HERITAGE ² | PRESERVING HISTORY BY STORING IT

DIPLOMARBEIT

H E R I T A G E ²
PRESERVING HISTORY BY STORING IT

ausgeführt zum Zwecke der Erlangung des akademischen Grades
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Pier Paolo Tamburelli
Univ.Prof. Prof. Dott.arch.

Anna Livia Friel
Univ.Ass.in PhD

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Institut für Architektur und Entwerfen

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Fakultät für Architektur und Raumplanung

von

Paula Kessing
12123616

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KURZFASSUNG

Die vorliegende Diplomarbeit beschäftigt sich mit der Revitalisierung eines vom Verfall bedrohten historischen Gebäudes. Das Objekt 6, ein ursprünglich als Depot genutztes Gebäude, wurde 1850 nach den Entwürfen von Eduard van der Nüll und August Sicard von Sicardsburg errichtet. Als Bestandteil des Artillerie-Arsenals der kaiserlich-königlichen Monarchie stellt es ein bedeutendes Zeitzeugnis einer bewegten Vergangenheit dar.

Zunächst wird ein Überblick über die Historie und Weiterentwicklung des Wiener Arsenals gegeben. Trotz Kriegsschäden und Neuverbauung des Innenhofareals hat sich die Anlage in ihren wesentlichen Teilen erhalten und steht derzeit weitgehend unter Denkmalschutz. Heute von immensen städtebaulichen Zäsuren und mangelnder Infrastruktur geprägt, soll das Ensemble künftig durch die Aktivierung von ungenutzten Potenzialen wiederbelebt und der Erhalt der historischen Gebäude und Flächen für die Zukunft gesichert werden. Zu diesem Zweck sollen insbesondere kulturelle Einrichtungen neu angesiedelt und vorhandene gestärkt sowie Synergien zwischen verschiedenen Institutionen geschaffen werden. Ein besonderer Fokus liegt dabei auf Institutionen, die sich mit Restaurierung und Konservierung von kulturellem Erbe befassen.

Untersuchungen zu bestehenden Archiven in Wien zeigen, dass ein zusätzlicher Raumbedarf für verschiedene Institutionen besteht und die dezentrale Verteilung der Depots auf mehrere, oft weit entfernte Standorte als nachteilig angesehen wird. Eine Zusammenlegung dieser Institutionen an einem zentralen Standort bietet die Möglichkeit der gemeinsamen Nutzung von Infrastruktur und Ressourcen, was zu einer Reduktion des Flächenbedarfs und der Kosten führt, um die langfristige Sicherung und Erweiterung von Sammlungen zu gewährleisten.
Ein umfassendes Archiv für Baukultur kann eine Plattform für die Forschung und Kooperation bisher getrennter Institutionen bieten und ermöglicht zudem die langfristige Bewahrung des baukulturellen Erbes. Dies meint sowohl den Erhalt der historischen Bausubstanz als auch der Archivalien, die künftig dort untergebracht werden – 'Heritage²'. Zudem wird das Objekt 6 für die Öffentlichkeit zugänglich gemacht und in den kulturellen Diskurs eingebunden.

Zur Anpassung des denkmalgeschützten Gebäudes an die zukünftige Nutzung werden gezielte Eingriffe im Sinne des ‚Weiterbauens' vorgenommen. Dieses Prinzip bewahrt den historischen Charakter, während die Anforderungen an eine zeitgemäße Nutzung berücksichtigt werden. Diese Arbeit untersucht, inwieweit durch die Verbindung von denkmalpflegerischen Zielen und dem Erfüllen neuer Nutzungsanforderungen ein nachhaltiger Umgang mit historischem Bestand ermöglicht werden kann.

ABSTRACT

This diploma thesis focuses on the revitalisation of a historic building facing the threat of decay. Object 6, a structure originally utilised as a depot, was constructed in 1850 according to the designs of Eduard van der Nüll and August Sicard von Sicardsburg. Formerly part of the Artillery Arsenal of the imperial-royal monarchy, the building serves as a significant testament to its eventful past.

The thesis commences with an overview of the history and further development of the Vienna Arsenal. Despite the destruction caused by World War II and the subsequent restructuring of the inner courtyard area, the complex has been preserved in its essential components and is now mostly under heritage protection. Today characterised by immense urban disruption and a lack of infrastructure, the ensemble is to be revitalised in future by activating unused potential and securing the preservation of the historic buildings and areas for the future. In this context, cultural institutions are to be newly located and existing ones strengthened, with a focus on fostering synergies between different organizations. A particular focus is placed on institutions involved in the restoration and conservation of cultural heritage.

Studies on archives in Vienna reveal a need for additional space for various institutions, with the decentralised distribution of depots across multiple, often distant locations is considered disadvantageous. Consolidating these institutions at one central location offers the opportunity to share infrastructure and resources, thereby reducing space requirements and costs to ensure the long-term preservation and expansion of collections.

A comprehensive 'Archive for Baukultur' could serve as a platform for research and collaboration among previously separate institutions, as well as enabling the long-term preservation of architectural heritage. This includes the preservation of the historic building itself, as well as the archival materials that are to be housed there in the future – 'Heritage²'. Furthermore, Object 6 will be made accessible to the public and integrated into the cultural discourse.

To adapt the listed building to its future use, targeted interventions will be made following the principle of 'Weiterbauen'. This approach preserves the historical character of the building while meeting the demands of contemporary use. This thesis explores the question of how a sustainable approach to historic structures can be achieved by combining the preservation of monuments with new usage requirements.

1 Vienna Arsenal

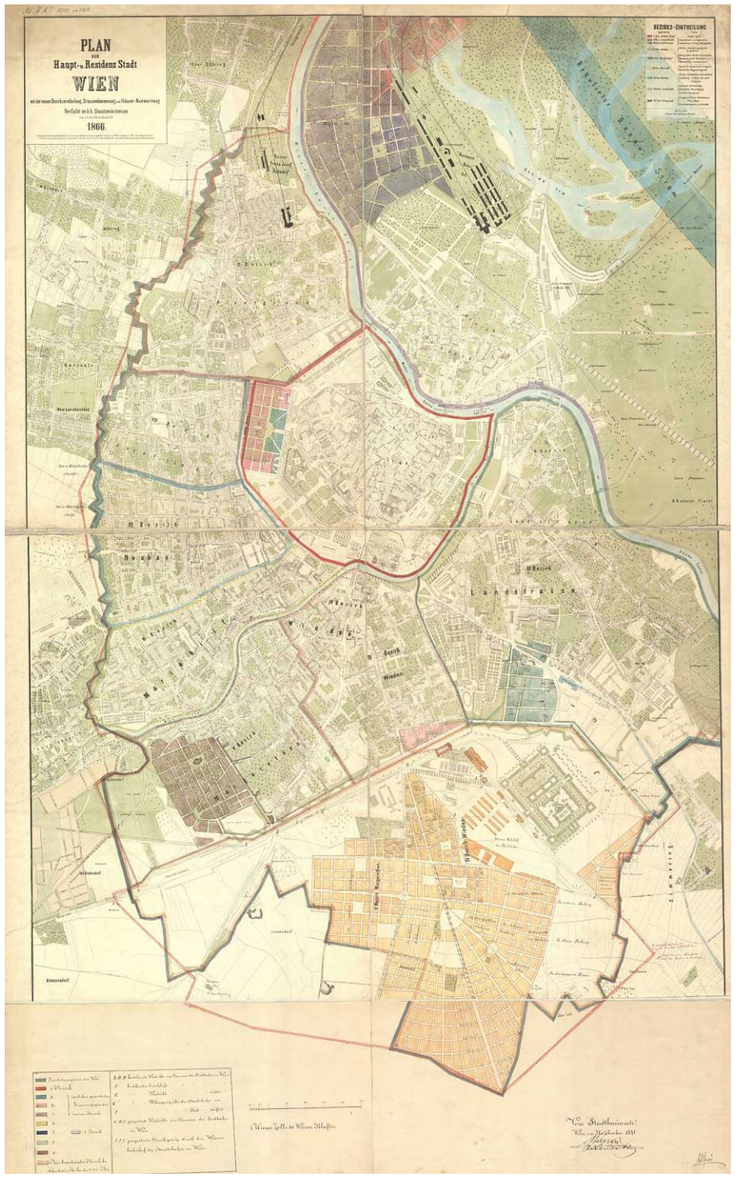
1 INTRODUCTION

The climate crisis and the increasing scarcity of resources present urgent challenges for construction worldwide. The responsible use of existing buildings is becoming the central task of sustainable Baukultur. Every demolition not only results in the loss of valuable building materials, but also the architectural heritage that is stored in existing buildings. Instead of demolition, the focus should be on *Weiterbauen* of what already exists – a strategy that is both ecologically and culturally valuable.
As Lucius Burkhardt aptly stated in 1979, the greatest waste lies in unnecessary new construction, which could be avoided through better organization of existing spaces.[1] In this sense, the goal cannot be to produce new buildings and seal off further areas. Instead, the priority should be to activate unused potential – both in architecture and in the urban context.

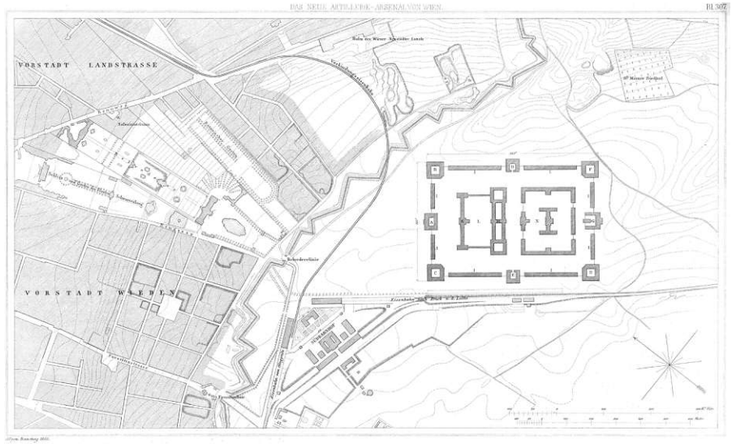
A forward-thinking Baukultur must also be a Umbaukultur. Buildings are not static objects, but bear layers of time that reveal changes in their use and environment. A building is never truly finished. Allowing this thought and consider buildings as *unfinished houses* [2], new perspectives emerge for working with what already exists. The ability to recognize new layers as a quality offers not only creative but also sustainable perspectives. The further development of existing buildings makes it possible to preserve their character while integrating new, contemporary functions. Monument preservation should also expand its conceptual framework and field of activity. As Burkhardt emphasizes, the aim should no longer be about protecting buildings from their users, but rather about ensuring their preservation through continued use.[3]

Monument preservation should not be understood as a pure conservation practice but as a transformative one that actively integrates the existing into new contexts instead of placing it in an outmoded state of rigidity.
This work examines how a sensitive and at the same time future-oriented approach to the existing building can be achieved. The key question is how existing structures can be sensibly preserved and further developed and how the history of a place can be continued through architectural interventions without losing its identity.

1 Burckhardt (2022), p. 58
2 Kaiser & Shen (2022), p. 58
3 Burckhardt (2022), p. 59



2 Vienna, 1860



3 Location of the Arsenal

2 VIENNA ARSENAL

HISTORY OF THE ARSENAL

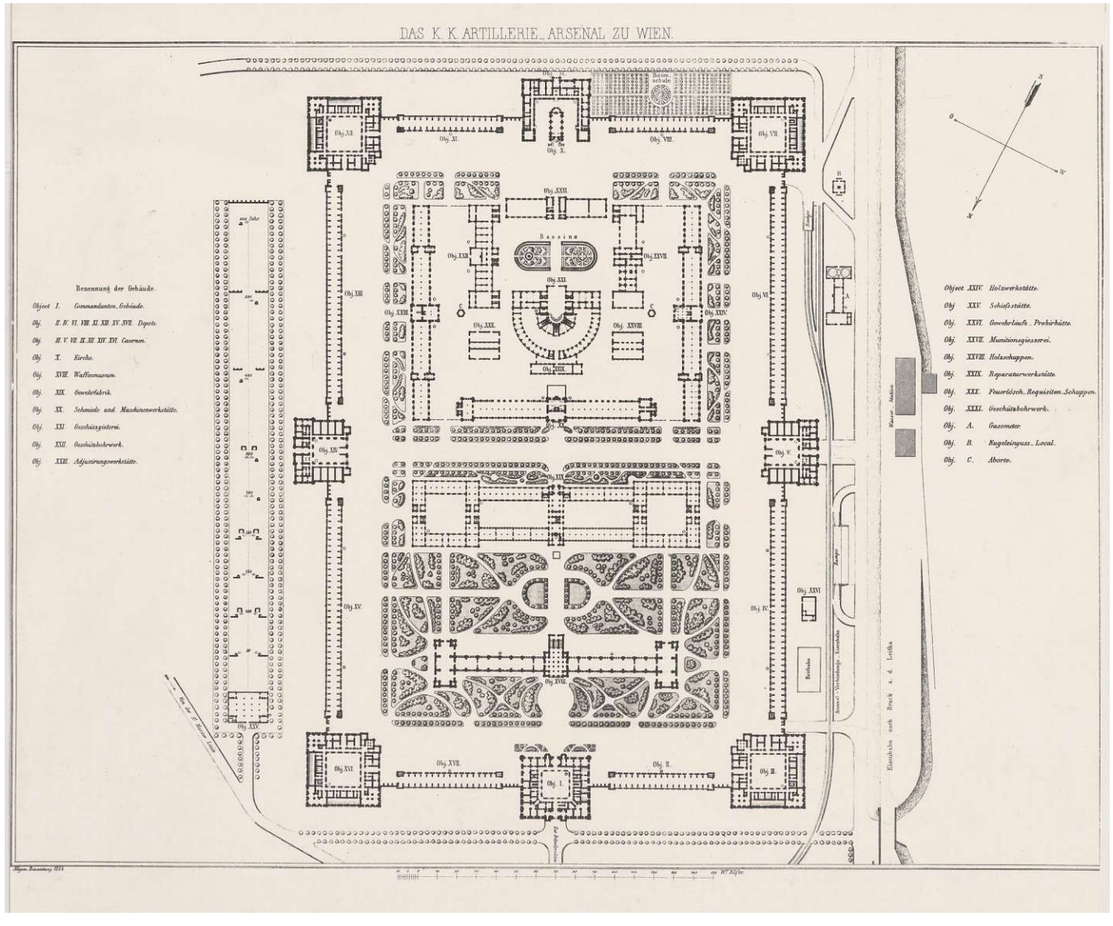
The Vienna Arsenal, one of the most important 19th-century military installations in Austria, was built at a time of political upheaval and military challenge. Under Emperor Franz Joseph I, plans were developed for an arsenal outside the city centre to serve as a central production facility for weapons. This was necessary as the existing workshops and storage facilities for military weapons were widely scattered[1]. Even before 1848, there were plans to build an artillery arsenal to consolidate these scattered facilities into a single site. The revolution of 1848 accelerated these plans as the vulnerability of the military became apparent[2]. After the suppression of the revolution, it was decided to build defensive barracks around the city centre in order to suppress future uprisings by the working classes. These included the Kaiser Franz Joseph Kaserne, the Kronprinz Rudolf Kaserne (now the Rossauer Kaserne) and the k. k. Artillerie Arsenal[3].

In the same year, twelve architects were invited to participate in a competition to submit designs for the Arsenal. Among the most important designs were those of Antonius Pius de Rigel, Carl Rösner, August Siccard von Siccardsburg, Eduard van der Nüll, Ludwig Förster and Theophil Hansen. In the end, Rösner, Siccardsburg, van der Nüll, Förster and Hansen were allowed to work together on a design, although the concept of a building for cultural functions was taken from Rigel's design[4]. The announced prize money for the competition was 100 ducats, the equivalent today of about 19.200 euros.

Several locations were considered for the site, including the square in front of the St. Marxer line, the Neugebäude in Simmering, the Wienerberg, the square in front of the Matzleinsdorfer line, the Schmelz, the Türkenschanzpark and the Floridsdorfer Spitz. In the end, the site in front of the Belvedere/St. Marxer line was chosen due to its flat terrain, elevated location and good water and soil conditions.[5] A decisive advantage of this location was the possibility of controlling Vienna beyond Stephansplatz with the cannons of the time. In addition, the barracks at Rennweg, the artillery parade ground at Simmeringer Haide and the material depot at Neugebäude in Simmering were in the immediate vicinity[6].

The original plan was to build the Arsenal as a fortress with bomb-proof vaults and defensive corridors. However, this plan was abandoned for financial reasons, as its realisation would have increased the costs by a factor of three to four. The planning of the buildings of the Vienna Arsenal was divided among the architects involved.
Eduard van der Nüll and August Siccard von Siccardsburg designed and built all the perimeter buildings, with the exception of the rear central barracks and the church, as well as the Forge and Machine workshop, the Adjustment Workshop and the Wood Workshop. Planning for the Weapons Museum began under the direction of Ludwig Förster and Theophil Hansen, but was ultimately completed by Hansen alone. The two architects also collaborated on the design of the Rifle Factory and Firing Range. Other important buildings such as the Gun Boring Mills, Gun Foundry and Ammunition Foundry were built according to Förster‘s plans. Carl Rösner was responsible for the design of the church, the surrounding barracks and the Rifle Testing Hut[7].

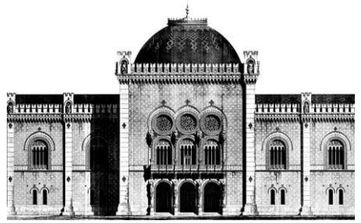
Construction began in May 1849 with the levelling of the site and the excavation of the foundations for the depots and the necessary wells. A total of 120 million bricks were used[8], mainly from the Miesbach brickworks (now Wienerberger), as well as sand-lime bricks from St. Margarethen and Wöllersdorf. The construction of the Arsenal lasted until 1856 and was not only admired as a military facility, but was also regarded as an outstanding example of 19th century architecture[9] and as the starting point of the last great imperial architectural epoch in Vienna[10].



