing derelict, with a Grade II listing in 1980 (upgraded to II* in 2007) for its historical significance.

**Renovation Process**

The adaptive reuse of Battersea commenced in earnest in 2012 after decades of abandoned schemes—theme parks, stadiums, and eco-towers—left it roofless and decaying. A Malaysian consortium (S P Setia, Sime Darby, and later Permodalan Nasional Berhad) bought up the 42 acres for £1.6 billion, with WilkinsonEyre architects collaborating (Battersea Power Station Development Company, 2025). Renovation initiated in 2013 as part of an £9 billion masterplan by Rafael Viñoly, £1.28 billion of which would go to the station itself (Viñoly, 2013). The project restored the structure with great attention to detail from 2014 to 2022, including remaking the chimneys in hand-poured concrete and repairing the brickwork with 1.75 million new bricks from Northcot Brick (Northcot Brick, 2022). The new opening of October 14, 2022 turned the station into a mixed-use center-retail, offices, residences-and a Northern Line extension that was finished in 2021 served to improve connectivity. Sustainability and heritage were

**Architectural Features and Adaptive Reuse**

With its brick facade, four chimneys, and Turbine Halls, Battersea preserves its reuse as an evocative representation of industrial might. Turbine Hall A restored to Art Deco splendour with gantry cranes intact and the austere Turbine Hall B, now retail galleries, retains its scale. From there exposed steel girders and the 20-metre-high atriums amplify drama, while Control Room B is a 1950s-themed bar. Modernising efforts include Lift 109, a glass elevator in the northwest chimney offering 360-degree views, glass-walled Sky Villas atop the Boiler House, and sustainable systems like heat recovery. The former coal yards are now landscaped plazas-both fulfilling bygone historical majesty and contemporary use.

**Current State**

As of March 2025, Battersea Power Station has become one of London's best-known mixed-use destinations in Nine Elms. Established in 2022, it holds ongoing events such as winter light festivals, adding to its role as an important part of the culture. The site is open each day with free access to the public. Besides, it accommodates 140 shops, the London campus of Apple at about 46,000 square meters, 254 flats, eateries, and a cinema that enjoys Electric Boulevard and Thames riverside (Battersea Power Station Development Company, 2025).

Thus, it has an adaptive replication of Battersea where a derelict power station is converted into a buoyant landmark. Its preserved brickwork, Turbine Halls, and chimneys coupled with modern lifts and plazas exemplify the fusion of industrial legacy and vitality in the 21st century to be the one of the best example of London innovative approaches to heritage renewal.





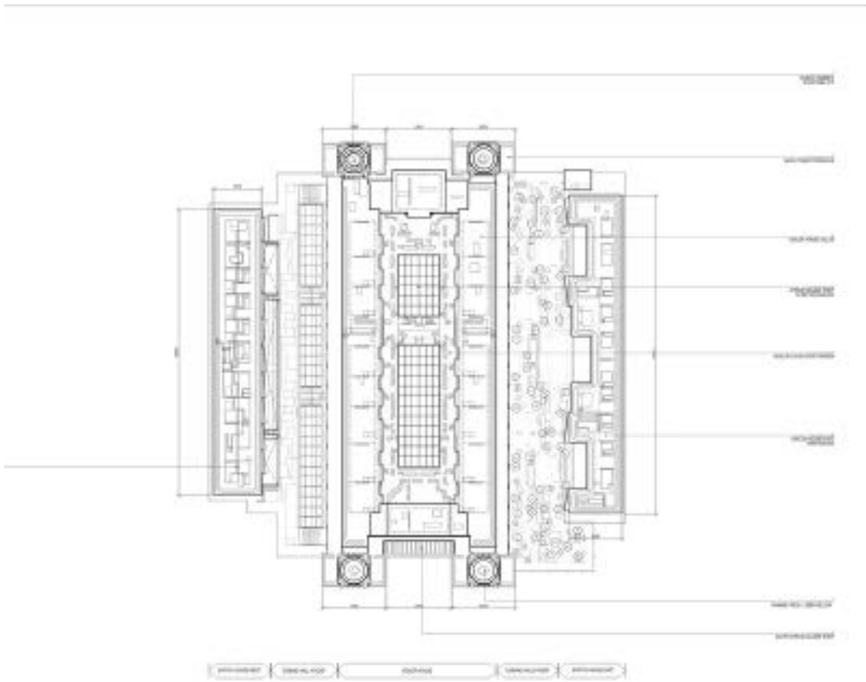


**Figure 65.** AD (2022, october 17) https://www.archdaily.com/990615/battersea-power-station-wilkinsoneyre

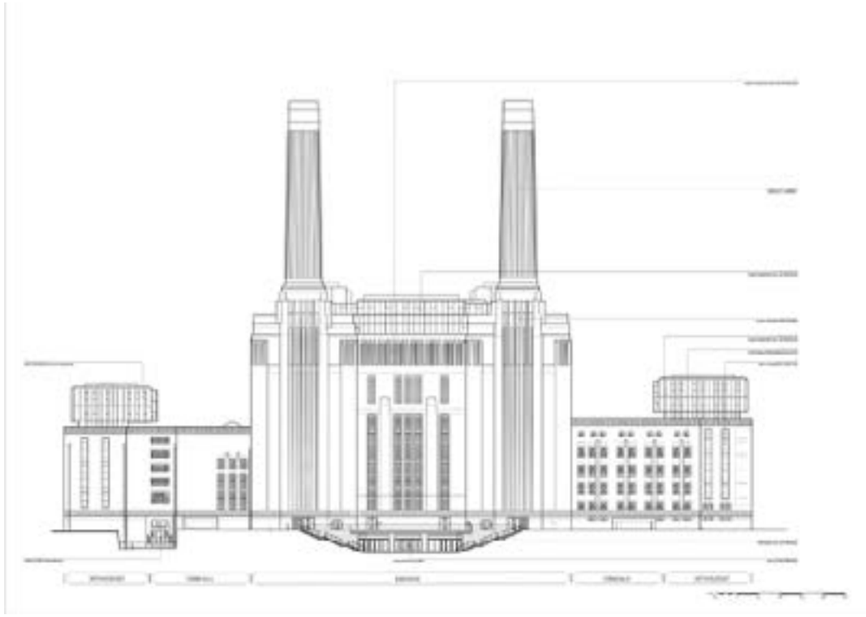


**Figure 66.** AD (2022, october 17) https://www.archdaily.com/990615/battersea-power-station-wilkinsoneyre

## 2.2.g LUMA Arles

Original function: Coal- fired power station | Date of construction:1929- 1955
New function: Mixed- use depelopment
Date of adaptation: 2014- 2022 | Location: London, United Kingdom

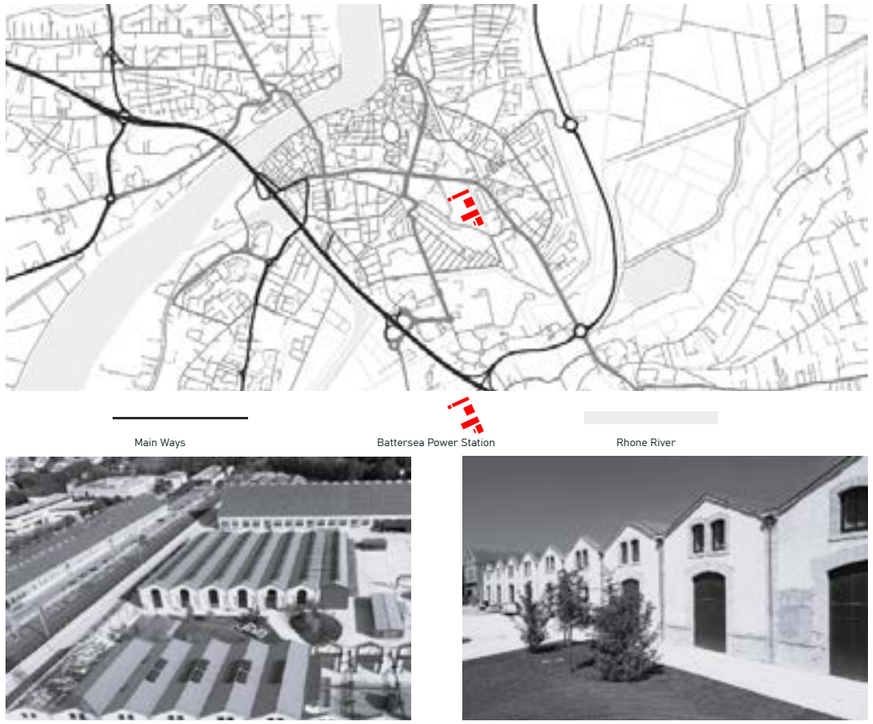




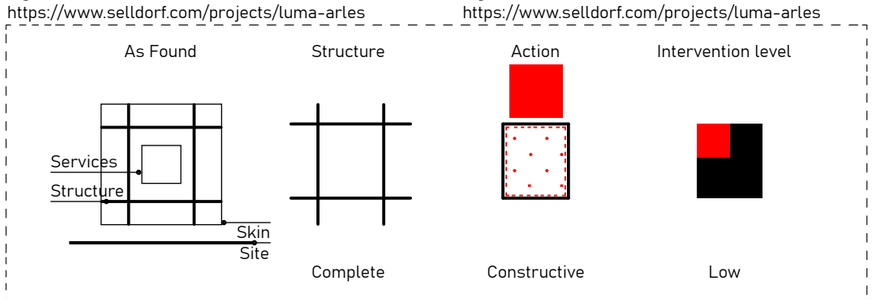

**Figure 67.** Selldorf Architects
https://www.selldorf.com/projects/luma-arles



**Figure 68.** Selldorf Architects
https://www.selldorf.com/projects/luma-arles

**Figure 69.** Selldorf Architects
https://www.selldorf.com/projects/luma-arles

**Figure 70.** Selldorf Architects
https://www.selldorf.com/projects/luma-arles




**Keywords;** Assemblage, Circulation, Layering





**Luma Arles Adaptive Reuse Process**

Embodying the best in adaptive reuse, Luma Arles is bringing the former industrial site in Arles, France, into a cultural campus. Once such a sprawling railway repair yard, revitalization has preserved the historical fabric while reimagining it into contemporary arts. Not included in this statement are the lofty steel prism of the high-rise Luma Tower buildings, initial construction processing of adaptive reuse structures, renovation, architecture shaped by transformation, and today's use as a creative hub for Luma Arles.

**Initial Construction Process**

It was in the 19th century that Luma Arles started as a site for railway maintenance for the Paris-Lyon-Méditerranée (PLM) (Southon, 2022). Between 1848 and 1908, Les Forges, La Mécanique Générale, and La Grande Halle were constructed on this 11-hectare site just outside the old city of Arles. Les Forges (1860s) and La Mécanique Générale (1900s) were supplemented by the brick and iron frameworks dedicated to blacksmithing and mechanical repairs, and they had expanded workshops boasting high ceilings for servicing locomotives (Selldorf Architects, 2018). La Grande Halle involved the cold of 1908 and was a vast haul of 5,000 square meters with a steel-trussed roof and brick walls, created for the assembling of railcars. These were, in their original intention, such structures-hardy yet simple, built to support the rail industry of Arles until the 1980s, when the company left and had kept the spaces vacant at the time of their decline, awaiting adaptation because the bones(skin) were durables.

**Renovation process**

The adaptive reuse of Luma Arles began in 2013 by Maja Hoffmann's Luma Foundation for an arts campus (Hoffmann, 2019). The project, which is set aside the Gehry tower, was earmarked at the restoration of the site-in buildings including renovations by architects such as Annabelle Selldorf and landscape designer Bas Smets for a total cost of € 150 million. Renovation started in 2014 with Les Forges and La Mécanique Générale refurbished by 2018 for studios and exhibitions while keeping their brick skins intact (Selldorf Architects, 2018). The rehabilitation of La Grande Halle was completed in 2016 and converted it into a flexible space for events, retaining the essence of its structure (Luma Foundation, 2021). A run of activities late 2018 and early 2021 brought more improvements, including archives, offices, and public areas, with whole campus opening in June 2021. The entire process has focused on having sustainability, up to 80% reuse of existing materials, and also fidelity to history breathing life into relics as they are and not converting them to their industrial character (Southon, 2022).

**Architectural Features and Adaptive Reuse**

Luma Arles adaptive reuse preserves brick facades and iron frameworks of Les Forges and La Mécanique Générale, tracing back to their industrial roots in the 19th century. A performance and installation venue, La Grande Halle provides an open interior of 20 meters high, now equipped with a steel-trussed roof and restored clerestory windows for additional exposure to daylight. Modern interventions involve minimalist glass partitions installed for flexibility, subtle skylights distributing light in several workshops, and polished concrete floors incorporating old into the new. The former railway yard has been turned into a park planted exclusively with indigenous flora, while ramps for access merge quietly into the landscape, preserving that rough, industrial flavor through its contemporary use. (Smets, 2020).

**Current State**

Luma Arles will continue to thrive as an attractive cultural hub in Arles' Parc des Ateliers in March 2025. It opened in 2021 with the exhibition "Future World" and will be closing in 2025 with "Photography Now," showcasing its artistic mission (ArtReview, 2024). Open to the public daily, free entry to public areas includes galleries, studios, a cafe, and event spaces within La Grande Halle and workshops, further appealing to a visitor's imagination within the reinvented.industrial space. To sum up, Luma Arles adaptive reuse brings a railway yard into a creative sanctuary. Retained brick walls, trussed roofs, and open halls with subtle glass and green space join industrial heritage with contemporary arts, demonstrating Arles's innovative cultural renewal.





**Figure 71.** Selldorf Architects
https://www.selldorf.com/projects/luma-arles

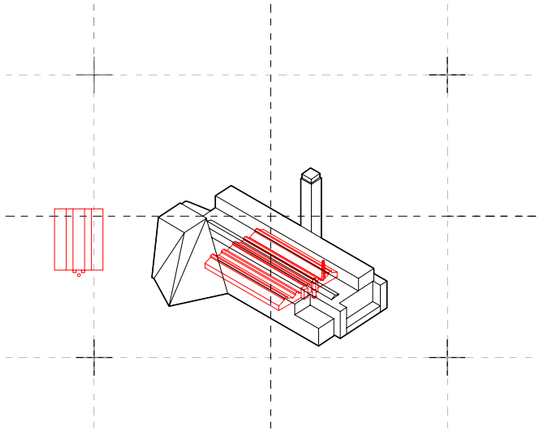
**Figure 72.** Selldorf Architects
https://www.selldorf.com/projects/luma-arles

## 2.3 Comparative Analysis

In this study, selected adaptive reuse buildings are analyzed and compared to building that we work on through four main categories: volumetric scale, surface area, circulation and accessibility, and types of interventions. For each topic, visual analyses have been conducted to highlight the similarities and differences between the case studies and our project.

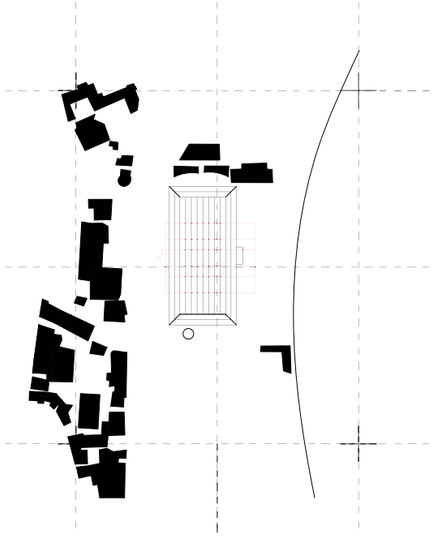
**Volumetric Scale Differences**

Although industrial buildings typically feature large spans and spacious interior volumes, the case studies examined in this research demonstrate significant differences in volumetric scale. These differences arise both from the buildings' original functions and from the transformations they underwent during the adaptive reuse process. In this section, these volumetric differences will be analyzed through axonometric visuals, focusing on interior spatial organization and the spatial experience offered to users.



**Surface Area Differences**

In addition to volumetric differences, the buildings also vary significantly in terms of the surface area they occupy. This section focuses on the horizontal footprint of each structure, comparing how much land is covered and how the spatial layout extends across the site. These differences often reflect the buildings' original functions—some designed for expansive industrial use, others for more compact operations. This directly influences how circulation and spatial hierarchy are organized. Larger footprints allow for more distinct zoning between functions, while smaller ones require compact and efficient spatial solutions. Complementing the volumetric evaluations in Section 1, this part uses two-dimensional drawings and plan analyses to examine how site constraints affect surface distribution and user flow.

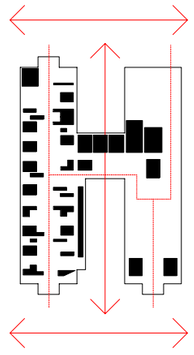






**Circulation And Accessibility**

This section examines how each building welcomes visitors from the outside and guides them through interior spaces. Entry strategies, the relationship between solid and void areas, and circulation paths within the buildings are all analyzed. The study investigates how users move through the space, identifying transitional and destination zones. These evaluations help to understand how circulation and accessibility shape the spatial logic and functionality of each project.

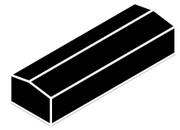


**Types of Architectural Interventions**

This section focuses on the architectural interventions applied to each building during the adaptive reuse process. Intervention types include façade renovations, the addition of new structures or volumes, partial demolition of existing elements, restoration of historical façades, and the integration of new interior elements. The analysis considers how these interventions relate to the original identity of the building and how successfully they accommodate new functions.

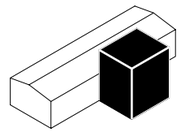
Through visual analysis, the degree of transformation—from minimal preservation to radical change—is assessed.

- ARCHITECTURAL RESTORATION



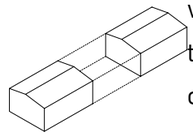
Interventions on the existing building that aim to preserve and enhance previous materials and solutions.

- NEW VOLUMES



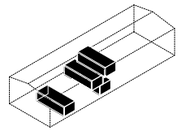
Expanding the existing structure by adding new volumes to create a larger complex.

- PARTIAL DEMOLITION



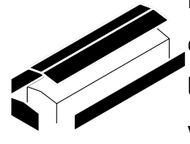
Keeping the structure while removing parts of the walls to open space and improve access.

- NEW INTERNAL VOLUMES



The exterior remains unchanged while new interior volumes and circulation paths are redesigned.

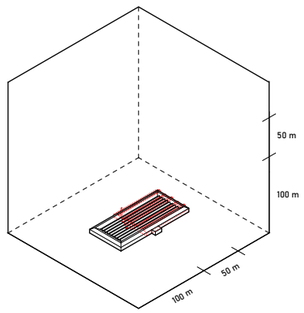
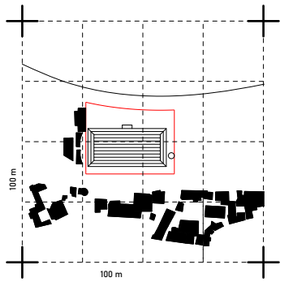
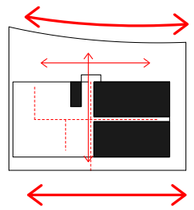
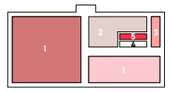
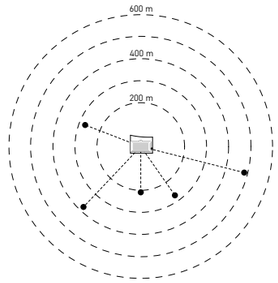
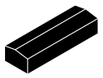
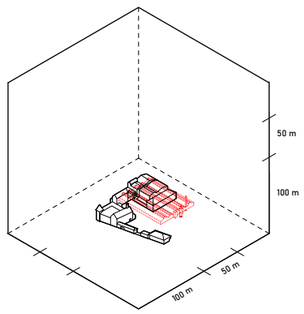
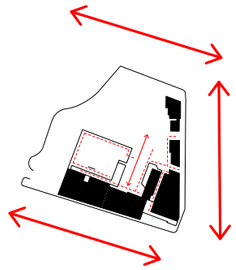
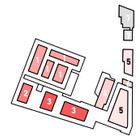
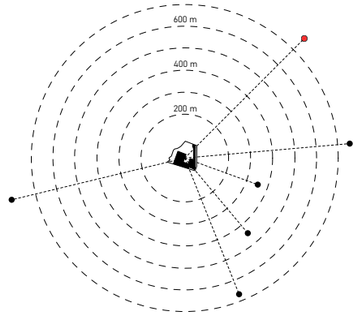
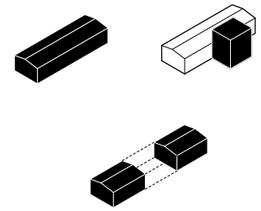
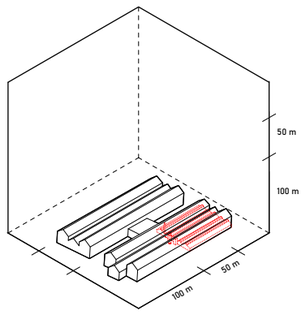
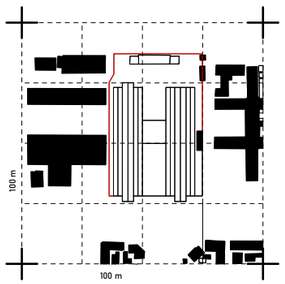
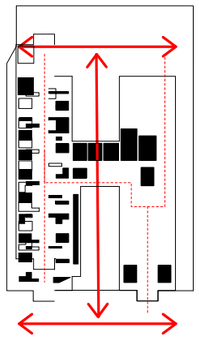
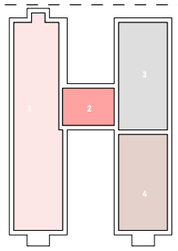
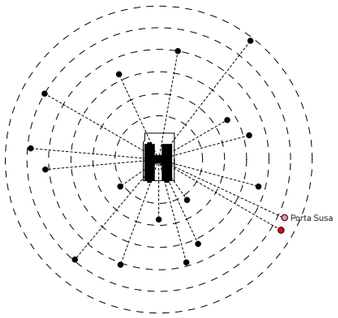
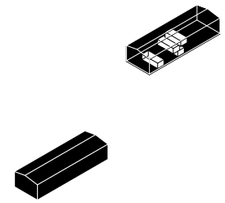
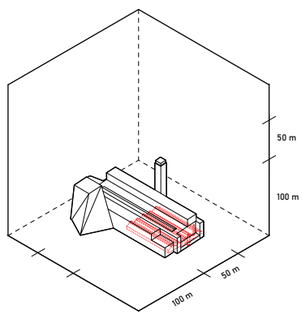
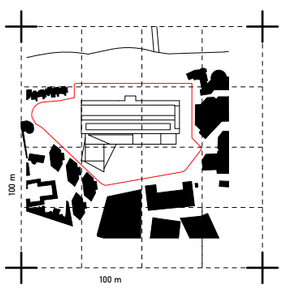
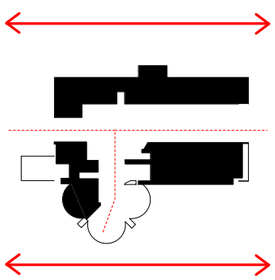
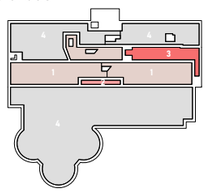
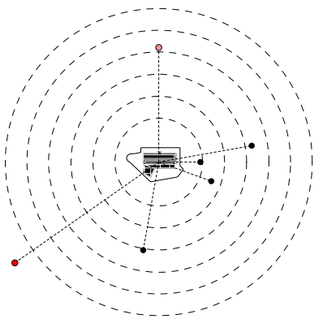
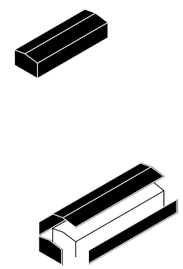
- NEW INTERNAL VOLUMES

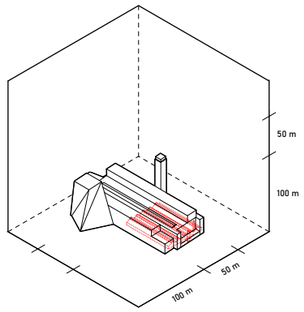
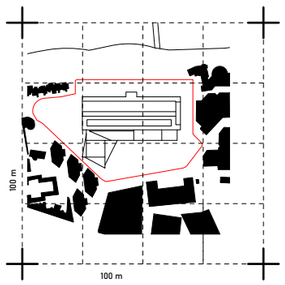
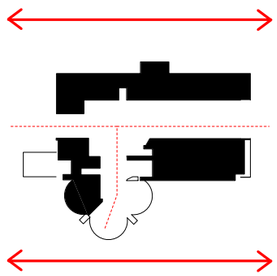
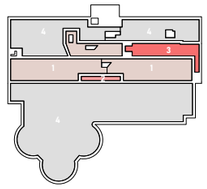
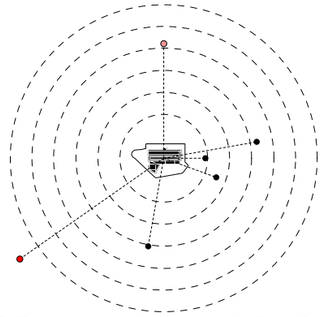
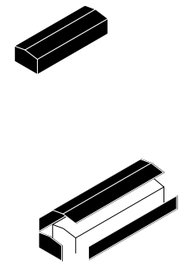
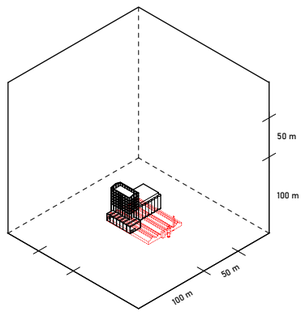
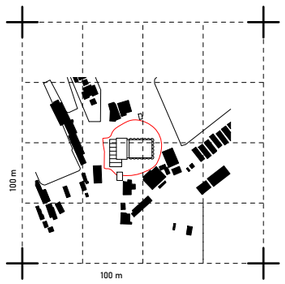
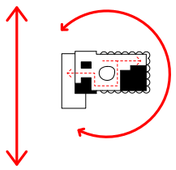
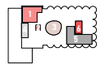
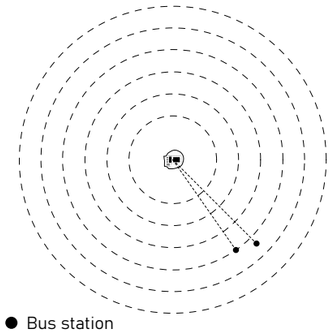
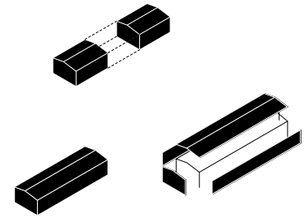
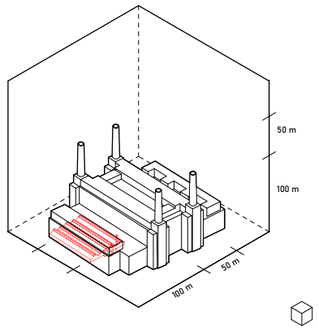
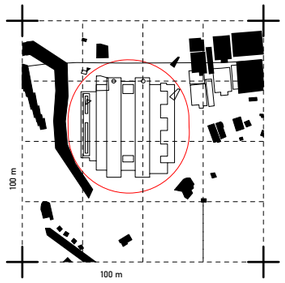
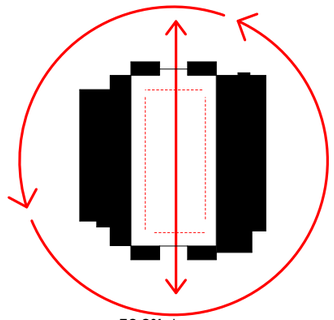
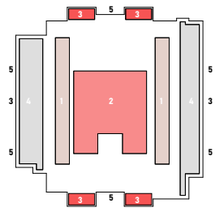
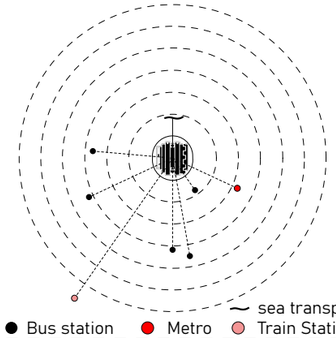
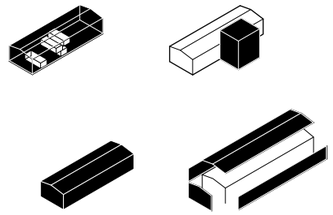
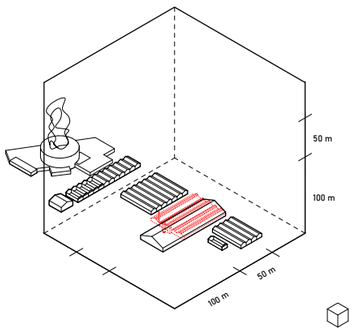
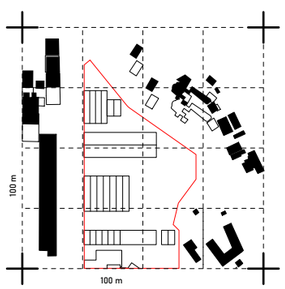
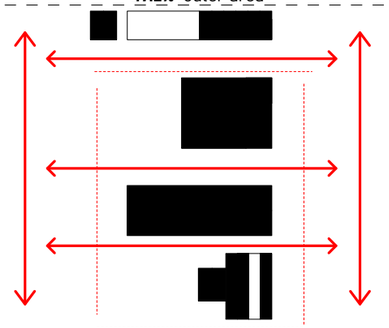
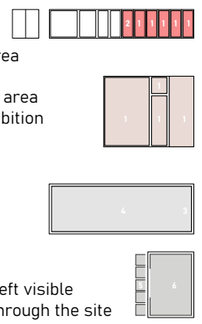
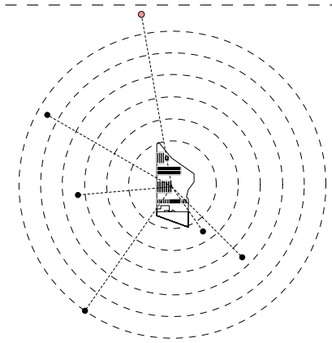
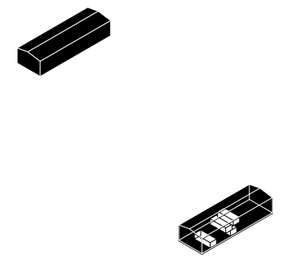


The structural system is preserved, while the existing envelope is fully or partially replaced with new opaque and

The structural system is preserved, while the existing envelope is fully or partially replaced with new opaque and transparent materials.

