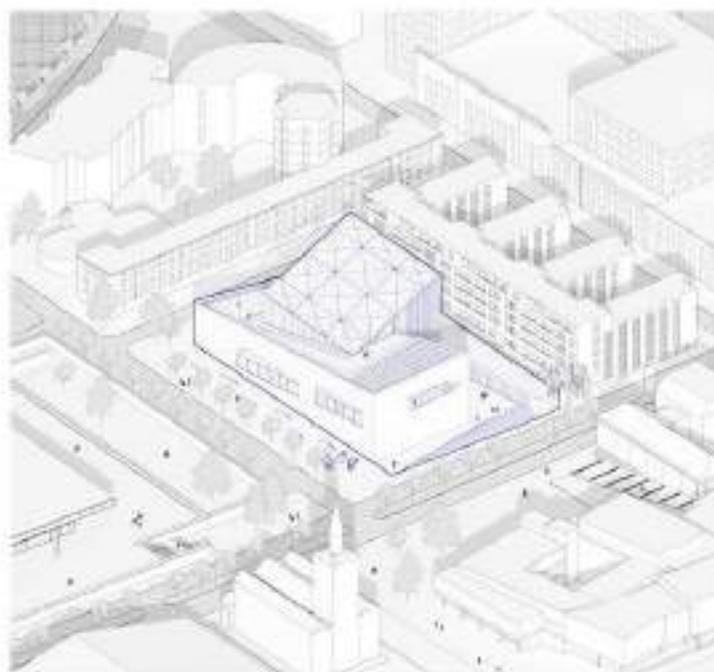




BERLIN ARCHITECTURE MUSEUM

The architecture of museum beyond exhibition space.



POLITECNICO DI MILANO
Scuola di Architettura, Urbanistica e Ingegneria delle Costruzioni
Master degree in Architecture and Urban Design - A.A. 2020 | 2021
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ACKNOWLEDGEMENTS

There are many people to whom I am greatly thankful for their support and help in making this work possible. Among them, I should firstly express my gratitude to Professor Michele Cafa, for giving me this opportunity to conduct and complete this thesis work under his supervision.

I would especially like to thank my tutor, advisor, and co-supervisor of this thesis, Carlo Andrea Biraghi, for his wisdom and guidance throughout this journey. I deeply appreciate the time and effort he put into the discussion and fulfillment of this thesis as his advice provided me with new perspectives.

I would like to express my very great appreciation to my colleagues at Bjarke Ingels Group for their teachings, support, friendship, and invaluable experience in the practical field. Finally, I'd like to extend my special thanks to my family and friends for their unconditional love, trust, and encouragement in every step I take. Without them, this endeavor wouldn't be as it is today.

ABSTRACT

ENG:

This thesis aspires to develop a complete project proposal for a new architecture museum in Kulturforum, Berlin. The idea of this thesis work has surfaced through the Berlin Architecture Museum student competition organized by ARCHmedium. It is aimed to design a place to spread the architectural culture, transmit and generate knowledge, and support the architectural quality of the city. After a city and site analysis with a top-down approach, broad research on the historical background of Berlin with a focus on the project site has been conducted to better comprehend the development and changes of the area over time. After the historical analysis, a deepened study on Kulturforum spanning the morphological features, architectural identities, and temporal changes has been documented.

It was essential to define the "museum of architecture" as the central theme of the theoretical analysis to investigate and discover the potential and the ways that such a structure could perform. After the investigation of the scope of a museum of architecture, overall theoretical findings and deductions from the analysis have been applied to the context, in an attempt to form and materialize the concept proposal. The proposal is designed as a collaborative hub where different groups of people with a common interest – architecture- coexist, generate, and exchange knowledge. The building itself then became the artifact of exposure, stimulating a sophisticated experience beyond the exhibition space.

ITA:

Questa tesi aspira a sviluppare una proposta progettuale completa per un nuovo museo di architettura al Kulturforum di Berlino. L'idea di questo lavoro di tesi è emersa grazie al concorso studentesco del Museo di architettura di Berlino organizzato da ARCHmedium. Ha lo scopo di progettare un luogo per diffondere la cultura architettonica, trasmettere e generare conoscenza e sostenere la qualità architettonica della città. Dopo un'analisi della città e del sito con un approccio top-down, è stata condotta un'ampia ricerca sul contesto storico di Berlino con un focus sul sito di progetto per comprendere meglio lo sviluppo e i cambiamenti dell'area nel tempo. Dopo l'analisi storica, è stato fatto uno studio approfondito sul Kulturforum che abbraccia le caratteristiche morfologiche, le identità architettoniche e le modifiche temporali.

Era fondamentale definire il "museo di architettura" come tema centrale dell'analisi teorica per indagare e scoprire le potenzialità e le modalità che una tale struttura poteva comportare. A seguito dell'indagine sulla portata di un museo di architettura, i risultati teorici complessivi e le deduzioni dall'analisi sono stati applicati al contesto, nel tentativo di formare e materializzare la proposta concettuale. La proposta è concepita come un hub collaborativo in cui diversi gruppi di persone con un interesse comune - l'architettura - coesistono, generano e scambiano conoscenze. L'edificio stesso è poi diventato il manufatto dell'esposizione, stimolando un'esperienza sofisticata oltre lo spazio espositivo.