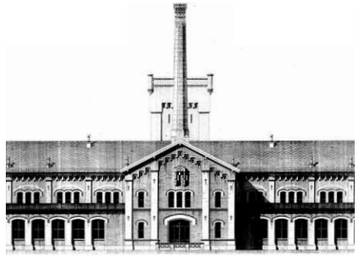
4 Arrangement of the Objects

Commandant's Building	I		
Depots	II, IV, VI, VIII, XI, XIII, XV, XVII		
Barracks	III, V, VII, IX, XII, XIV, XVI		
Church	X		
Weapons Museum	XVIII		
Rifle Factory	XIX		
Forge and Machine Workshop	XX		
Gun Foundry	XXI		
Gun Boring Mill	XXII		
Adjustment Workshop	XXIII		
Wood Workshop	XXIV		
Firing Range	XXV		
Rifle Testing Hut	XXVI		
Ammunition Foundry	XXVII		
Wood Shed	XXVIII		
Repair Workshop	XXIX	Gasometer	A
Fire-Fighting Prop Shed	XXX	Ball Casting Shop	B
Gun Boring Mill	XXXI	Lavatories	C

5 Commandant‘s Building - Object I



6 Weapons Museum - Object XVIII



7 Rifle Factory - Object XIX

8 Firing Range - Object XXV

9 Depot - Object XVII

STRUCTURE OF THE ARSENAL

The Arsenal complex covers a rectangular area of 688 by 480 metres and comprises a total of 33 buildings. It is surrounded by a no-building zone to ensure a bullet-free area, with the main front facing Vienna (north-west). The perimeter of the Arsenal consists of 16 buildings, including barracks and depots[11]. Inside the complex, the Weapons Museum, as well as all necessary production facilities and workshops are located. Outside the main complex are ancillary buildings, including a firing range, a riding arena, a gasometer, a rifle testing hut, a ball casting shop, a tree nursery and a water station. The buildings of the complex are arranged parallel to each other[12].

The complex is defined by seven barracks and the central commandant‘s building at its corners and projecting centres, which are connected by lower, recessed depot buildings[13]. These depot buildings are part of the so-called ‚crenellated wall‘, which is equipped with embrasures and crenellations[14]. All of the buildings situated within the enclosing rectangle were constructed without perceptible roofs, instead featuring vaulted and terraced top floors.

The Commandant‘s Building forms the entrance to the complex, behind which lies the richly decorated Weapons Museum, strategically concealing the production buildings. This arrangement was deliberately chosen by the architects to highlight the Weapons Museum as the only immediately visible and publicly accessible building, while the rifle factory and workshops behind it could only be entered with special permission. The rifle factory, the longest building in the complex, is centrally located, and the area between the rifle factory and the museum serves as the cannon courtyard, where captured or otherwise notable artillery pieces are displayed[15].

The Arsenal Church and the surrounding barrack, originally planned as a hospital, are adjacent to this ‚factory area.‘ The church was designed by Rösner in the Romanesque style and externally decorated with red and yellow lime-washed bricks. In contrast, the interior remains unadorned.

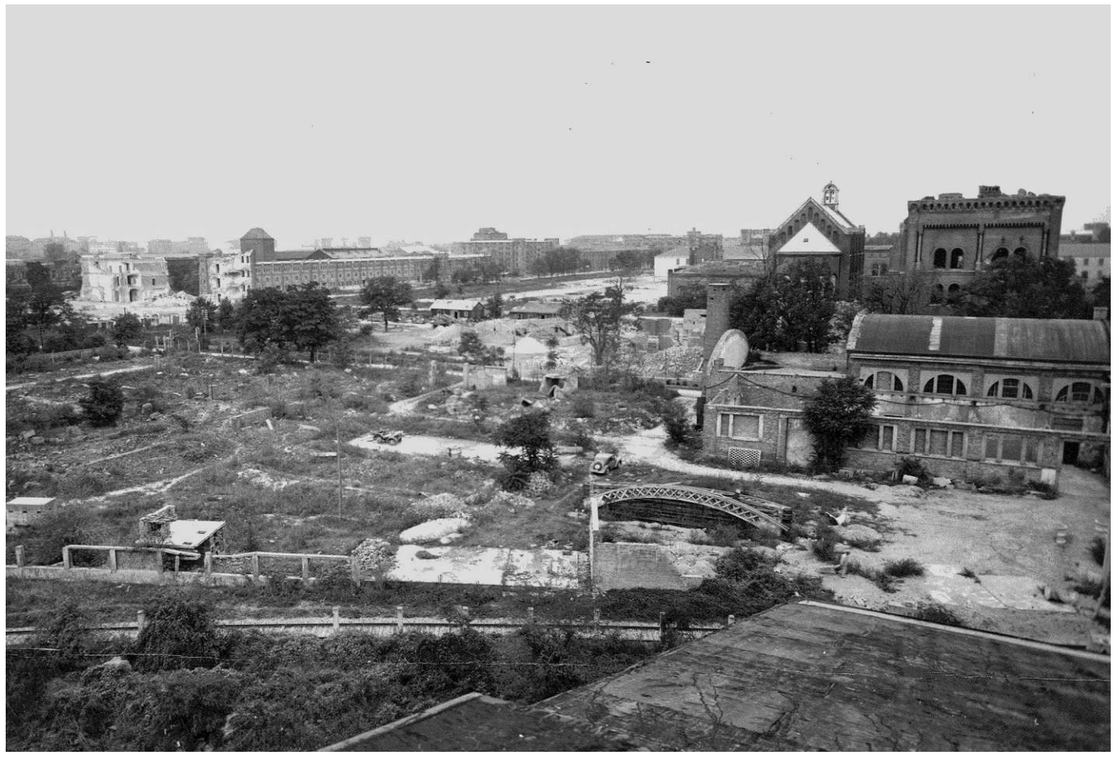
The depots, which serve as connecting structures between the barracks, were designed by van der Nüll and Siccardsburg and integrated into the architectural design of the barracks. The structures are of a reduced height and equipped with towers at their ends. The depots are not directly connected to the barracks in order to prevent the fire from spreading. Instead, they are connected by a wall that is almost 8.5 metres high. An iron bridge is attached to this wall, allowing a direct connection between the buildings on the first floor. The ceilings of the depots are constructed from solid wood, and the top floor, like all the buildings of the perimeter development, is vaulted and constructed without a exposed roof[16].

Particularly noteworthy is the Weapons Museum, designed in the Byzantine style with Gothic and Moorish elements, similar to the churches of the Orient. Materials such as brick, terracotta, as well as Wöllersdorf and Margarethen stone were used in its construction. The workshops, occupying more than half of the inner complex, are arranged around the gun foundry, which forms the actual Artillery Arsenal. Between the Gun Foundry and the Gun Boring Mill, there is a large courtyard used as a garden area and for a large reservoir for the water required by the steam engines and the drilling and casting plant.[17].

The Arsenal was equipped with a canal system of its own, with the main canal flowing into the Danube Canal. The facility‘s water requirements were met by a total of 44 wells and a water pipe[18]. Due to the lower terrain in the eastern section of the complex, Objects XXII and XVI were provided with a basement, resulting in the courtyard being approximately 2.75 meters lower than the rest of the terrain inside the complex. The central barracks (Objects V and XIV) open their courtyards towards the interior of the complex, thus not forming a closed square[19].

The architectural design of the Arsenal was intentionally minimalistic (for the time), aiming to create a harmonious overall composition through the mass and arrangement of the buildings and the natural colours of the unclad building materials. The only exceptions were the Weapons Museum and the church, which were richly decorated with paintings and sculptures[20]. The remaining buildings of the complex exhibited a Romanesque and Moorish character, executed in raw brick construction[21], with weaker structural elements such as columns and window lintels in stone[22].

10 Takeover by the National Socialists



11 Destruction after World War II - View in the Direction of Object 6

DEVELOPMENT

Over the years the Arsenal developed into one of the most important artillery production centres in Austria[23]. Due to changing conditions, the Arsenal had to be constantly adapted. With the development of the air force and the establishment of the ‚Militär-Aeronautische-Anstalt' in 1891, the eastern part of the building prohibition area was extended. A balloon hangar, chemical laboratories and recreational and educational buildings were constructed. However, the Arsenal proved to be unsuitable for the aeronautical use and in 1918 this department was moved[24]. Between 1904 and 1906 the Maria-Josefa-Park, now known as the Schweizergarten, was designed[25].

During the First World War, the Arsenal became a central armaments centre, responsible for the production and repair of weapons, ammunition and military equipment. During this time the number of workers increased from the original 900 to 20.000[26]. The site grew from 500.000 m² to 720.000 m² as a result of numerous new buildings[27]. By 1918 a total of 138 stone buildings and 93 wooden barracks had been constructed from the original 33. In addition, 18 large factories were active in the production of army supplies, while 15 km of railway lines connected the buildings to each other and to the public network. However, the expansion lacked of a clear concept, making further factory growth impossible, leading to the relocation of parts of the production to St. Pölten in 1918[28].

After the war, the complex was used as a prisoner-of-war camp and weapons depot. Due to the lack of security, the remaining workers formed a ‚workers' guard' to protect the stock and buildings from looting[29]. The future of the Arsenal was uncertain and by the end of 1918 a sale of the complex was considered. However, the Ministry of Finance opposed this and ensured its continuation as a civilian operation[30]. Some of the barracks were converted into residential buildings, while the factory buildings were used for industrial and commercial purposes (‚Industriewerke Arsenal')[31].

The weapons stored in the Arsenal led to internal political tensions as the parties did not trust each other. The ‚Arsenal Weapons Treaty' stipulated that distribution could only take place with the agreement of all parties. However, only the Arsenal workers knew where most of the stock was located. After the peace treaty of St Germain in 1920, weapons had to be surrendered, whereupon the workers hid them in underground corridors, double floors and walled-off niches. The Army Museum also had to hand over many of its exhibits[32]. In addition, a professional army was formed, which moved into the Arsenal, but without access to the hidden weapons. The ‚Industriewerke Arsenal' project failed due to excessive economic losses, whereupon the ‚Österreichische Werke Arsenal' (ÖWA) was founded as a socialised institution.

The Production included furniture, leather goods, tools, hunting rifles and cars[33]. This project, too, was always characterised by financial losses, and with the boom in municipal building, only the City of Vienna placed orders. A planned sale to the City of Vienna failed because of the weapons stored there. In order to minimise debts, the museum and various properties were separated from the ÖWA[34]. At the end of the 1920s the entrances to the weapons depots were filled in and corridors were blown up in order to settle the dispute over the weapons[35]. As the ÖWA also failed economically, many properties were rented out to over 170 companies and private individuals. By 1928 there were already 2500 people living in the Arsenal and in the 1930s the Arsenal was again used for military purposes[36].

In 1938 the German Wehrmacht took over the Arsenal in preparation for the war and started weapons production again under the name ‚Ostmark-Werke', using forced labour[37]. During the years of war the Arsenal disappeared from the map for reasons of secrecy[38]. It became a strategically important target and suffered about 250 bomb hits, of which 25 objects were completely destroyed, 28 severely damaged and 23 slightly damaged. In total, 60% of the complex was destroyed. Although demolition was considered due to the extent of the destruction, it was decided to use the funds for demolition (11.5 million Schilling) for reconstruction[39].

The reconstruction began immediately. The former barracks buildings I, III, V, XIV and XVI were converted into residential buildings, while the wide streets and railway tracks were turned into park areas. The demolished buildings II and XVII were replaced by ‚stylistically appropriate' low intermediate buildings with arched openings to create a closer link and view between the Museum and the Schweizergarten. Partially destroyed factory buildings were adapted for research purposes, including an electrotechnical testing institute, a wood research institute and the scenery depot of the federal theatres[40]. Object XV housed workshops of the Military History Museum and the Federal Monuments Office. Objects VII, VIII, IX, XI were so severely destroyed that they were not rebuilt[41].

In the 1960s, the city highway (known as the ‚Tangente' was planned to pass through the Arsenal. To prevent this, new residential buildings were constructed around the church without official approval, disregarding the historical style. The radio tower, with a height of over 150 metres, changed the cityscape considerably, which led to protests. When Object VII was built, an attempt was made to respond to the character of the Arsenal. However, over the years, this was gradually lost, as seen in various modern constructions. Residents protested against these developments[42].

Despite numerous changes and challenges, the Arsenal has continually reinvented itself over the decades. Its past reflects both progress and conflict – from a military production site to civilian use and later a modern residential and research facility. The Arsenal's history mirrors Vienna's complex past, marked by war, economic shifts, and social transformation.

12 Ruin of a Depot Building

13 Depot before Destruction

14 Condition after World War II

1 cf. Förster (1850), p.25
2 cf. Schuster (2014), p.9
3 cf. Czeike (1992), p.164
4 cf. Schuster (2014), p.12
5 cf. Förster (1866), p.316
6 cf. Schuster (2014), p.11
7 cf. Förster (1866), p.317
8 cf. Förster (1850), p.31
9 cf. Förster (1866), pp.316
10 cf. Czeike (1992), p.164
11 cf. Förster (1864), p.4
12 cf. Förster (1866), p.318
13 cf. Schuster (2014), p.12
14 cf. Förster (1864), p.4
15 cf. Förster (1866), pp.317
16 cf. Ibid., pp.320
17 cf. Ibid., pp.322
18 cf. Ibid., p.5
19 cf. Ibid., p.319
20 cf. Förster (1850), p.31
21 cf. Heeresgeschichtliches Museum, inventory number 2024/43/133/3
22 cf. Förster (1866), p.318
23 cf. Schuster (2014), p.40
24 cf. Ibid., pp.42
25 cf. Ibid., p.47
26 cf. Ibid., pp.48
27 cf. Heeresgeschichtliches Museum, inventory number 2024/43/133/6
28 cf. Schuster (2014), p.50
29 cf. Ibid., p.53
30 cf. Ibid., p.56
31 cf. Heeresgeschichtliches Museum, inventory number 2024/43/133/6
32 cf. Schuster (2014), pp.57
33 cf. Ibid., pp.63
34 cf. Ibid., p.68
35 cf. Ibid., pp.69
36 cf. Ibid., pp.72
37 cf. Ibid., pp.75
38 cf. Ibid., p.78
39 cf. Heeresgeschichtliches Museum, 1955, inventory number 2024/43/133/3
40 cf. Heeresgeschichtliches Museum, inventory number 2024/43/133/3
41 cf. Schuster (2014), pp.84
42 cf. Ibid., pp.88

15 Vienna

3 CONTEXT

URBAN PLANNING CONTEXT

The Vienna Arsenal is located in the 3rd municipal district ‚Landstraße', south-east of Vienna's city center and outside the *Gürtel*, which marks the former course of the *Linienwall*[1]. The area is characterized by the historical building ensemble of the former military Arsenal complex. Today, it houses institutions related to art and culture, university and science, as well as the Arsenal barracks. Additionally, the area includes residential buildings, commercial enterprises, allotments gardens, a heating plant, and sports facilities. Alongside the historic 19th-century buildings, modern developments shape the center of the Arsenal, including the 150-meter-high radio tower, as well as new residential and university buildings. New structures were constructed in the north-west, particularly as part of the main railway station development, while the south-east is characterised by commercial buildings. Despite its proximity to Vienna Central Station, the Arsenal's integration in terms of infrastructure is currently sub-optimal, with tram line 18 serving the north-west and bus line 69A serving the south-west.The total area covers 1.256.600 m², of which around 25.8% is built on. The green spaces around the Museum of Military History and the Schweizergarten account for approximately 18% of the total area. The district has low traffic volumes; however, a sufficiently developed pedestrian and transport network is lacking. Furthermore, there are infrastructural deficits, especially in terms of local supply and gastronomy. An existing urban development concept by the City of Vienna aims to strengthen current functions, improve accessibility through public transportation, and expand pedestrian and cycling paths as well as green spaces within the Arsenal.

Orthophoto

Ground Figure Plan

Urban Barriers

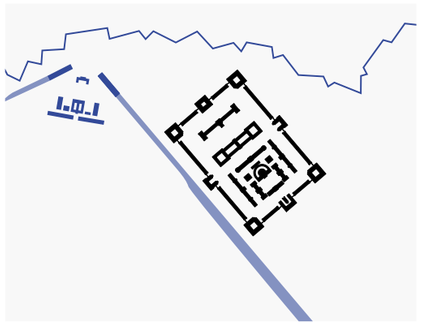
16 View of the Arsenal from the south-east

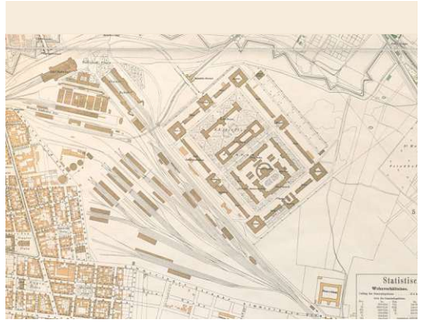
BARRIERS

Despite its central location, the Arsenal is isolated by significant urban barriers. The railway lines in the west, the Gürtel roadway in the north and the A23 city motorway ('Südosttangente') in the south-east separate the area from the surrounding urban fabric, resulting in limited connectivity and reduced permeability. Additionally, the original structure of the Arsenal complex, which was formerly designed as a fortress, reinforces the area's isolation.

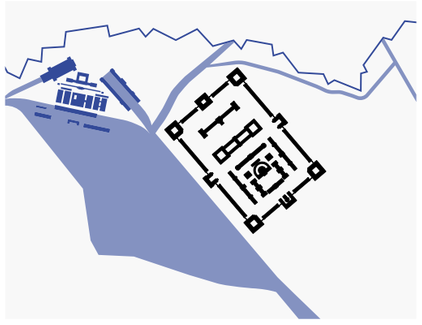
Moreover, the A1 Telekom site in the centre and the barracks area in the north-east act as further barriers, dividing the Arsenal into various sub-areas that are challenging to access. Connections to the Sonnwendviertel, located in the west in the 10th district, were established through the Arsenalsteg, a pedestrian and cycling bridge, as well as the Südbahnhof Bridge in the south.