02. STUDY CASES
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

| | Volumetric Comparison | Site Footprint | Circulation | Important Changes | Transportation Line | Types of Intervention |
|---|---|---|---|---|---|---|
| **/01 FESHANE** Istanbul, Turkiye |  |  Feshane **21.600 m²** |  **49.2%** inner area **51.8%** outer area | 1. Exhibition area<br>2. Co- working<br>3. Conferance hall<br>4. WC<br>5. Service- Kithchen<br>  <br>/ Open Plan – Fluid transitions between spaces<br>/ Multi-Purpose Areas – Flexible spaces for events and performances.<br>/Spacious and airy exhibition areas preserved |  ● Bus station |  |
| **/02 BOMONTIADA** Istanbul, Turkiye |  |  BomontiAda **7.000 m²** |  **31,9%** inner area **68,1%** outer area | 1. Babylon performance hall<br>2. Bar<br>3. Atelier Istanbul<br>4. Caffe<br>5. Store<br>6. Info<br>7. Restaurant<br>  <br>/ Open Courtyards – Central open spaces encourage gathering and flow<br>/ Mixed-Use Interiors – Restaurants, galleries, offices and event areas coexist<br>/ Event Spaces – Flexible halls for concerts, talks, and exhibitions |  ● Bus station ● Metro |  |
| **/03 OGR** Turin, Italy |  |  OGR **35.000 m²** | **57,1%** inner area **42,9%** outer area  | 1. Offices for innovation<br>2. Food service<br>3. Exhibition space<br>4. Spaces for events<br>  <br>/ Flexible event spaces<br>/ Mixed Use – Culture, work, dining.<br>/ Accessible – Open and inclusive<br>/ Open Layout – Seamless interior flow |  ● Bus station ● Metro ● Train Station |  |
| **/04 THE TATE MODERN** london, England |  |  The Tate Modern **40.000 m²** |  **86%** inner area **14%** outer area | 1. Turbine hall<br>2. Info<br>3. Education Area<br>4. Services for public areas<br>  <br>/ Iconic central exhibition space<br>/ Flexible, interconnected rooms.<br>/ Free entry and open spaces. |  ● Bus station ● Metro ● Train Station |  |

| | Volumetric Comparison | Site Footprint | Circulation | Important Changes | Transportation Line | Types of Intervention |
|---|---|---|---|---|---|---|
| **/04 THE TATE MODERN** London, England |   |   The Tate Modern **40.000 m²** |  **86%** inner area **14%** outer area | 1. Turbine hall<br>2. Info<br>3. Education Area<br>4. Services for public areas  / Iconic central exhibition space<br>/ Flexible, interconnected rooms.<br>/ Free entry and open spaces. |  ● Bus station ● Metro ● Train Station |  |
| **/05 ZEITZ MUSEUM** Cape Town, Africa |   |   Zeitz Museum **7.500 m²** |  **38%** inner area **62%** outer area | 1. Museum Shop<br>2. Grand hall<br>3. Atrium<br>4. Entry<br>5. Storage<br>6. Gallery  / Old grain silos transformed into museum<br>/ Carved central space as sculptural core<br>/ Galleries stacked across floors |  ● Bus station |  |
| **/06 BATTERSEA** London England |   |   Battersea **45.000** |  **52.8%** inner area **47.2%** outer area | 1. Tirbune hall<br>2. Boiler house<br>3. Commercial entrance<br>4. Switch house<br>5. Entrance  / Spacious, flexible layouts.<br>/ Open to visitors and locals.<br>/ Key part of city regeneration. |  ~ sea transport ● Bus station ● Metro ● Train Station |  |
| **/07 LUMA ARLES** Arles, France |   |   Luma Arles **65.000 m²** |  **30.1**inner area **69.9%** outer area | 1. Exhibition<br>2. Cafe<br>3. Cultural event area<br>4. Scipio bar<br>5. award exhibition area<br>6. Feminist art exhibition  / Original textures left visible<br>/ Open circulation through the site<br>/ Outdoor gathering and exhibition areas |  ● Bus station ● Train Station |  |

THIRD CHAPTER

# OTTOMAN MATCH FACTORY



03

## 3.1 Kucukcekmece in Ottoman period

Rhegion (modern Küçükçekmece) was a western suburb of Constantinople in Thrace on Küçükçekmece Lake. Justinian built a bridge across the Myrmex, which connected Küçükçekmece Lake to the Marmara Sea (Freely, 2011). After the conquest of Istanbul, in 1455, when Fatih Sultan Mehmed II was returning from Edirne, he ordered the repair of the Rhegion Bridge (Ayverdi, 1972). He also had the road improved and had accommodations built, and thus, Rhegion once more became important as one of the stopover points on the caravan route connecting Istanbul, capital of the Ottoman Empire to the West (Eyice, 1983)."

Küçükçekmece, located on the intercity road leading to the re-established capital, became an important Turkish town. However, the Turkish town was not located on the hill where the old ruins were; it was located on the western slope of this hill and on the plain by the lake, and the remains of the old buildings on the higher ground were used as building blocks for new buildings, and the upper parts of the slope became cemeteries.

The name of the area turned into Çekme-i Küçük, meaning, "Küçükçekmece" in that era.

"We see that very significant construction and public works were being undertaken in Küçükçekmece during the reign of Suleiman the Magnificent. During this period, Chief Defterdar Abdüsselam Bey had a mosque, a madrasah, a derwish lodge, and a soup kitchen erected on the slope commanding the lake (İnalcık, 2000).He founded many foundations for these buildings. Historical artifacts and records underlie the fact that Abdüsselam Çelebi was the greatest contributor to the construction and development of Küçükçekmece."

The sultans periodically would construct small summer palaces and hunting lodges around Küçükçekmece, utilizing the lake as a hunting field (Küçükçekmece Belediyesi, 2019). The saddlers, smiths, farriers, and eateries that catered chiefly to itinerants started up in Küçükçekmece, which was a transfer and resting place by virtue of its strategic position on the road. By the late seventeenth century, the town half of whose inhabitants were Greeks and half Turks was called Mikrorio by the Greeks (Greek Orthodox Patriarchate of Constantinople, 2002).





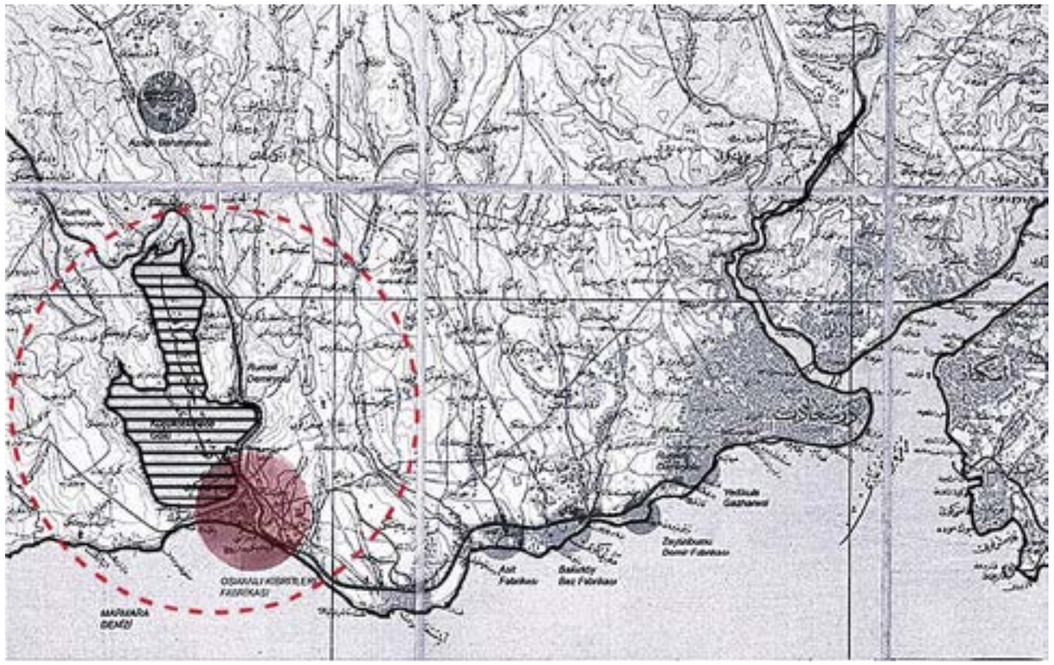



**Figure 73.** Erdoğan (2012). Marmara Industrial Coastline In Istanbul.

**Figure 74.** Salt Research Archives (1903). Küçükçekmece Lake, Rhegion Bridge, Istanbul, Turkey.

In 1870 a customs port was built in Küçükçekmece, a sub-region of the Istanbul Customs, and in 1883, the Küçükçekmece Lake was turned into a customs harbor (Baykara, 2002). Close to Küçükçekmece, a match factory with French capital was set up in the late 19th century, though it ceased operations rather unprofitably (Pamuk, 2004). This structure still exists at the Menekşe beach today.

Following the establishment of the gunpowder factory, this match factory is considered an early industrial pioneer in the area. As the end of the 19th century approached, the area was already in decline due to mass migrations, a state of unrest, malaria epidemics stemming from swampy surroundings of the lake, and a rerouted trading path (Karpat, 1985). The region was struck by the earthquake of 1894 that heavily damaged Istanbul, with several mosques and Orthodox churches being brought down (Eldem, 2000). Around Küçükçekmece Lake, there used to be numerous farms. The last one of those farms, named after its owners, was the Baruthane Farm, which after the sale of its land in 1908 became the holding of the family of Resne'li Niyazi Bey (Küçükçekmece Belediyesi, 2019).

Most of these farms today have disappeared, and their lands have become urbanized. As per the census of 1878, there were 1824 inhabitants, constituting a town with half Turkish and half Greek population until the First World War (Turkish Statistical Institute, 1878). But this balance was altered due to the settlement of Turks from Bulgaria in 1912.

Following the proclamation of the Republic in 1923, Turks coming from Greece were settled on the lands vacated by the Greeks who fled under the exchange program (Aktar, 2000). The military depots were set up in the territory known as "Aminagos" in Avcılar, vacated by the Greeks and called "Ambarlı". In 1935 immigration of Turks from Greece continued into Küçükçekmece and Avcılar, also followed by immigrants from Yugoslavia and Bulgaria in 1954. Küçükçekmece and Avcılar were once popular summer and tourist havens of Istanbul. Küçükçekmece, in particular, was famous for its butchers, meat, and kebab places. With the rapid growth of population and urbanization, Avcılar and Küçükçekmece were separated from Bakırköy District in 1987 and declared two different districts (Ergin, 1939).

Küçükçekmece Lake, Mimar Sinan Bridge, Istanbul, 1903
archives.saltresearch.org





**Figure 75.**. Küçükçekmece Lake, Rhegion Bridge, Istanbul. Salt Research Archives. 2025

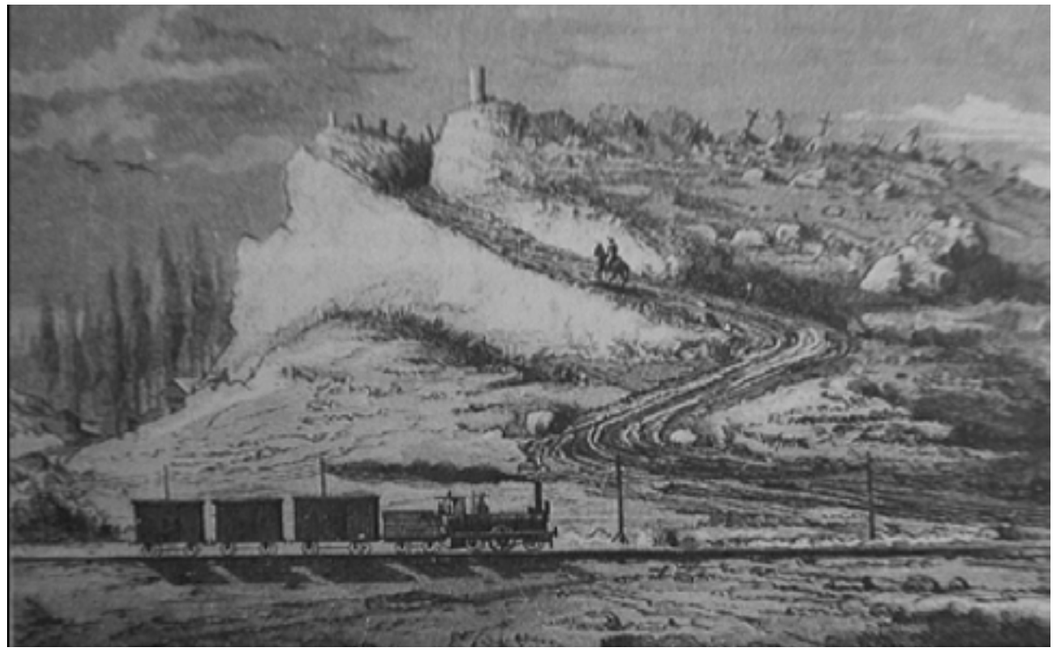


**Figure 76.**. Küçükçekmece Lake, Rhegion Bridge, Istanbul. Salt Research Archives. 2025

03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

**Figure 77.** The Byzantine Legacy. (2021.). Küçükçekmece Bridge and Surroundings

**Figure 78.** Salt Research Archives (1903). Küçükçekmece Lake, Rhegion Bridge, Istanbul, Turkey.

## 3.2 Nowadays Kucukcekmece

The Küçükçekmece district is currently at the center of important highways such as the Transit European Motorway, which provides the Asia-Europe connection to Istanbul (İBB, 2023). In addition to highways, it also hosts a rail transportation network. There are three important lines of rail transportation. The Sofia Express, which departs from Halkalı and goes to the Balkans, the Marmaray, which goes to Gebze, and the high-speed train network in the direction of Ankara and Konya (TCDD, 2023). All these transportation networks make the strategic location of the district important. Hundreds of people benefit from these transportation networks, which have become a part of daily life in the Küçükçekmece district, every day.

Today, we see that the population is co centrated around the Kucukcekmece lake (Küçükçekmece Belediyesi, 2022). The district, which is 17 km away from the historical peninsula of Istanbul, has been tried to be integrated with different means of transportation over time to the peninsula and the Bosphorus. In particular, by integrating the infrastructure advantage brought by the rail line from the past with the Marmaray transportation line, which connects two continents, Asia and Europe, today, it has facilitated transportation from different points of the city to the district and the lake..

Kucukcekmece is home to many monumental structures. One of the main reasons for this is that it has found a place for itself as a stop and passage area for many intercontinental passages thro ghout history (Küçükçekmece Belediyesi, 2022). When we look at the monumental structures, the mosque is distributed as 10%, the fountain is 40%, the bath is 15%, the inn is 5%, the bridge is 15%, the complex is 5%, and the tomb is 10%.

In terms of natural assets that are part of cultural assets, especially around religious buildings, monumental trees that have reached old age have been selected and accepted as natural treasures in time. (Orman Genel Müdürlüğü, 2020). Apart from this, there are 7 different tree species, these are Aesculus, Juglans, pine, Platanus, Celtis, Pistacia lentiscus, Cupressus.

According to the publications and observations made in Turkey, it has been determined that 492 bird species are seen in Turkey in the Turkey Bird List published on the TRAKUS website. Approximately 34 percent of this number is seen in the Küçükçekmece district (TRAKUS, 2024). In this context, Küçükçekmece, which is a passage point with a history for people, is also a passage stop for birds.


**Figure 79.** Photo by autor. (2025). Marmaray Railway Kucukcekmece Station.

03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY


**Figure 80.** Photo by autor (2025). Rhegion Bridge view From Marmaray Railway Station.

## 3.3 Kucukcekmece with Data Analysis

### Surface Area

While examining the location of Kucukcekmece district within the city with data analysis within Istanbul, the general outline of the district is shown as data. In terms of population, it ranks 2nd among a total of 39 districts, 25 of which are in Europe and 14 on the Anatolian side.

**Figure 81**..Istanbul and Kucukcekmece Province Surface Area

**5.343,22 km²**
Istanbul

**37,75 km²**
Kucukcekmece

### Annual Demographic Change

**Population increase and decrease percentage by province and district**
(2007 - 2024)

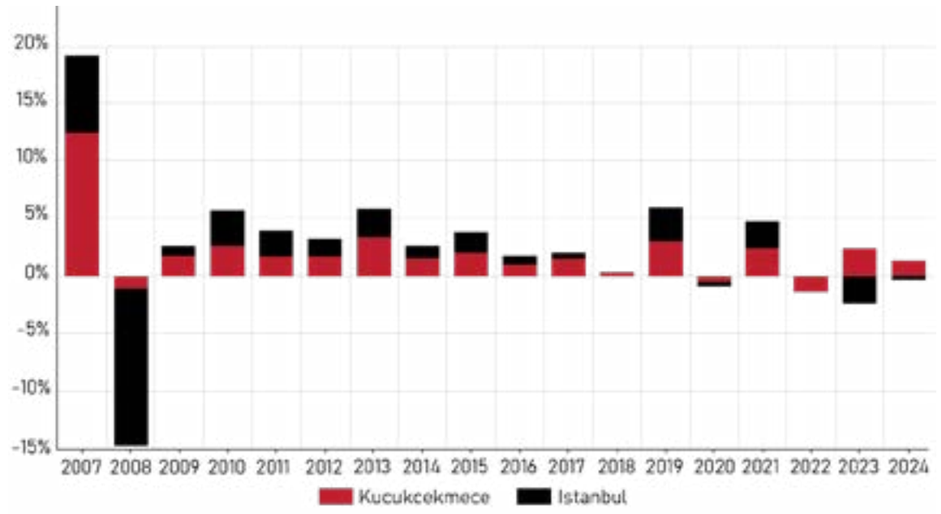
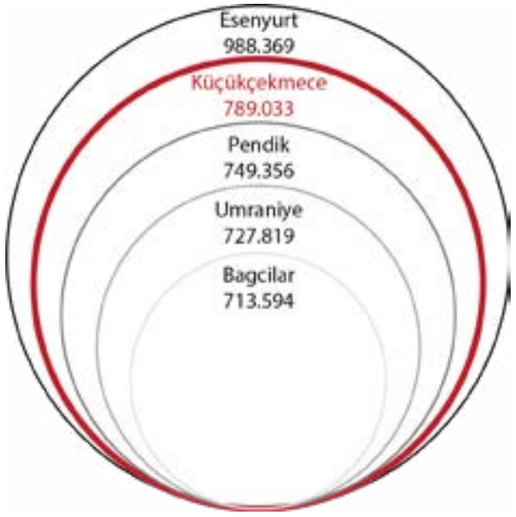



**Figure 82**.. Endeksa. 2025 Küçükçekmece real estate market analysis.





### Population




When the first 5 among the 39 districts are examined, Kucukcekmece ranks 2nd in terms of population. When the populations of all districts are added together, the total population of Istanbul is:

**15.701**
**Million**

**Figure 83**. Nufusu. 2024 Population by provinces

### Age Groups

**Population increase and decrease percentage by province and district**
(2007 - 2024)

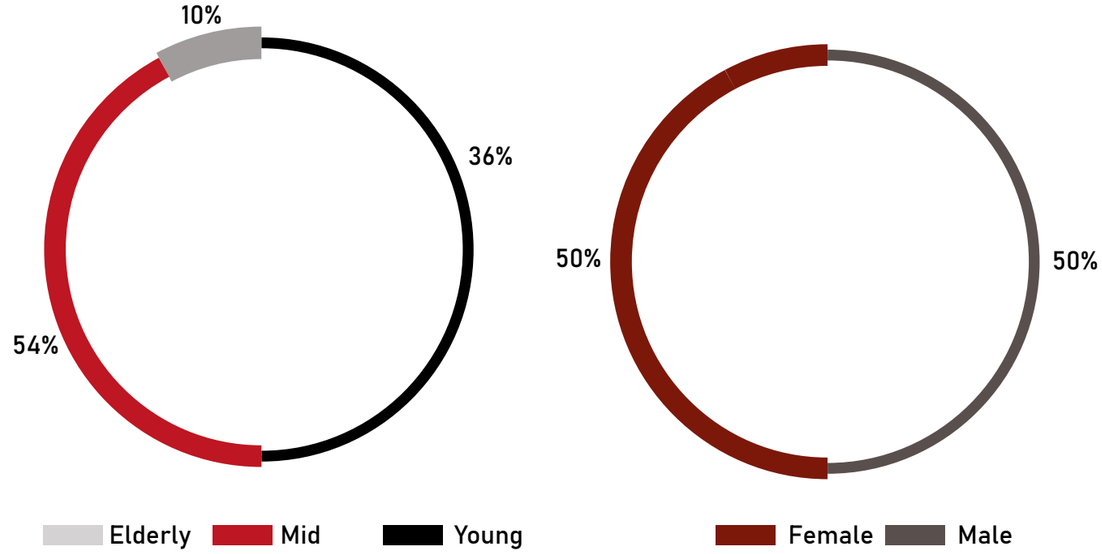



**Figure 84**. Endeksa. 2025 Küçükçekmece Age Groups

## Population distribution by age

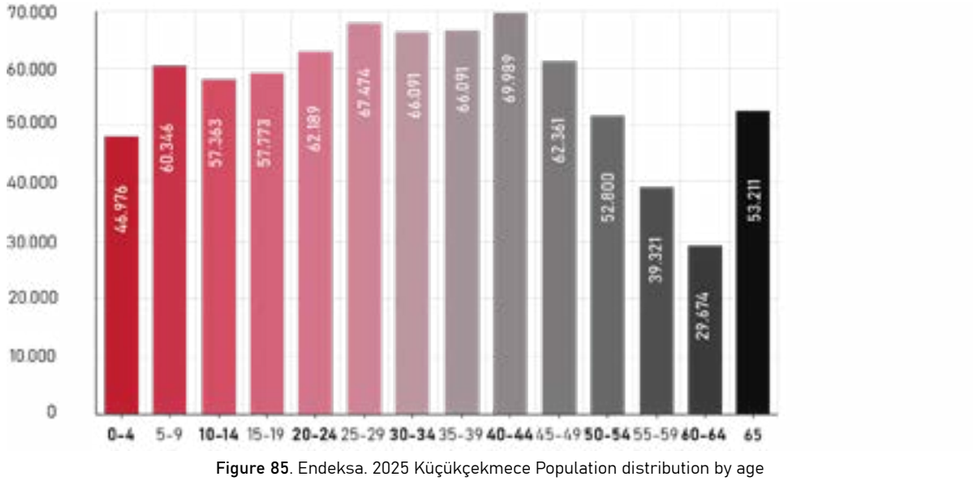
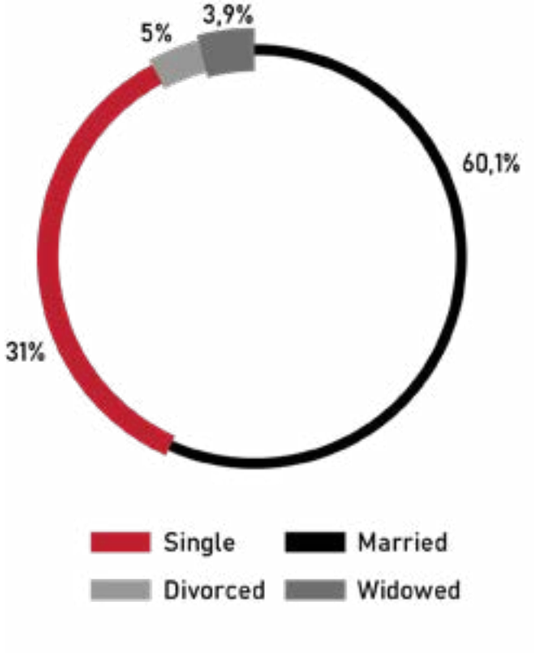



**Figure 85**. Endeksa. 2025 Küçükçekmece Population distribution by age

## Marital Status Ratio




## Socio-economic Status Ratio

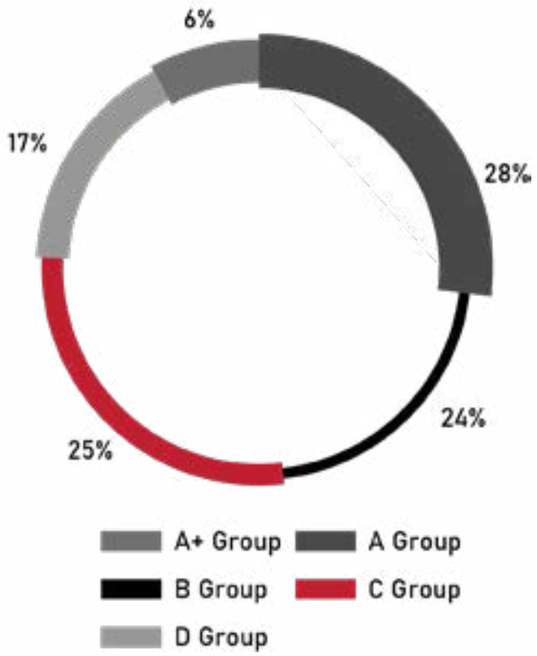



**Figure 86**. Endeksa. 2025 Küçükçekmece Marital Status Ratio and Socio-economic Status Ratio

Female population: 397,387 Male population: 394,643, but almost balanced. In terms of births, Küçükçekmece is among the top 3 districts of Istanbul with 8,911 births in 2023





## Level of Education

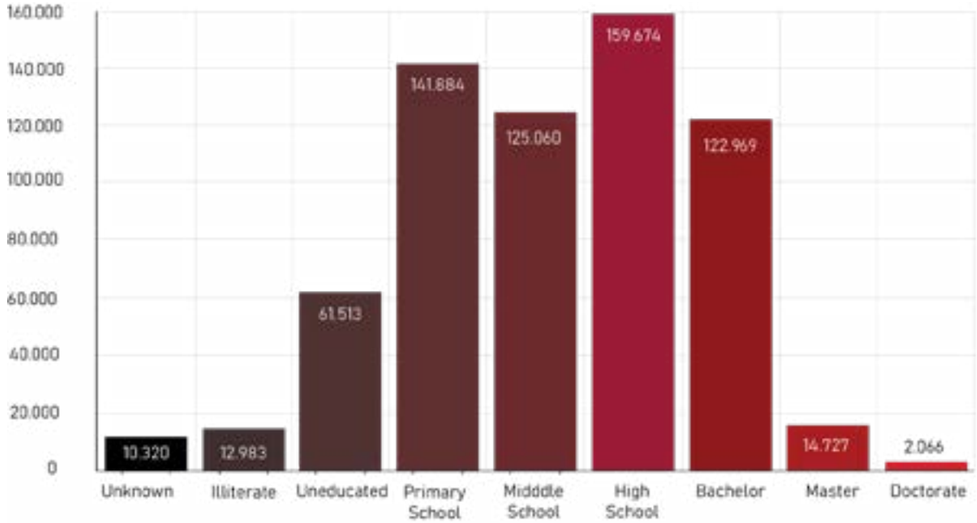



**Figure 87**. Endeksa. 2025 Küçükçekmece Level of Education..

In the Kucukcekmece district, 63% are state schools and 27% are private schools. Private schools with significant potential in the district mostly serve at the kindergarten level. 71% of the teachers in the district work in state schools and 29% in private schools. 87% of the students are in state schools.

## Kucukcekmece district's strategic goals for 2025 - 2029

The objectives of our Municipality's 2025-2029 Strategic Plan have been linked to the 2030 United Nations Sustainable Development Goals. Planning has been made to ensure economic, environmental and social improvement in line with these goals.

Creating a livable and durable urban architecture by strengthening spatial development.

Creating a healthy and livable environment by increasing the amount of green space

Being prepared for disasters and emergencies.

To increase the quality of life of citizens by strengthening their education, culture, arts, sports and social structure.

To provide services based on equal opportunities in line with the principles of Social Municipality.

To be a healthy, peaceful and safe city that respects the right to life of all living beings.

Data Source: Kucukcekmece Municipality / Kucukcekmece Strategic Plan 2025 - 2029

03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

## 3.4 Area Surrounings within the scope of the Ottoman Match Factory

ISTANBUL STREET

D100 HIGHWAY

Kucukcekmece Lake

KUCUKCEKMECE

AVCILAR

BAKIRKOY

Marmara Sea

D100 HIGHWAY

CEKMECE STREET

3 km
2.5 km
2 km
1.5 km
1 km
500 m

**Legend**

- Ottoman Match Factory
- Buildings
- Green areas
- Points of Interest
- Kucukcekmece Lake
- Marmara Sea
- Province Borders
- Distance ( Every 500 )
- Roads
- Internal Roads
- Railway

**Important places around the project scope**

1. Kucukcekmece Square
2. Marmaray Railway Station
3. Yasar Kemal Art House
4. Menekse Beach
5. Basınkoy Mosque
6. Cennet Mosque
7. Yavuz Sultan Selim Mosque
8. Halide Edip Adıvar Library
9. Cennet Culture and Art Center
10. Yesilova Esnafspor sportclub

Ottoman Match Factory Area

0 250 500



**Figure 88**. Created by autor (2025). Area Surrounings within the scope of the Ottoman Match Factory.

## 3.4.a. Building and Regional Context

Küçükçekmece is among the most populous districts of Istanbul (İBB, 2023). As the city expanded from the historical peninsulaand its surroundings, the area that was once considered the periphery of the city gradually gained a district identity, and today the periphery of the city has moved to other districts beyond the district. The population of the 21 neighborhoods affiliated to Kucukcekmece Municipality is generally concentrated in the northern neighborhoods (Küçükçekmece Belediyesi, 2022). Since these areas were formed by irregular migrations over time, the neighborhoods are structurally more irregular and the age of the buildings is generally older.

The project area is located on a very valuable plot of land at the intersection of the Sea of Marmara and Lake Kucukcekmece (ÇŞB, 2021). The project area and its surroundings are generally close to green areas and the transportation networks passing by isolate the building settlements from the east. While a more irregular and older construction is seen towards the north of Küçükçekmece, in the neighboring district of Bakırköy, the development rights were acquired later. and its proximity to the Sea of Marmara have caused the area to be more valuable and relatively newer and more or-





More modern and new buildings, especially high-rise residences, are emerging in the neighboring districts and on the streets parallel to the sea (Erkip, 2001). Of course, this affects the region in terms of socio-economic and residential diversity.

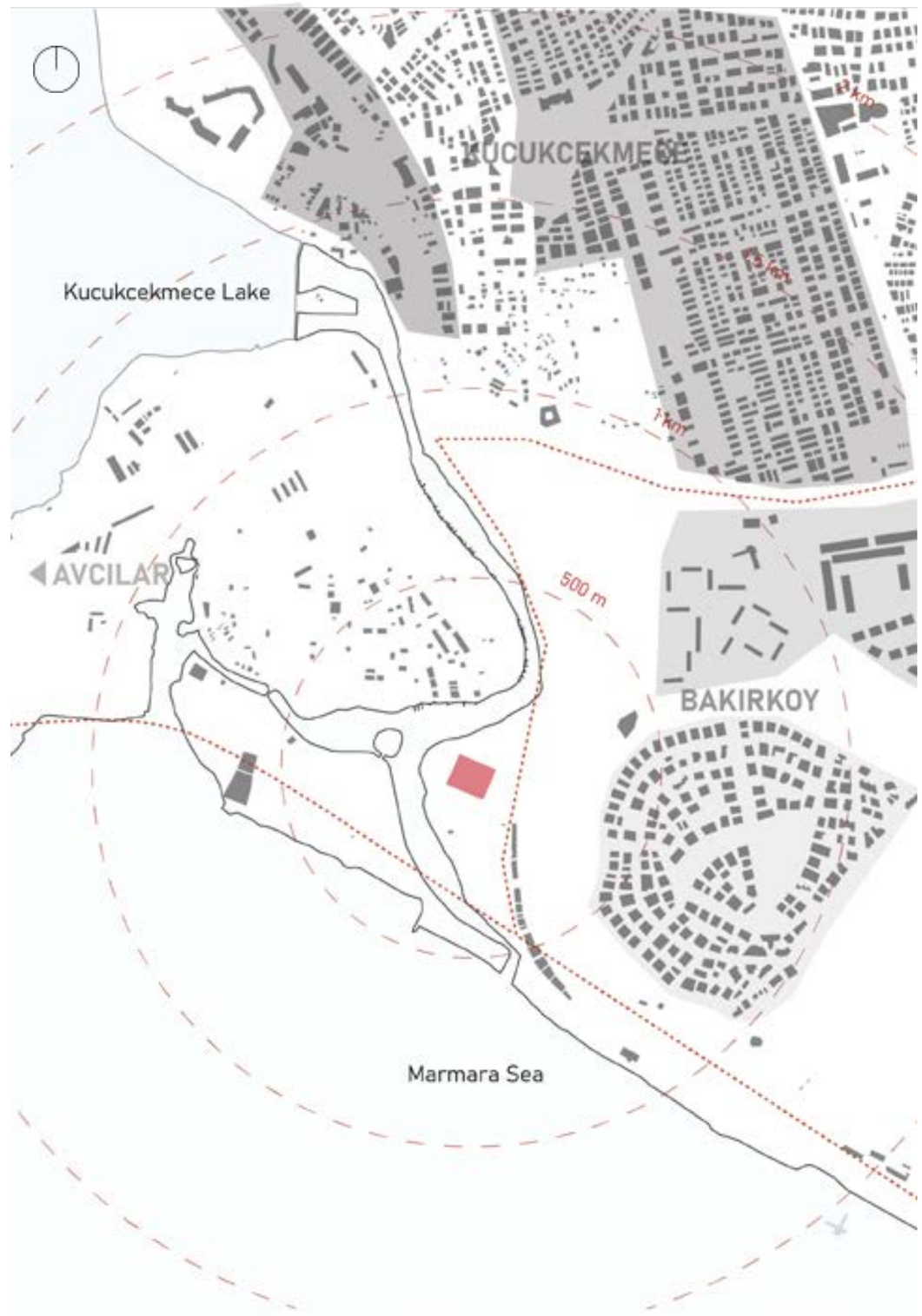



**Figure 89**. Created by autor (2025). Building and Regional Context

## 3.4.b Mobility System in the Area

The project area, located in the Küçükçekmece Lake and Marmara Sea region, is also located in an area where transportation networks intersect (İBB, 2023). The region is in an accessible position in terms of transportation networks and connections, with the D100 highway extending to the Bosphorus and the Marmara Sea coast running parallel to the road connecting the surrounding lake shores and the Marmaray rail line connecting the Anatolian side to the European side extending to the region.

Although there are many bus stops spread around the project area, the main density is at the station stop of the Marmara rail line because this line makes it easy to reach places that are far from the region (TCDD, 2023). Although the irregular structuring in the region mostly appears as private parking lots in the densely populated areas of the district, there are also parking lots created and supported by the metropolitan municipality and the district municipality (Küçükçekmece Belediyesi, 2022). Since the region has weak points in terms of pedestrian transportation integration, pedestrian crossings, sufficient pavement widths and discontinuities in the pedestrian axis can be seen in some areas.

However, the region is a developing region and has implemented regulations regarding pedestrian paths, especially for the lakeside environment, from past to present. (Çelik & Yüceer, 2020). In addition, the lack of an integrated bicycle path in an area and beyond is also observed (Çelik & Yüceer, 2020). When looked at in general, the region where the project area is located appears to be a more integrated and densely balanced area compared to the surrounding areas and the town center.





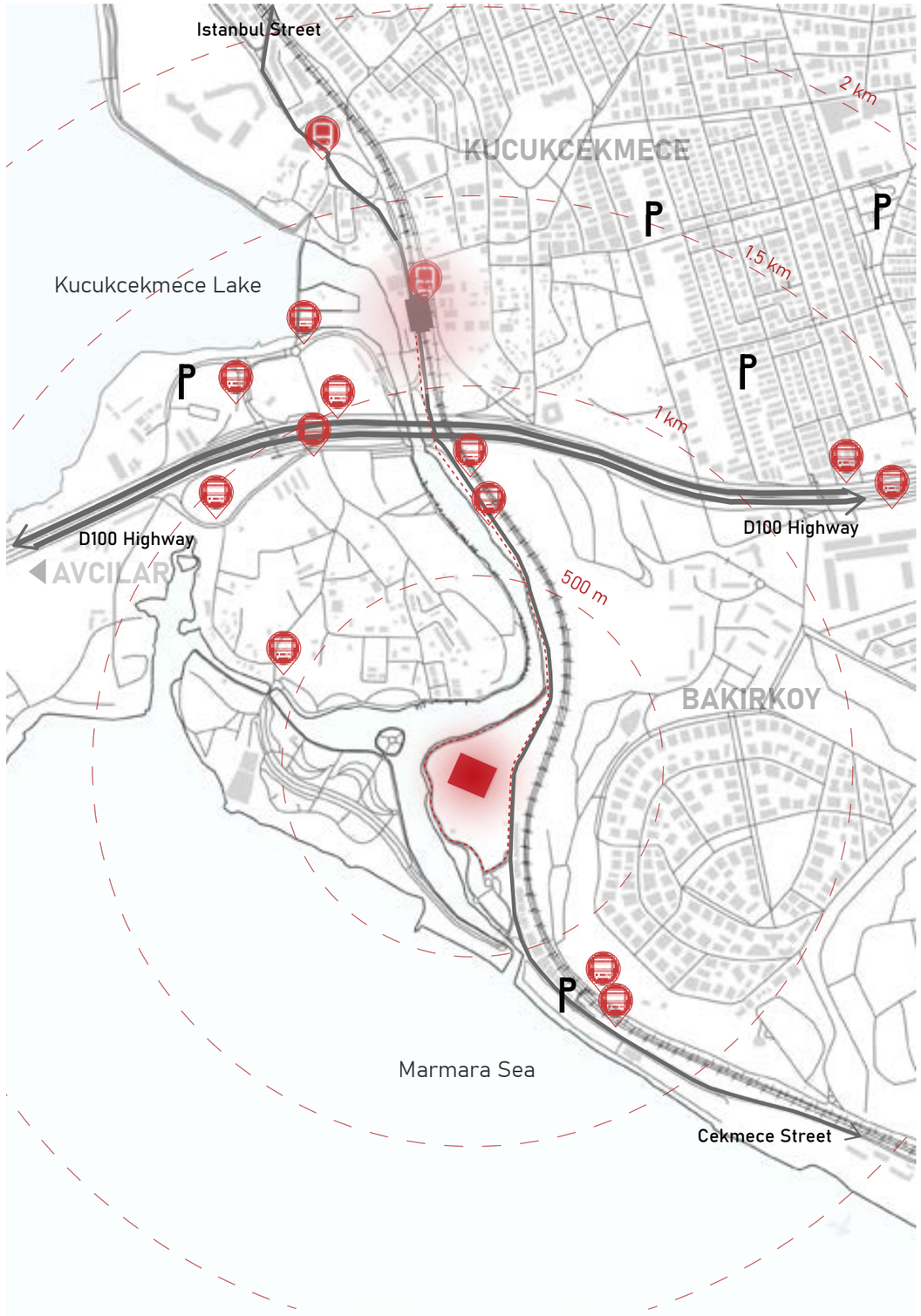




**Figure 90**. Created by autor (2025). Mobility system in the area

## 3.5 SWOT STRENGHTS / WEAKNESSES / OPPORTUNITIES / THREATS

Kucukcekmece and neighboring regions within the scope of the Project Area


**Figure 91**. Created by autor (2025). SWOT Analysis, Strenghts & Weaknesses.





| SWOT | STRENGHTS<br>Strong Points | WEAKNESSES<br>Weak Points |
|---|---|---|
| **Environmental** | Locate near green areas where the sea and lake meet. | Green areas an relatively regular coastal areas are limited to the south of the district. |
| | The district has a beach and Its suitable for water sports. | Weak water activity diversity and incentives. |
| | The district has an industrial production history. | Inadequate industrial area transformation and disconnection from the environment. |
| **Social and Cultural** | There are historical places such as the Rhegion brige. | Lack of promotion of cultural an historical sites. |
| | There are many educational institutions throughout the district. | There are not enough study areas outside of education institutions. |
| | There are indoor, outdoor an e-sports sports areas | Lack of adequate sports facilities an activities |
| **Mobility** | Integration of coastal roads with D100 highway. | Zebra crossing and pedestrian path connections. |
| | Lake shore walking path between beach and Marmaray. | Pedestrian path integration and bicycle path. |
| | Easy access to parking areas. | Not enough parking lot. |
| **Demography** | There is diversity in the district with foreign residents. | Since nearly 20% of the istrict population is foreign, a residence restriction has been imposed. |
| **Economic and Politic** | Economical resource acquisition with zero waste project. | Insufficient incentives and weak social awareness regarding zero waste. |


**Figure 92**. Created by autor (2025). SWOT Analysis, Opportunities & Treats.





| SWOT | OPPORTUNITY<br>Potantials | THREATS<br>Risks |
|---|---|---|
| **Environmental** | Increasing green areas and parks attract different types of users to the region. | Pollution that may be brought about by the density that may occur due to the attration of the region. |
| | Suitability for water related activities due to its location. | Further increase in the pollution level of Kucukcekmece lake |
| | In areas with green areas, ground surface temperatures can be more balanced. | Increase human density from areas with high ground surface heat stress to green areas. |
| **Social and Cultural** | Existence of historical sites in the district creates tourism potential. | Lack of social awareness in the protection an preservation of historical areas. |
| | Having a heritage area suitable for transformation in terms of area and structure in the district. | Lack of quality of urban plans and unplanned urbanization |
| **Mobility** | Having many transportation networks. | The increase in density of transportation networks over time. |
| | Having Transportation diversity. | Integration of pedestrian paths may pose a danger due to increased human density. |
| **Demography** | The district has a young, dynamic and diverse population. | The deterioration of the demographic structure due to external migration and the inadequacy of services. |
| **Economic and Politic** | The need and creation of new public spaces | High expropriation costs. |

## 3.6 Ottoman Match Factory

The Match factory, which is the project area, is located in Küçükçekmece Fatih Neighborhood, Florya Asfaltı Street on the European side of Istanbul, which is spread over two continents, Asia and Europe (Küçükçekmece Belediyesi, 2022). The state factories established during the Tanzimat period of the Ottoman Empire were generally expected to meet the needs of the army (Özgüven, 2005). During the 19th century, efforts to complete industrialization in the Ottoman Empire intensified. The establishment of new factories was encouraged through commercial agreements with exemptions from taxes and customs and some privileges. The lack of sufficient capital among local investors meant that foreign-capital companies began operating in the market under the tariff regime established by commercial agreements (Pamuk, 2004; Quataert, 1994). One of these initiatives was the French request for a match factory in Istanbul. The French established the Kav and Kibrit Osmanlı Şirketi in the second half of the 19th century with the aim of establishing a modern match factory in Istanbul (BOA, 1875; Eldem, 2012).

The Match factory, which is the project area, is located in Küçükçekmece Fatih Neighborhood, Florya Asfaltı Street on the European side of Istanbul, which is spread over two continents, Asia and Europe


**Figure 94**. Created by autor (2025). Ottoman Match Factory Location.

**Figure 93**. Photo by autor (2025). Ottoman Match Factory. .





## 3.6.a History of Ottoman Match Factory

On May 28, 1892, a request was made for a 50-year manufacturing and sales privilege on behalf of the match factory. The privilege proposal and the conditions declared, evaluated by the Ministry of Commerce and Public Works, were deemed appropriate by the delegation. The Sultan approved the privilege right of the company named Ottoman Matches Joint Stock Company (Société Anonym les Allumettes Ottomanes) established with French capital with his decree dated 1901. (Erdoğan, 2012)

According to agreement, after 6 months from the contract start date, the Ottoman government and the company will determine the location where the factory will be built and start construction. The first land suggestion was presented due to the emergence of a demand for suitable land for the factory. The land, which was found suitable especially due to its distance from the settlement, is located in the region called Florya, 1 kilometer away from Kucukcekmece, close to the railway. (Erdoğan, 2012)

Thereupon, the Istanbul Municipality decided to prepare a report to determine whether the place chosen in Küçükçekmece was suitable for establishing a factory. For this purpose, a technical committee was sent to the place in question by the Ministry of Trade and Public Works on November 5, 1892. In the report of the officials who conducted the investigation regarding the selection of the location, it was stated that it would be harmful to build the factory in the area near Küçükçekmece Lake and the railway, and therefore the location determined for the establishment of the match factory was abandoned. For this reason, a new location proposal was made by the company where the match factory would be established. (Kıraç, Coşkun, & Erdoğan, 2018)

Opposite is the Marmara coast, on the other two sides are the property fields of the Barutcu Pashas. Accordingly, the suspicion that there might be physical damage due to its proximity to the railway and gunpowder factories and especially the newly established neighborhoods and the proximity of flammable and explosive materials to be stored for the purpose of match production to these areas led to the conclusion that the previously examined place was found to be less dangerous than here. (Erdoğan, 2012)

03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY


**Figure 95**. Ottoman Military Academy Printing House. (1914-1915). Ottoman Match Factory Parcel Proposal Map

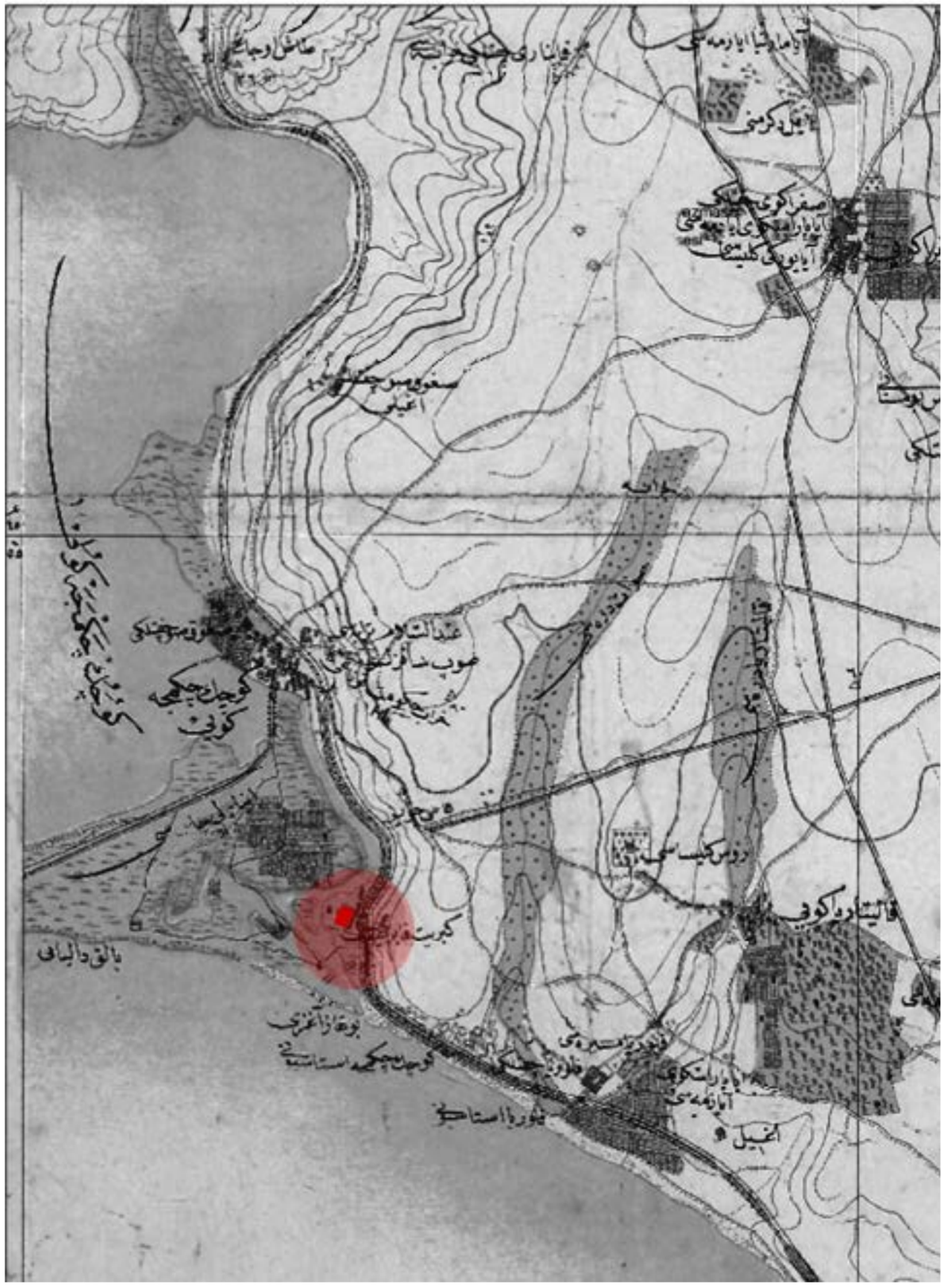


**Figure 96.** Ottoman Military Academy Printing House. (1914-1915). Ottoman Match Factory Parcel Proposal Map.

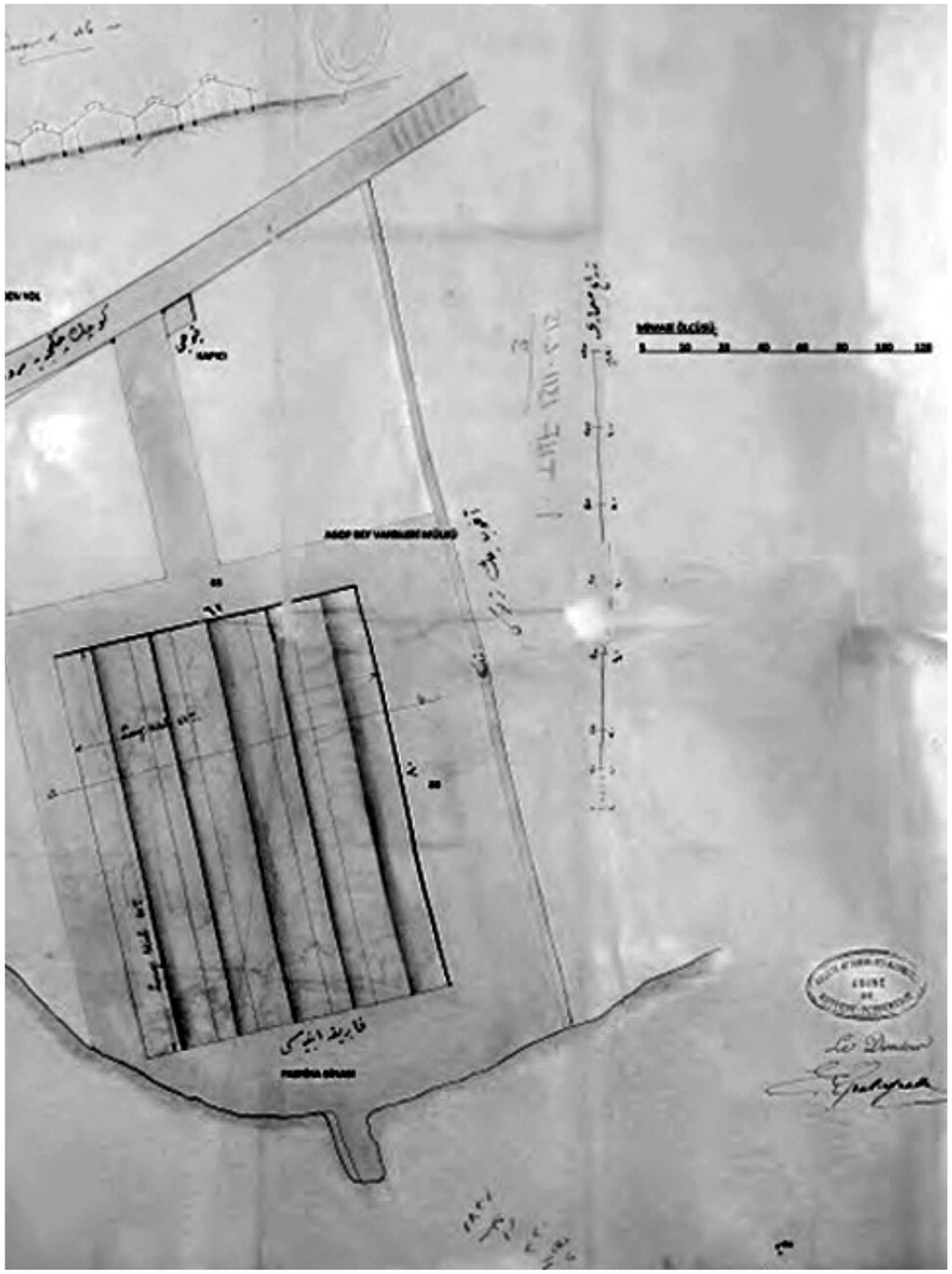




Thereupon, the Istanbul Municipality decided to prepare a report to determine whether the place chosen in Küçükçekmece was suitable for establishing a factory. For this purpose, a technical committee was sent to the place in question by the Ministry of Trade and Public Works on November 5, 1892. In the report of the officials who conducted the investigation regarding the selection of the location, it was stated that it would be harmful to build the factory in the area near Küçükçekmece Lake and the railway, and therefore the location determined for the establishment of the match factory was abandoned. For this reason, a new location proposal was made by the company where the match factory would be established. (Erdoğan, 2012)

Opposite is the Marmara coast, on the other two sides are the property fields of the Barutcu Pashas. Accordingly, the fact that it is close to the railway and gunpowder mills and especially to the newly established neighborhoods and the suspicion that physical damage could be caused caused the previously examined location to be found to be less objectionable compared to this one. The first location on the shores of Küçükçekmece Lake was deemed negative at first choice because it was close to the railway and the materials used were flammable, but as a result of the report created as a result of the examinations,it was agreed that the materials that caused concern (chlorate and potash) would be stored in a brick cellar to be built by the company in the northeast of Küçükçekmece Lake under the protection of the Azadlı Gunpowder Factory, at a location indicated by the Gunpowder Factory. Thus, on September 15, 1893, the Sultan's will granted a license to build a match factory in Küçükçekmece. According to the interview published in the Servet-i Fünun Newspaper on September 22, 1898, this interview with Monsieur Taverniye, who founded the Ottoman Joint Stock Company and obtained a concession from the Ottoman Empire with the agreement he made to have the match factory built between Lake Küçükçekmece and the Edirne Railway, states that the factory has been operating since, 1897. (Kıraç, Coşkun, & Erdoğan, 2018)

The factory built in Küçükçekmece by the Ottoman Matches Company with a capital of 1 million Francs could not operate for a while due to some reasons. As for the termination of the concession period, this was made necessary by taking into account the company's behavior contrary to the contract and the concession provisions automatically ended. Therefore, it was decided to take the necessary actions regarding the contract in order to protect both the company and the factory and equipment that the Ottoman Match Company had placed in Küçükçekmece on behalf of the Ottoman government. (Kıraç, Coşkun, & Erdoğan, 2018)

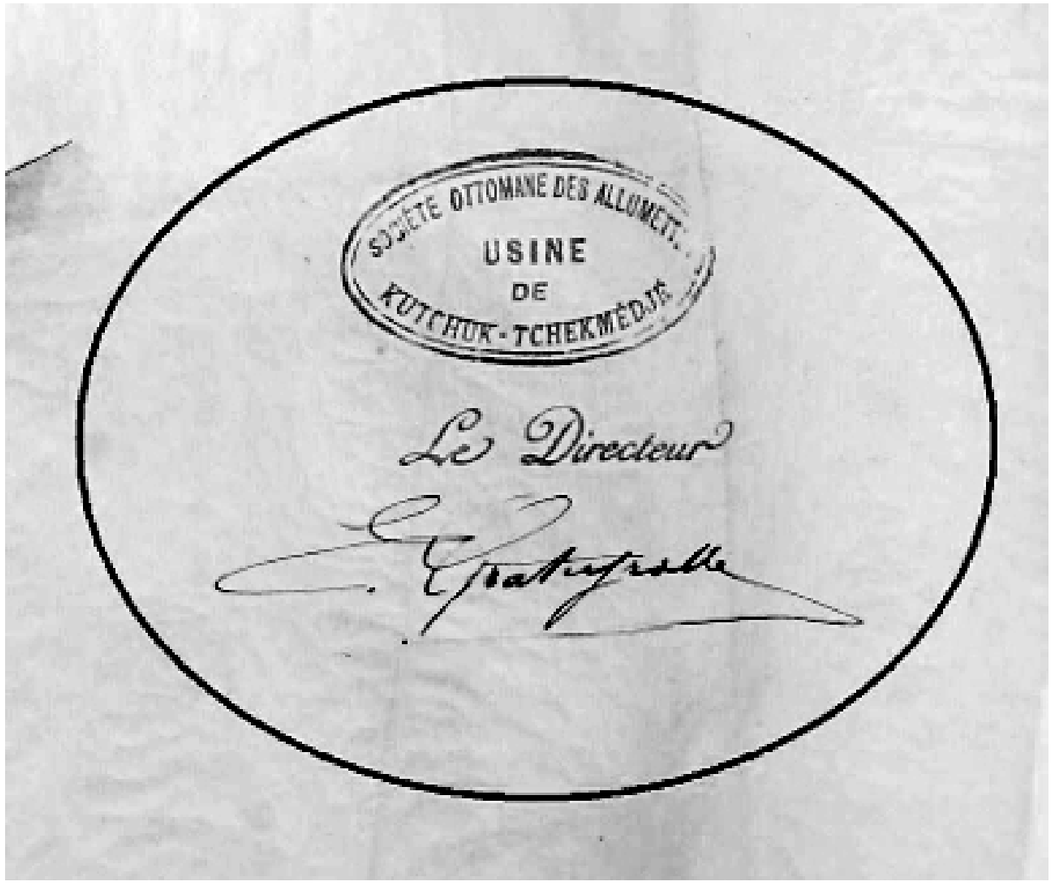


Plan and details of the factory among the State Council documents.

**Figure 97.** Erdoğan, D., Kıraç, A. B., & Coşkun, B. S. (2018). An evaluation of the Küçükçekmece Ottoman Match Factory as industrial heritage..








On this seal, it is seen that the company bears the name “Société Ottoman d’Alumette Usine de Kutchuk-Tehekmedje”

**Figure 98.** Erdoğan, D., Kıraç, A. B., & Coşkun, B. S. (2018). An evaluation of the Küçükçekmece Ottoman Match Factory as industrial heritage..

The Ottoman match factory, which could not maintain its existence despite the production privilege of its time, has survived to the present day as a structure through various functions and different properties since the beginning of the 20th century. The Protection Process of the Building had started in 1991 when it was registered as a cultural asset. In 1993, it was determined as protection group 1 and asked for survey-restitution (Kıraç, Coşkun, & Erdoğan, 2018)

project in 2005. Istanbul Metropolitan Municipality opened the Küçükçekmece Inner-Outer Coastal Area Urban Design Competition in 2006. There is also a historical match factory within the area defined for the competition. The aim of the competition was to rehabilitate the Menekşe Creek and its surroundings and revitalize the area throu gh tourism. (Kıraç, Coşkun, & Erdoğan, 2018)


ثروت فنون

پنجشنبه کونلری چیقار . منافع ملت و دولته خادم مصور عثمانی غزتهسی

SERVET-I-FUNOUN

JOURNAL ILLUSTRÉ TURC PARAISSINT LE JEUDI

CONSTANTINOPLE

Ahmed IHSAN

8me Année

BUREAUX :

78, Grand rue de la Sublime Porte

نمره : ۳۹۳

پنجشنبه — ۱۰ ایلول سنه ۱۳۱٤

[ خصوصی فوطوغرافلریمزدن

[ D'après les photographies de notre directeur. ]

[ کوچك چکمجهده انشا وکشاد اولنان عثمانی کبریت فابریقهسنك منظرهٔ خارجیه وداخلیه سی ]

La fabrique des allumettes ottomanes à Kutchuk-Tchekmédjé.