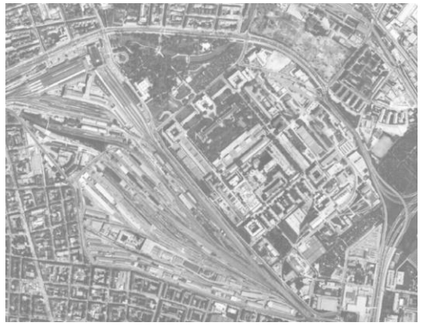
17 Plan of 1858



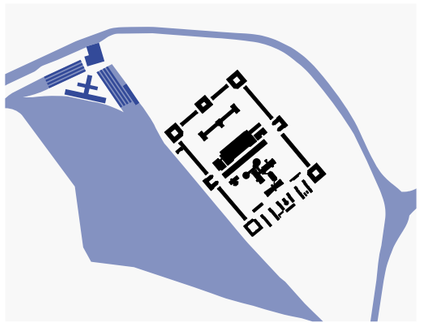


18 Plan of 1887

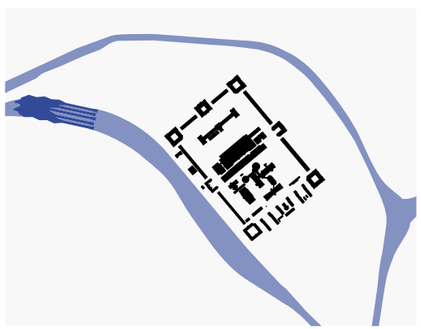




19 Orthophoto of 1986



20 Orthophoto of 2023



HISTORICAL DEVELOPMENT OF THE BARRIERS

1858

The Arsenal was strategically located to take advantage of the railway infrastructure. The Gloggnitz railway station was built as part of a double-headed station in 1841, the previous structure to the later Südbahnhof[2]. This was followed in 1846 by Raaber Bahnhof, the preceding building of the Ostbahnhof[3]. At that time, the Arsenal was located outside the Linienwall, a fortification built in 1704 with a height of approximately 3.6 meters[4].

1887

As the railway stations had become inadequate, the Südbahnhof was constructed between 1869 and 1873 in place of the Gloggnitz station[5] and between 1867 and 1870 the Ostbahnhof was built in place of the Raaber station as a central railway facility[6]. From 1873, the Gürtelstraße was constructed as a transport axis next to the Linienwall. With the demolition of the Linienwall starting in 1893, the Gürtel was widened[7]. The section known as Landstraßer Gürtel was extended in 1900 and again in 1959[8].

1986

Following the war damage to the Süd- and Ostbahnhof, a new combined railway station, the Südbahnhof, was constructed between 1951 and 1960, continuing to function as a terminal station[9]. At the same time, Vienna‘s road network was expanded: from 1967, the Südosttangente A23 was constructed, leading to the further extension of the Landstraßer Gürtel[10].

2023

The most significant infrastructural transformation in recent decades was the construction of the Vienna Central Station (2010–2014). The original area of the Südbahnhof and Ostbahnhof stations covered 109 hectares, while the railway infrastructure today occupies only 50 hectares. The remaining 59 hectares were redeveloped with office and residential buildings[11].
To improve the Arsenal’s connectivity with the surrounding urban area, the Arsenalsteg pedestrian and cycling bridge was built in 2011, linking the 3rd and 10th districts[12]. And in 2017, the Südbahnhofbrücke was constructed as a further crossing over the railway infrastructure[13].

Green Spaces

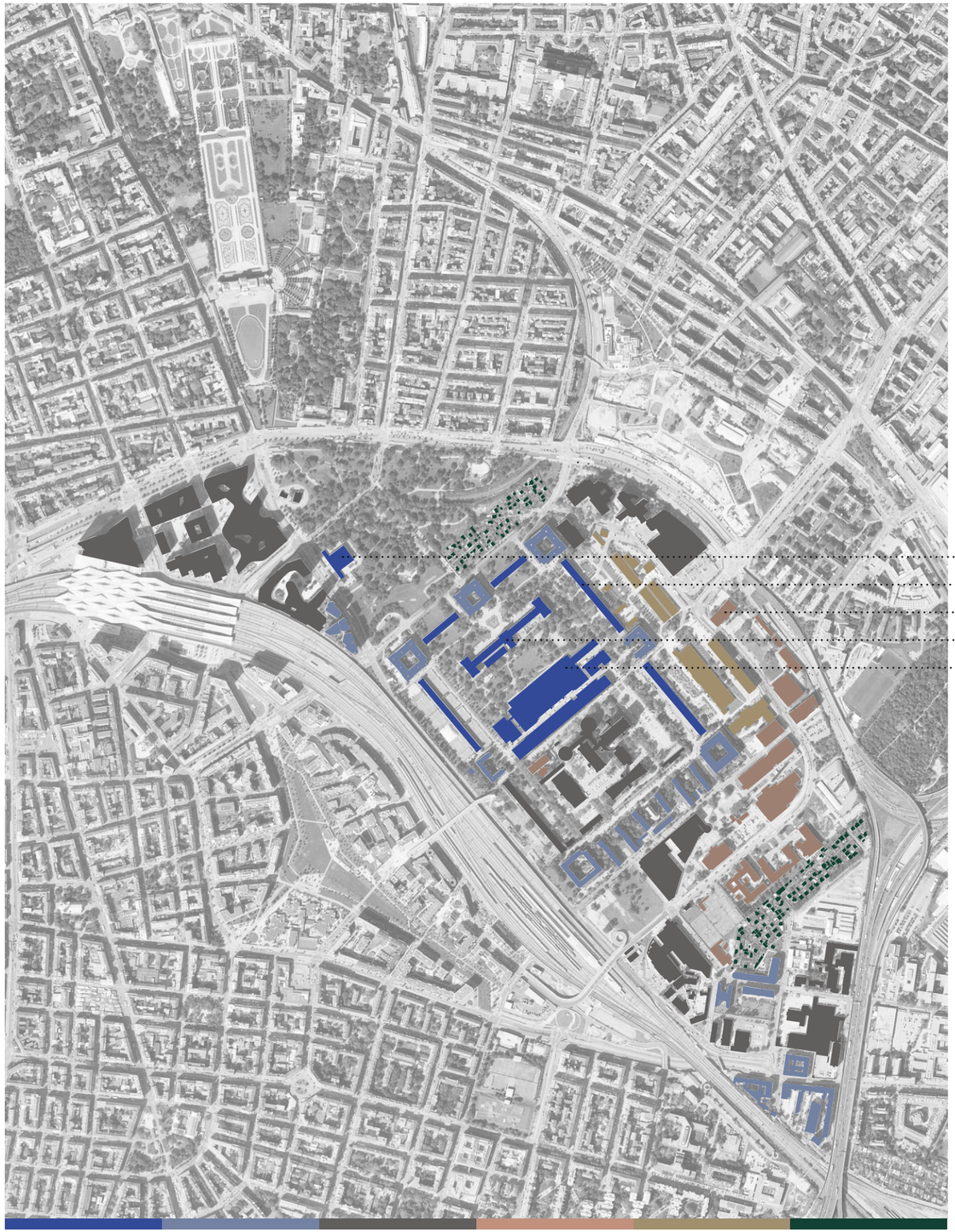
21 View over the Sonnwendviertel and the Arsenal

GREEN SPACES

Although the area appears to have a relatively high proportion of green spaces at first glance, the urban climate analysis by the City of Vienna indicates that the Arsenal is among the most overheated areas in the city[14]. Significant green space deficits are particularly evident in the southern area of the site, despite the presence of large areas of unused potential.

The existing green spaces, especially the parks surrounding the Museum of Military History and the Schweizergarten, demonstrate deficiencies in both quality and maintenance. According to reports from the Initiative Arsenal, insufficient irrigation, excessive mowing of lawns and the resulting dehydration of trees and vegetation are cited as major concerns. Additionally, inadequate water retention prevents rainwater from being efficiently absorbed[15].

The City of Vienna's Arsenal District Development Plan emphasizes intensive green design in all future construction and renovation projects. Planned measures include the creation of unsealed green areas with a high proportion of vegetation, the enhancement and extension of existing green corridors, as well as the installation of seating and lighting to improve the overall quality of the environment[16].



SPATIAL UTILIZATION

The Vienna Arsenal is a multifunctional district that integrates cultural, university and research institutions, residential areas, military facilities and commercial enterprises. This diverse mix defines the area and offers potential for sustainable urban development. The Arsenal District Development Plan by the City of Vienna is focused on enhancing existing uses, fostering their networking, and expanding them through targeted interventions[17].

A central aspect of the development is to strengthen the Arsenal as a museum and cultural centre. The Museum of Military History (HGM) is to be modernised and expanded to include additional storage and presentation facilities, in particular through the renovation of Object IV and the construction of a new hall at Object XIII[18]. The existing ‚Art for Art' cultural location, which already includes rehearsal stages and workshops of the federal theatres, will be supplemented by the LAB film museum and the Foto Arsenal exhibition centre. The Filmmuseum will be established as a center for the preservation, archiving, processing and digitisation of film. Additionally, the currently enclosed Art for Art premises will be better integrated into the surrounding area through a new access route leading towards HGM.

A 'Connecting Cultural Mile', encompassing the Museum, the Art for Art cultural cluster, and the Panzerhalle, will be enhanced with public art installations and could potentially be extended to Belvedere 21[19].

The university and research centre is also to be further expanded, with plans to establish the Arsenal as a second Vienna University of Technology (TU Wien) location alongside the campus at Karlsplatz. In addition to the existing university buildings of the TU Wien, which are used by around 3.000 students and academic staff, the former Balloon Hall will be transformed into the Center for Conservation and Restoration of the Academy of Fine Arts Vienna by 2027. The ground floor zones will be revitalised with the aim of promoting exchange between research, teaching and the public[20].

The Arsenal as a residential area, currently home to around 1.200 people[21], is to be enhanced through improved accessibility, including the expansion of public transportation and the pedestrian and cycling infrastructure. Furthermore, the current lack of local supply and gastronomy will be supplemented, and the green spaces will be expanded to increase the overall quality of life in the area[22].

Additionally, the Arsenal barracks will be developed into a key logistics center for the Austrian Armed Forces, involving both renovations and new constructions[23].

These measures are intended not only to strengthen the existing uses, but also to create new synergies between the different areas.

Listed Building Protection Zone

HERITAGE PROTECTION

In addition to the protection of individual buildings, the area of the Vienna Arsenal is extensively designated as a protection zone in order to preserve the characteristic cityscape and its historical structures[24]. These protective measures aim to maintain the architectural identity of the Arsenal in the long term while allowing for the careful integration of new uses.
A total of 17 buildings in the Arsenal are listed, including the Commandant‘s Building Object I, the former depot buildings Objects II, IV, VI, XV, XVII, the former barracks buildings Objects III, V, XII, XIV, XVI, as well as the Museum of Military History Object XVIII, the Federal Theatre Workshops Object XIX, the Arsenal Church Object X, the former Balloon Hall and two other former magazine buildings.

The Austrian Federal Monuments Office's Decree (2002) highlights the exceptional historical, artistic and cultural significance of the Arsenal. For the first time, multiple architectural functions – factory, weapons depot, barracks, museum, and church – were combined within a single complex. Despite wartime damage and modern constructions within the inner Arsenal, the essential components of the complex have been preserved. The architectural style of the complex is a unique blend of italian-medieval and byzantine-islamic elements. The Arsenal represents the most significant secular complex of Vienna's early Historicism and has had a considerable influence on local architectural and construction developments.
Of particular importance is the Museum of Military History, regarded as Vienna's first museum building and one of the earliest examples of a Gesamtkunstwerk (total work of art) from the Gründerzeit era. Additionally, the Maria vom Siege Chapel, designed by Karl Rösner based on the Sainte-Chapelle in Paris, stands as another important building of the era.
The protected zone and heritage-listed buildings define the Arsenal as a unique historical ensemble. The challenge for future development lies in preserving this valuable building fabric while ensuring a sustainable and careful transformation of the area that meets both cultural and functional requirements[25].

CONCLUSION

The Arsenal is a historically and culturally significant area in Vienna, featuring a diverse mix of purposes, including art and cultural institutions, science, residential areas and commercial enterprises. Despite its central location, the area's urban integration is limited by transport infrastructure such as railway lines, the Gürtel and the Südosttangente motorway. The existing infrastructure is underdeveloped, particularly in terms of public transport, local supply and pedestrian and cycle routes.

The urban development plan of the Arsenal will focus on better integration with the surrounding area, strengthening existing uses, and the targeted expansion of cultural, university and residential functions. The modernization of the Museum of Military History and the creation of a cultural cluster – including the ART for ART complex, the Filmmuseum LAB, the Foto Arsenal and the new Center for Conservation and Restoration of the Academy of Fine Arts – are key initiatives. Particular emphasis is placed on fostering close collaboration and creating synergies between the institutions located within the Arsenal.

In the field of conservation and restoration, valuable networking opportunities arise between the restoration workshops of the Federal Monuments Office and the Museum of Military History, the Filmmuseum LAB, and the Center for Conservation and Restoration of the Academy of Fine Arts. The spatial proximity of these institutions should enable a more intensive exchange of expertise and – by sharing infrastructure and equipment – save resources and generate further synergies.

Despite the supposedly high proportion of green spaces, there are considerable deficits in the quality and maintenance of these areas. In particular, the southern part of the site lacks greenery, which contributes to overheating. A key problem is that the Arsenal is privately owned and not owned by the City of Vienna. This leads to poor maintenance of the green spaces, with many plants dying from lack of water and care. Ecological improvements are planned, such as unsealing areas, improving water retention and creating additional green spaces.

Heritage protection plays a central role in the future development of the Arsenal. Preserving the historical building fabric and the unique architectural ensemble requires a careful integration of new uses. The overall challenge is to preserve the historic identity of the Arsenal while enabling a sustainable and functional transformation of the area.

1 cf. Geschichte Wiki Wien: Linienwall
2 cf. Geschichtewiki Wien: Wien-Gloggnitzer Bahnhof
3 cf. Geschichtewiki Wien: Vienna-Raaber Bahnhof
4 cf. Geschichtewiki Wien: Linienwall
5 cf. Geschichtewiki Wien: Südbahnhof
6 cf. Geschichtewiki Wien: Ostbahnhof
7 cf. Geschichtewiki Wien: Gürtelstraße
8 cf. Geschichtewiki Wien: Landstraßer Gürtel
9 cf. Geschichtewiki Wien: Südbahnhof
10 cf. Geschichtewiki Wien: Südosttangente A23
11 cf. Geschichtewiki Wien: Hauptbahnhof
12 cf. Geschichtewiki Wien: Arsenalsteg
13 cf. Geschichtewiki Wien: Südbahnhofbrücke
14 cf. Stadt Wien 2020: Stadtklimaanalyse
15 cf. Initiative Arsenal
16 cf. Stadt Wien 2023, p. 11
17 cf. Ibid., p. 14
18 cf. Ibid., pp. 18
19 cf. Ibid., pp. 20
20 cf. Ibid., pp. 14
21 cf. Ibid., p. 23
22 cf. Ibid., p. 14
23 cf. Ibid., p. 18
24 cf. Stadt Wien, Schutzzonen Wien
25 cf. Baupolizei (2002)

22 Archiving Large Objects, AzW

24 Archiving Building Plans, Akbild Kupferstichkabinett

23 Blueprint Cabinet, Baukunst Archiv NRW

25 Archiving Building Plans, Baukunstarchiv NRW

4 ARCHIVING ARCHITECTURE

Architecture itself cannot be collected in the classical sense, but all the materials that accompany the design and realisation process can. Archives act as repositories of knowledge in which the cultural memory of the built environment is preserved and made accessible[1].

Compared to the large number of art collections worldwide, architectural artefacts in archives, museums or private collections are rare and have only a limited demand on the art market. Furthermore, many individuals interested in architecture are unaware of the existence of public collections dedicated specifically to the preservation of architectural artefacts[2].

The media collected in architectural archives are unique and depends heavily on the specific collection focuses and histories of the respective institutions[3]. Of all archive types, the architectural archive has the greatest diversity of media[4]. The collections contain pre- and posthumous estates of architects, engineers, landscape architects, urban planners, architectural photographers and architectural critics. These collections often include a lifetime‘s work in the form of designs for both completed and unbuilt projects, offering a comprehensive view of the profession‘s highs and lows. The diversity of media in architectural archives enables the identification of architectural-historical connections that extend beyond the individual contributions of a single author, facilitating renewed interpretations and discoveries in architectural history[5].

With increasing digitalisation, the planning process in architecture has changed radically – a development that also presents archives with major changes[6].