Figure 99. Servet-i Fünun Magazine, Issue 393, (1898),






خصوصی فوطوغرافلریمزدن

کوچك چکمجهده عثمانلی کبریت فابریقهسنی منظرهلرندن : قوطولرك اعمالی [

La fabrique des Allumettes Ottomanes : la fabrication des boites

Figure 100. Servet-i Fünun Magazine, Issue 393, (1898),

In the Küçükçekmece Inner-Outer Beach Area Urban Design Project Competition, the project of the Lle-Weyln Davies-Yeang group was deemed worthy of an award, and after the competition, a few recreational areas were organized around the Menekşe Creek as the first step of the organization of the area, and some walking paths and resting areas were created, but the implementations did not go beyond this. In 2014, Kibrithane Surveying-Restoration and Restoration Projects were approved by the Preservation Board and relevant units, and the 1st block on the southwest (left) side of the 5-block structure was licensed as an 'Event Area'.

Implementation began in the first month of 2015 and lasted approximately 8 months.

The restored section of the first block is currently used as an event venue and film set by a company that focuses on film and video clip shooting within the framework of the culture industry theme. (Kıraç, Coşkun, & Erdoğan, 2018)

03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

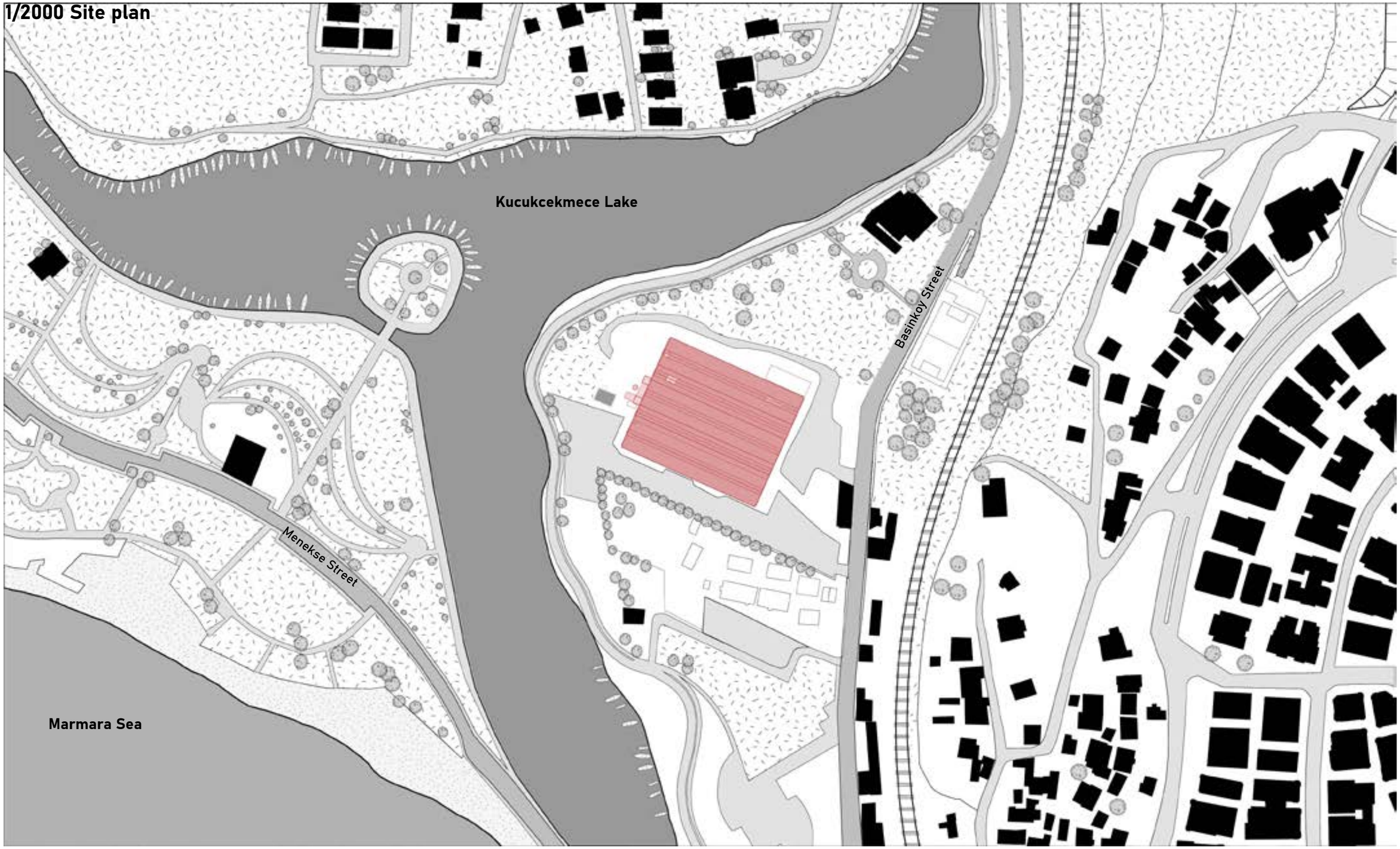



**Figure 101**. Created by autor. (2025). Site plan of Küçükçekmece Ottoman Match Factory and its surroundings.

## 3.6.b Current status of the Ottoman Match

**Figure 102.** NTV. (2021). Aerial view of the Ottoman match factory

**Figure 103.** Photo by autor (2025). Ottoman Match Factory Southeastern Front (Entrance Front)





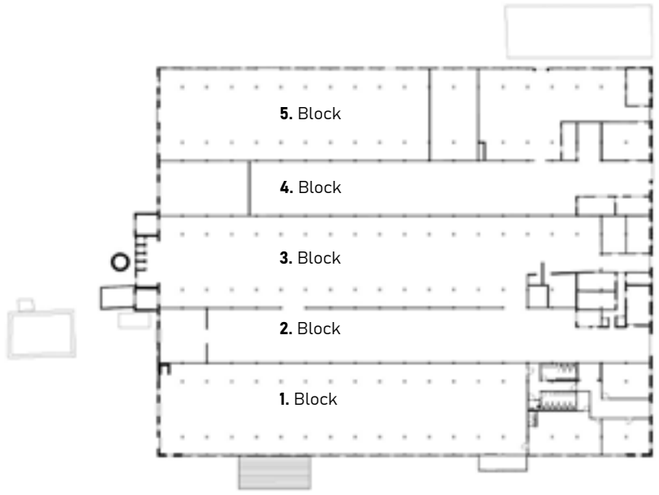



**Figure 104. Created by autor (2025).** Exiting Ground Floor Plan 1/1000

Küçükçekmece Ottoman Match Factory is located on a flat area of land on the south of Küçükçekmece Lake, on the shores of Menekşe Creek, where the Marmara Sea and the lake connect. Especially the distance of industrial structures to transportation networks is important for the efficiency of logistics operations. Issues such as the distribution of raw materials and products are important factors in the location of the structure. The location of the factory is connected to the Marmara Sea, which is an important transportation route, and its proximity to the railway in the direction facing southeast, and its highway connections provide an option for transportation and shipment.

The structure is a single-storey, steel-framed, masonry building built in a contiguous manner, consisting of 5 sections with 3 large openings and 2 smaller openings between them. The daylight required for the single-storey building with a hipped roof type is naturally provided by the lantern roof type.

Today, the building is divided into 5 separate blocks. Although it was first built as a whole without any divisions between the blocks, it has reached the present day as separated blocks as a result of various uses and divisions. The first block is actively used as a photography studio, while the other blocks are not used.

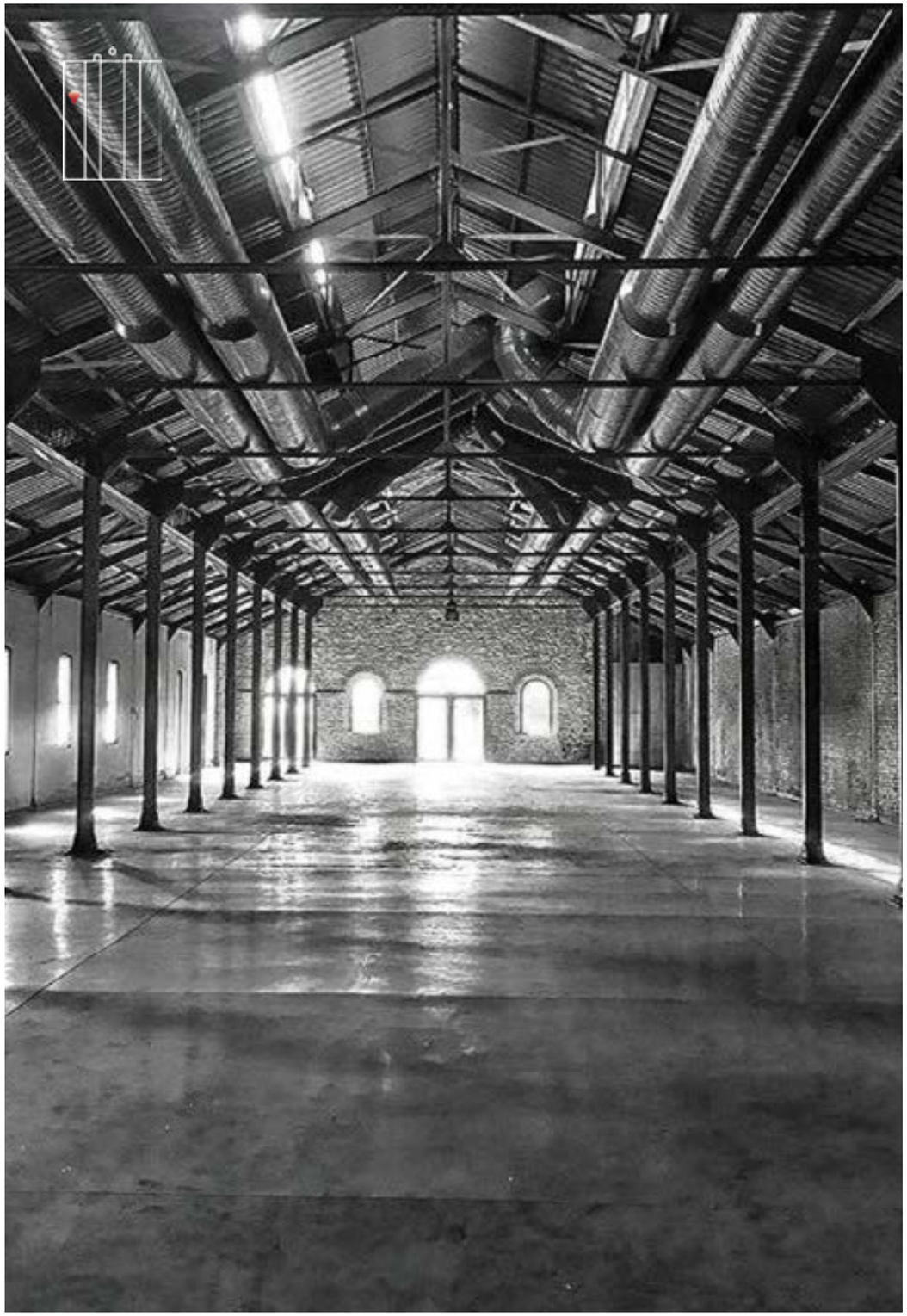


Figure 105. Photo by autor (2025). 1st Block Inside





**Figure 106.** Photo by autor (2025). 2nd Block Inside

03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

**Figure 107.** Photo by autor (2025). 4th Block Inside

**Figure 108.** Photo by autor (2025). 3rd Block Inside



03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

**Figure 109.** Photo by autor (2025). Inside view from 2nd block to 3rd block

03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

**Figure 110.** Photo by autor (2025). 4th block inner wall

## Facade Features

**Southeastern Front (Entrance Front):**

**Figure 111.** Photo by autor (2025). Entrance Front

The southeast-most façade facing the railway is the most original and ornate of the building. The walls are plastered and constructed from brickwork. It is the southeast façade that marks the entrance of the building, with decorative brick reliefs and information boards displaying the names of the spaces above the entrance doors. Brick-walled medallions are found at the center of the triangular pediments.

It appears that decorative bricks were used vertically along the stone molding line placed within the façade. The facade consists of a facade entity made of brick jambs with arched windows and doors. The fully arched doors and windows are ornamented with bricks. The windows' sills are also constructed using bricks.



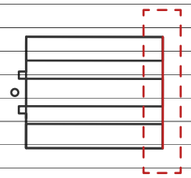
03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

**Figure 112.** Photo by autor (2025). Entrance Front close up

03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

**Figure 113.** Photo by autor (2025). Southeastern Facade

03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY



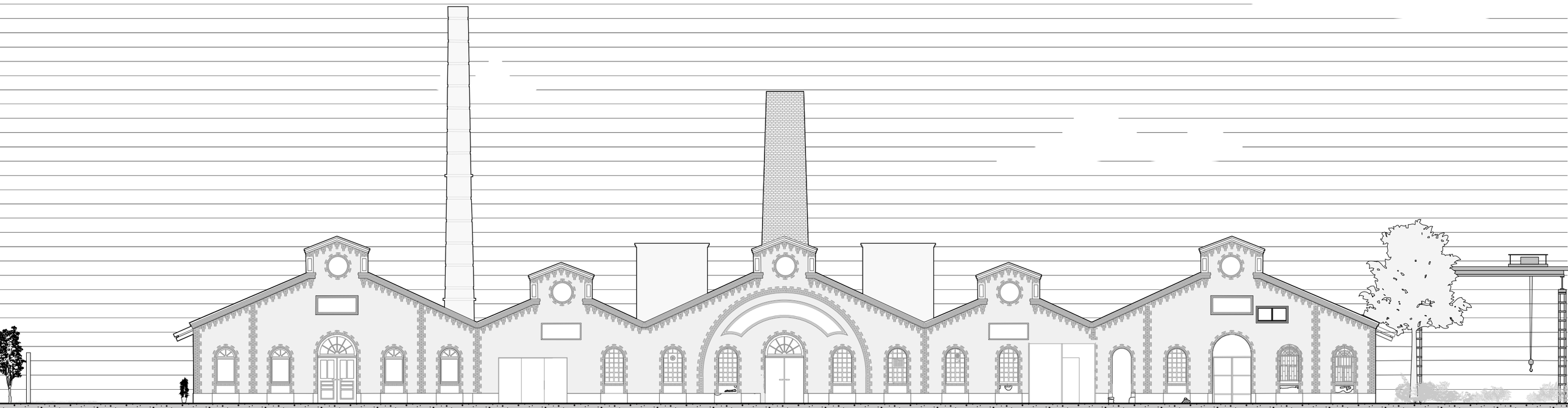





**Figure 114.** Created by autor (2025). Southeastern Facade Elevation 1/200

**Figure 115.** Photo by autor (2025). 4th Block Southeastern Facade window close up



03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

**Figure 116.** Photo by autor (2025). 4th Block Southeastern Facade Front Door close up

03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY


**Figure 117.** Photo by autor (2025). 1st Block Southeastern Facade

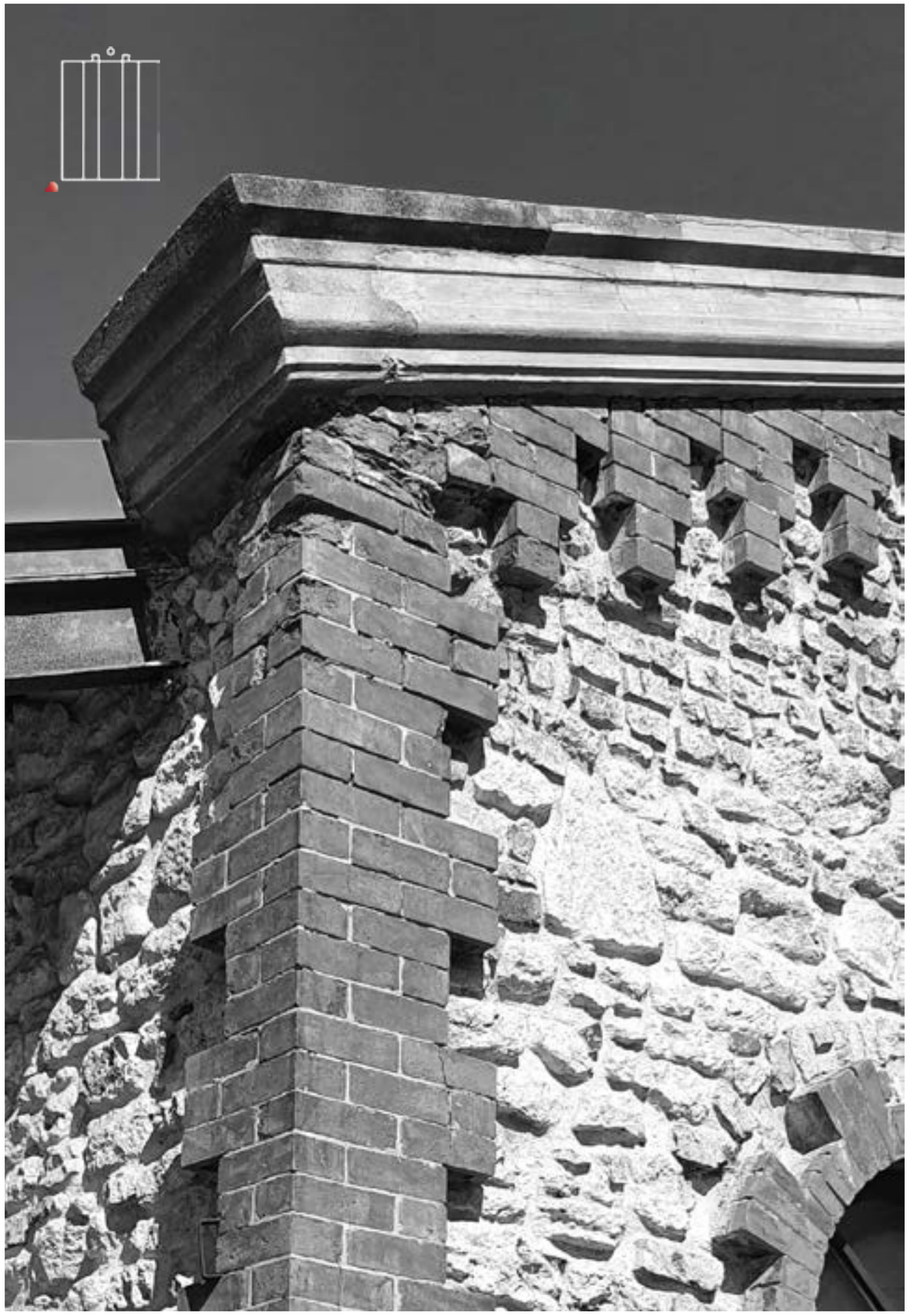


**Figure 118.** Photo by autor (2025). 1st Block Southeastern Facade Roof Corner



03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

**Figure 119.** Photo by autor (2025). 5st Block Southeastern Facade

## Southwest Facade (Left Side Facade)

**Figure 120.** Photo by autor (2025). 1st Block Southwest Facade

The southwest façade is located in the southwest facing section of the 1st block of the 5 combined blocks. Following the approval of the Kibrithane Surveying-Restoration and Restoration Projects by the Conservation Board and relevant institutions, the 1st island was licensed as an 'Event Area' in 2014. The implementation started in the first month of 2015 and lasted for 8 months.

There are infill walls covered with scattered bricks and rubble stones surrounding the first and last windows of the facade. Each module has window openings in jamb form. The roof is a corrugated sheet-metal construction. The rhythm of the steel columns and trusses in the interior and the light lantern extending along the roof stand out as the most beautiful features of the space.



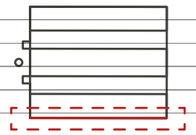
03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY


**Figure 121.** Photo by autor (2025). 1st Block Southwest Facade

03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

**Figure 122.** Photo by autor (2025). 1st Block Southwest Facade From Northwest corner

03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY



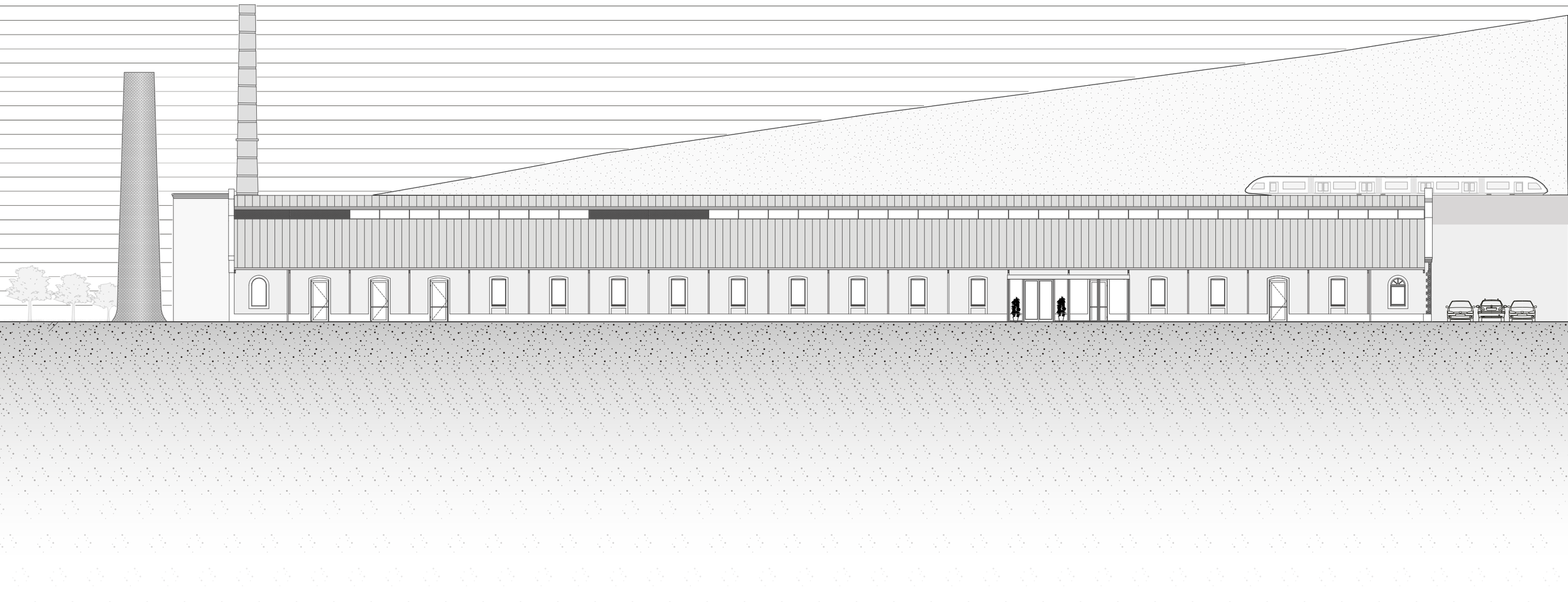



**Figure 123.** Created by autor (2025). 1st Block Southwest Facade Elevation 1/200

**Figure 124.** Photo by autor (2025). 1st Block Southwest Facade Window Close up



03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

**Figure 125.** Photo by autor (2025). 1st Block Southwest Facade Window Close up

**Figure 126.** Photo by autor (2025). 1st Block Southwest Facade Materials Close up



03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

**Figure 127.** Photo by autor (2025). 1st Block Southwest Facade Roof

## Northwest Facade (Back Facade)

**Figure 128.** Photo by autor (2025). Northwest Facade

The northwest facade facing the Menekşe Creek is dominated by the proportions of the southwest facade; here, however, there are no brick decorations. The plaster is put on the facade wall. The uniqueness is observed to be lost more because of the interventions on the northwest facade as compared to the other facades. On both sides of the section, located on the middle axis of the structure, are two rectangular towers, and between them stands a circular brick chimn

On the northwest side of the factory, there are two chimney structures: one of them is round brickwork, while the other is made of an iron frame ,with a series of angles. The round, brick-work chimney, erected in respect of the first function in the factory, stands between the northwest side of the factory and the stream of Menekşe. This type of chimney, also known as a skirted chimney, is rarely seen in factory buildings in Turkey and supports the originality of the structure.



03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

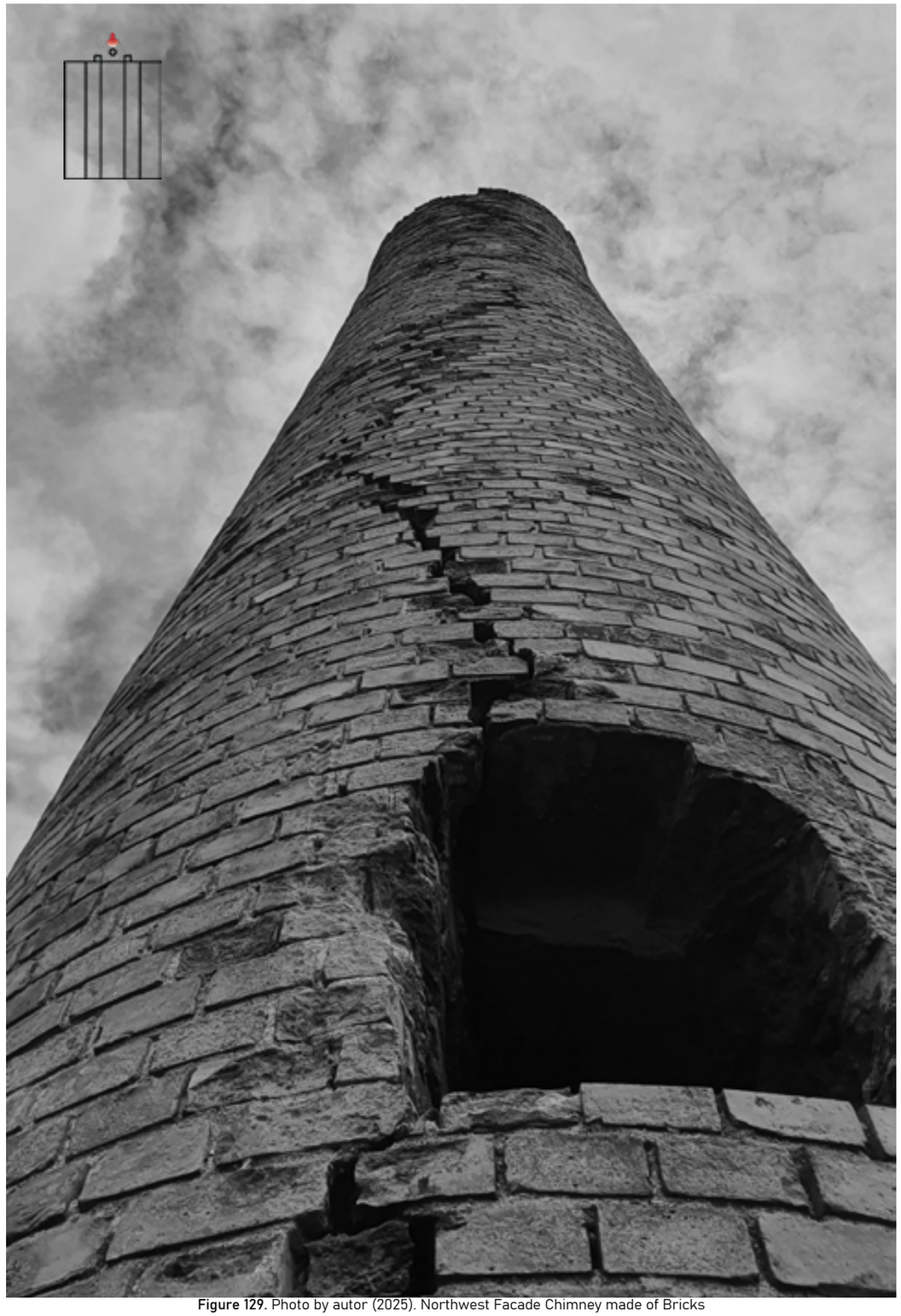
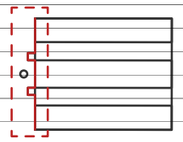


**Figure 129.** Photo by autor (2025). Northwest Facade Chimney made of Bricks

03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

**Figure 130.** Photo by autor (2025). Northwest Facade

03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY



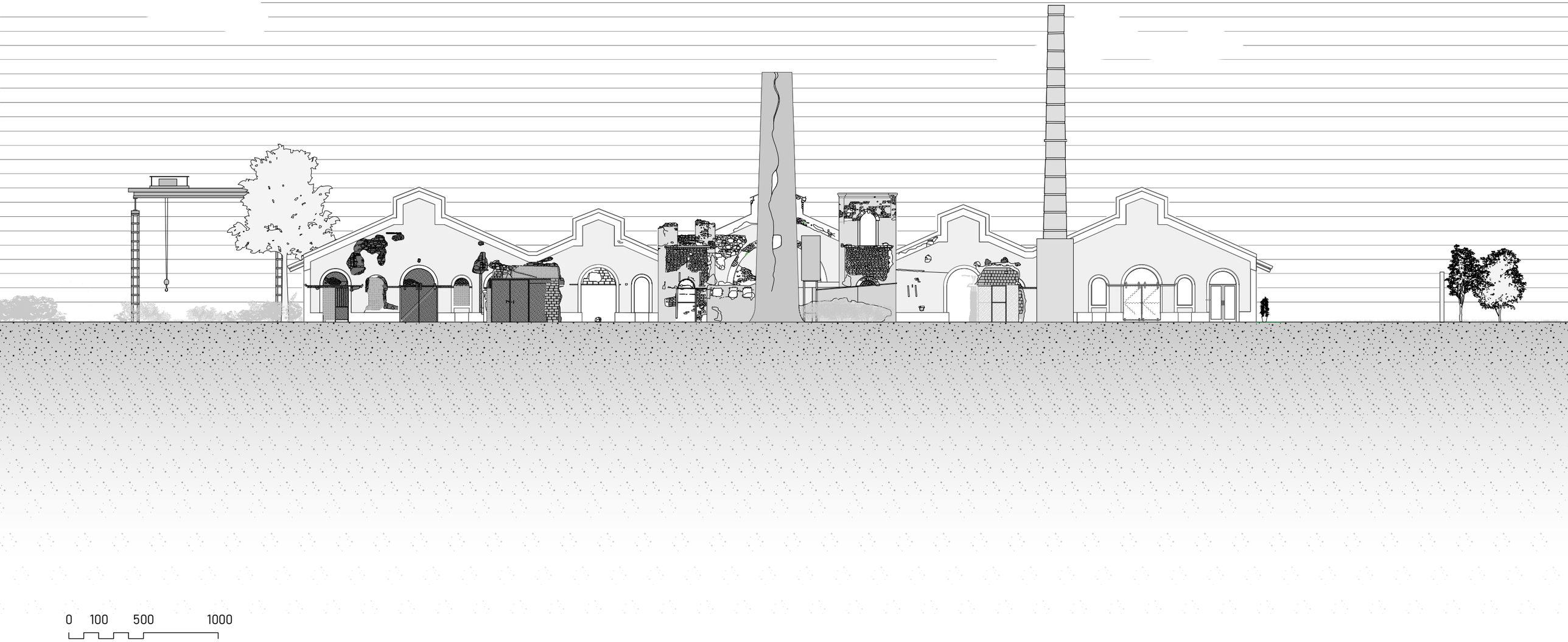



**Figure 131.** Created by autor (2025). Northwest Facade Elevation 1/200

**Figure 132.** Photo by autor (2025) Northwest Facade North Tower



03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

**Figure 133.** Photo by autor (2025). Northwest Facade South Tower

03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

**Figure 134.** Photo by autor (2025). 5th Block Northwest Facade

**Figure 135.** Photo by autor (2025). 4th Block Northwest Facade





**Figure 136.** Photo by autor (2025). 2th Block Northwest Facade

## Northeastern Facade (Right Side Facade)

**Figure 137.** Photo by autor (2025). 5th Block Northeastern Facade

The north-eastern facade is located on the long facade of the 5th block of the building. It has similar features to the south-west facade in general terms, including the window characters. The first and last windows on the facade are full arched, while the other windows in between are flat arched. Some windows on the facade have been closed by user intervention.

There is a crane area right next to the long facade of the 5th block, which was previously used as a marble factory. There are a total of 3 metal doors on the facade and these doors are in different sizes due to the reasons required by the past use of the block. Over time, Uncontrolled vegetation formation around the facade may cause the facade to become invisible from the outside.



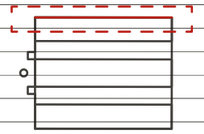
03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

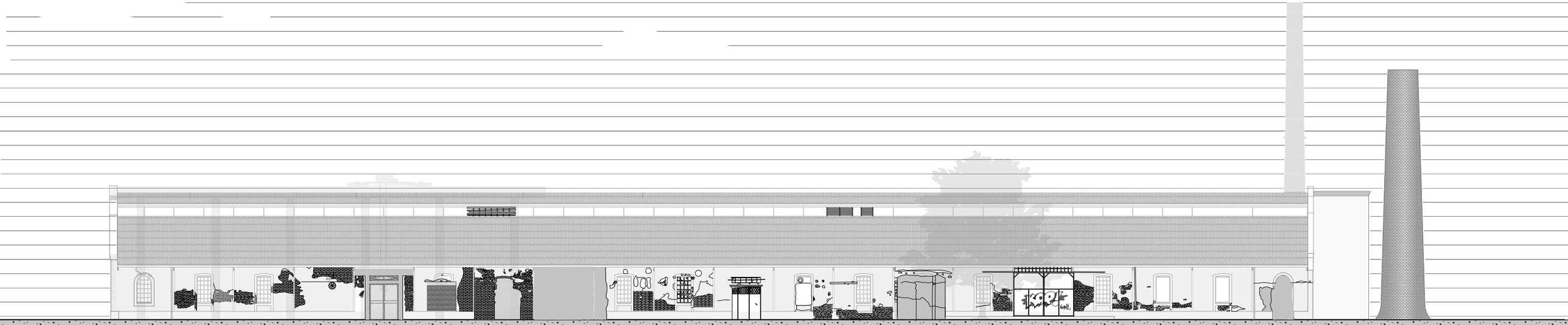
**Figure 138.** Photo by autor (2025). 5th Block Northeastern Facade Close Up

03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

**Figure 139.** Photo by autor (2025). 5th Block Northeastern Facade

03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY





0 100 500 1000

**Figure 140.** Created by autor (2025). 5th Block Northeastern Facade Elevation 1/200

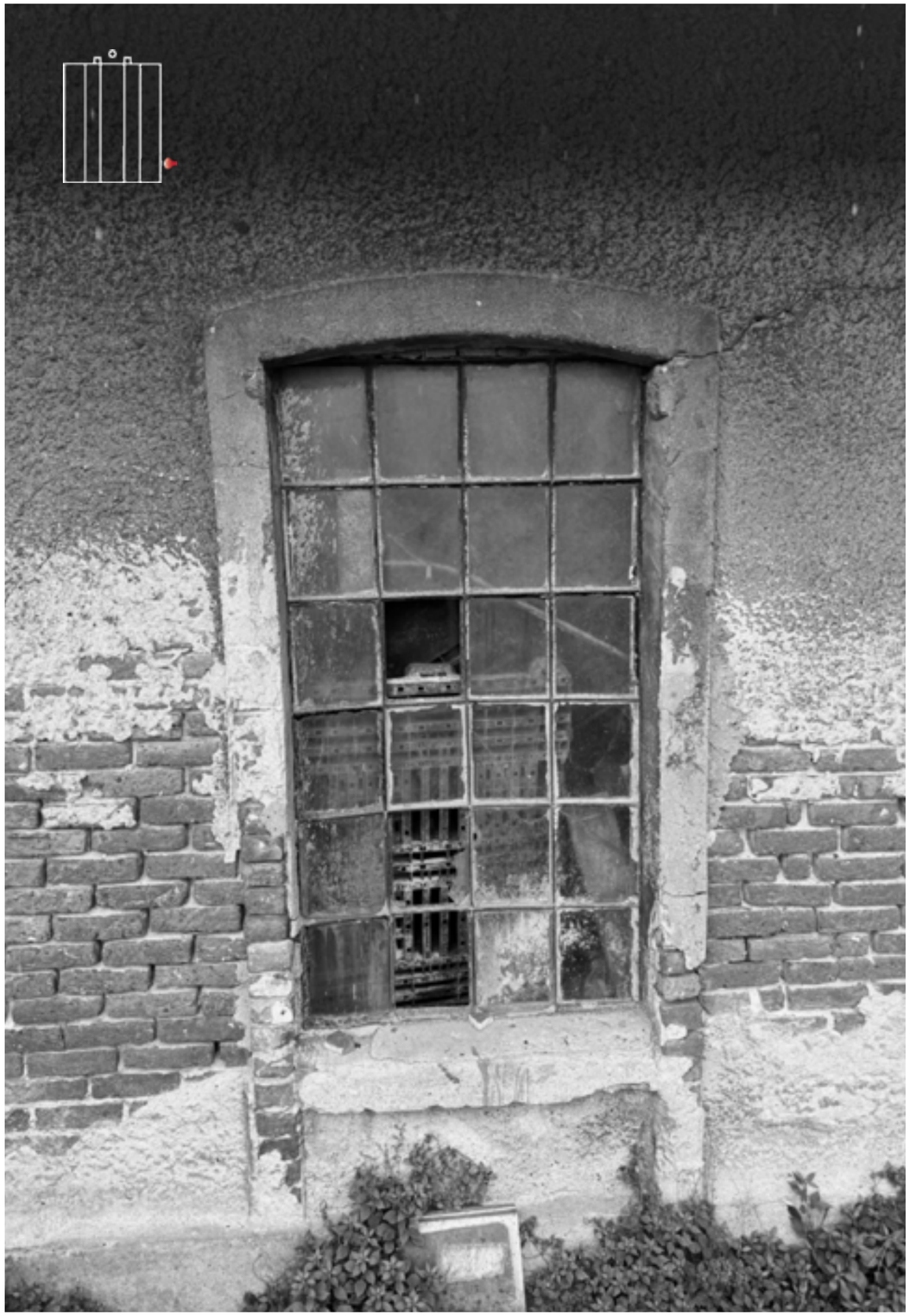


**Figure 141.** Photo by autor (2025). 5th Block Northeastern Facade Window



03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

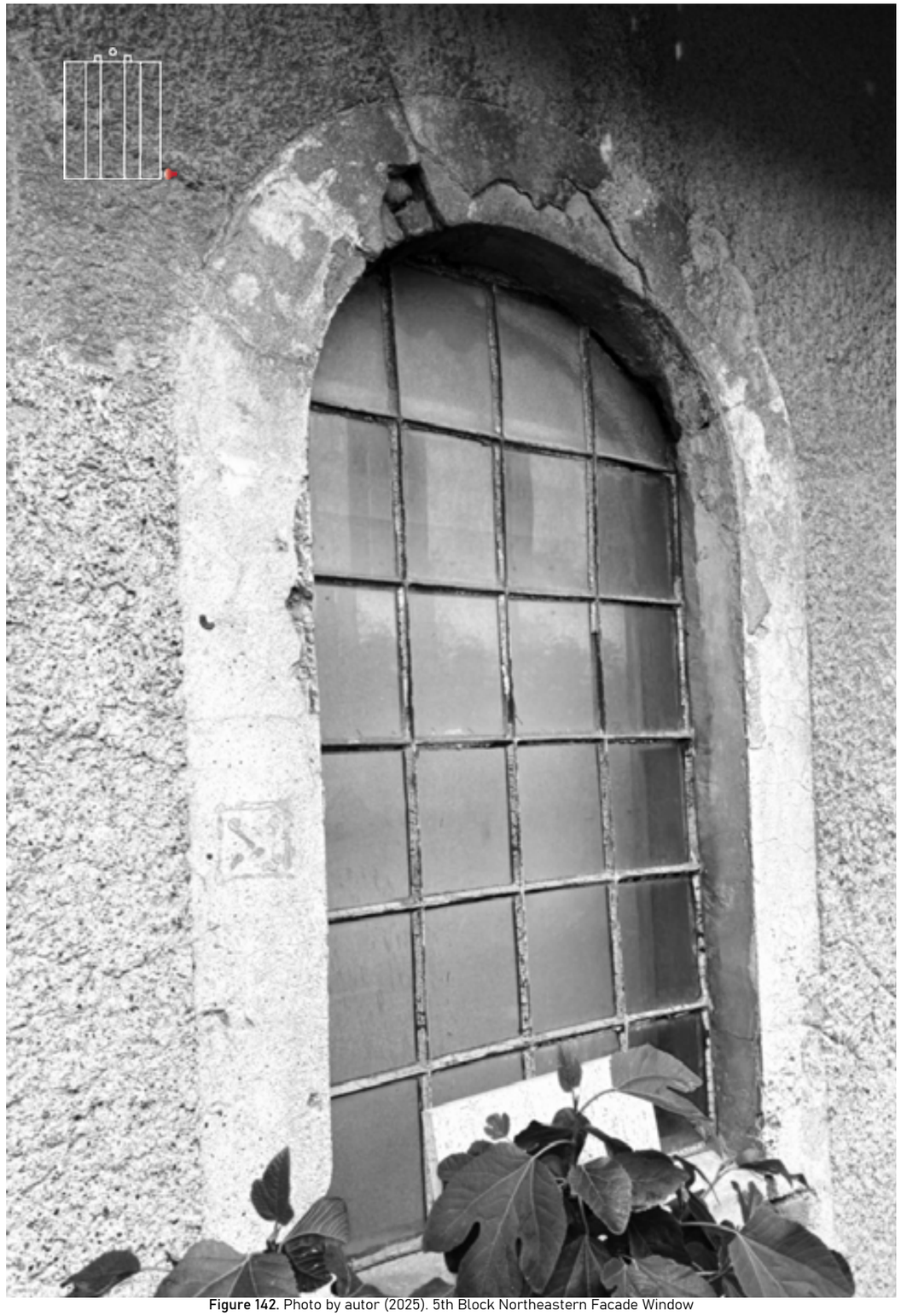


**Figure 142.** Photo by autor (2025). 5th Block Northeastern Facade Window

03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

**Figure 143.** Photo by autor (2025). 5th Block Northeastern Facade

**Figure 144.** Photo by autor (2025). 5th Block Northeastern Facade Materials Close Up



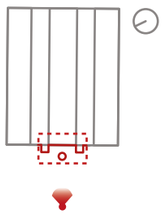
03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

**Figure 145.** Photo by autor (2025). 5th Block Northeastern Facade Roof Corner Close Up

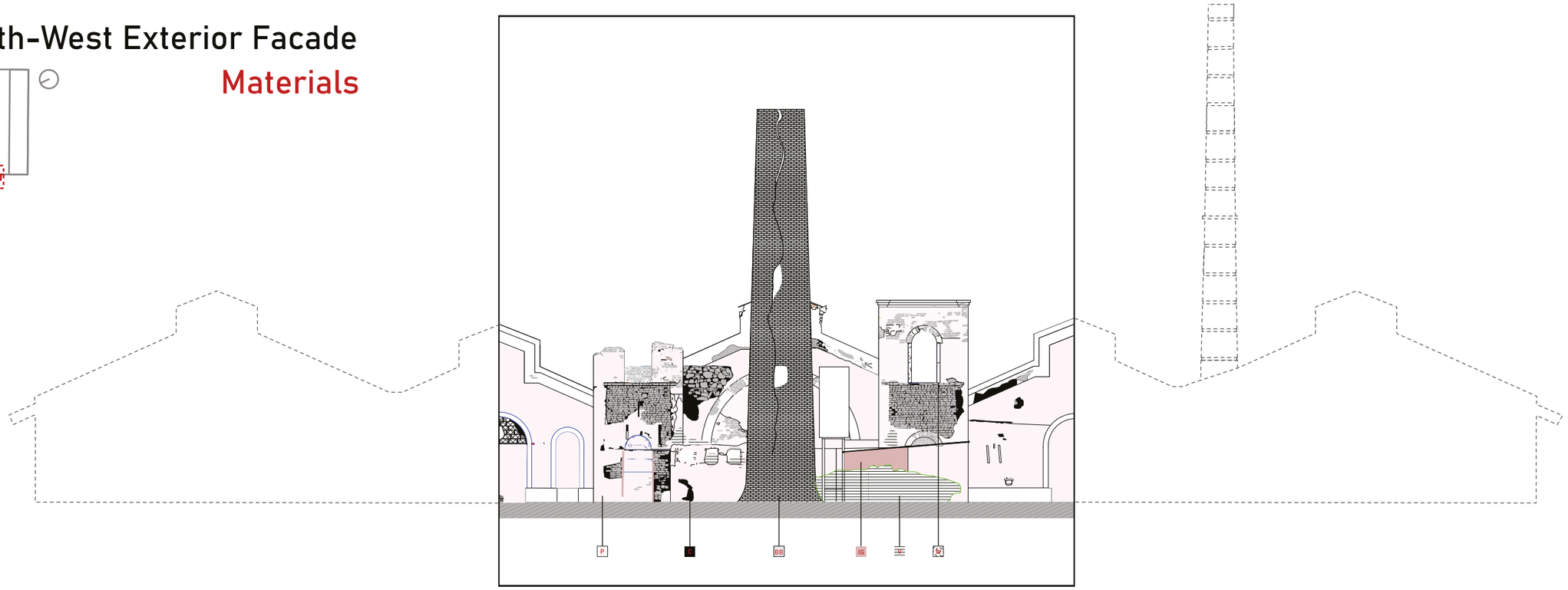
03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

## 3.7 Materials and Decays

### 3.7.a North-West Exterior Facade



### Materials



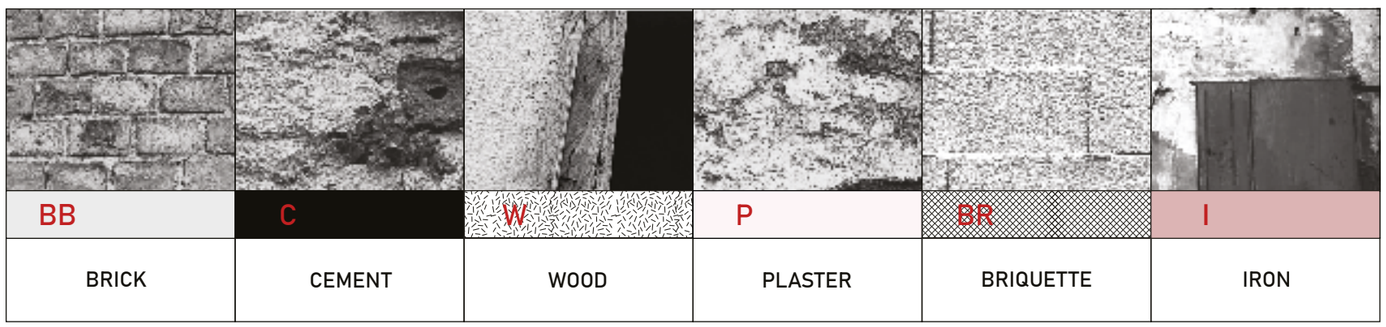
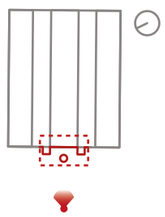



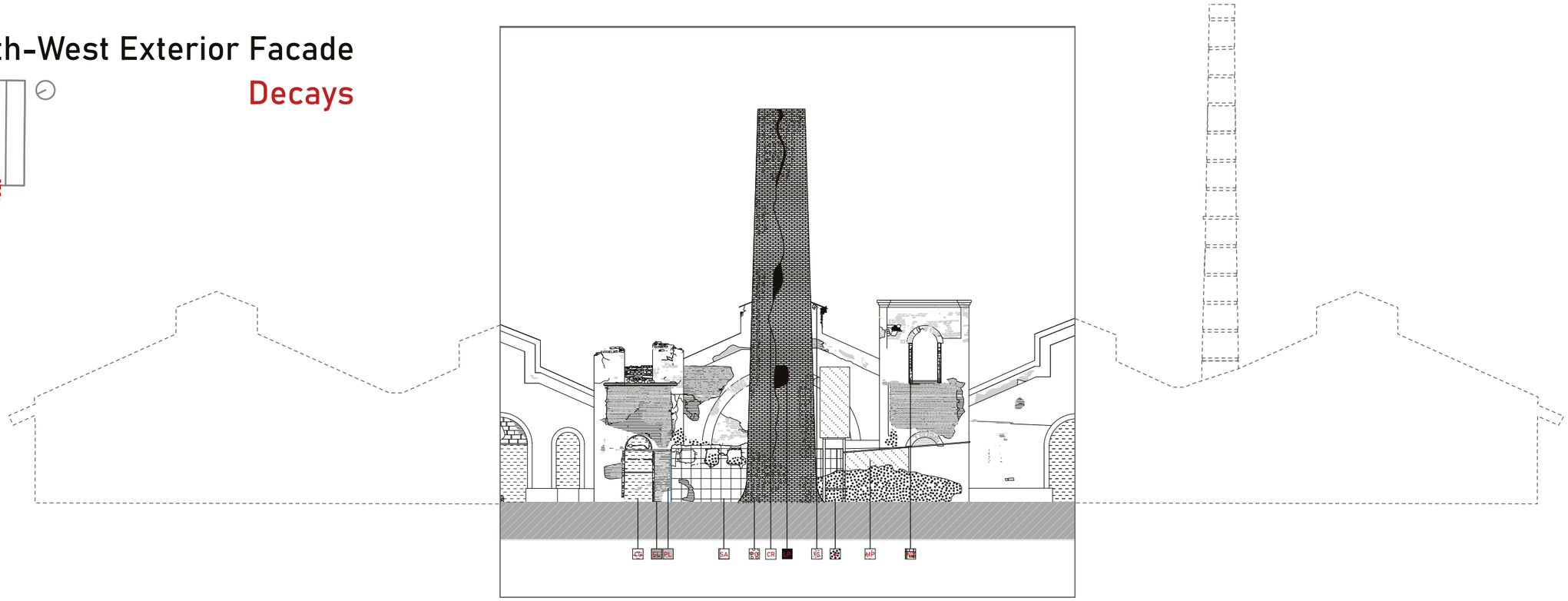

**Figure 146.** Created by autor (2025). Northwest Facade Materials

03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

# 3.7.a North-West Exterior Facade

## Decays





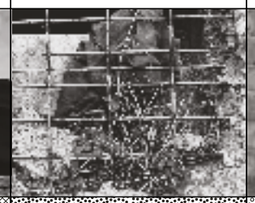
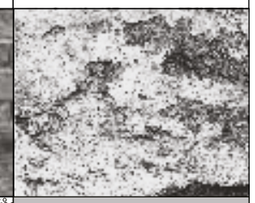
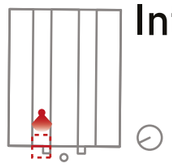
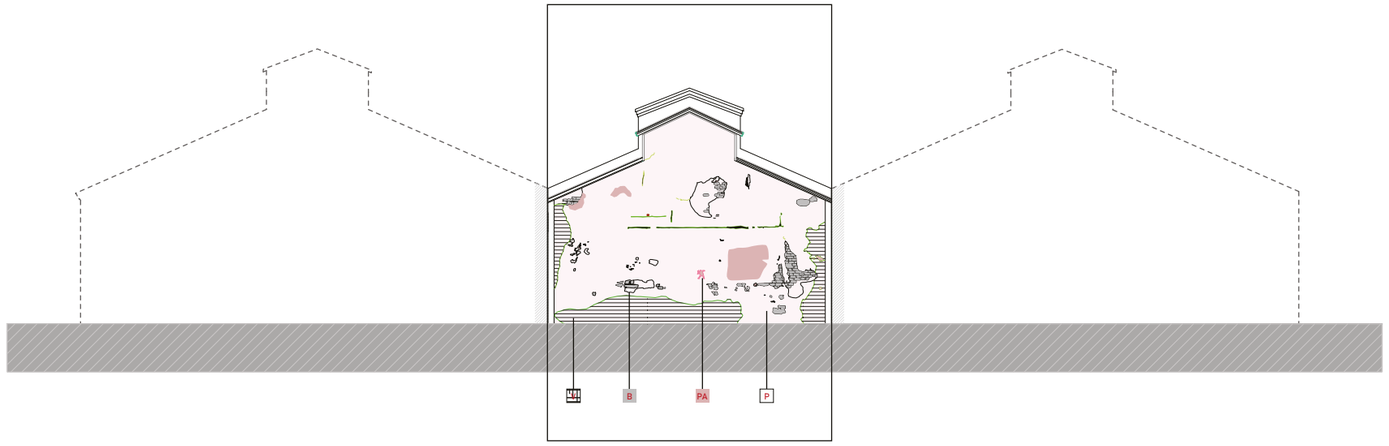

| CATEGORIES | DEGRADATION DUE TO REDUCTION OF MECHANICAL RESISTANCE | | | | ANTHROPIC DEGRADATION | DEGRADATION BY CORRASION | BIOLOGICAL DEGRADATION | SURFACE DEGRADATION | DETACHMENT |
|---|---|---|---|---|---|---|---|---|---|
| PHOTOS |  |  |  |  |  |  |  |  |  |
| | CR | LP | WD | SL | BB | IC | V | PO | PL |
| DECAYS | CRACKS<br>Structural cracks are observed on the brick chimney due to structural mobility, temperature differences and joint losses | MATERIAL LOSS<br>Due to Earthquakes and weakened joints that fail to maintain structural integrity over time due to environmental factors.(-Humidity, salinity, temperature differences.) | WOOD DETERIORATION<br>Due to aging, wood exposed to UV light may become brittke an lose strength over time. | SURFACE LOSS<br>Non-original physical interventions on the facade, seismic efects and temperature cause surface loss. | COVERING GAPS<br>Blocking of window and door openings contrary to the original plan of the building. | RUST<br>due to neglect and environmental factors,weakens the structural strengh of the building in the future and effects on aesthetics. | VEGETATION<br>Plants that develop as a result of roots infiltrating structural materials due to neglect and environmental effects. | SOILING<br>Due to soot, soil particles an fly ash accummulating on the surface of a building material. | PAINT LOSS<br>Due to moisture, UV exposure, incompatible paint layer as a result of loss or peeling of paint layer from surfaces. |
| INTERVENTIONS | Structural cracks will be repaire by determining the original mortar properties an by injecting with appropriate material. | The use of compatible with original materials in the missing parts of the surfaces. | Deterioration will be identified; fumigation and impregnation will be carried out, and damaged elements will be replaced with new ones matching the original section and material. | While the loss below 5 cm will be complete with suitable mortar an paint, the loss above 5 cm will be renewed and completed with materials of the same hardness an material properties. | The non-original gaps that were close later will be opened and replaced with frames in compatible material and size. | After the original surfaces are cleaned, anti-rust and oil paint will be applied. | After Biocide is applied to the affected area, the plant roots are remove by hand to prevent the same situation from occurring in the future. | Controlled mechanical cleaning an micro-abrasion methods will be use on the polluted surfaces. | Remove loose paint layer carefully, clean and prepare substrate to improve adhesion and reapply plaster with with compatible materials. |

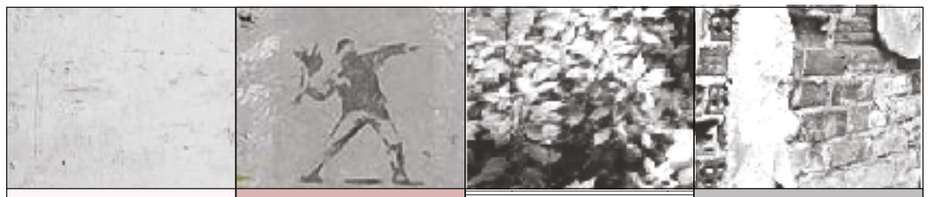
**Figure 147.** Created by autor (2025). Northwest Facade Decays

03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

# 3.7.b North-West 4th Block Interior Facade Materials





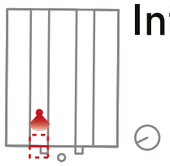



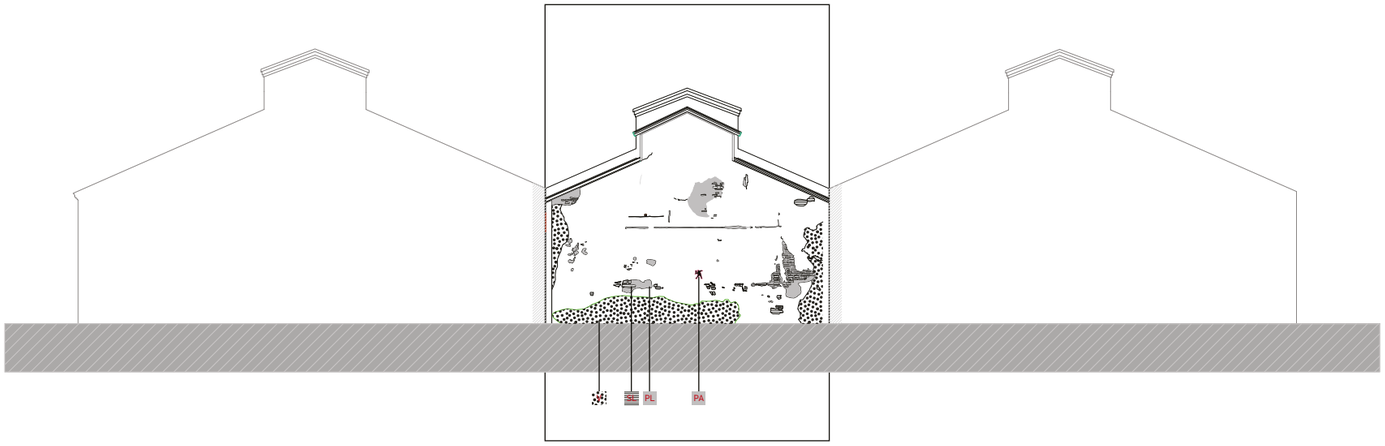
| P | PA | V | B |
|---|---|---|---|
| PLASTER | PAINT | VEGETATION | BRICK |

**Figure 148.** Created by autor (2025). Northwest 4th Block Interior Facade Materials

03. OTTOMAN MATCH FACTORY
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

# 3.7.b North-West 4th Block Interior Facade Decays





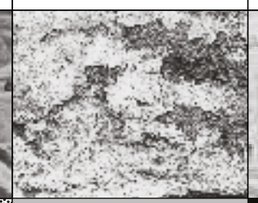

| DEGRADATION DUE TO REDUCTION OF MECHANICAL RESISTANCE | BIOLOGICAL DEGRADATION | DETACHMENT | ANTHROPIC DEGRADATION |
|---|---|---|---|
|  |  |  |  |
| SL | V | PL | PA |
| **EROSION** It occurs due to temperature differences that vary over time, humidity, biological effects as well as neglect. | **VEGETATION** Lack of maintenance, facade deterioration over time and humidity have triggered plant growth. | **PLASTER LOSS** It occurs as a result of weakening due to thermal stress, neglect and material. | **VANDALIST PAINT** Visual pollution and costs occur due to unauthorized marking or paint. |
| After the effected area surface is cleaned and isolated from salt and moisture, it is repaired with appropriate mortar and original texture. | Vegetation should be prevented with biocide intervention and the roots should be collected by hand and removed from the structure. | Effected area should be cleaned by removing moisture and efflorescence from the plaster loss. The plaster in the damage area should be complete with a compatible material. | It should be cleaned carefully with chemical or mechanical methods so as not to damage the surface. |

**Figure 149.** Created by autor (2025). Northwest 4th Block Interior Facade Decays

FOURTH CHAPTER

# KIBRITHANE



04

04. KIBRITHANE
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

## 4.1 The Project Site

Kibrithane building was originally constructed for match production and played a key role in the industrial identity of the region. Located near Küçükçekmece Lake, it holds a strategic position close to the railway and former road networks.