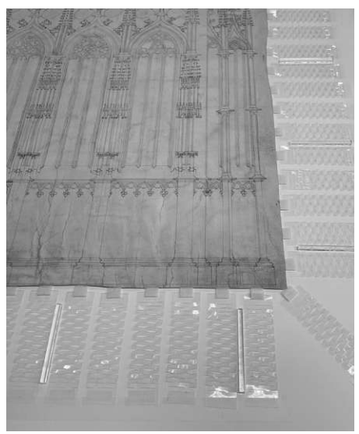
A BRIEF HISTORY OF ARCHITECTURAL DOCUMENT COLLECTION

The importance of architectural drawings was already emphasised in ancient times by Vitruvius in his Ten Books on Architecture, as they were able to illustrate perspectives for the planned building. However, the earliest known architectural documents date back to the Gothic period. So-called ‚Risse‘ (construction drawings) were drawn up in the ‚Bauhütte‘ (cathedral workshops) as working aids and used directly for construction. These plans facilitated the transfer of knowledge between different cathedral workshops and contributed to the construction of large church buildings. An example of this is the Cologne Cathedral, the plans of which have been preserved in a number of separate parts to this day. When put together, these plans measure around four metres in height and 1.5 metres in width. Their survival is probably due to their separate storage in the building lodges, which enabled their preservation to the present day[7]. As these plans were originally only

used as temporary working documents, only a few have survived until today[8].
Classical collection objects from the history of architecture are only traceable from the 14th century onwards, when the first architectural models were created, including walk-in models made of brick, such as that of the Basilica of San Petronio in Bologna (15 metres long and 3.5 metres wide) and that of the cathedral in Florence. From around 1400, architectural models began to be used as planning instruments on a smaller scale, serving to check dimensions and proportions and enabling architectural concepts to be clearly communicated to laypeople. The first architecture-related collections were kept in private libraries or in the archives of ruling houses. By the end of the 16th century, the first *Kunst- und Wunderkammern* (art and curiosity cabinets) have been established in Europe, which are regarded as the forerunners of today's museums. Architectural documents thus became collector's items and trade goods for the first time[9].
The specific collecting of architectural documents began in the second half of the 18th century. ‚Kupferstiche' (architectural drawings) and replicas of ancient buildings made of plaster, wood or cork were particularly popular at the time[10]. One of the most significant surviving architectural models is Antonio Labacco's wooden model of St. Peter's Basilica in Rome, constructed between 1539 and 1546, measuring 7.36 meters in length, 6.02 meters in width, and 4.68 meters in height[11].
By the end of the 18th century, architecture collections were established at building schools and academies in order to use them as teaching material[12]. In the 19th century, institutions such as the Royal Institute of British Architects and Sir John Soane's collection in London, which comprises around 30,000 architectural drawings and numerous models, were founded. The first state architecture museum was founded in 1842 in the Bauakademie in Berlin, which was built by Karl Friedrich Schinkel.At the same time, technical universities and academies began to set up systematic architecture collections, in particular with designs by professors and students or with historical architectural documents. The latter were to be made accessible in particular to students who were unable to travel to places with buildings relevant to architectural history themselves[13]. The Academy of Fine Arts in Vienna holds the world's largest collection of Gothic building plans in its Kupferstichkabinett, with 427 drawings[14]. Nevertheless, for a long time architecture-related collections were usually only departments of larger institutions such as museums, archives, universities or chambers of architects and engineers. It was not until 1920 that the Albertina in Vienna opened its architecture collection to the public. In the 20th century, the first independent architecture museums emerged, independent of educational institutions. The first was in Moscow in 1934, while the largest wave of architecture museums was founded between 1960 and 1980[15].

FÖDERATION DEUTSCHSPRACHIGER ARCHITEKTURSAMMLUNGEN

The Federation of German-speaking Architectural Collections (‚Föderation deutschsprachiger Architektursammlungen'), which unites institutions from Germany, Austria and Switzerland, is an important supra-regional association of specialised archives and museums. At an international level, the International Confederation of Architectural Museums (ICAM) facilitates the exchange of information on the content and work of architecture museums and archives[16].
The Federation of German-Speaking Architectural Collections was founded in 1997 at the Architekturmuseum Frankfurt am Main with the aim of promoting building culture and its regional diversity and raising public awareness of it[17]. Today, the federation has 33 members and functions as the German-speaking section of ICAM, with many collections represented in both associations[18].
The Austrian members include the Albertina in Vienna, the Architekturzentrum Wien, the Archiv für Baukunst in Innsbruck and the Wien Museum[19]. The association's primary objective is the promotion of building culture and the regional diversity of architectural history. This includes the preservation of archive holdings, the academic exchange of information on architectural history and the initiation of research projects, exhibitions and publications. The Federation also aims to facilitate the exchange of expertise in collecting and preserving architectural archives. A key element of the Federation's activities is the networking of its members. The organisation holds an annual meeting at a changing archive location to encourage mutual exchange. Dr. Christine Kämmerer from the Baukunstarchiv NRW has described these meetings as a *self-help group* for institutions that collect architecture. The primary objective of these meetings is to enhance the infrastructure and collaboration of architecture collections[20].



26 Archiving Papyrus with Polymer Springs

ARCHIVED MATERIALS

The focus, scope and tasks of individual architecture collections vary greatly and depend on the respective institution[21]. The archived materials can be divided into various categories, including drawings, models, photography, digital documents, written correspondence, personal documents and estate libraries.

Architectural drawings are among the most important materials, documenting the design process. These include sketches, such as early study sheets and travel sketches of existing buildings[22]. **Building plans** encompass final drawings, official construction plans, detail drawings and competition drawings. These drawings exist in various scales, ranging from urban master plans to 1:1 detailed drawings, static test plans or building services and planting plans. Presentation drawings are particularly important as they serve as visualizations or perspectives that accurately communicate design ideas. Presentation drawings and sketches are among the most popular collector‘s items. In museums and archives, however, they are often regarded primarily as exhibition objects and less as documents of architectural history, as they are artistically valuable and have a high value as loans for exhibitions. Another sensitive document format is blueprints, which are particularly difficult to preserve due to their chemical composition and method of production[23].

Architectural models are of central importance in the design process and are categorised into working models and presentation models. Architecture-related toys, such as the Anker-Steinbaukasten (Anker brick building set), Bruno Taut‘s Glasbauspiel Dandanah (glass building game) or Lego, can also be part of collections[24].

Photography is an essential medium in architectural history, documenting construction phases and completed buildings. It captures the state of a building at the time of the photograph, allowing insights into changes through restorations or renovations. Historical photography is particularly valuable for reconstructing lost structures, as they often serve as the only remaining documentation of demolished or war-damaged buildings, replacing lost plans or models[25].

With the digitization of architecture, archived materials have also evolved. Today, **electronically generated documents** – digital design drawings, renderings, photography, and animated simulations – are part of archival collections. However, long-term digital preservation presents a significant challenge. Storing data on outdated media such as hard drives, floppy disks, or magnetic tapes is problematic, as these formats often become unreadable. Regular migration to new storage formats is necessary.

However, there is still no Sufficient solution for the long-term preservation of digital media. Additionally, digital works often lack an identifiable author or artistic signature, making their authenticity difficult to assess[26].

The archived materials also include **written documents** such as handwritten notes, correspondence, manuscripts, lecture notes, court judgements on building defects or articles by architecture critics. Correspondence is particularly valuable as it provides insights into an architect‘s ideas, networks and design processes. They are often the only source for retracing planning and construction processes when other documents have been lost or insufficiently catalogued. Construction files, which document planning and construction processes through to cost calculations, are also of great importance[27].

Personal documents are essential for researching the architectural work after the death of an architect. These include certificates, identity cards, portraits, educational documents, non-construction-related drawings, private letters and photography. Documents relating to travel, political involvement or hobbies can also provide important information about the architect and his environment. Caricatures relating to contemporary architectural debates can also be found in archives and can help to place an architect in his historical context[28].

Bequest libraries play an important role in research. They not only reflect the knowledge accumulated by an architect during his or her lifetime, but often contain notes or dedications that provide valuable information about the architect‘s thinking and working methods. However, before an estate library is included in an archive, it should be checked by specialised librarians in order to avoid unnecessary duplication, for example with building journals or manuals[29].

It is not advisable to transfer an entire architectural practice to an archive. The inclusion of estates is usually based on the importance of an architect, whereby a thorough examination is necessary in advance. Strategic selection and, if necessary, cassation (targeted disposal of unimportant documents) is essential in order to utilise the limited resources of an archive or museum efficiently. The aim is to separate the essential from the non-essential materials and to ensure sustainable, scientifically valuable archival preservation[30].

ARCHIVAL PRACTICE

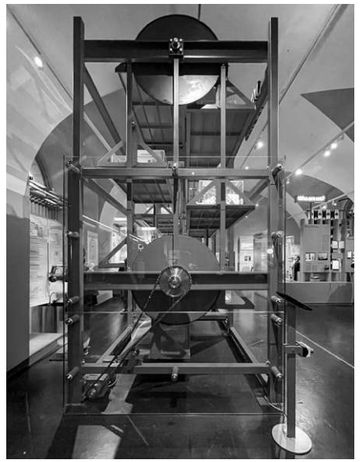
The decision-making process regarding which materials to preserve in archives is a complex one, as it is not possible to include all documents and objects. Archives are not merely places for storage, but serve to actively engage with architectural history. They should not be regarded as silent repositories, but as valuable resources that can be utilised through research and communication[31].
Cross-institutional cooperation is essential for research, as many archived objects belong together like pieces of a puzzle and a complete picture of architectural history only emerges through their networking[32]. An objective history of architecture can only be written if the holdings of different architectural collections are catalogued and interlinked. Without knowledge of the contents of other archives, a comprehensive understanding of architectural developments remains incomplete[33].
A further challenge lies in digital preservation. The archival storage of early digitally created architectural designs remains insufficiently regulated, raising concerns that future researchers may face a significant gap in the documentation of this transformative period in architectural history[34].

Architectural collections often face personnel and infrastructural limitations. On average, only three staff members must manage an entire archive and all its associated tasks. Storage space and technical infrastructure are frequently lacking. Few institutions employ full-time restorers, who are then responsible for all collections – not just architectural materials. Most archives therefore work with freelance conservators who are commissioned according to the limited budget. The cataloguing and professional storage of archives is often only made possible with the help of external funding. Additionally, very few archives have a centralized storage facility, which further complicates storage logistics[35].

The archiving of architects‘ estates can be categorised into different forms. While a work archive does not contain personal documents, an architectural archive includes all relevant materials up to the architect’s death. If an archive is transferred to an institution during the architect’s lifetime, it is referred to as a pre-mortem bequest. If the transfer occurs posthumously, either through a will or by the family, it is considered an estate[36]. However, many architects do not keep a systematic archive that meets general standards, and their personal understanding of what is worth preserving varies greatly.
This selective handover can pose challenges for architectural history, as favoured works are often well documented, while unpopular or politically charged projects are often deliberately disposed of. For instance, some architects who worked during the Third Reich later deliberately destroyed their plans.[37].

Archive acquisitions are usually not compensated financially but instead honored through exhibitions, catalogs, events or the compilation of a complete works directory[38].
The main users of archives are scholars, but they also serve architects, monument conservators, restorers, journalists, property owners, local historians and students[39].
For public outreach, many archives rely on exhibitions and publications to highlight their work and the significance of their collections. Through presentations and academic research, archived material is made accessible to a broader audience, often supported by public funding. Additionally, conferences and public tours are organized to encourage dialogue and deepen the understanding of architectural history[40].

27 Access to Archival Materials, AzW


28 Megamat Vertical Archive Storage, AzW

Locations of the Depots

INSTITUTIONS IN VIENNA

Akademie der bildenden Künste - *Akbild*
Albertina
Architekturzentrum Wien - *AzW*
Museum für angewandte Kunst - *MAK*
Österreichische Gesellschaft für Architektur - *ÖGFA*
Universität für angewandte Kunst - *Angewandte*
Wien Museum

AKADEMIE DER BILDENDEN KÜNSTE

The Kupferstichkabinett (Graphic Collection) at the Academy of Fine Arts in Vienna is one of the most important graphic art collections in Austria and is a member of the Federation of German-Language Architectural Collections. With around 103.000 individual sheets, the collection includes drawings, photography and prints and covers European art history from the 14th century to the present day[41].

Approximately 15-20% of the collection is related to the history of architecture. This includes the world's largest collection of Gothic architectural drawings from the 14th to 16th centuries, consisting of 427 late Gothic architectural drawings. This collection was inscribed on the UNESCO World Heritage List in 2005[42].

The most extensive estates are from architects such as Theophil Hansen (over 1.300 drawings) and Ernst Anton Plischke (3.700 drawings, archive documents, photography and literature). In addition to these estates, there is also a collection of materials from the architecture classes of the Academy of Fine Arts. Of particular interest are approximately 3.700 drawings from Friedrich von Schmidt's class, which represent unique architectural surveys, many documented for the first time. The collection is primarily expanded through donations, with occasional targeted acquisitions. The Kupferstichkabinett's depot area covers approximately 360 square metres with shelves totalling 2.5 kilometres in length. This is complemented by a 60 m² reading room and an 80 m² workshop dedicated to restoration and passe-partout work[43].

The institution ensures the conservation of its collections through the implementation of climate-regulating clay plaster, a gas extinguishing system and a suspended ceiling in the depot area to protect the archival materials from water damage. Pest traps are inspected every three months, and appropriate measures are taken as needed. The team consists of six employees, three of whom work part-time, including two staff members working in the workshop[44].

architecture collection
360 m² depot
6 employees

depot location
Schillerplatz 3
1010 Vienna

inventory
Vinzenz Fischer
Galli Bibiena
Josef Hannich
Theophil von Hansen
Carl von Hasenauer
Ernst W. Heiss
J. F. Hetzendorf von Hohenberg
Josef Hoffmann
Clemens Holzmeister
Franz Jäger
Martin Kohlbauer
Franz Kraus
Friedrich Kurrent
Franz Lössl
Victor Luntz
George Niemann
Eduard van der Nüll
Friedrich Ohmann
Gustav Peichl
Antonio de Pian
Ernst Anton Plischke
Roland Rainer
Karl Rösner
Gottfried Semper
Otto Wagner
...

ALBERTINA

The Albertina in Vienna has one of the most important architecture collections in the world. This collection is part of the Federation of German-Language Architectural Collections and the International Confederation of Architectural Museums (ICAM). With over 50.000 objects, including drawings, plans and models, the collection covers a period from the late Middle Ages to the present day.
The most significant collection within the Albertina's architecture collection consists of nearly 2.000 Italian architectural drawings from the 16th to the 18th century. These drawings include the estate of Francesco Borromini, widely regarded as the leading master of Roman seicento architecture, as well as the extensive collection of Baron Stosch, which features drawings of all the renowned buildings in Rome. The architecture collection also comprises approximately 4.000 drawings by the monarchy's building authorities, which document Habsburg construction between 1700 and 1918, as well as 20th-century holdings including artistic estates, sketchbooks, letters and plans. A significant augmentation to the collection is constituted by approximately 100 architectural models by influential architects such as Adolf Loos, Alvar Aalto, Le Corbusier, Ludwig Mies van der Rohe and Otto Wagner, which were donated by the Vienna University of Technology[45].

The Albertina is equipped with an underground storage facility spanning 3.000 m², which serves as a secure repository for its holdings. In addition to this facility, the museum operates other locations that, due to security restrictions, cannot be made public. A 300 m² study room is available for researchers, while the museum's in-house workshops, dedicated to conservation and restoration, ensure the preservation of the collection[46].

Since the 1980s, it has been proposed to transfer the Albertina's Modernist Architecture Collection, which includes works from 1848 onwards, to the Architekturzentrum Wien with the objective of increased visibility and accessibility within a specialised institution[47].

architecture collection
1.500 m² depot
2 employees

depot locations
Albertinaplatz 1
1010 Vienna
...

inventory
Gian Lorenzo Bernini
Antonio Galli Bibiena
Francesco Borromini
Albrecht Dürer
Josef Frank
Zaha Hadid
Theophil Hansen
Carl von Hasenauer
Hans Hollein
Clemens Holzmeister
Adolf Loos
Joseph Maria Olbrich
Giacomo Quarenghi
Gottfried Semper
Paul Wilhelm Eduard Sprenger
Otto Wagner
Lois Welzenbacher
...

* further depot locations undisclosed

ARCHITEKTURZENTRUM WIEN

The Architekturzentrum Wien (AzW), the Austrian Museum of Architecture, is dedicated to the exhibition, mediation and research of architectural history and is a member of the Federation of German-Speaking Architectural Collections and the International Confederation of Architectural Museums (ICAM). The institution is responsible for the collection, documentation and presentation of Austrian architecture from the 20th and 21st centuries.
The largest component of its collection consists of over 110 estates and legacies of Austrian architects. In addition to artistic holdings such as drawings, plans, photography and models, biographical and professional documents are also included to provide insight into the historical and societal context[48].
The collection is supplemented by a project collection with around 350 individual projects, which is intended to document current developments in architecture.

Significant holdings such as the Friedrich Achtleitner Archive and the photo archive of Margherita Spiluttini complement the collection. Friedrich Achtleitner dedicated himself to the systematic surveying of Austria and left behind an extensive collection of around 145.000 objects, including index cards, photographs, plans and inspection documents[49]. Between 1980 and 2005, Margherita Spiluttini documented over 4.000 buildings and objects of contemporary architecture in Austria, producing more than 100.000 photographs, which are among the most important photographic collections on architecture in Austria[50].

With the Architects‘ Dictionary (Architekt*innenlexikon), the AzW created a reference work that covers 1.050 architects who worked in Vienna between 1770 and 1945. The combination of biographical, style-critical, architectural-theoretical and urban planning information provides a comprehensive insight into the architectural development and building activities of this period in Vienna[51].

The main building of the AzW is located in the Museumsquartier Wien, while the depot with Research Center is located in Möllersdorf, around 30 kilometres away, on an area of around 2.700 m², of which around 1.800 m² is dedicated solely to depot space. The depot rooms of the Architekturzentrum Wien are located in historic brick halls[52], which have been adapted with minimal intervention in order to be as sustainable as possible. The walls were whitewashed to protect them from pests, while technical installations such as a ventilation system were deliberately omitted. The building’s thermal mass ensures a slow and stable temperature regulation, providing optimal protection for the archival materials.

architecture collection
1.800 m² depot
5 employees

depot location
Mühlgasse 12-14
2514 Möllersdorf

inventory
Raimund Abraham
Arbeitsgruppe 4
Carl Auböck
Elisabeth Baudisch
Luigi Blau
Bogdan Bogdanović
Erich Boltenstern
Ella Briggs
Wilhelm Cermak
Hermann Czech
Günther Domenig
Roland Ertl
Oswald Haerdtl
Norbert Heltschl
Hans Hollein
Wilhelm Holzbauer
Viktor Hufnagl
Kaym/Hetmanek
Friedrich Kurrent
Josef Lackner
Edith Lassmann
Karin Mack
Eva + Karl Mang
Carl Pruscha
Hans Puchhammer
Roland Rainer
Helmut Richter
Johannes Spalt
Szyszkowitz Kowalski
Team A Graz
Werkgruppe Graz
...