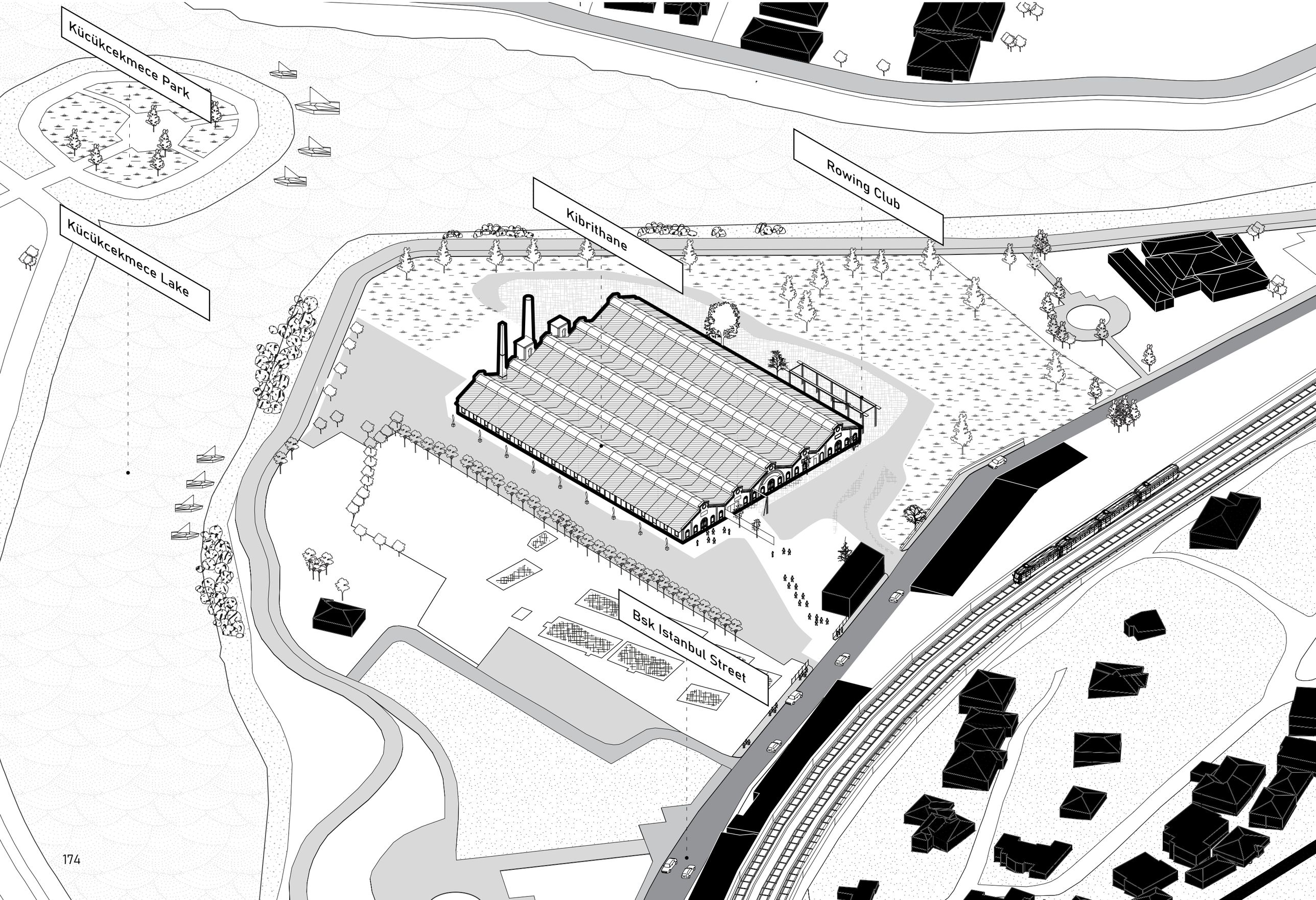
Parts of the structure have been demolished over time, while the remaining sections became unusable. Abandoned since the mid-20th century, it now stands as a silent witness of urban memory.

Today, the surrounding area remains largely unused, forming a physical and visual barrier between the lake and the city. Users must take indirect and fragmented routes to access the site.

Halkalı Street, the closest main axis to Kibrithane, serves various functions and connects residential zones. However, reaching the waterfront from this street is inconvenient and unsafe for pedestrians.

The sidewalks are inadequate, and the lack of clear direction limits the area's potential. This situation emphasizes the need for a more direct connection integrating the city center, the waterfront, and the historical structure.

04. KIBRITHANE
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY



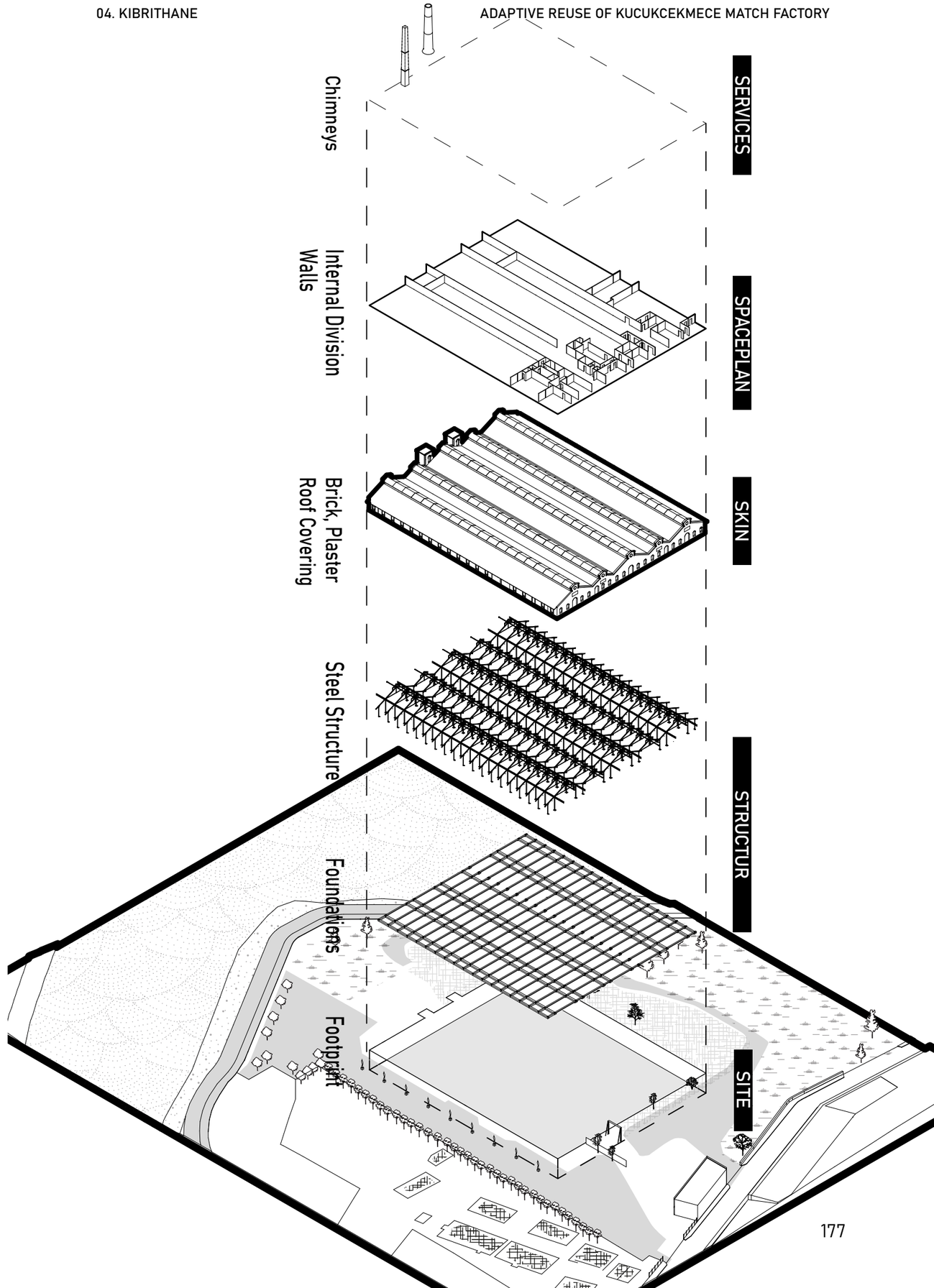
The physical characteristics of Kibrithane, with its solid and functional building typology, are a testament to the industrial production approach of the period. The building's design, with wide-open production areas, high ceilings, and large window openings, was a pioneering reflection of its time. The use of brick and stone not only ensured the aesthetic character and longevity of the structure but also connected it to the historical context. The chimney, a striking element of the structure, not only functioned as a part of the production process but also became a symbolic element over time, further enriching its historical significance.

The interior organization of the structure consists of management, storage and support units positioned around central production halls. This spatial order offers a strong potential for re-functioning projects today. The existing physical texture of Kibrithane is valuable in terms of preserving industrial heritage, as well as being a cornerstone of urban transformation with the strengthening of environmental connections.

**Keywords;** Layering( LUMA Arles), Heritage (Battersea)







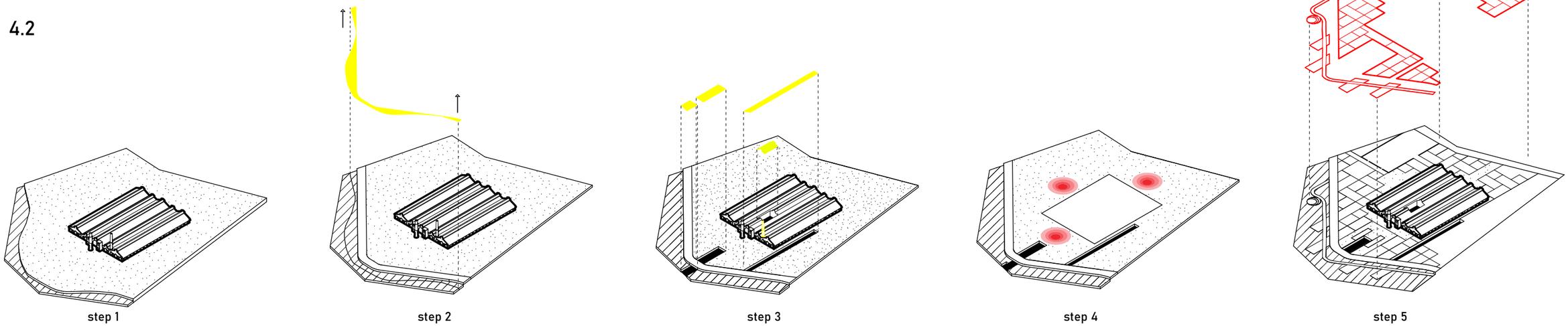
04. KIBRITHANE ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

**Step 1 – Cleaning the Environment:** We remove disorganized or incompatible elements around the existing structure, creating a clear foundation for the design to develop coherently.

**Step 3 – Enhancing Water Interaction:** Water is partially introduced into the design area to enrich spatial diversity and deepen user engagement with the coastal environment.

**Step 5 – Completing the Design:** All interventions are integrated into a unified layout that balances natural context with user-oriented design.

4.2



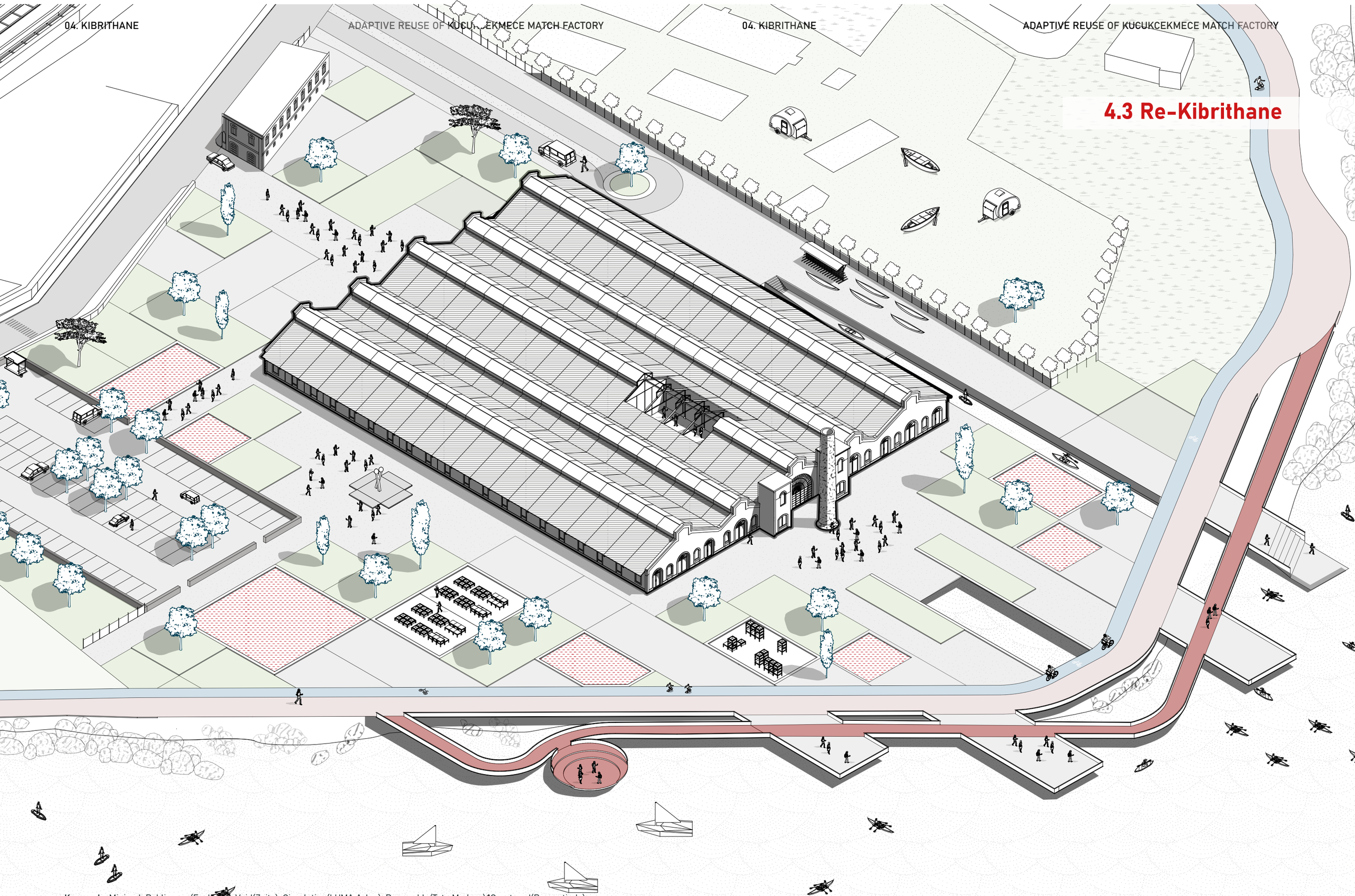

**Step 2 – Reshaping the Waterfront:** The shoreline is reconfigured into a more fluid, readable, and accessible form, strengthening the connection between public space and water.

**Step 4 – Creating Gathering Spaces:** Key interest points are identified, and vibrant public squares are placed near activity zones to encourage social interaction.

**Keywords;** Demolishion(Zeitz), Waterside Revitalization(Feshane), Publicness (Feshane), Waterfront Integration(Battersea)

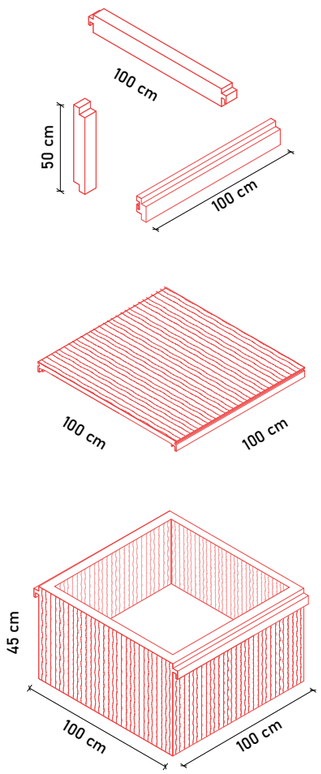
04. KIBRITHANE
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

# 4.3 Re-Kibrithane

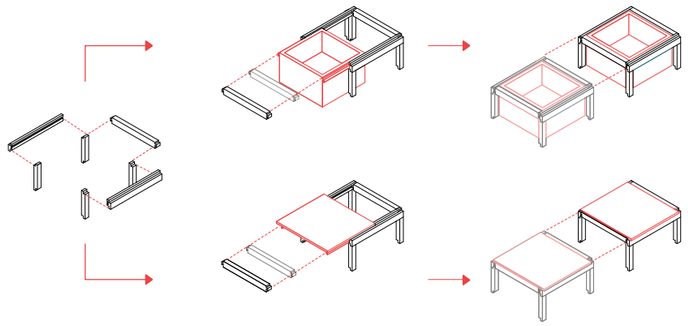


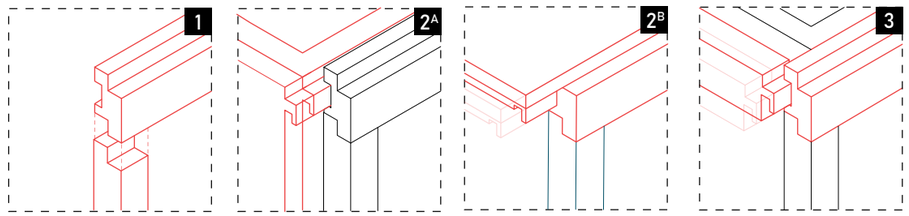
**Keywords;** Minimal, Publicness(Festival), Void(Zeitz), Circulation(LUMA Arles), Permeable(Tate Modern), Courtyard(Bomontiada)

# MODULE BOXES




Modules in front of the building. The modules consist of;
-steel elements, which creates its structure,
-wooden pots, which can be used for harvesting,
- wooden plate, which can be use for sitting.






connection between the horizontal and vertical steel elements

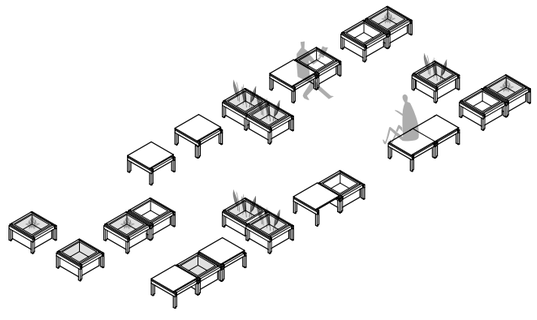
connection between the structure and the wooden pot

connection between the structure and the wooden plate

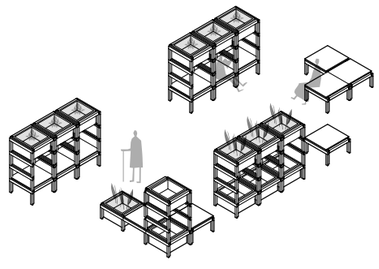
connection between pot/plate and horizontal steel element

The modules can be transformed into many different variations:

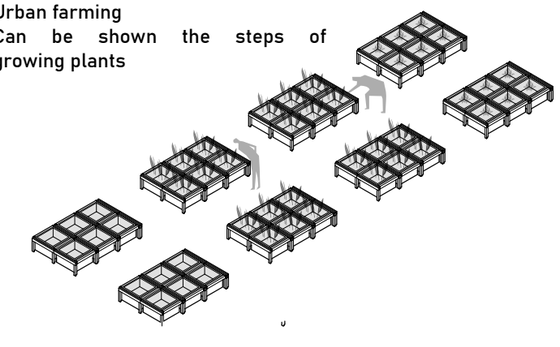
Sitting places with seperator pots



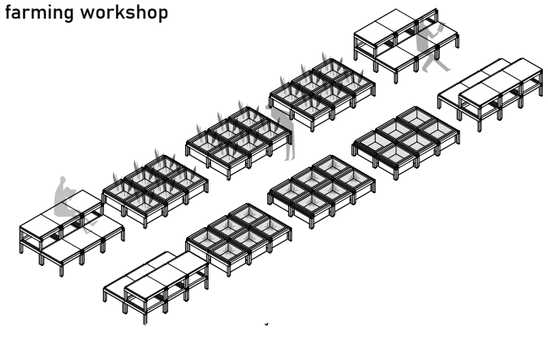
Sitting places and high level urban farming



Urban farming
Can be shown the steps of growing plants



Urban farming workshop







**Sitting Places with Separator Pots**

This modular variation offers a design that simultaneously fulfills the functions of seating and spatial separation in public outdoor areas. The seating units, divided by integrated planter elements, create natural boundaries that enhance the sense of privacy among users while providing a resting experience closely connected to the surrounding landscape.

**Sitting Places and High-Level Urban Farming**

This configuration integrates seating units with elevated urban farming components, allowing users to rest while also observing food production processes. The vertical arrangement of modules promotes three-dimensional spatial use and supports the integration of urban agriculture into daily public life.

**Urban Farming – Can Be Shown the Steps of Growing Plants**

This variation enables the educational and visual representation of plant growth processes. Suitable for community gardens or learning environments, this set of modules encourages experiential learning by allowing users to engage with each stage of cultivation, from seed to harvest.

**Urban Farming Workshop**

This setup provides a suitable environment for collective production and participatory learning activities. In these modular spaces, users can collaborate on cultivation practices and exchange knowledge about sustainable agriculture, fostering a sense of community and shared responsibility.

# 4.4 Masterplan

Basinkoy Street

Basinkoy Street

## Legend

**New Open Spaces**

1. Main entrance Square
2. Service Road
3. Canoe Hub
4. Skirted Chimney Square
5. Walking Path On the Lake
6. Dock
7. Walking Path
8. Bike Lane
9. Kibrit (Match) Square
10. Parking Lot

**Kibrithane (Ottoman Match Factory)**

1. Ottoman Match Factory
2. Inner Courtyard
3. Skirted Chimney
4. Outoor Area of the Cafe

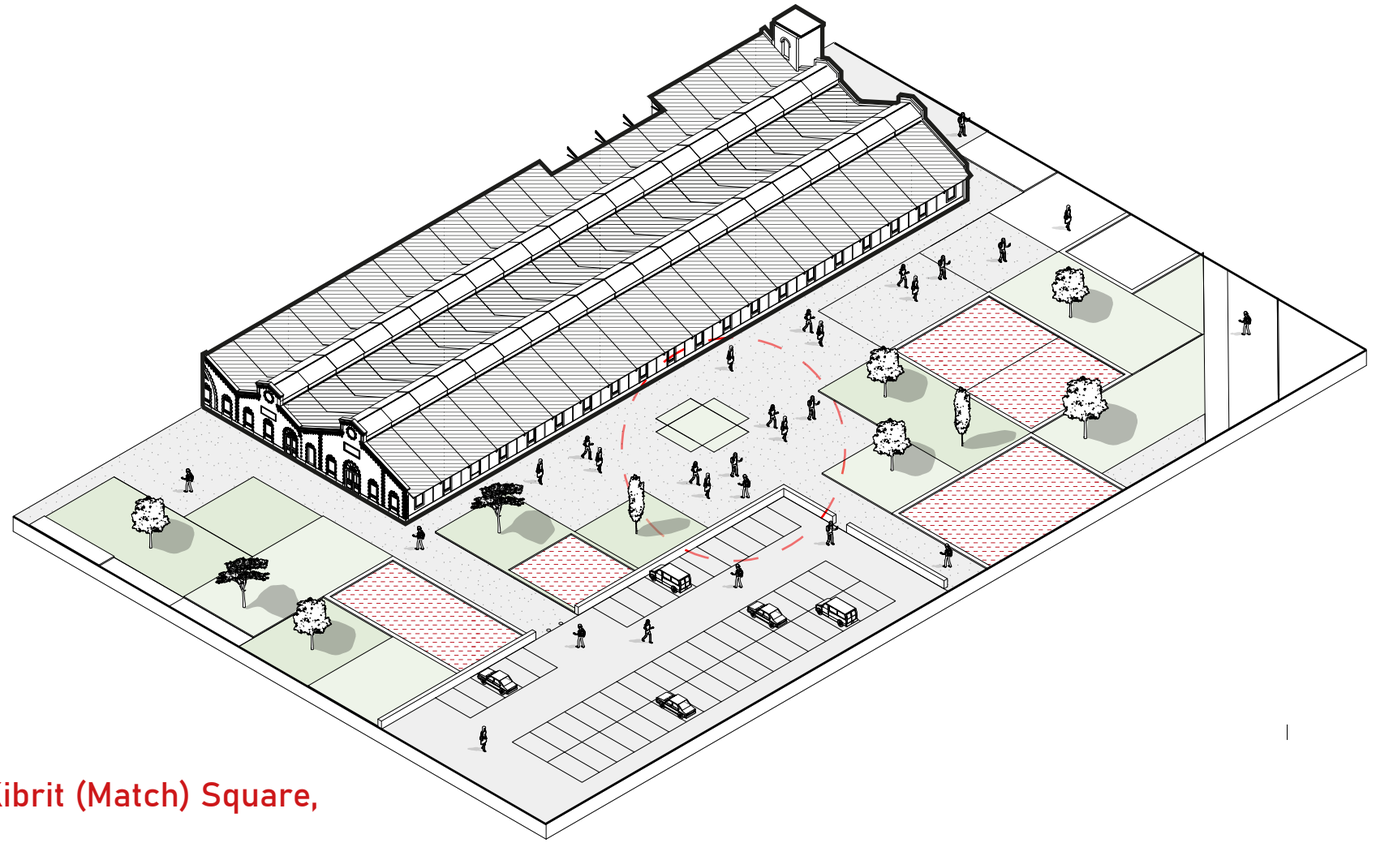
E Workshop & Event Areas

P Piers

rds; Minimal, Publicness(Feshane), Void(Zeitz), Circulation(LUMA Arles), Permeable(Tate Modern), Courtyard(Bomontiada)



0 500 1000



## Kibrit (Match) Square,

Kibrit (Match) Square, referring to the historical function of the building and the initial purpose of its construction, which is the production of matches, is a structure surrounding two match statues. It is located as a junction area between the car park, cafe, green areas and event areas, as it passes from the front of the car road to the shore, where many functions intersect.

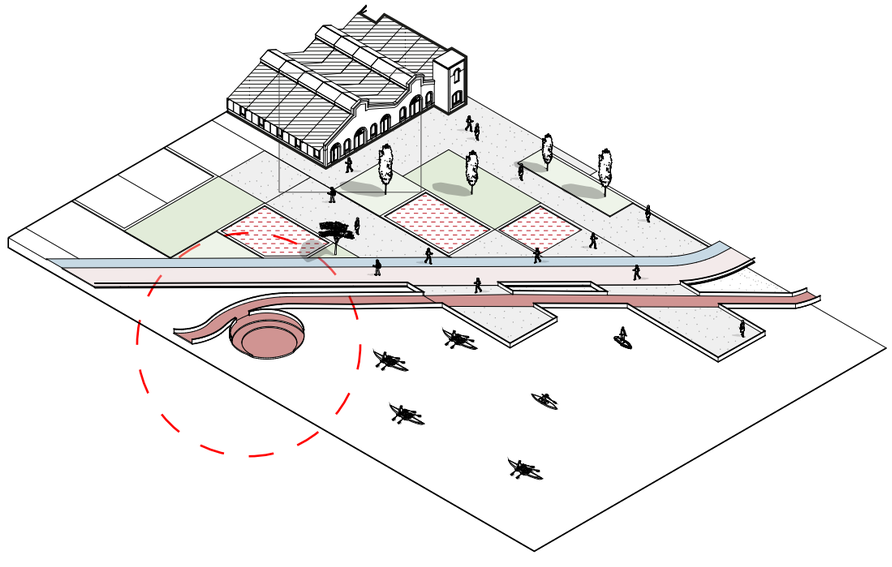
**Keywords;** Waterfront Integration(Battersea), Layering (LUMA Arles)

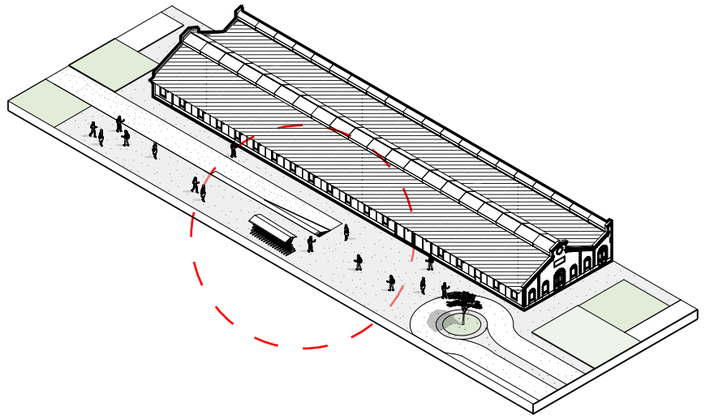


04. KIBRITHANE
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

## Dock

There is a round pier where small boats and rowboats can be placed, which is a part of the new coastal design and is a part of the pedestrian lake shores that connect the created piers to each other on the water. This area is also seen as a place where ladders can be used as seats.





## Canoe Hub

Due to its location, the region has historical contact with water, and this advantage is strengthened with a waterway extending into the building plot, while its relationship with water is strengthened with water activities such as canoeing and rowing.