MUSEUM FÜR ANGEWANDTE KUNST

The collection of the MAK (Museum of Applied Arts) encompasses the fields of applied arts, architecture, contemporary art and design. The focus is on the specialised library and art print collection, which cover the period from the Middle Ages to the present day, and a special feature of the MAK is its symbiotic approach to books and graphic art, which sets it apart from other art libraries. The library holds 200.000 volumes on applied and fine arts, design, and architecture, while the art print collection features 400.000 objects, including ornamental prints, drawings, architectural plans, photographs and posters. Notable highlights include estates of architects like Carlo Scarpa, Josef Frank and Otto Wagner's Wiener Postsparkasse archive, as well as the Baroque Library, featuring Giovanni Battista Piranesi's complete works, and pieces by Viennese Modernists Josef Hoffmann and Otto Prutscher[53].

Another central field of the collection is formed by contemporary art with around 1.500 objects, whereby various media types are represented. The architecture section of the collection is supplemented by designs, models and animations. The MAK positions itself as an international network that links the trends in architecture and art with each other and in this context is dedicated to the examination of experimental developments that take up and develop social issues. Visionary architects and designers such as Otto Wagner, Josef Hoffmann and Koloman Moser had a decisive influence on the museum as early as 1900 and laid the foundation for its international significance.
The collection focusses on the tension between architecture and art, with works by personalities such as Raimund Abraham, Vito Acconci, Hans Hollein, Friedrich Kiesler, Bernard Rudofsky and Carlo Scarpa marking central focal points, while Margarete Schütte-Lihotzky's iconic prototype of the Frankfurt kitchen, for example, illustrates the close link between modernist ideas and social issues. Contemporary positions are complemented by works of COOP HIMMELB(L)AU, Daniel Libeskind, Frank O. Gehry, Günther Domenig, Rem Koolhaas and Zaha Hadid[54].

The MAK has its own restoration workshops for conservation and research, which also accept external commissions[55]. A reading room provides access to the holdings for researchers and the public. The collection is stored in a two-storey underground storage facility on Stubenring, a depot for contemporary art in the Arenbergpark battle tower (MAK Tower) and an external storage facility for large objects[56].

architecture collection
550 m² depot
14 employees

depot locations
Stubenring 5
1010 Vienna
Dannenbergplatz 6
1030 Vienna

inventory
Raimund Abraham
Vito Acconci
Georg Driendl
Josef Frank
Frank Gehry
Domenig Günther
Zaha Hadid
Coop Himmelb(l)au
Josef Hoffmann
Hans Hollein
Philip Johnson
Donald Judd
Friedrich Kiesler
Rem Koolhaas
Daniel Libeskind
Adolf Loos
Greg Lynn
Giovanni Battista Piranesi
Carl Pruscha
Otto Prutscher
Roland Rainer
Helmut Richter
Bernard Rudofsky
Carlo Scarpa
Margarete Schütte-Lihotzky
Johannes Spalt
Otto Wagner
...

* further depot locations undisclosed

ÖSTERREICHISCHE GESELLSCHAFT FÜR ARCHITEKTUR

The Austrian Society for Architecture (ÖGFA) is an association that provides an independent platform for critical discourse on architecture and urbanism. Since its foundation in 1965, it has aimed to promote a well-founded and practice-oriented exchange on current issues of building culture.

The ÖGFA was founded in response to the treatment of valuable architectural heritage, such as the beginning of the demolition of Otto Wagner's Stadtbahn stations in Vienna. It also stemmed from the hope of restoring contemporary architecture to the standards of 1900-1934. Founding members included such notable figures as Friedrich Achleitner, Maria Biljan-Bilger and Friedrich Kurrent. In addition to a varied programme of lectures, discussions, building visits, trips and exhibitions, the ÖGFA publishes the architectural theory journal UmBau and is a co-founder of the Austrian Architecture Foundation[57].

The collection includes the Iris Meder Archive and the Wilhelm Schütte Archive. The architectural historian's estate includes her private library as well as unpublished works and research[58]. Meder was known for her interdisciplinary approach to research. She worked intensively on the historical image of Viennese Modernism, providing new insights into the work of Josef Frank and Oskar Strnad as well as local contemporaries, including students, clients and publicists. She also focused on the previously neglected female protagonists of the architectural scene, both as planners and clients. Another focus of her work was the often underestimated importance of open space design in building planning, which she placed in its social, economic and artistic context[59].

Wilhelm Schütte's archive, most of which was handed over to the ÖGFA in his will, includes plans, photographs, documents and a large part of his library. His nephew later added material from Schütte's exile in Turkey in the 1940s. A significant part of his estate is also held by the *Universiät für angewandte Kunst*. Throughout his life, Wilhelm Schütte was committed to social issues and was an internationally recognised expert in school building. Together with Margarete Schütte-Lihotzky, he built municipal buildings, he designed buildings for the Communist Party (KPÖ) as part of his KPÖ membership, and was involved in the design of concentration camp memorials. He also made important contributions to CIAM Austria and UNESCO[60].

In addition to these papers, the ÖGFA archive includes its own files, publications and an extensive photographic collection, including works by Margherita Spiluttini. However, the ÖGFA is currently facing significant spatial constraints, having been located in the same premises since its foundation due to the low rent. This has resulted in limited capacity to accommodate new collections, necessitating repeated rejection of offers to take over the estates. Additionally, limited financial resources have led to constraints in inventorying existing collections and in securing suitable premises for events, further compounded by constraints in allocating funds for external venue hire[61].

architecture collection
20 m² depot
0 employees

depot location
Liechtensteinstrasse 46a/2/5
1090 Vienna

inventory
Iris Meder
Wilhelm Schütte

UNIVERSITÄT FÜR ANGEWANDTE KUNST

The ‘Art Collection and Archive’ of the University of Applied Arts Vienna form the cultural and material memory of the institution. As an independent institute, it makes a significant contribution to the further development of the university by combining research, artistic and academic teaching, collection preservation, documentation, museological work and exhibition practice. Originally founded in 1979 as a collection for the artistic practice of students, the art collection is now aimed equally at the public. Its aim is to analyse the history of artistic practice with regard to current and future challenges and to place it in a comprehensive context[62].

The institute includes, in addition to its collections of art, architecture, design, fashion, and textiles, the University Archive, the Oskar Kokoschka Center and a foundation dedicated to designer Victor Papanek[63]. The total inventory currently amounts to around 80.000 objects[64]. The collection has been defined by the university‘s progressive approaches since its inception as the Imperial and Royal School of Arts and Crafts. It is considered a pioneer for pedagogical concepts and design approaches (comparable to the preliminary courses of the Bauhaus) as well as ‘modern spatial art’, which regarded the exhibition space as a design challenge. Since its foundation in 1867, the programme was also open to women, with Franz Čižek‘s ‘ornamental theory of form’ serving as a laboratory of ideas for young female artists and giving rise to Viennese Kinetism. With its focus on marginalised and forgotten artists, especially victims of the Nazi regime, the collection focuses on alternative narratives and the pluralisation of the art historical canon[65].

The most significant holdings include works by architects such as Friedl Dicker-Brandeis, Josef Hoffmann and Margarete Schütte-Lihotzky. The estate of the latter alone comprises 110 linear metres of documents, not including models or photographs[66]. The Institute is also involved as a co-founder of the ‚Margarete Schütte-Lihotzky Network‘, which serves as a platform for contemporary debates and interdisciplinary research initiatives[67].

The Art Collection and Archive face significant space constraints: while the actual requirement is approximately 2,200 m², only 600 m² are currently available. The architecture section is estimated to require approximately 200 m². The division across multiple locations further complicates logistical coordination[68].

architecture collection
200 m² depot
4 employees

depot locations
Postgasse 6
1010 Vienna
Eyzinggasse 23
1110 Vienna

inventory
Ilse Bernheimer
Friedrich Berzeviczy-Pallavicini
Friedl Dicker-Brandeis
Josef Frank
Wenzel Hablik
Josef Hoffmann
Hans Hollein
Erika Giovanna Klien
Bertold Löffler
Otto Niedermoser
Dagobert Peche
Franz Schuster
Wilhelm Schütte
Margarete Schütte-Lihotzky
Eduard Wimmer-Wisgrill
...

WIEN MUSEUM

The Wien Museum, originally founded in 1887 as the ‚Historical Museum of the City of Vienna' in the City Hall, has been dedicated to the entire history of Vienna since its foundation, housing a diverse collection ranging from everyday objects to fine art. The collection's rapid growth necessitated the early expansion of the museum. It was not until the 1950s that a dedicated museum building, designed by Oswald Haerdtl, could be constructed on Karlsplatz. Despite numerous adaptations over the years, the building was unable to meet the requirements of the constantly growing collection. Between 2019 and 2023, the Wien Museum was therefore extensively renovated and expanded to meet future requirements[69].

The museum attaches great importance to educational work and aims to make its collection as accessible as possible to the public. The collection comprises a total of over one million objects, covering various facets of Viennese history and culture[70]. A central component of the collection is the architecture collection, which documents important periods of Viennese architectural history, especially the 19th and 20th centuries, with around 35.000 objects, including design drawings, plans, sketchbooks, photographs, models and furniture. Among the most valuable holdings are the historical plans of the St. Stephen's Dombauhütte (cathedral building workshop).
The collection also includes significant estates of renowned architects, including Carl von Hasenauer, Heinrich von Ferstel (1.000 objects), Friedrich von Schmidt (4.000 objects) and his former student Viktor Luntz (5.000 objects). Otto Wagner's estate is of particular importance, comprising almost 1.000 sheets, mainly presentation drawings and competition designs[71]. In 2018, the Wien Museum expanded its holdings with the donation of Karl Schwanzer's archive, which represents an exceptionally extensive and important collection related to 20th-century Austrian architectural history. This archive contains a wide variety of materials, including plans for over 170 projects, photographs, slides, film reels, files, books, magazines, microfilm cards, models, and furniture. It provides a comprehensive insight into the architectural, cultural, and contemporary history from 1947 to 1975. Following the conclusion of the scientific processing, the Wien Museum plans to make this archive accessible to the public[72].

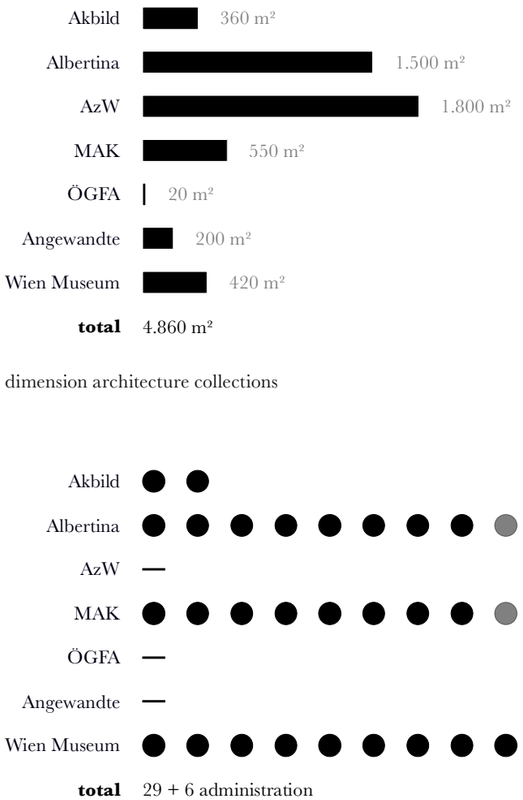
For many years, the museum's collection was distributed across eight different depot locations. Since 2013, a 12.000 m² depot in Himberg, near Vienna, about 20 kilometres from the museum's main site, has been in use[73]. The museum also houses its own workshops at Karlsplatz, which specialise in the restoration of various materials, including paper, paintings and textiles, as well as the production of passe-partouts[74].

architecture collection
420 m² depot
3 employees

depot locations
Karlsplatz 8
1040 Vienna

2325 Himberg bei Wien

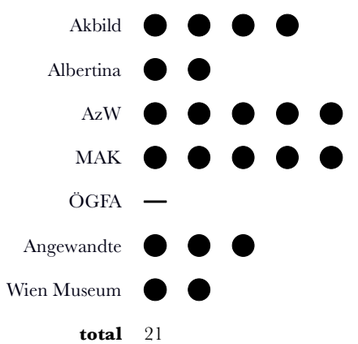
inventory
Leopold Bauer
Ludwig Baumann
Heinrich von Ferstel
Max von Ferstel
Carl von Hasenauer
Viktor Luntz
Friedrich Ohmann
Friedrich von Schmidt
Karl Schwanzer
Otto Wagner
...



dimension architecture collections

in-house preservation workshops

number of employees preservation workshops



number of employees architecture collection

* depot areas and staff cannot always be separated from the whole collection space and work, measurements provided by the institutions are given in square meters rather than linear meters

CONCLUSION

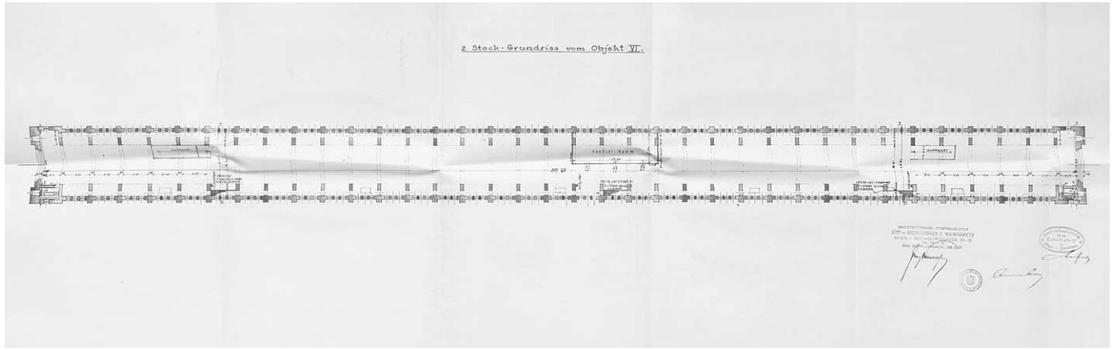
The consolidation of all the mentioned institutions‘ architectural collections would not only improve the efficiency of archiving, research, and presentation of architectural documents but also significantly enhance visibility and interdisciplinary exchange in architectural history. The diversity of collected materials - from historical drawings and models to digital designs - underscores the importance of a central, well-equipped archive for the long-term preservation and scientific research of architectural heritage.

Such a collaborative network could function as an Archive of Baukultur, encompassing not only classical architectural archives but also documents related to the social, cultural and urban dimensions of building. This would extend beyond mere documentation of design and construction processes to include topics such as urban development, housing forms, sustainability, and heritage conservation. By interlinking institutions, a dynamic center would emerge that serves simultaneously as an archive, a research platform and a public meeting place.

Several institutions currently maintain multiple locations for their depots, resulting in significant costs for rent and transportation. Through consolidation, travel distances could be reduced, and financial resources could be used more efficiently. The already limited budgets could be allocated more effectively. Additionally, personnel costs could be lowered through cooperation and shared responsibilities in areas such as organization, supervision, and workshops.

Moreover, an archive of building culture would facilitate access to built heritage and strengthen public perception of architectural archives as dynamic knowledge repositories and sources of inspiration. Research and educational efforts at a single location would be greatly simplified for scientists, experts, and visitors alike.
Ultimately, such an institutional consolidation would be a forward-looking step toward the sustainable preservation and communication of architectural history.

1 cf. Baunetzwoche No. 558, p. 7
2 cf. Barkhofen (2019), p. 7
3 cf. Baunetzwoche No. 558, p. 9)
4 cf. Barkhofen (2019), p. 15
5 cf. Ibid., p. 8
6 cf. Baunetzwoche No. 558, p. 17
7 cf. Barkhofen (2019), p. 39
8 cf. Ibid., p. 40
9 cf. Ibid., p. 41
10 cf. Ibid.,, pp. 42
11 cf. Ibid., p. 41
12 cf. Ibid., p. 44
13 cf. Ibid., p. 45
14 cf. Barkhofen (2016), p. 13
15 cf. Barkhofen (2019), pp. 47
16 cf. Ibid., (2019), p. 7
17 cf. Ibid., (2019), p. 51
18 cf. Ibid., (2019), p. 51
19 cf. Architekturarchive: Sammlungen
20 cf. Barkhofen (2019), p. 54
21 cf. Ibid., p. 55
22 cf. Ibid., pp. 20
23 cf. Ibid., p. 27
24 cf. Ibid., p. 28
25 cf. Ibid., p. 30
26 cf. Ibid., p. 33
27 cf. Ibid., p. 34
28 cf. Ibid., p. 36
29 cf. Ibid., p. 37
30 cf. Ibid., pp. 15
31 cf. Baunetzwoche No. 558, p. 13
32 cf. Baunetzwoche No. 558, p. 17
33 cf. Barkhofen (2019), p. 8
34 cf. Baunetzwoche No. 558, p. 17
35 cf. Barkhofen (2019), p. 55
36 cf. Ibid., p. 14
37 cf. Ibid., p. 14
38 cf. Ibid., p. 58
39 cf. Ibid., p. 57
40 cf. Ibid., p. 59
41 cf. Akademie der bildenden Künste: Kupferstichkabinett
42 cf. Akademie der bildenden Künste: Architekturzeichnungen
43 Information by archivist René Schober
44 Information by archivist René Schober
45 cf. Albertina: Architektur
46 cf. Basis Wien: Graphische Sammlung Albertina
47 cf. Architekturzentrum Wien: AzW im Semper-Depot
48 cf. Architekturzentrum Wien: Vor- und Nachlässe
49 cf. Architekturzentrum Wien: Friedrich Achleitner Archiv
50 cf. Architekturzentrum Wien: Margherita Spiluttini Fotoarchiv
51 cf. Architekturzentrum Wien: Architekt*innenlexikon
53 cf. MAK: Kunstblättersammlung
54 cf. MAK: Sammlung Gegenwartskunst
55 cf. MAK: Restaurierung
56 cf. Die Presse: Depots tief in der Erde
57 cf. ÖGFA: Geschichte
58 Information by Judith Augustinovič
59 cf. ÖGFA: Archiv Iris Meder
60 cf. ÖGFA: Archiv Wilhelm Schütte
61 Information by Judith Augustinovič
62 cf. Angewandte: Kunstsammlung und Archiv
63 cf. Angewandte: Sammlungsbestände
64 Information by archivist Silvia Herkt
65 cf. Angewandte: Sammlungsbestände
66 Information by archivist Silvia Herkt
67 cf. Angewandte: MSL-Netzwerk
68 Information by archivist Silvia Herkt
69 cf. Wien Museum: Geschichte
70 cf. Wien Museum: Leitbild
71 cf. Wien Museum: Architektur
72 cf. Wien Museum: Karl Schwanzer Archiv
73 cf. Wien ORF: Wien Museum - Neues Depot in Himberg
74 cf. Wien Museum: Floor Plans



29 Historical Plans, 1927

30 View into the Arsenal, Object 6 on the left, Salt Print, around 1850

5 OBJECT 6

ORIGINAL STRUCTURE

Object 6 was constructed as part of the perimeter development of the Vienna Arsenal and belongs to a series of eight depot buildings. It was positioned between the central and corner barracks, whereby a distance to the neighbouring buildings was maintained for fire protection reasons. Nevertheless, a connection existed via an 8,5 meter high wall equipped with an iron bridge, which was equipped with an iron bridge and connected the first floors of the neighbouring buildings. The wall also featured an entrance gate[1].

Construction of the building began in 1849 based on designs by the architects August Sicard von Sicardsburg and Eduard van der Nüll. The three-story structure was built with raw bricks and is characterized by its symmetrical design. The corners of the building are accentuated by towers with crenellated parapets. The top floor was vaulted and completed with a flat roof. Initially, the roof was sealed with asphalt, later replaced with lead[2].

The exterior of the building featured embrasures, emphasizing its military function. It served as a depot for storing military supplies, including military materials, tools, requisites and heavy artillery[3].

The strong horizontal extension of the building –more than 210 meters– is rhythmized by vertical elements such as the pilasters. The original supporting structure consisted of 36 brick arches, while wooden ceilings were anchored in the brick walls, as can still be seen today from the anchor points in the pilasters of the facade. The front sides of the building were fitted with imposing gates measuring 11 meters in height and nearly 6 meters in width[4]. Originally, vertical circulation within the building was only possible via staircases in the two corner towers.

31 Front Facade

32 End Facade

STRUCTURAL CHANGES

Over the years, the building has undergone numerous structural changes (see pages 72-75). In 1927, three additional staircases and ramps were added to the vertical access, which had previously only been possible at the front sides - a distance of over 200 metres. The existence of a basement could not be conclusively confirmed during the investigations, but construction drawings from 1927 give some indication. In 1936, new gates were added to the facade facing the inner Arsenal, most of which were closed and replaced by windows in the following decades. These structural changes can still be seen on the facade today (see Figure 35). The original gates on the front sides were also replaced by windows. New entrances were created on the south-west side, whereas the original building only had two entrances on the north-east side. Additional entrances to the access towers at the head end were also created.

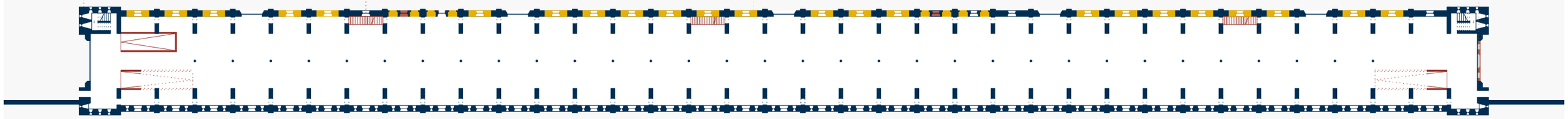
Due to extensive war damage, the original brick structure was replaced with a reinforced concrete construction in the 1960s. Plans for the reconstruction have not been recorded. During this period, three new vertical circulation cores were constructed along the south-west elevation, two of which were fitted with goods lifts. Two arched doors and a further gate were added to these cores. Concrete roofs were also added over individual entrances[5].

1850 original structure

1927 construction stairs and ramps
deconstruction 1936

1936 deconstruction
to enable entrance gates

1936 closing front gate



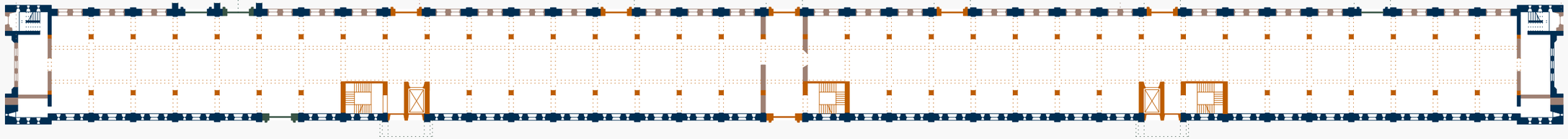
year unknown closing front gate

1971 construction of additional gates

1960s replacement of the structural system with a reinforced concrete structure
construction of vertical circulation, elevators and additional gates

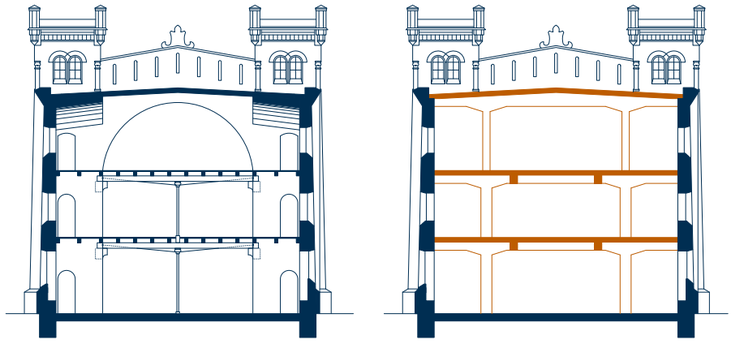
year unknown transformation gates to windows

year unknown transformation windows to doors



1850 | 1927 | 1936 | 1936 deconstruction | 1960 | 1971 | year unknown

Structural Changes before and after 1945



33 Original Structure without Floor Ceiling

34 New reinforced Concrete Structure

36 Facade outer Arsenal

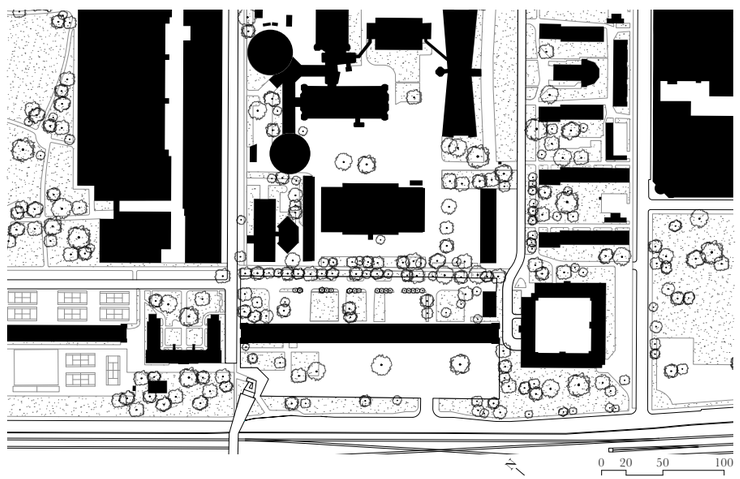
35 Facade inner Arsenal

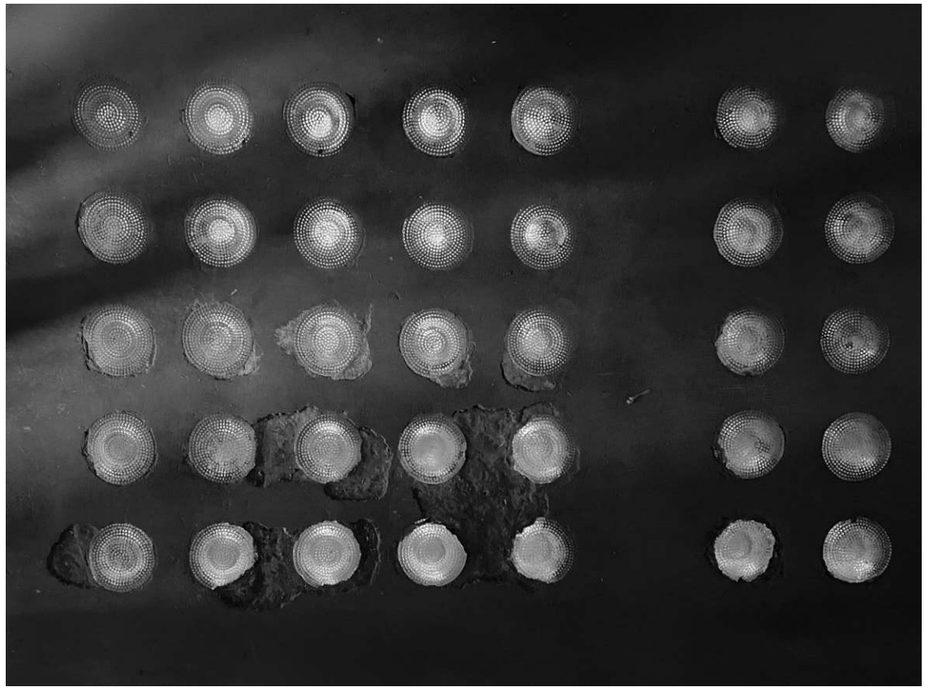
37 Exterior Area and Railway Tracks

38 Exterior Area inner Arsenal

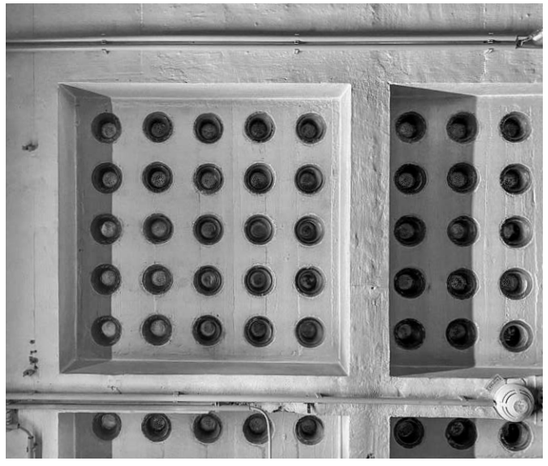
CURRENT CONDITION

The property is classified as a protection zone, and Object 6 has been listed as a historic monument since 2002. The Bundesdenkmalamt (Austrian Federal Monuments Authority) justified this decision with the special importance of the building for the legibility of the original structure of the Arsenal[6]. However, the interior spaces were deemed ‚not of significant historical value'[7].
Today, the building and the surrounding open space are owned by A1 Telekom. The building is currently partially used for storage. The surrounding open space of 20.000 m² is fenced in and largely unused. A large part of this area is sealed, while the north-east side has an attractive tree population. The adjacent Kirchenweg is lined by an avenue of plane trees. While the other buildings in the Arsenal have been regularly refurbished, Object 6 shows clear signs of neglect.
The building's natural light is limited due to its original construction as a depot building. On the northeast side, windows in the ground floor begin at a height of 1,60 meters, while on the southwest side, they start at 1,90 meters, restricting direct outward visibility. The second floor has the best exposure as it has the most windows and the highest floor height. The existing regularly repeating load-bearing structure allows for flexible, serial conversion of the interior spaces. Due to the reduced lighting conditions associated with its original depot use, functions such as storage and archiving are more suitable than residential or office use. The large contiguous areas are also favourable for storage purposes without the need for complex structural interventions. The structural system was originally designed to support high floor loads, ensuring stability and adaptability for future uses, particularly in areas demanding high load-bearing capacity and flexible spatial configurations.

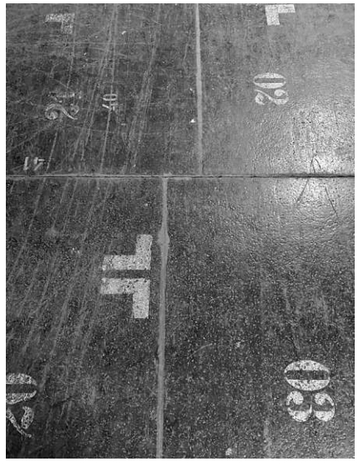




39 Floor Detail, Second Floor



40 Ceiling Detail, First Floor



41 Floor Surface

42 Second Floor

43 Second Floor

1 cf. Förster (1866), pp.320-321
2 cf. Ibid., p.318
3 cf. Förster (1850), p.28
4 cf. Förster (1866), pp.320-321
5 cf. Stolz (2014), p.56, 63
6 cf. Baupolizei (2002)
7 cf. Stolz (2014), p.66

6 DESIGN

CONCEPT

The building as an archive - the existing structure is characterized by its extensive length of over 200 meters, a strong horizontal orientation and a closed, solid architectural form.

A central corridor stretches through the entire length of the building, providing visual connections to all areas. Even typically hidden archive spaces remain visible, allowing visitors to experience the archival work that is usually hidden from view. This breaks with the tradition of seclusion and offers a glimpse behind the scenes of the archive world. The longitudinal character of the building is emphasised, making the sheer mass and scale of the archived materials tangible.

The existing circulation cores are mirrored to the opposite facade, dividing each level into four distinct zones. Simultaneously, this arrangement introduces controlled transfer areas, or airlocks, ensuring the secure and efficient movement of archival materials.

Between the circulation cores, both vertical and horizontal access routes are created. While the vertical circulation is positioned to structure movement within the building, the staircase still ensures horizontal connectivity and maintains visual openness. This approach allows for efficient circulation while preserving sightlines and fostering a sense of spatial continuity.

The public areas extend throughout the entire building as a space sequence, allowing visitors to move seamlessly through the space. This continuous circulation path ensures that the entire building can be experienced while offering glimpses into all areas of the typically restricted archive. By integrating transparency into the spatial design, the concept breaks with traditional separation, making the archival work and its vast collections more tangible and accessible.

The closed typology of the archive becomes visible through sealed windows in the depot spaces and a deliberately enclosed rooftop addition. This approach reinforces the secure and introverted nature of the archive while simultaneously enhancing its presence and maintaining the building's defining horizontality.

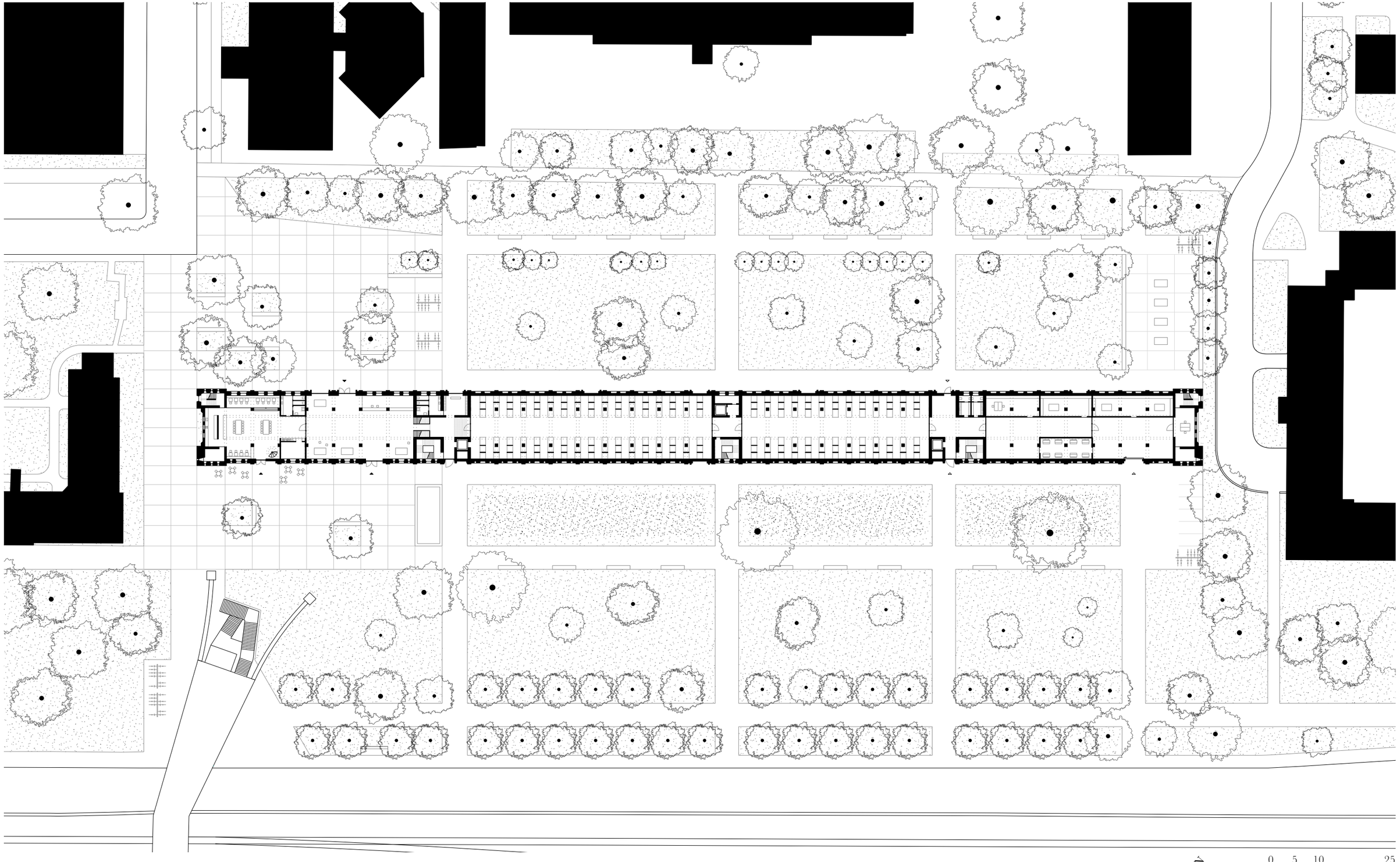
OUTDOOR SPACE

The site under consideration is currently fenced and largely sealed. At the same time, it features an attractive stock of mature trees. The aim of the design is to make the currently private space publicly accessible and to unseal the surfaces. The main access to the site is via the bridge of the ‚Arsenalsteg' and from the direction of the Museum of Military History. At the north-western end of the building, a large square will be created, serving both as an access point to the main entrances of the archive and as an outdoor area for the café. The existing mature trees will be preserved and adorn the square, while the impermeable surfaces will be unsealed and designed in a near-natural way.