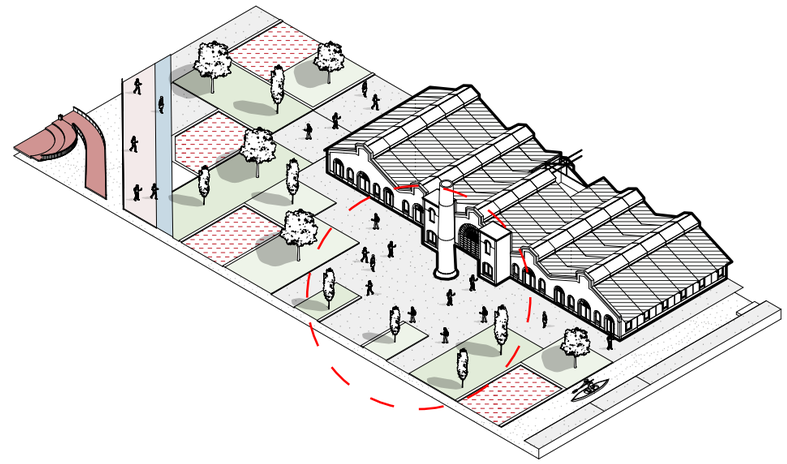
**Keywords;** Void(Zeitz), Assemblage (LUMA Arles)





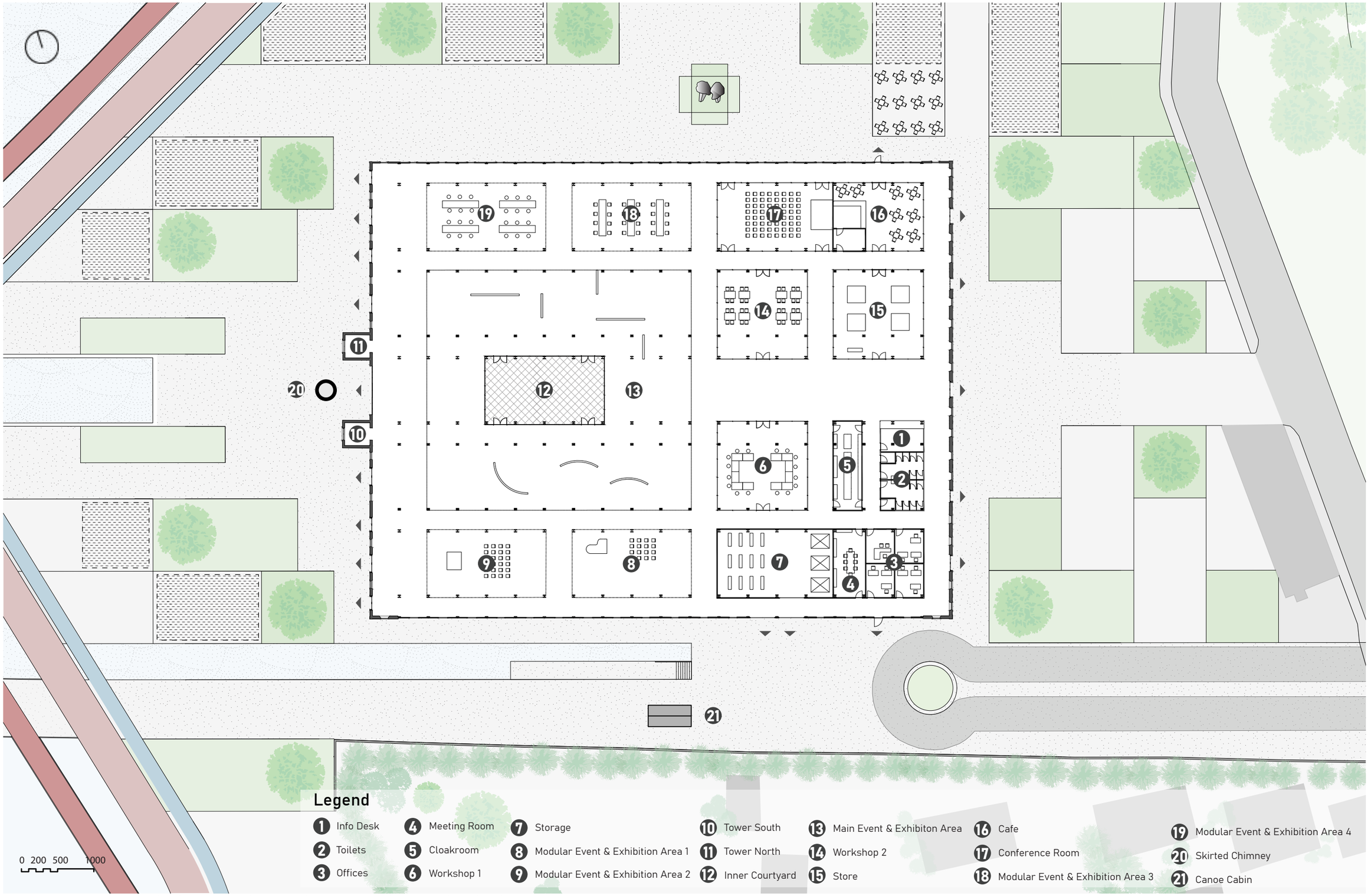
## Skirted Chimney Square

Skirted Chimney Square covers the area around the historical Skirted Chimney and the part facing the lake. The historical factory is located as an area to spend time around the green areas and the shore in contact with the lake and as a region where various activities and events can take place.



04. KIBRITHANE ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

## 4.5 Re-Kibrithane Plan




**Keywords;** Structural Preservation(OGR), Hybridization(Bomontiada), Reprogramming(Tate Modern), Void(Zeitz)

## Zoom-in to Main Event & Exhibition Area

### Legend

1. Main Event & Exhibition Area
2. Modular Event & Exhibition Area 1
3. Modular Event & Exhibition Area 2
4. Tower South
5. Tower North
6. Inner Courtyard
7. Modular Event & Exhibition Area 3
8. Modular Event & Exhibition Area 4

The new exhibition centre is designed within a single building of five blocks. The intervention preserved the existing structure, with minimal modifications to the façade for cleaning and adaptation. The main transformation occurred in the interior, where the layout was entirely reimagined. A central vertical gallery void was introduced, enhancing spatial depth and visual connectivity.

The building operates in two main functional zones: the front part includes the info point, restrooms, store, and workshop areas, while the rear part is dedicated to an ample and flexible exhibition space designed to host temporary and multidisciplinary installations. Additionally, the structure includes a multipurpose hall and a café to support events and encourage social engagement.

when looking at the general area features, The area numbered **1** covers a large area where events and exhibitions are held.

**Areas 2, 3, 7** and **8** are designed as areas within the general exhibition area where occasional independent events and exhibitions can be organized. Conferences, talks, open workshops, or musical events and more can be designed and located in these areas in a flexible and dynamic way.

**Areas 4** and **5**, located on the northwestern facade of the building and positioned on both sides of the skirted chimney, are areas that offer a transparent and semi-isolated space experience in addition to the exhibitions and events inside.

**Area 6** is an inner courtyard in the middle of the main exhibition and event area, offering visitors an experience both inside and outside. An adaptive area has been created within the area, parallel to the exhibitions and events. The glass walls surrounding the courtyard ensure that the area gains both an isolated and permeable structure within the building.

**Keywords;** Courtyard(Bomontiada), Industrial Spatiality(OGR)

## Zoom-in to Main Event & Exhibition Area

### Legend

1. Info desk
2. Toilets
3. Offices
4. Meeting Room
5. Storage
6. Workshop 1
7. Cloakroom
8. Store
9. Wrokshop 2
10. Conference Room
11. Cafe

Though the building may appear to be a single entity from the outside, internally, all the functions relating to one another function in a unified and related manner. Visitors who arrive at the building and enter through the main entrance first encounter the information desk, which is described as **area number 1.**

Access to toilets, designated as areas **number 2,** is provided behind the information desk.

There are offices in the southeast corner of the building as areas **number 3** and the general internal administrative work of the building is provided from here.

The office modules are located towards the corner of the building, intentionally isolated from the general circulation and almost independent from the rest of the building. Area **number 4** is located adjacent to the offices as a meeting room.

The storage area **numbered 5** is located in the most accessible part of the building and has its own service corridor for logistical efficiency. This space is necessary because each exhibition has different needs and requires flexibility of use

Workshop 1 area, **numbered 6** and **9,** is located within a flexible and adaptable structure to host various workshop events and educational activities.

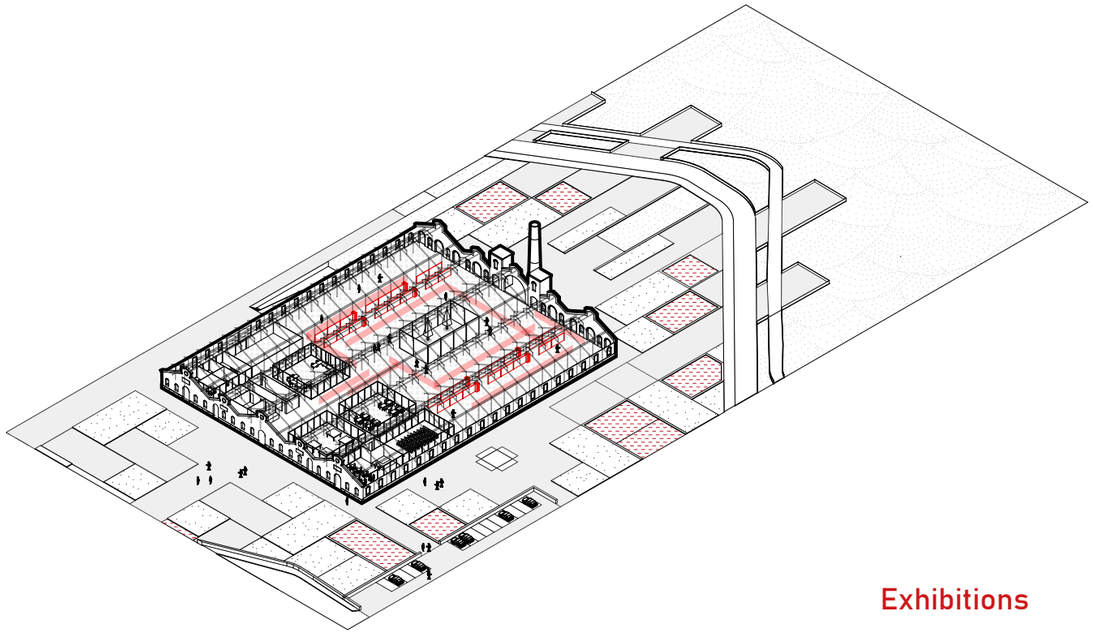
Area **number 7** is designed as a cloakroom area after the information desk where visitors can store their personal belongings and can be used individually by visitors.

Area **number 8** is located as a store where visitors can access products related to exhibitions and events as well as those related to the history of the building.

The area **numbered 10** is designed as a conference area and area **numbered 11** is designed as a cafe. In addition, the cafe has an area where people can sit.


**Keywords;** Reprogramming(Tate Modern), Assemblage (LUMA Arles)

# 4.6 Indoor Activity Variations



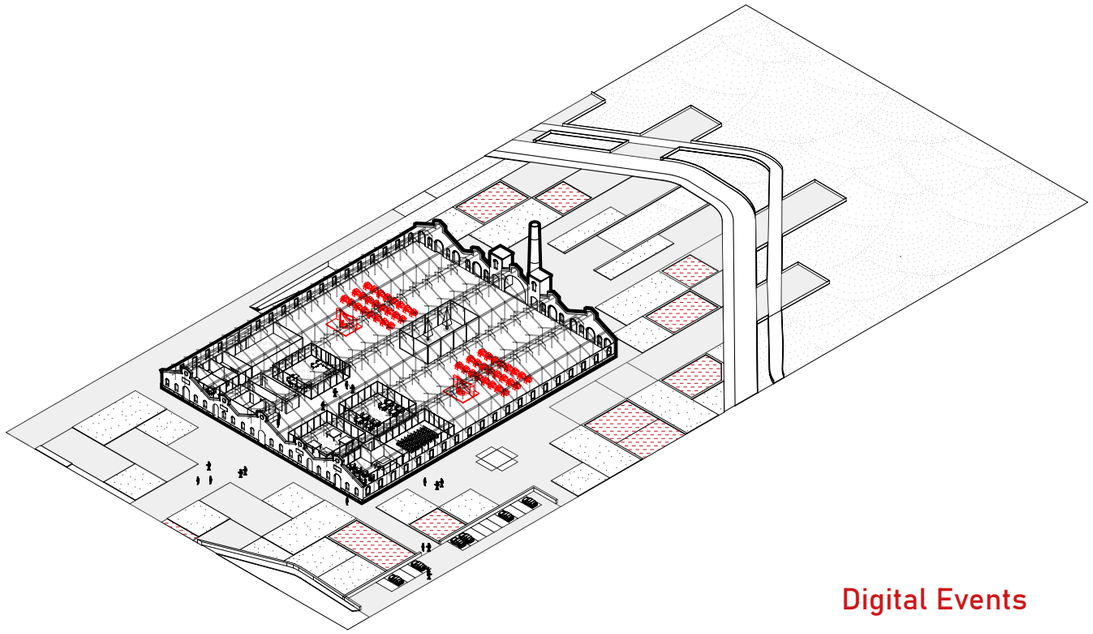
## Exhibitions

The exhibition area is designed to spread over a wide area and to bring together as many works and objects as possible in an efficient manner, while being designed to be flexible, modular and easily transformable and adaptable according to the type of event and exhibition.

**Keywords;** Structural Preservation(OGR), Circulation(LUMA Arles)

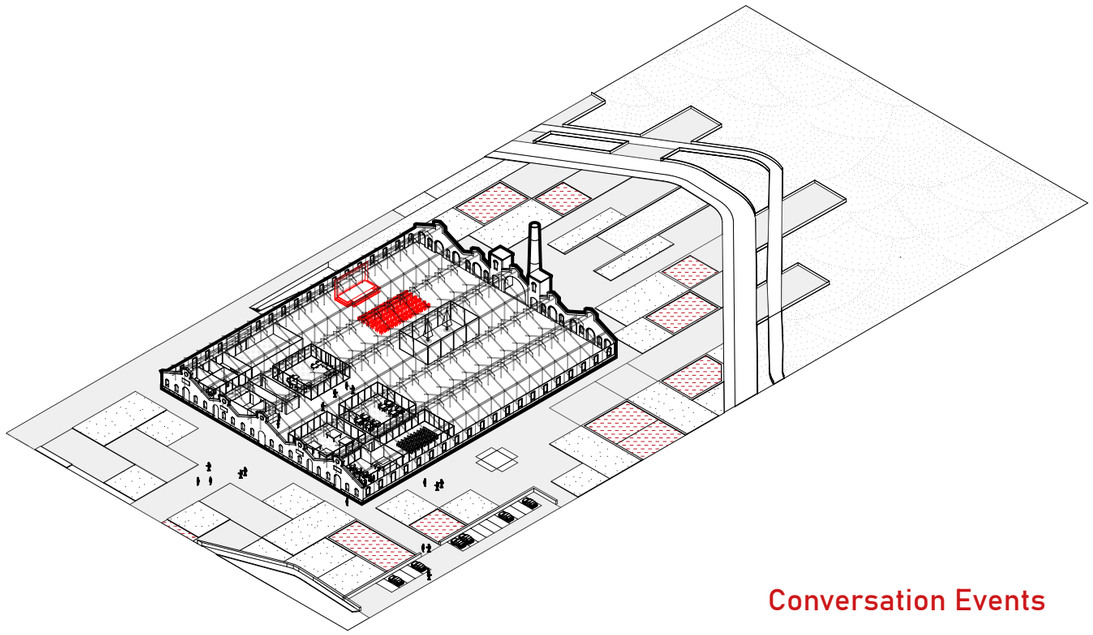






## Digital Events

While changing times, developing technology and digital transformation are frequently encountered in art, sports and daily life, in this sense, areas where both art and e-sports activities can find a place and organize can be adapted within the design.



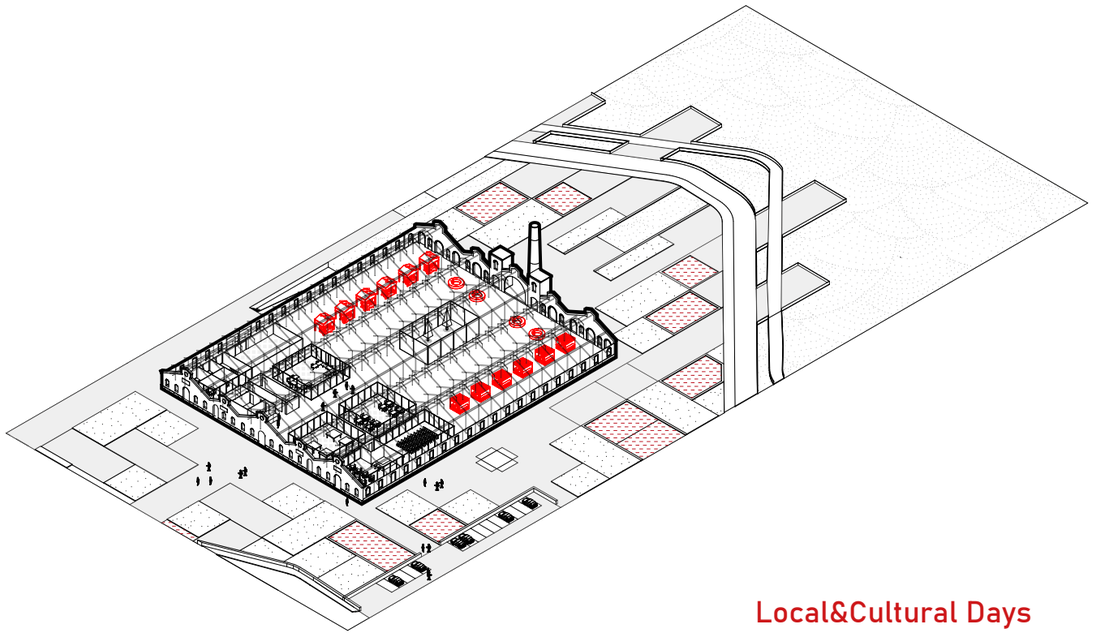
## Conversation Events

Theatre, concert Conferences, panel discussions and events with large audiences within the main exhibition area are made possible by the flexible and transformable dynamic structure of the exhibition area.

**Keywords;** Heritage(Battersea), Layering (LUMA Arles)



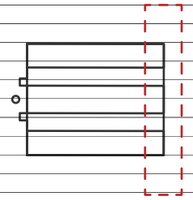




## Local&Cultural Days

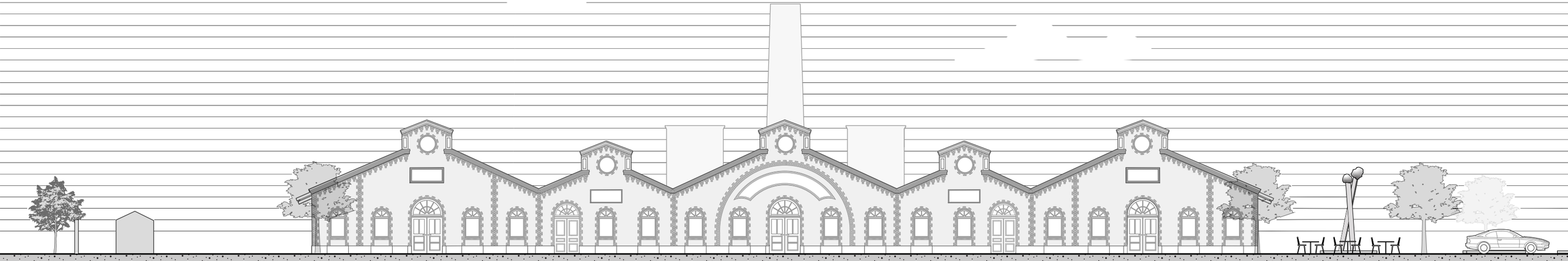
Organizing areas where cultural, local and international cultures and tastes are introduced and interacted with, thanks to the areas that can be transformed when desired around the exhibition area and inner courtyard.

04. KIBRITHANE ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY



# 4.7 Elevations

## Southeastern Front (Enterance Front)



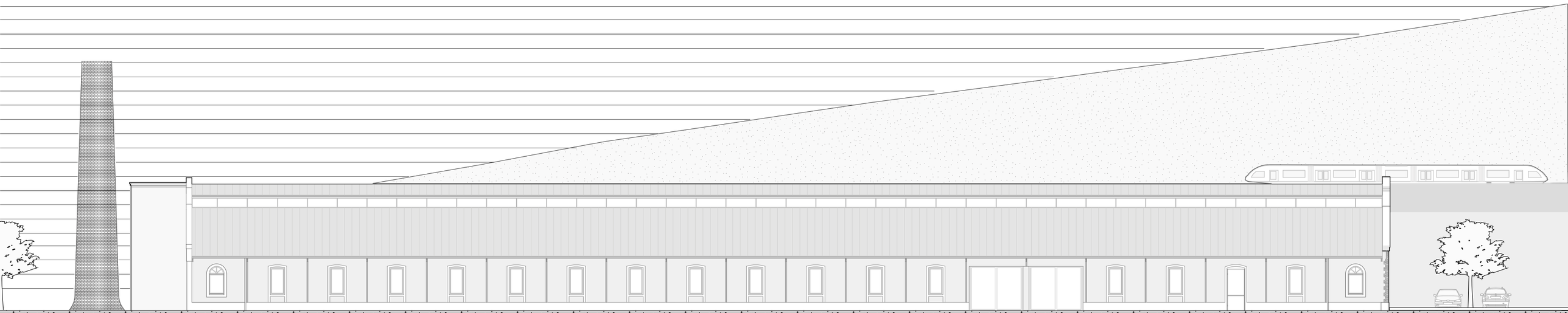
0 100 500 1000



**Keywords;** Heritage(Battersea)

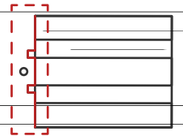
04. KIBRITHANE ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

# Southwest Facade (Left Side Facade)

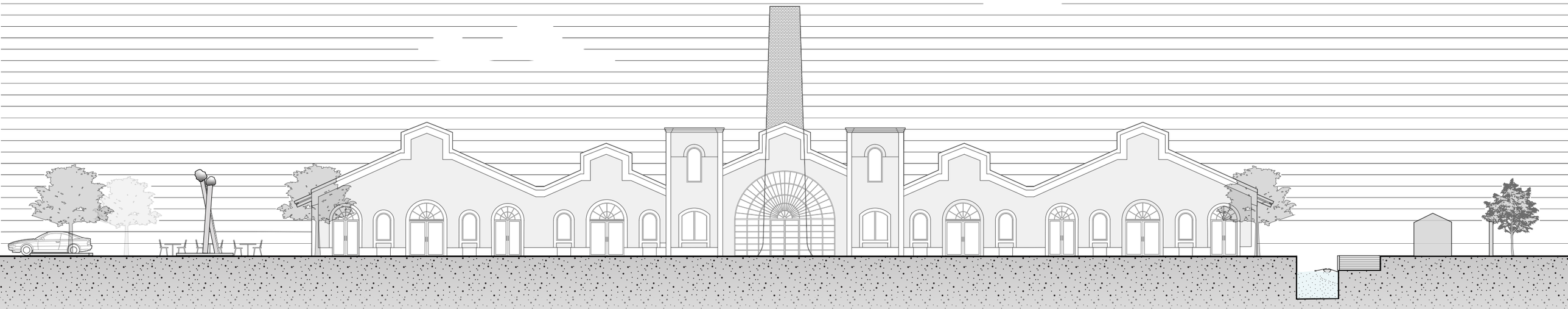


0 100 500 1000

04. KIBRITHANE ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY



## Northwest Facade (Back Facade)



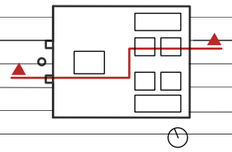
0 100 500 1000

04. KIBRITHANE ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

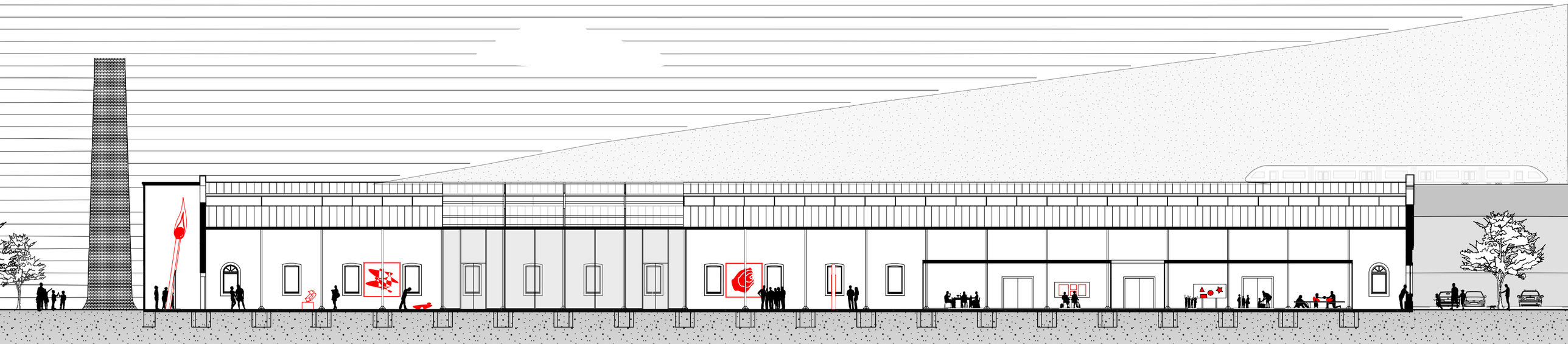
## Northeasternt Facade (Right Side Facade)

0 100 500 1000

04. KIBRITHANE ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY



# 4.8 Sections

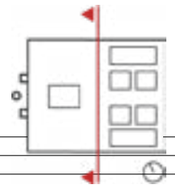


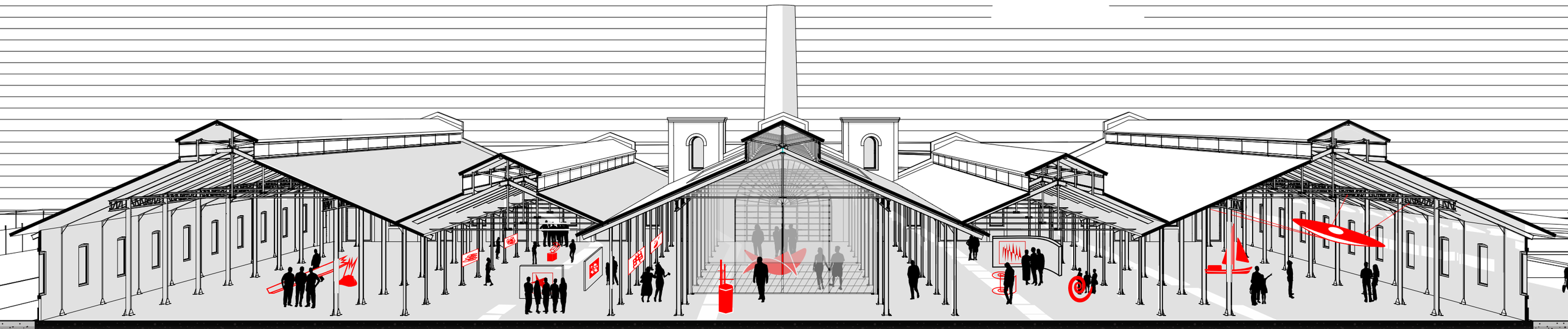
0 100 500 1000



**Keywords;** Heritage(Battersea), Layering (LUMA Arles)

04. KIBRITHANE
ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY









**Keywords;** Industrial Spatiality (OGR)

04. KIBRITHANE ADAPTIVE REUSE OF KUCUKCEKMECE MATCH FACTORY

# CONCLUSION

The subject addressed in this thesis is the idea of reviving the spaces and atmospheres lost in the transformation and rapid change process that we, as people living in a densely populated metropolis like Istanbul, have witnessed and observed over time. In this context, the emergence of the first examples of industrial areas in the Ottoman Empire, especially after Europe in this region, further increases our interest. The Match Factory, a significant part of this historical narrative, is located in the Küçükçekmece district and has been idle for many years. The process of re-functioning and bringing this historical structure back to life in the city is addressed. The re-evaluation of this structure from the industrial production period is not only a physical transformation; it is also considered a model that contributes to the local identity, preserves the urban memory and integrates into social life.

The study's primary purpose is to transform the structure into a flexible and multifunctional structure that can meet the needs of today's urban life while preserving its original character and historical layers. The central concept is an exhibition area, but the structure was designed with the potential to adapt to different public and cultural functions throughout the design process. This approach aims to create an inclusive public space that strengthens the dynamic structure of the space while bringing together various user profiles, ensuring its relevance in the future urban landscape.

One of the most striking elements in the design was the physical and visual relationship of the structure with water. The water element not only added aesthetic value; it also supported the continuity of public use by increasing the dialogue between the space and the natural environment. In this context, water became an element that carried the traces of the past, enriched the user experience, and took its place at the center of the design, adding a unique and intriguing dimension to the space.

It was emphasized during the project process that flexible design principles, public-private partnerships and a sensitivity to the needs of the local community, which involves actively seeking and incorporating community feedback into the design and planning process, should be addressed. In this direction, the proposed transformation model is not only an architectural intervention; it is a multi-layered approach that strengthens social integration, creates economic vitality and contributes to sustainable urban development.

As a result, this study aims to build a bridge between the past and the future through the revitalization of an abandoned industrial structure; it offers a public space proposal that contributes to urban culture by preserving social memory beyond the physical space..

# REFERENCES

## CHAPTER 1

### ARTICLES


Atmaca, G., and Reyhan, K. “Adaptive Reuse of Historic Heritage Buildings: A Case Study of Unye.” 2021.

Balsoy, G. “Gendering Ottoman Labor History: The Cibali Régie Factory in the Early Twentieth Century.” International Journal of Middle East Studies 41, no. 4 (2009): 609–633. https://doi.org/10.1017/S002074380999054X.