The avenue of trees planned along the southern edge of the site serves as a filter between the road and railway line on one side and the archive and outdoor space on the other. Additionally, the trees provide shade for the newly planned pedestrian and bicycle path. Rainwater and excessive precipitation in the event of heavy rainfall will be collected in the planned infiltration pits and slowly released into the ground. In this way, the water remains in place for longer, the sewerage system is relieved and dry periods can be mitigated.

The unsealing of the site also provides the opportunity to apply the principle of the sponge city in the redesign of the outdoor spaces, ensuring a more even water supply for both existing and newly planted trees. In addition, a water basin with surrounding benches helps to flatten temperature peaks through adiabatic cooling. The extensive green spaces are designed as low-maintenance areas, contributing to biodiversity conservation and improving the urban climate.

Furthermore, the maintenance of the existing areas is already inadequate, so that additional areas will have to function with the low level of maintenance that is currently provided. In order to counteract the impression of neglect that the unfamiliar sight of extensive areas can create, an intensively maintained peripheral area is planned as a framework.



Situation Plan

DESIGN DESCRIPTION

Archives are typically divided into public, semi-public and non-public areas. The public areas include the visitor spaces such as the library, reading room or lecture halls. These are complemented by a café integrated into the ground floor. The semi-public areas include administration and workshop spaces, while the non-public areas consist of delivery, quarantine and depot zones.

The design pursues the idea of providing an insight into the archival processes without compromising the clear spatial separation. Therefore, visual connections are maintained between public and non-public spaces within the core areas, which act as thresholds between public and non-public.

The public section of the building extends as a sequence of spaces throughout the entire length of the structure. The design of the square initially leads to the entrances to the building, which were positioned in existing openings of the building. The foyer is characterised by a two-storey void, improving natural lighting by partially removing the existing ceiling. The café, located at the building's front, can be accessed both from the foyer and directly from outside, allowing it to operate independently of the archive's opening hours. At the same time, the café can provide catering and service for events taking place in the foyer.

From the entrance area, the central axis unfolds as the main architectural theme. A recess in the staircase allows a view into the archive area on the ground floor while maintaining the usability of the existing circulation system. Instead of crossing the staircase, visitors who follow it upward will reach the library and the ‚open archive' on the first floor. The open-plan layout invites visitors to read and engage with the book collection, while selected archival items provide a hands-on experience of the archival concept.

On the next floor, the reading room is accompanied by the archivists' offices. Here, researchers can examine closed-archive materials under staff supervision. Since the offices are in close proximity and visual contact with the reading room, no additional supervision personnel are required, as is common in many other archives. The division between the reading area and the office spaces is achieved through a large shelving unit, which integrates glass panels to maintain the visual connection and facilitate document handover.

DELIVERY

INTERMEDIATE STORAGE

QUARANTINE
FREEZING OR FUMIGATION

SORTING AND ARRANGING
CATALOGING AND INDEXING
PROCESSING

AIRLOCK

PRESERVATION WORKSHOPS
REPROGRAPHY OR DIGITALIZATION

DEPOT

INTERMEDIATE STORAGE ISSUANCE
ISSUANCE TO USERS

READING ROOM
LIBRARY

Continuing through the next staircase, visitors gain insights into the workshop area, where preservation work takes place. The top floor, a newly constructed addition, houses the auditorium. The otherwise fully enclosed structure opens at its front towards the reading terrace.

The facade of the lecture room can be generously opened up for this purpose. A foyer in front of the auditorium allows for catering services during occasional events.

The non-public area of the building is accessed from the opposite side of the building. Here, staff entrances are located - also integrated into existing openings - along with the delivery area for archival materials, marking the beginning of the ‚journey of the archival materials'. After delivery, materials are usually stored temporarily in an isolated area before an initial inspection for condition, completeness and potential damage takes place. Following this, the materials undergo examination for visible damage, mold or insect infestation – and if necessary, treatments such as freeze-drying or fumigation. Dirt and dust are removed using brushes or specialized vacuum systems.

This is followed by sorting, recording and registration in the archive system, as well as packing in suitable protective materials - such as acid-free archive boxes, folders or plan rolls. Depending on their condition, items requiring further restoration or conservation are sent to workshops, while others are transferred directly to the depot. Before being accessed by researchers or other users, archival documents typically undergo an order and usage verification process, especially for sensitive or protected materials. Once approved, they are retrieved from the storage rooms, temporarily placed in an intermediate storage area and then handed to users in the reading room.

Large objects, such as models and furniture, are stored on the ground floor. Whether archival materials are sorted by type or kept within a related estate varies across institutions. To accommodate different formats, the upper floors offer a range of archival storage systems, including flat-file cabinets, compactus shelving systems and traditional standing shelves. The top floor houses the most sensitive materials, such as photographs, parchment documents, and digital storage carriers, as this area provides the most stable climatic conditions.

The existing building features a massive brick structure from 90 cm on the ground floor to 65 cm on the upper floor. The existing plaster will be replaced by a lime coating, which offers moisture-regulating, pollutant-absorbing and mold-resistant properties while also providing protection against pest infestation. Additionally, lime is vapor-permeable, helping regulate indoor humidity. The massive walls contribute to a stable indoor climate by delaying temperature fluctuations.

The extension of the archive, in form of a vertical addition, is constructed as a lightweight structure due to static considerations. The new structure is set back from both the existing facade and the towers to maintain a visual seperation between old and new. The structure is formally restrained and refers to the existing building with its proportion and roof shape. Its closed facade is made of galvanized sheet metal, ensuring a clear distinction between old and new materials while making the contemporary intervention visibly recognizable. Besides adequate insulation, climate control ensures consistent temperature conditions. Ventilation and filtration systems regulate air circulation and reduce dust and pollutants. To protect archival materials from harmful light exposure, windows in the depot rooms of the existing building will be sealed. The structural reinforcement of the building is achieved using metal columns, which also serve as part of the shelving system.

The area of the existing building, approximately 7.100 m², is expanded by around 1.800 m² through the vertical addition. This includes approximately 5.800 m² of depot space. The current floor space of all institutions combined amounts to almost 4.900 m², leaving a reserve capacity for the depot spaces of around 900 m².

STRUCTURAL INTERVENTIONS TO THE EXISTING BUILDING

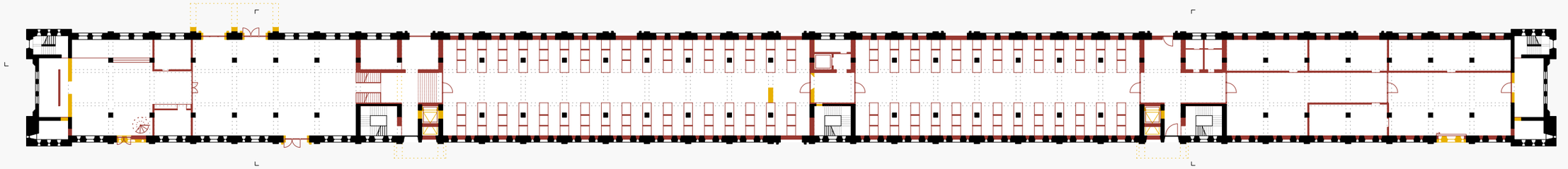
The building envelope will be retained, with two new openings created in the southwest facade for café access and deliveries. Existing openings in the storage areas will be closed with masonry.

On the ground floor, the existing ceiling in the foyer and café area will be partially removed to improve the lighting conditions. The existing load-bearing structure will regain its natural exposed concrete appearance. New cores will be added and will deliberately contrast in materiality with the existing structure to make the architectural interventions visible.

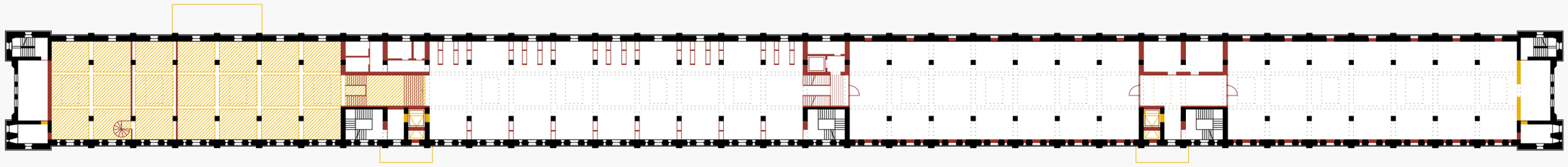
For the new vertical access, the ceiling above as well as a joist will be removed. The new staircase will be constructed of steel and will rest on new steel beams. The existing elevator cores will be retained, while the elevators themselves will be replaced and extended to the new upper floor. Additionally, a new elevator core will be added in the central part of the building.

The existing stairwells will function as emergency escape staircases and will also be extended to the new upper floor. The historic wooden windows will be refurbished and replaced as needed, depending on their condition.

Public	
Foyer	330 m²
Café	380 m²
Library	680 m²
Reading Room	360 m²
Lecture Room	225 m²
Foyer Lecture	110 m²
Terrace	92 m²
total	2.177 m²
Semi public	
Office	160 m²
Workshop	534 m²
total	694 m²
Non public	
Depot	5.780 m²
Manipulation	240 m²
total	6.020 m²
before	**7.129 m²**
after	**8.891 m²**



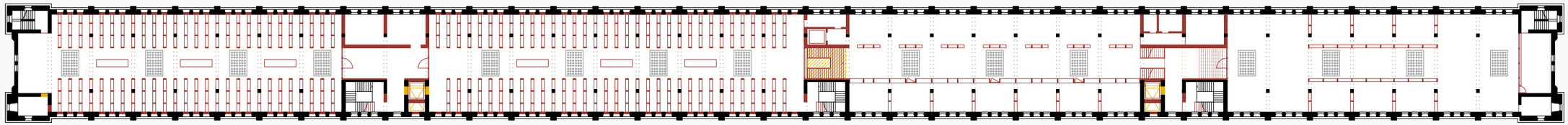
Ground Floor



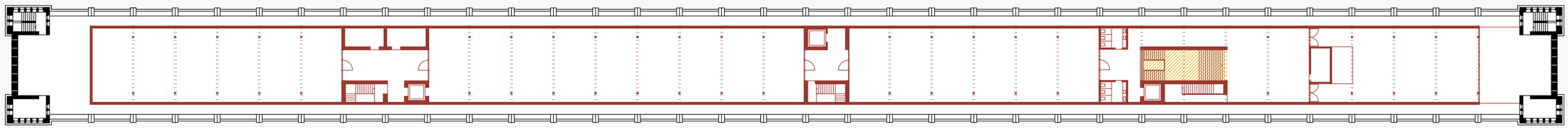
First Floor

Demolition and New Construction

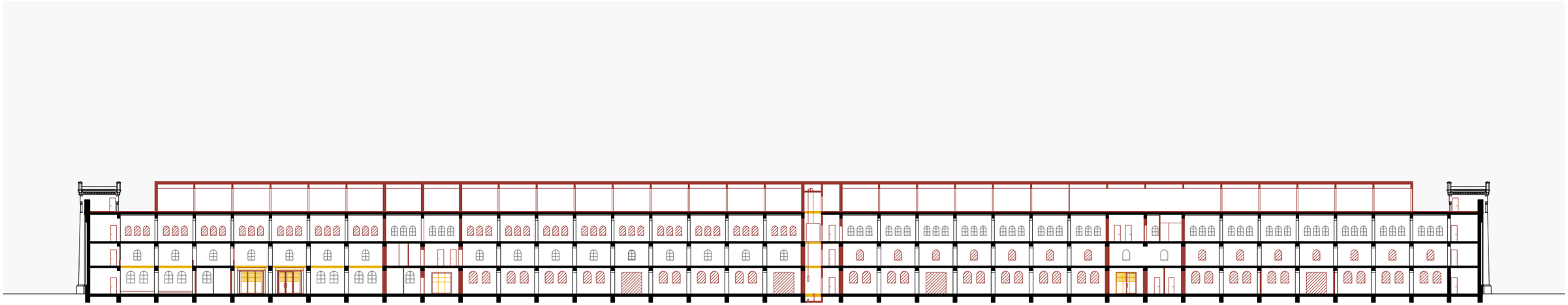
0 5 10 20



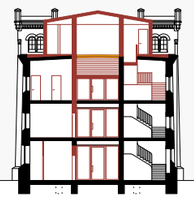
Second Floor



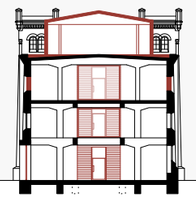
Third Floor



Longitudinal Section



Cross Section

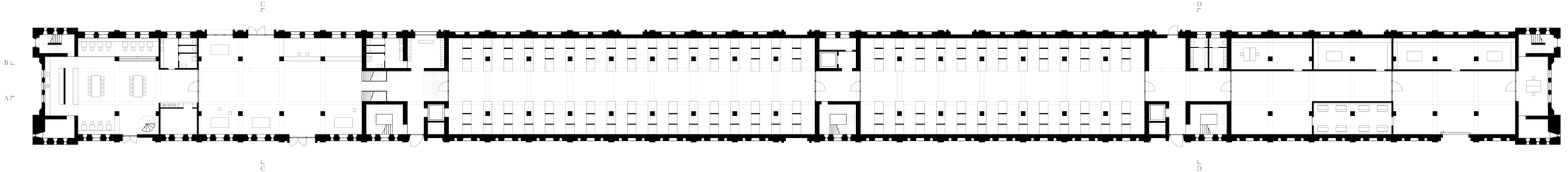


Cross Section

0 5 10 20

Ground Floor

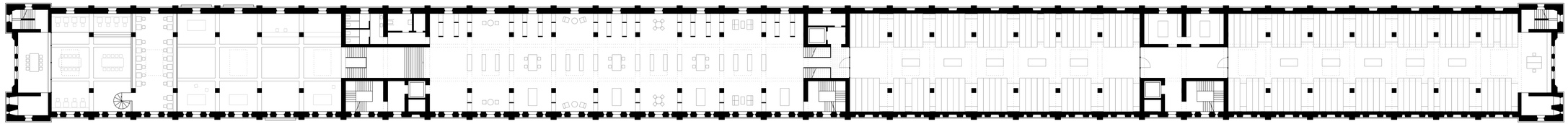
1 Café
2 Foyer
3 Wardrobe
4 Large Objects
5 Changing Room
6 Sorting
7 Quarantine
8 Storage
9 Office
10 Waste
11 Delivery