Bullen, P. A., and Love, P. E. D. “The Rhetoric of Adaptive Reuse or Reality of Demolition: Views from the Field.” Cities 27, no. 4 (2010): 215–224.

Doğan, A. “Reasons for Deterioration of Historical Buildings and the Significance of Memory in the Adaptive Reuse Process of Architectural Heritage: Case Study of Saint Vincent de Paul School in Istanbul.” 2023.

Dölen, E. “Industrial Organizations in Istanbul: Textile, Paper, Glass.” Industrial Organizations in Istanbul 6 (2019): 1. https://istanbultarihi.ist/569-industrial-organizations-in-istanbul-textile-paper-glass. Accessed January 1, 2025.

Ekinci, E. B. “Ottoman Factories: A Historical Reevaluation of Industrial Achievements.” 2024. https://ekrembugraekinci.com/article/?ID=1408&ottoman-factories:-a-historical-reevaluation-of-industrial-achievements. Accessed January 5, 2025.

Lanz, F., and Pendlebury, J. “Adaptive Reuse: A Critical Review.” 2022.

Öztürk, S. “Re-functioning of Industrial Buildings for Public Use Purposes.” 2020.

Saner, Mehmet. “Industrial Heritage: Concepts, Institutions and Approaches in Türkiye.” 2012.

Vafaie, F., Remøy, H., and Gruis, V. “Adaptive Reuse of Heritage Buildings: A Systematic Literature Review of Success Factors.” Habitat International 142 (2023): Article 102926. https://www.sciencedirect.com/science/article/pii/S0197397523001868. Accessed January 8, 2025.




### BOOKS


Douglas, J. Building Adaptation. 2nd ed. Oxford: Elsevier, 2006. https://www.uceb.eu/DATA/CivBook/08.%20Building%20Adaptation.pdf. Accessed January 15, 2025.


### WEBSITES


Docomomo US. “About Docomomo US.” n.d. https://www.docomomo-us.org/about/docomomo-us. Accessed November 14, 2024.

European Heritage Alliance. “E-FAITH.” n.d. https://europeanheritagealliance.eu/members/e-faith/. Accessed November 23, 2024.

European Heritage Alliance. “TICCIH Europe.” n.d. https://europeanheritagealliance.eu/members/ticcih-europe/. Accessed December 12, 2024.

European Route of Industrial Heritage. “About ERIH.” n.d. https://www.erih.net/about-erih. Accessed November 29, 2024.

International Council on Monuments and Sites (ICOMOS). “What Is ICOMOS?” n.d. https://www.icomos.org/what-is-icomos/. Accessed November 11, 2024.

United Nations Educational, Scientific and Cultural Organization (UNESCO). “UNESCO in Brief.” n.d. https://www.unesco.org/en/brief. Accessed Decem-


### IMAGES


**Figure 6.** “TICCIH Logo.” https://ticcih.org/cropped-cropped-ticcih-logo-300x108-png/. Accessed November 24, 2024.

**Figure 7.** “ICOMOS Logo.” https://www.ffue.org/icomos/. Accessed November 29, 2024.

**Figure 8.** “UNESCO Logo.” https://en.m.wikipedia.org/wiki/File:UNESCO_logo.svg. Accessed December 3, 2024.

**Figure 9.** “ERIH Logo.” https://www.erih.net/about-erih/erih-association. Accessed November 26, 2024.

**Figure 10.** “DOCOMOMO Logo.” https://culture360.asef.org/resources/docomomo-international/. Accessed December 1, 2024.

**Figure 11.** “E-FAITH Logo.” https://www.culturaltourism-network.eu/e-faith.html. Accessed December 9, 2024.

**Figure 12.** “Spread of Industrial Revolution in Europe.” https://www.britannica.com/event/Industrial-Revolution. Accessed December 6, 2024.

**Figure 13.** “Principle of Newcomen’s Steam Engine (1712).” https://en.wikipedia.org/wiki/Newcomen_atmospheric_engine. Accessed November 30, 2024.

**Figure 14.** Dölen, E. (2019). “Industrial Organizations in Istanbul: Textile, Paper, Glass.” İstanbul Tarihi (Vol. 6). https://istanbultarihi.ist/569-industrial-organizations-in-istanbul-textile-paper-glass. Accessed January 1, 2025.

**Figure 15.** “Beykoz Leather and Shoe Factory (1812).” https://kulturenvanteri.com/en/yer/beykoz-kundura-fabrikasi/#17.1/41.140713/29.078272. Accessed December 18, 2024.

**Figure 16.** “Paşabahçe Tekel Raki Factory (1822).” https://kulturenvanteri.com/en/yer/pasabahce-raki-ve-ispirto-fabrikasi/#17.1/41.120949/29.098978. Accessed December 11, 2024.

**Figure 17.** “Feshane Weaving Factory (1837).” https://www.sanayicidergisi.com.tr/sanayii-tarihi/tekstil-sanayiinin-temeli-feshane-i-amirede-atildi-h634.html. Accessed December 14,

**Figure 18.** “Hereke Textile Factory (1843).” https://www.anil-insaat.com/11-projeler/32-hereke-ipekli-dokuma-ve-hali-fabrikasi-muzesi/. Accessed January 2, 2025.

**Figure 19.** “Zeytinburnu Iron Factory (1843).” https://istanbultarihi.ist/567-a-heavy-industry-investment-in-constantinople-zeytinburnu-iron-factory#gallery-5. Accessed December 27, 2024.

**Figures 20–26.** Balsoy, G. (2009). The Cibali Régie Factory, Istanbul, Early 20th Century (From Collection Kadir Has Museum, n.d.). Multiple images showing workers and interior scenes of the factory. https://www.cambridge.org/core/services/aop-cambridge-core/content/view/3E716F74B9C1FE9278CF2DDC40AB1AE7/S002085900999023Xa.pdf/gendering-ottoman-labor-history-the-cibali-regie-factory-in-the-early-twentieth-century.pdf. Accessed December 22, 2024.

## CHAPTER 2

### ARTICLES


Erbaş, H. “Terk Edilmiş Endüstriyel Yapıların Kültürel Mekâna Dönüşümü: Bomontiada Örneği.” Mimarlık ve Yaşam Dergisi 20, no. 1 (2018): 42–55.

Forbes, A. “Adaptive Reuse and Museum Design: The Case of Zeitz MOCAA.” Journal of South African Architecture 12, no. 1 (2018): 45–60.

Southon, M. “Industrial Heritage Reimagined: The Luma Arles Transformation.” Journal of Adaptive Reuse and Cultural Architecture 15, no. 2 (2022): 71–88.

Tanyeli, U. “İstanbul’un Kentsel Mekanlarında Sanayi Yapılarının Evrimi.” METU Journal of the Faculty of Architecture 24, no. 2 (2007): 89–104.

Yılmaz, F. “Kentsel Mekânda Endüstri ve Kültür İlişkisi: Bomontiada Örneği.” İstanbul Planlama Dergisi 3, no. 2 (2020): 64–78.


### BOOKS


Celik, Z. İstanbul’da Endüstriyel Mirasın Yeniden Kullanımı: Bomontiada Örneği. İstanbul: Mimar Sinan Güzel Sanatlar Üniversitesi Yayınları, 2015.

Eldem, S. H. Osmanlı Mimarlığı ve Sanayi Yapıları. İstanbul: İstanbul Üniversitesi Yayınları, 1990.

Glinert, E. The London Compendium: A Street-by-Street Exploration of the Hidden Metropolis. London: Penguin Books, 2019.

Hoffmann, M. Reclaiming Arles: Vision and Values of Luma. Arles: Luma Publications, 2019.

IBB Miras. ArtİstanbulFeshane Restorasyon ve Dönüşüm Projesi Raporu. İstanbul: İstanbul Büyükşehir Belediyesi Yayınları, 2023.

Italian Railway Foundation. Industrial Rail Heritage of Italy: The OGR Legacy. Roma: Fondazione FS Italiane, 2015.

Kray, M. Osmanlı’dan Günümüze İstanbul’da Sanayileşme Süreci. İstanbul: Tarih Vakfı Yurt Yayınları, 1995.

Sudjic, D. The Edifice Complex: The Architecture of Power. London: Penguin Books, 2000.

Zeitz, J. Vision for African Art: Founding Zeitz MOCAA. Cape Town: Zeitz Foundation, 2017.


### REPORTS


Dogus Group. Bomontiada Yeniden Dönüşüm Raporu. İstanbul: Doğuş Yayın Grubu, 2016.

Herzog & de Meuron. Tate Modern Project Report. Basel: Herzog & de Meuron Architects, 2000.

Smets, B. Parc des Ateliers: Landscape Strategy. Brussels: BBS Landscape Studio, 2020.

Tate. Tate Modern Expansion: Blavatnik Building Press Pack. London: Tate Publishing, 2016.

Vinoly, R. Battersea Masterplan Design Brief. London: Rafael Vinoly Architects, 2013.

V&A Waterfront. Grain Silo Precinct Development Overview. Cape Town: V&A Waterfront Holdings, 2017.


### WEBSITES


A Corner in the World. “Festival Program and Venue History.” 2017. https://acornerintheworld.com. Accessed February 13, 2025.

Art Africa Magazine. “When We See Us: African Identity in Zeitz MOCAA.” 2024. https://www.artafricamagazine.org. Accessed January 27, 2025.

ArtReview. “Photography Now at Luma Arles: A Retrospective.” 2024. https://artreview.com. Accessed March 19, 2025.

Battersea Power Station Development Company. “History & Transformation Overview.” 2025. https://batterseapowerstation.co.uk. Accessed February 7, 2025.

Boffa, Petrone & Partners. “OGR Torino: Progetto di Restauro e Rifunzionalizzazione.” 2021. https://www.boffapetronepartners.it. Accessed March 8, 2025.

Bomontiada Official Website. “About and History Section.” 2025. https://www.bomontiada.com. Accessed February 9, 2025.

## WEBSITES


EXPOSED Festival. “Press Release & Program Schedule.” 2025. https://www.exposedtorino.it. Accessed March 10, 2025.

Glancey, J. “Turbine Triumph: Tate Modern and the Architecture of Reinvention.” The Guardian. 2000. https://www.theguardian.com. Accessed February 5, 2025.

Heatherwick Studio. “Zeitz MOCAA: Project Description and Design Concept.” 2017. https://www.heatherwick.com. Accessed January 21, 2025.

Luma Foundation. Luma Arles: Campus Overview and Historical Adaptation. 2021. https://www.luma.org. Accessed February 26, 2025.

Northcot Brick. “Supplying 1.75 Million Bricks for Battersea Restoration.” 2022. https://www.northcotbrick.co.uk. Accessed February 27, 2025.

OGR Torino. “About & History.” 2025. https://www.ogrtorino.it. Accessed March 22, 2025.

Selldorf Architects. Luma Arles Project Summary: Adaptive Reuse in Les Forges and La Mecanique Generale. 2018. https://www.selldorf.com. Accessed February 18, 2025.

Tate Modern. “About & Exhibitions.” 2025. https://www.tate.org.uk. Accessed February 1, 2025.

Tate Modern. “Dynamic Eye Exhibition Press Release.” 2024. https://www.tate.org.uk. Accessed March 15, 2025.

Zeitz MOCAA. “Museum Information and History.” 2025. https://www.zeitzmocaa.museum. Accessed January 19, 2025.


## IMAGES


**Figure 27.** “Arkitera Architecture Center.” https://www.arkitera.com/proje/artistanbul-feshane/. Accessed February 11, 2025.

**Figure 28.** “Arkitera Architecture Center.” https://www.arkitera.com/proje/artistanbul-feshane/. Accessed February 11, 2025.

**Figure 29**. “Arkitera Architecture Center.” https://www.arkitera.com/proje/artistanbul-feshane/. Accessed February 11, 2025.

**Figure 30.** “Arkitera Architecture Center.” https://www.arkitera.com/proje/artistanbul-feshane/. Accessed February 11, 2025.

**Figure 31.** “Arkitera Architecture Center.” https://www.arkitera.com/proje/artistanbul-feshane/. Accessed February 11, 2025.

**Figure 32.** “Arkitera Architecture Center.” https://www.arkitera.com/proje/artistanbul-feshane/. Accessed February 11, 2025.

**Figure 33.** “Arkitera Architecture Center.” https://www.arkitera.com/proje/artistanbul-feshane/. Accessed February 11, 2025.

**Figure 34.** “Arkitera Architecture Center.” https://www.arkitera.com/proje/artistanbul-feshane/. Accessed February 11, 2025.

**Figure 35.** “Arkiv.” https://www.arkiv.com.tr/proje/bomonti-fabrikasi-ortak-alanlari/5808. Accessed February 12, 2025.

**Figure 36.** “Arkitera Architecture Center.” https://www.arkitera.com/proje/artistanbul-feshane/. Accessed February 11, 2025.

**Figure 37.** “Arkitera Architecture Center.” https://www.arkitera.com/proje/artistanbul-feshane/. Accessed February 11, 2025.

**Figure 38.** “Arkitera Architecture Center.” https://www.arkitera.com/proje/artistanbul-feshane/. Accessed February 11, 2025.

**Figure 39.** “Arkitera Architecture Center.” https://www.arkitera.com/proje/artistanbul-feshane/. Accessed February 11, 2025.

**Figure 40.** “Arkitera Architecture Center.” https://www.arkitera.com/proje/artistanbul-feshane/. Accessed February 11, 2025.

**Figure 41.** “Daniele Ratti.” https://siemete.com/progetti/complesso-dell-ex-officine-grandi-riparazioni-ogr/. Accessed March 2, 2025.

**Figure 42.** “Gruppo Building.” https://building.it/en/ogr-the-architectural-project/. Accessed March 4, 2025.

**Figure 43.** “Artribune.” https://www.artribune.com/museo-galleria-arte/cantieri-ogr/?pag=2. Accessed March 7, 2025.

**Figure 44.** “Artribune.” https://www.artribune.com/museo-galleria-arte/cantieri-ogr/?pag=2. Accessed March 7, 2025.

**Figure 45.** “flickr.” https://www.flickr.com/photos/lfphotos/4618833502/. Accessed February 16, 2025.

**Figure 46.** “flickr.” https://www.flickr.com/photos/lfphotos/4618833502/. Accessed February 16, 2025.

**Figure 47.** “AD Classics.” https://www.archdaily.com/429700/ad-classics-the-tate-modern-herzog-and-de-meuron. Accessed February 5, 2025.

**Figure 48.** “AD Classics.” https://www.archdaily.com/429700/ad-classics-the-tate-modern-herzog-and-de-meuron. Accessed February 5, 2025.

**Figure 49.** “AD Classics.” https://www.archdaily.com/429700/ad-classics-the-tate-modern-herzog-and-de-meuron. Accessed February 5, 2025.

**Figure 50.** “AD Classics.” https://www.archdaily.com/429700/ad-classics-the-tate-modern-herzog-and-de-meuron. Accessed February 5, 2025.

**Figure 51.** “Architects Journal.” https://www.architectsjournal.co.uk/archive/squire-and-partners-reveals-plans-for-scheme-behind-tate-modern. Accessed February 8, 2025.

**Figure 52.** “AD Classics.” https://www.archdaily.com/429700/ad-classics-the-tate-modern-herzog-and-de-meuron. Accessed February 5, 2025.

**Figure 53.** “AD Classics.” https://www.archdaily.com/429700/ad-classics-the-tate-modern-herzog-and-de-meuron. Accessed February 5, 2025.

**Figure 54.** “AD.” https://www.archdaily.com/879763/zeitz-museum-of-contemporary-art-africa-heatherwick-studio. Accessed February 14, 2025.

**Figure 55.** “AD.” https://www.archdaily.com/879763/zeitz-museum-of-contemporary-art-africa-heatherwick-studio. Accessed February 14, 2025.

**Figure 56.** “AD.” https://www.archdaily.com/879763/zeitz-museum-of-contemporary-art-africa-heatherwick-studio. Accessed February 14, 2025.

**Figure 57.** “AD.” https://www.archdaily.com/879763/zeitz-museum-of-contemporary-art-africa-heatherwick-studio. Accessed February 14, 2025.

**Figure 58.** “Tomà Berlanda.” https://www.architectural-review.com/buildings/zeitz-geist-zeitz-mocaa-cape-town-south-africa-by-heatherwick-studio. Accessed March 1, 2025.

**Figure 59.** “Tomà Berlanda.” https://www.architectural-review.com/buildings/zeitz-geist-zeitz-mocaa-cape-town-south-africa-by-heatherwick-studio. Accessed March 1, 2025.

**Figure 60.** “AD.” https://www.archdaily.com/879763/zeitz-museum-of-contemporary-art-africa-heatherwick-studio. Accessed February 14, 2025.

**Figure 61.** “AD.” https://www.archdaily.com/990615/battersea-power-station-wilkinsonerye. Accessed March 12, 2025.

**Figure 62.** “AD.” https://www.archdaily.com/990615/battersea-power-station-wilkinsonerye. Accessed March 12, 2025.

**Figure 63.** “AD.” https://www.archdaily.com/990615/battersea-power-station-wilkinsonerye. Accessed March 12, 2025.

**Figure 64.** “AD.” https://www.archdaily.com/990615/battersea-power-station-wilkinsonerye. Accessed March 12, 2025.

**Figure 65.** “AD.” https://www.archdaily.com/990615/battersea-power-station-wilkinsonerye. Accessed March 12, 2025.

**Figure 66.** “AD.” https://www.archdaily.com/990615/battersea-power-station-wilkinsonerye. Accessed March 12, 2025.

**Figure 67.** “Selldorf Architects.” https://www.selldorf.com/projects/luma-arles. Accessed March 17, 2025.

**Figure 68.** “Selldorf Architects.” https://www.selldorf.com/projects/luma-arles. Accessed March 17, 2025.

**Figure 69.** “Selldorf Architects.” https://www.selldorf.com/projects/luma-arles. Accessed March 17, 2025.

**Figure 70.** “Selldorf Architects.” https://www.selldorf.com/projects/luma-arles. Accessed March 17, 2025.

**Figure 71.** “Selldorf Architects.” https://www.selldorf.com/projects/luma-arles. Accessed March 17, 2025.

**Figure 72.** “Selldorf Architects.” https://www.selldorf.com/projects/luma-arles. Accessed March 17, 2025.

## CHAPTER 3

### BOOKS


Aktar, A. Varlık Vergisi ve 'Türkleştirme' Politikaları. İstanbul: İletişim Yayınları, 2000.

Ayverdi, E. H. Fatih Devri İstanbul'u. İstanbul: İstanbul Fetih Cemiyeti Yayınları, 1972.

Baykara, T. İstanbul'un Endüstri Tarihi. İstanbul: Türkiye İş Bankası Yayınları, 2002.

Eldem, E. İstanbul: Bir Kent Tarihi. İstanbul: Osmanlı Bankası Arşiv ve Araştırma Merkezi, 2000.

Ergin, O. N. Mecelle-i Umur-ı Belediyye. İstanbul: İstanbul Belediyesi Yayınları, 1939.

Eyice, S. İstanbul'un Tarihsel Topoğrafyası Üzerine Araştırmalar. İstanbul: İstanbul Üniversitesi Edebiyat Fakültesi Yayınları, 1983.

Freely, J. A History of Ottoman Architecture. London: WIT Press, 2011.

İnalcık, H. Osmanlı'da Devlet, Hukuk, Adalet. İstanbul: Eren Yayıncılık, 2000.

Kafadar, C. Between Two Worlds: The Construction of the Ottoman State. Berkeley: University of California Press, 1995.

Karpat, K. H. Ottoman Population 1830–1914: Demographic and Social Characteristics. Madison: University of Wisconsin Press, 1985.

Küçükçekmece Belediyesi. Küçükçekmece Tarihçesi ve Göç Hafızası. İstanbul: Küçükçekmece Belediyesi Kültür Yayınları, 2019.

Küçükçekmece Belediyesi. Küçükçekmece'nin Ulaşım, Doğal ve Kültürel Miras Envanteri. İstanbul: Küçükçekmece Belediyesi Yayınları, 2022.

Küçükçekmece Belediyesi. Küçükçekmece Tarihi ve Kültürel Mirası. İstanbul: Küçükçekmece Belediyesi Yayınları, 2019.

Orman Genel Müdürlüğü. Türkiye'deki Anıtsal Ağaçlar ve Türleri. Ankara: T.C. Tarım ve Orman Bakanlığı Yayınları, 2020.

Pamuk, Ş. The Ottoman Empire and European Capitalism, 1820–1913: Trade, Investment and Production. Cambridge: Cambridge University Press, 2004.

Greek Orthodox Patriarchate of Constantinople. Minor Settlements and Greek Communities in Thrace: Mikrorio/Küçükçekmece. Athens: Patriarchal Historical Series, 2002.


### ARTICLES


Çelik, M., and Yüceer, H. "İstanbul'da Kentsel Ulaşımda Yaya ve Bisiklet Entegrasyonu Sorunları: Küçükçekmece Örneği." Şehir ve Bölge Planlama Dergisi 28, no. 1 (2020): 45–60.

Erkip, F. "The Transformation of the Urban Periphery: The Case of Istanbul." Cities 18, no. 1 (2001): 21–29.

Kıraç, A. B., Coşkun, B. S., and Erdoğan, D. "An Evaluation of the Küçükçekmece Ottoman Match Factory as Industrial Heritage." (2018): 67–84.
Küçükçekmece Belediyesi. Kentsel Dönüşüm ve Mahalle Analizleri Raporu. İstanbul: Küçükçekmece Belediyesi Yayınları, 2022.


### REPORTS


İstanbul Büyükşehir Belediyesi (İBB). İstanbul İlçeleri Ulaşım Entegrasyon Raporu: Küçükçekmece Örneği. İstanbul: İBB Ulaşım Planlama Daire Başkanlığı, 2023.

İstanbul Büyükşehir Belediyesi (İBB). İstanbul İmar Planı ve Kentsel Gelişim Raporu: Küçükçekmece ve Çevresi. İstanbul: İBB Şehir Planlama Müdürlüğü, 2023.

İstanbul Büyükşehir Belediyesi (İBB). İstanbul Ulaşım Ana Planı (IUAP): Küçükçekmece ve Marmara Kıyısı Kesişim Alanı İncelemesi. İstanbul: Ulaşım Planlama Müdürlüğü, 2023.

Küçükçekmece Belediyesi. Kentsel Altyapı, Otopark ve Ulaşılabilirlik Raporu. İstanbul: Küçükçekmece Belediyesi Yayınları, 2022.

Küçükçekmece Belediyesi. Kentsel Dönüşüm ve Mahalle Analizleri Raporu. İstanbul: Küçükçekmece Belediyesi Yayınları, 2022.

Küçükçekmece Belediyesi. Küçükçekmece'de Endüstriyel Miras: Kibrit Fabrikası Raporu. İstanbul: Küçükçekmece Belediyesi Yayınları, 2022.

T.C. Çevre, Şehircilik ve İklim Değişikliği Bakanlığı. İstanbul Kentsel Mekânlar Risk ve Yenileme Envanteri. Ankara: ÇŞB Yayınları, 2021.

TCDD. Marmaray Projesi ve Raylı Sistem Entegrasyonu Raporu. Ankara: TCDD Genel Müdürlüğü, 2023.

TCDD. Marmaray ve Yüksek Hızlı Tren Hatları Raporu. Ankara: TCDD Genel Müdürlüğü, 2023.

## THESIS

Erdoğan, D. Industrial Heritage Conservation in Küçükçekmece Ottoman Matches Factory and Re-use Proposal. Master's thesis, Mimar Sinan Fine Arts University, 2012.

## WEBSITES

TRAKUS. "Türkiye Kuş Listesi ve Gözlem Verileri." https://www.trakus.org. Accessed May 17, 2025.

## ARCHIVES

BOA (Başbakanlık Osmanlı Arşivi). Kav ve Kibrit Osmanlı Şirketi Hakkında Belgeler. İstanbul: Osmanlı Arşivi Koleksiyonu, 1875. (archive)

ICOMOS. ICOMOS-ISCS: Illustrated Glossary on Stone Deterioration Patterns. 2008. https://openarchive.icomos.org/id/eprint/434/. Accessed July 3, 2025

Turkish Statistical Institute. 1878 Ottoman Census Records – Istanbul Region. Archive of Istanbul, 1878. (archive)

## IMAGES

**Figure 73.** Erdoğan, D. Industrial Heritage Conservation in Küçükçekmece Ottoman Matches Factory and Re-use Proposal. Master's thesis, Mimar Sinan Fine Arts University, 2012.

**Figure 74.** Salt Research Archives. Küçükçekmece Lake, Rhegion Bridge, Istanbul, Turkey. 1903. https://archives.saltresearch.org/handle/123456789/8042. Accessed May 27, 2025.

**Figure 75.** Salt Research Archives. Küçükçekmece Lake, Rhegion Bridge, Istanbul. 2025.

**Figure 76.** Salt Research Archives. Küçükçekmece Lake, Rhegion Bridge, Istanbul. 2025.

**Figure 77.** "The Byzantine Legacy." 2021. https://thebyzantinelegacy.com/kucukcekmece-bridge. Accessed May 14, 2025.

**Figure 78.** Salt Research Archives. Küçükçekmece Lake, Rhegion Bridge, Istanbul, Turkey. 1903. https://archives.saltresearch.org/handle/123456789/7434. Accessed April 30, 2025.

**Figure 82**. Endeksa. "Küçükçekmece Real Estate Market Analysis." https://www.endeksa.com/tr/analiz/turkiye/istanbul/kucukcekmece/demografi. Accessed May 23, 2025.

**Figure 83.** Nufusu. "Population by Provinces." https://www.nufusu.com/ilce/kucukcekmece_istanbul-nufusu. Accessed April 22, 2025.

**Figure 84.** Endeksa. "Küçükçekmece Age Groups." https://www.endeksa.com/tr/analiz/turkiye/istanbul/kucukcekmece/demografi. Accessed May 24, 2025.

**Figure 85.** Endeksa. "Küçükçekmece Population Distribution by Age." https://www.endeksa.com/tr/analiz/turkiye/istanbul/kucukcekmece/demografi. Accessed May 25, 2025.

**Figure 86.** Endeksa. "Küçükçekmece Marital Status Ratio and Socio-economic Status Ratio." https://www.endeksa.com/tr/analiz/turkiye/istanbul/kucukcekmece/demografi. Accessed May 26, 2025.

**Figure 87.** Endeksa. "Küçükçekmece Level of Education." https://www.endeksa.com/tr/analiz/turkiye/istanbul/kucukcekmece/demografi. Accessed May 28, 2025.

**Figure 95.** Ottoman Military Academy Printing House. Ottoman Match Factory Map. 1914–1915. Atatürk Library Map Archive, Istanbul Metropolitan Municipality Atatürk Library, Istanbul, Turkey.

**Figure 96.** Ottoman Military Academy Printing House. Ottoman Match Factory Map. 1914–1915. Atatürk Library Map Archive, Istanbul Metropolitan Municipality Atatürk Library, Istanbul, Turkey.

**Figure 97.** Kıraç, A. B., Coşkun, B. S., and Erdoğan, D. "An Evaluation of the Küçükçekmece Ottoman Match Factory as Industrial Heritage." 2018.

**Figure 98.** Kıraç, A. B., Coşkun, B. S., and Erdoğan, D. "An Evaluation of the Küçükçekmece Ottoman Match Factory as Industrial Heritage." 2018.

**Figure 99.** Servet-i Fünun. (393). 1898. https://www.servetifununkitap.com/kucukcekmece-insa-ve-iktisat-olunacak-osmanli-kibrit-fabrikasinin-mimari-ve-dahiliyesi/. Accessed May 29, 2025.

**Figure 100.** Servet-i Fünun. (393). 1898. https://www.servetifununkitap.com/kucukcekmece-insa-ve-iktisat-olunacak-osmanli-kibrit-fabrikasinin-mimari-ve-dahiliyesi/. Accessed May 29, 2025.

**Figure 102.** NTV. "Aerial View of the Ottoman Match Factory." 2021. https://www.ntv.com.tr/galeri/turkiye/osmanlinin-ilk-kibrit-fabrikasi-70-milyon-liraya-satisa-cikarildi,_y37pHnMF0GmGnNILqDSQA/GTQst5X2Rkit-vu2fH3QHEQ. Accessed May 30, 2025.

# THANKS

Acknowledgements As we reach the end of this academic journey, we feel deep gratitude for all the people who have accompanied, supported and inspired us throughout these years—especially during the challenging and rewarding process of writing this thesis. First and foremost, we owe a debt of gratitude to **Professor Manuela Mattone** and **Professor Elena Vigliocco.** Their invaluable guidance, generous support, and insightful expertise were instrumental in shaping this work. Their encouragement was a beacon of light, guiding us through the most challenging and rewarding moments of the process. We extend our most profound appreciation to our families, whose unwavering love, patience, and belief in us have been the bedrock of our strength. Their endless support has been the driving force behind our journey. We sincerely thank all our classmates and everyone we have enjoyed studying with. Your presence has made this experience more meaningful, inspiring, and memorable. We would also like to take a moment to highlight a few individuals who played a particularly significant role along the way: A special thank you goes to **Diğdem Erdoğan**, whose help from the beginning to the final stage of the thesis was irreplaceable. Her support was not only technically precise but also emotionally uplifting, and her presence made a real difference for both of us. We also sincerely thank **Akif Atmaca** and **Arda Cincin** for their valuable technical insights, which helped us solve key design and research challenges. And finally, we express our warm gratitude to **Sinem Metin**, **Ahmet Can Başak, Güz Sonat Yazıcı**, **Yusuf Akçay**, **Levent Barış**, and **Anıl Balcı**, **Kibrithane PLATO**—each of whom provided us with motivation, encouragement, and emotional support when we needed it the most. This thesis is not only the result of our academic efforts but also the reflection of a shared journey made meaningful by the people who believed in us. You are all part of this success.

— **Müslim Enes Fidan & Burak Yemen**