Ground Floor Plan

First Floor

1 Library & Open Archive
2 Café
3 Staff Room Café
4 Depot

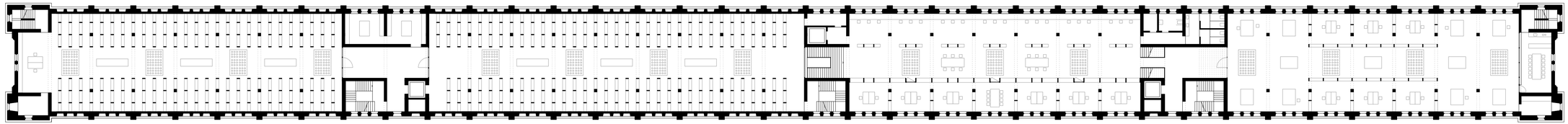


First Floor Plan

0 2 5 10

Second Floor

1 Reading Room
2 Office
3 Preservation Workshop
4 Repro and Digitization Room
5 Staff Room
6 Depot

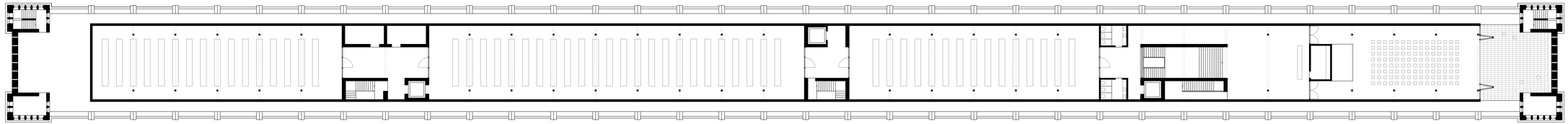


Second Floor Plan

0 2 5 10

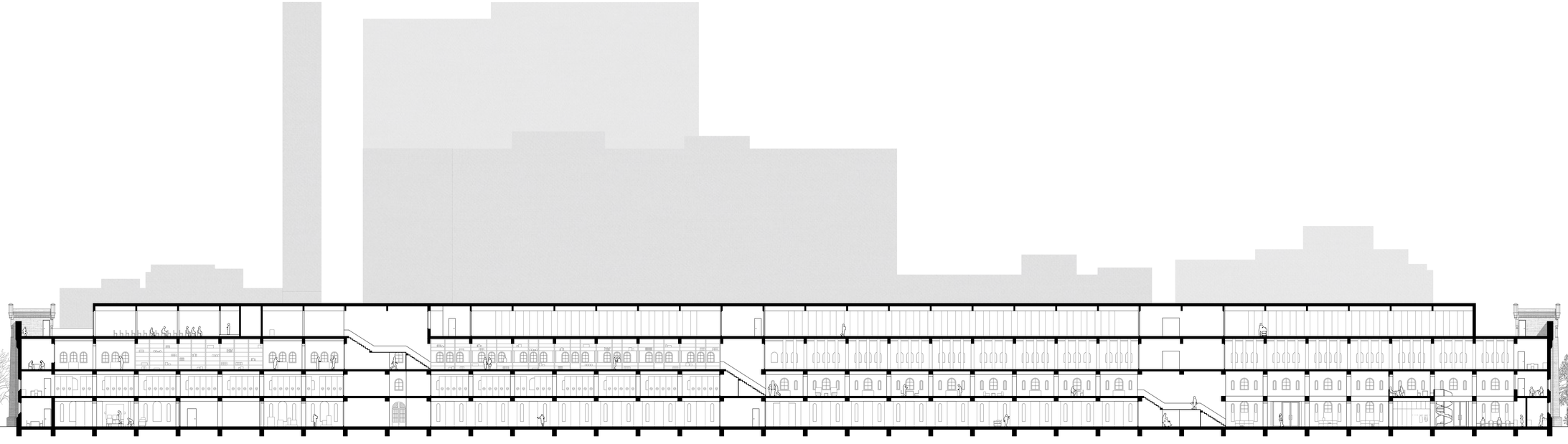
Third Floor

1 Lecture Room
2 Terrace
3 Depot



Third Floor Plan

0 2 5 10

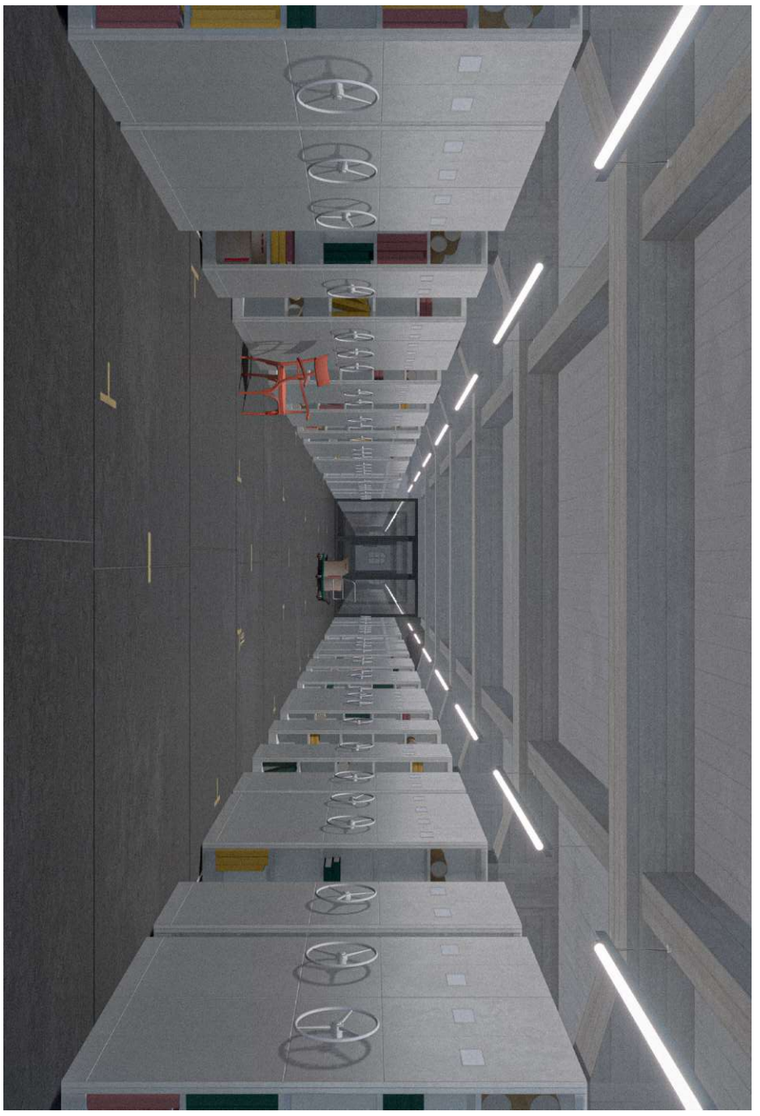


Longitudinal Section A–A

0 2 5 10

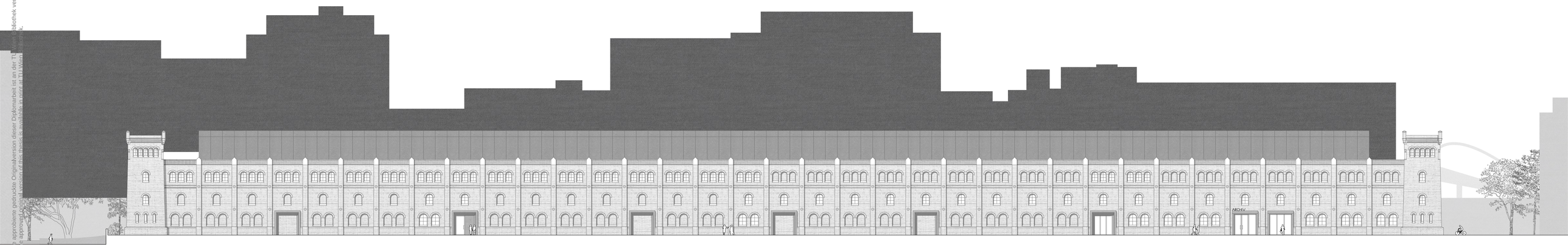
Longitudinal Section B-B

0 2 5 10



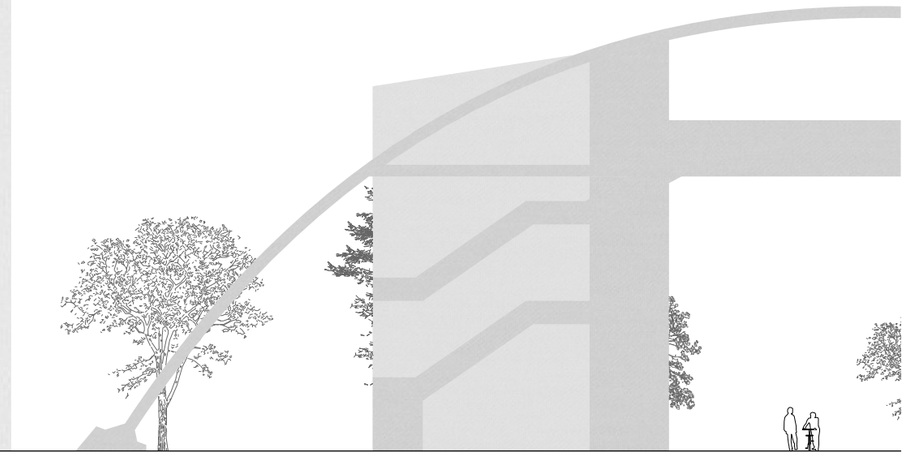
Elevation South-West

0 2 5 10



Elevation North-East

0 2 5 10



Elevation North-West

0 2 5 10

Cross Section D-D

0 2 5 10

Elevation South-East

0 2 5 10

Cross Section C-C

0 2 5 10

7 CONCLUSIO

This thesis examines how underutilized buildings in urban environments can be revitalized through targeted, minimal interventions and the approach of ‚preservation through use'. A detailed analysis of the existing structure made it possible to identify and activate the building's potential in a targeted manner.

Originally designed as a military depot, the building features a closed, solid structure with limited lighting conditions. This characteristic was deliberately utilised for a closed typology, while targeted interventions were implemented where necessary. As part of the perimeter development of the Arsenal complex, the building is characterised by its extreme horizontal expanse – a defining feature that has not only been restructured through subtle interventions but also deliberately brought into focus. A central axis with vertical circulation runs through the entire length of the building, intuitively guiding visitors through its different areas.

Furthermore, this study demonstrates how the networking of various institutions creates synergies, utilises resources more efficiently and promotes interdisciplinary collaboration. The building transforms into a platform for research and public discourse by involving visitors. At the same time, unused outdoor spaces are reactivated and integrated into the public space, creating new meeting points and green spaces for the urban society.

In this sense, the project makes a contribution to the current debate on the sustainable use of the built environment. It highlights how engaging with existing structures continually reveals hidden qualities that can be reactivated for the future. A sensitive and forward-thinking approach allows for the preservation of historical structures while simultaneously adapting to the evolving needs of society.

8 BIBLIOGRAPHY

Literature Sources

ARCH+ 256. *Umbau – Ansätze der Transformation*. 7.2024.

ARCH+ 257. *Umbau – Maßstäbe der Transformation*. 9.2024.

BARKHOFEN, Eva-Maria. *Baukunst im Archiv : die Sammlung der Akademie der Künste*. DOM publishers, 2016.

BARKHOFEN, Eva-Maria. *Architektenarchive bewerten : Kriterien für Sammlungen, Museen und den Kunstmarkt*. DOM publishers, 2019.

BAUNETZWOCHE NR. 558. *Architektur im Archiv. Vom Sammeln, Kuratieren und Digitalisieren*. 6.2020.

BURCKHARDT, Lucius. *Der kleinstmögliche Eingriff*. Martin Schmitz Verlag, 2022 (1979-81).

CZEIKE, Felix. *Historisches Lexikon Wien : in 5 Bänden. Band 1. A-Da*. Kremayr & Scheriau, 1992.

FÖRSTER, Heinrich; FÖRSTER, Emil. Das k. k. Artillerie-Arsenal zu Wien. *Allgemeine Bauzeitung*, 29. Jahrgang, pp. 4-6. 1864.

FÖRSTER, Heinrich. Das k. k. Artillerie-Arsenal zu Wien. *Allgemeine Bauzeitung*, 31. Jahrgang, pp. 316-325. 1866.

FÖRSTER, Ludwig. Das neue Artillerie-Arsenal von Wien. *Allgemeine Bauzeitung*, 15. Jahrgang, pp. 25-31. 1850.

GROYS, Boris. *Logik der Sammlung - Am Ende des musealen Zeitalters*. Carl Hanser Verlag, 1997.

HOCHPATTERE WETTBEWERBE 248. *Planstapel und Büchertürme: Architektur im Archiv*. 2.2023.

KAISER, Florian, SHEN, Guobin. *Unfertige Häuser*. Edition Axel Menges. 2022.

SCHUBERT, Peter. *Das Wiener Arsenal*. Mayer & Comp, 2014.

STADT WIEN. *64. STEK - 3., Stadtteilentwicklungskonzept Arsenal*. 06.2023.

STOCKHAMMER, Daniel; STAUFER, Astrid; MEYER, Daniel. *Weiterbauen in Stahl : Architektur der Aufstockung*. Park Books, 2017.

STOLZ, Lisa. *Arsenal Objekt 6: Revitalisierung eines historischen Depotgebäudes zu einem Kultur- und Sportzentrum*. Diplomarbeit, Technische Universität Wien, 2014.

Archive Sources

BAUPOLIZEI
Object files: Bescheid Bundesdenkmalamt. 2002. (GZ 14.287/2/2002)

HEERESGESCHICHTLICHES MUSEUM
Object files: inventory number 2024/43/133/3
Object files: inventory number 2024/43/133/6

Internet Sources

AKADEMIE DER BILDENDEN KÜNSTE
Kupferstichkabinett, accessed February 21, 2025, https://www.akbild.ac.at/de/museum-und-ausstellungen/kunstsammlungen/kupferstichkabinett/ueber-das-kupferstichkabinett
Architekturzeichnungen, accessed February 21, 2025, https://www.akbild.ac.at/de/museum-und-ausstellungen/kunstsammlungen/kupferstichkabinett/sammlung/architekturzeichnungen

ALBERTINA: Architektur, accessed February 21, 2025, https://www.albertina.at/forschung/architektur/geschichte/

ARCHITEKTURARCHIVE: Sammlungen, accessed February 21, 2025, https://web.archive.org/web/20180830180536/http:/architektur-archive.de/?SATZUNG%23CMSimple_hide%23

ARCHITEKTURZENTRUM WIEN
AzW im Semper-Depot, accessed February 21, 2025, https://past.azw.at/page.php?node_id=184&utm_source=
Vor- und Nachlässe, accessed February 21, 2025, https://www.azw.at/de/artikel/sammlung/vor-und-nachlaesse/
Friedrich Achleitner Archiv, accessed February 21, 2025, https://www.azw.at/de/artikel/sammlung/friedrich-achleitner-archiv/
Margherita Spiluttini Fotoarchiv, accessed February 21, 2025, https://www.azw.at/de/artikel/sammlung/margherita-spiluttini-fotoarchiv/
Architekt*innenlexikon, accessed February 21, 2025, https://www.azw.at/de/artikel/sammlung/architektinnenlexikon/
Sammlungsdepot, accessed February 21, 2025, https://www.azw.at/de/termin/back-to-the-future/

BASIS WIEN: Graphische Sammlung Albertina, accessed February 21, 2025, https://www.basis-wien.at/db/institution/11108

DIE PRESSE: Depots tief in der Erde, accessed February 21, 2025, https://www.diepresse.com/4909331/depots-tief-in-der-erde?utm_source=

MUSEUM FÜR ANGEWANDTE KUNST (MAK)
Kunstblättersammlung, accessed February 21, 2025, https://www.mak.at/jart/prj3/mak-resp/main.jart?rel=de&content-id=1343388632775&reserve-mode=active&article_id=1510193247831
Sammlung Gegenwartskunst, accessed February 21, 2025, https://www.mak.at/jart/prj3/mak-resp/main.jart?rel=de&content-id=1343388632775&reserve-mode=active&article_id=1339957568139
Restaurierung, accessed February 21, 2025, https://www.mak.at/en/museum/forschung/restaurierung

ÖSTERREICHISCHE GESELLSCHAFT FÜR ARCHITEKTUR (ÖGFA)
Geschichte, accessed February 22, 2025, https://oegfa.at/institution/geschichte-der-oegfa
Archiv Iris Meder, accessed February 22, 2025, https://oegfa.at/institution/sammlungen/das-archiv-iris-meder
Archiv Wilhelm Schütte, accessed February 22, 2025, https://oegfa.at/institution/sammlungen/archiv-wilhelm-schuette

STADT WIEN
Stadtklimaanalyse: accessed February 26, 2025, https://www.wien.gv.at/stadtentwicklung/grundlagen/stadtforschung/pdf/stadtklima-analyse-karte.pdf
Stadtteilentwicklungskonzept, accessed February 26, 2025, https://www.wien.gv.at/stadtplanung/stadtteilentwicklungskonzept-arsenal
Schutzzonen, accessed February 26, 2025, https://www.wien.gv.at/stadtentwicklung/grundlagen/schutzzonen/

UNIVERSITÄT FÜR ANGEWANDTE KUNST (ANGEWANDTE)
Kunstsammlung und Archiv, accessed February 22, 2025, https://www.dieangewandte.at/institute/kunstsammlung_und_archiv
Sammlungsbestände, accessed February 22, 2025, https://kunstsammlungundarchiv.at/kunstsammlung-und-archiv/ueber-uns/
MSL-Netzwerk, accessed February 22, 2025, https://kunstsammlungundarchiv.at/universitaetsarchiv/margarete-schuette-lihotzky-netzwerk/#das-margarete-schuette-lihotzky-netzwerk-msl-netzwerk

VEREIN INITIATIVE ARSENAL: Wohnen im Grünen, accessed February 26, 2025, https://www.vi-arsenal.at/allgemein/wohnen-im-gruenen/

WIEN GESCHICHTE WIKI
Linienwall, accessed February 26, 2025, https://www.geschichtewiki.wien.gv.at/Linienwall
Wien-Gloggnitzer Bahnhof, accessed February 26, 2025, https://www.geschichtewiki.wien.gv.at/Wien-Gloggnitzer-Bahnhof
Wien-Raaber Bahnhof, accessed February 26, 2025, https://www.geschichtewiki.wien.gv.at/Wien-Raaber_Bahnhof
Südbahnhof, accessed February 26, 2025, https://www.geschichtewiki.wien.gv.at/Südbahnhof
Ostbahnhof, accessed February 26, 2025, https://www.geschichtewiki.wien.gv.at/Ostbahnhof
Gürtelstraße, accessed February 26, 2025, https://www.geschichtewiki.wien.gv.at/Gürtelstraße
Landstraßer Gürtel, accessed February 26, 2025, https://www.geschichtewiki.wien.gv.at/Landstraßer_Gürtel
Südosttangente A23, accessed February 26, 2025, https://www.geschichtewiki.wien.gv.at/Südosttangente_(A_23)
Hauptbahnhof, accessed February 26, 2025, https://www.geschichtewiki.wien.gv.at/Hauptbahnhof
Arsenalsteg, accessed February 26, 2025, https://www.geschichtewiki.wien.gv.at/Arsenalsteg
Südbahnhofbrücke, accessed February 26, 2025, https://www.geschichtewiki.wien.gv.at/Südbahnhofbrücke

WIEN MUSEUM
Geschichte, accessed February 22, 2025, https://www.wienmuseum.at/geschichte_des_wien_museums
Leitbild, accessed February 22, 2025, https://www.wienmuseum.at/unser_leitbild
Architektur, accessed February 22, 2025, https://www.wienmuseum.at/architektur
Karl Schwanzer Archiv, accessed February 22, 2025, https://www.wienmuseum.at/karl_schwanzer_archiv
Wien Museum: Floor Plans, accessed February 22, 2025, https://share.wienmuseum.at/s/YqimJwrP5BReyE6

WIEN ORF: Wien Museum - Neues Depot in Himberg, accessed February 22, 2025, https://wien.orf.at/v2/news/stories/2537006/

9 LIST OF FIGURES

All images, drawings and plans not explicitly listed were created by the author.
As-built plans created on the basis of: plans accessed at the Baupolizei and the diploma thesis by Lisa Stolz, 2014

All illustrations on the pages 26, 28, 32, 34 and 36 are based on Orthophotos by the City of Vienna
All illustrations on the pages 48, 51, 53, 55, 57, 59, 61 and 63 are based on Orthophotos by Google Earth