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1. INTRODUCTION

ARCHmedium BAM | BERLIN ARCHITECTURE MUSEUM COMPETITION

The seed of an idea as a starting point for this thesis work originated from an architectural design competition dedicated to students and young architects, organized by ARCHmedium competitions. The competition brief quotes "ARCHmedium is established as a multicultural platform for the exchange of projects. A place where schools of architecture around the world are represented, establishing different approaches for each project." As stated by them, the platform is motivated by the words of Patrick Geddes "Think Global, Act Local" (ARCHmedium, 2019). The ARCHmedium platform has been active between the years 2009 and 2019 and has organized 27 competitions during its time of practice.

According to the competition organizers, the main mission is stated to find a proposal that spreads the architectural culture, transmits, generates knowledge, and supports the architectural quality of Berlin as a city (ARCHmedium, 2019).

The competition has been announced on the 17th of February, 2019 and the winner announcement has been held on the 25th of July, 2019. The thesis proposal hasn't been submitted as a project but the competition has originated the idea for the proposal and the research process.

A total of 48 proposals have been submitted to the Berlin Architecture Museum competition. Unfortunately, the designers of the award-winning projects couldn't have been identified as necessary references.



1st Prize

COSMOPOLITAN VOIDS

Journey through voids, whose archetypal forms revisit the history of architecture and give the museum a special character.



2nd Prize

MUSEUM PARK

Expression of architectural history through the spatial experience inside the building. Spaces are reinterpreted through historical sections.



3rd Prize

BERLIN ARCHITECTURE MUSEUM

Museum as a spatial continuum promenade of architecture. A continuous linear museum experience representing the historical continuity. Catalyst of people and a confirmation space.

prize winners

RESEARCH QUESTION(S)

The research questions imposed by the competition brief are listed as follows:

What characteristics should have a space designed to accommodate the memory of the architectural and urban heritage of this city?

What kind of relationships should a building like this establish with the rest of the city? How should it be organized?

How can a Museum of Architecture be both Berliner and universal at the same time?

How can a Museum of Architecture be a space of learning and an object to exhibit/discover? (ARCHmedium, 2019)

The project will attempt to answer these questions through a design proposal moving from theoretical architectural reflections and the analysis of the context.



2. LOCATION OVERVIEW & SITE ANALYSIS

LARGE SCALE:

location

A top-down approach has been utilized for the location overview and site analysis chapter. It is intended to highlight the features of the site proposed by the competition organizers on several scales moving from large to x-small.

The site is located in Berlin, the capital and the largest city of Germany. Situated in the Mitte district, close to the municipal borders of Friedrichshagen-Kreuzberg, and Tempelhof-Schöneberg.

Berlin stands out for its metropolitan reality, historical importance, memories of destruction, and construction. As David Bowie once said "Berlin, the greatest cultural extravaganza that one could imagine." Berlin hosts around 170 museums and more than 300 art galleries. Famous for its music scene and social life, technology and production also find home in Berlin. Alongside art, architecture has always been celebrated as the city has been reconstructed multiple times, inviting world-famous architects and organizations focused on architecture. A city of monuments and a sparking cocktail of culture, Berlin is an ideal place for a museum of architecture to celebrate, experiment, and honor the memory of the city.



MEDIUM SCALE:

significant
architectures

- 1 Bauhaus Archives, Walter Gropius, 1964-1979
- 2 Shell Haus, Emil Fahrenkamp, 1900-1931
3. Social Science Research Center, Wissenschaftszentrum WZB, James Stirling, 1989
4. New National Gallery, Ludwig Max von der Roltz, 1962-1969
5. Gemäldegalerie + Museum of Graphic Arts and Art Library, Rolf Gutbrod, 1968-1992
6. Museum of Decorative Arts, Rolf Gutbrod, 1967
7. Museum of the 20th Century, Herzog & de Meuron, Ongoing
8. The Berlin Philharmony & Chamber Music Hall, Hans Scharoun, 1963-1967
9. Museum for Music Instruments, Edgar Wisniewski, 1979-1984
10. Sony Center, Helmut Jahn, 1999-2000
11. Potsdamer Platz 11, Office Tower, Renzo Piano, 1992-2000
12. New State Library & Ibero-American Institute, Hans Scharoun, 1977-1978
13. Music Theater & Casino Mariene Detch Platz, Renzo Piano, 1996-1998
14. Irakli Kiro, Renzo Piano, 1995-1998
15. Daimler Chrysler Office and Retail, Sir Richard Rogers, 1993-1999
16. Asylum Tower (Debris Central), Renzo Piano, 1994-1997
17. Stresemannstrasse 109, BA Housing, Zaha Hadid, 1985-1993
18. Residential Building, Wilhelmstrasse 36-38, Aldo Rossi, 1981-1988
19. Charlie Living, Gelf, 2020
20. Philip-Johnson-Haus, Philip Johnson, 1994-1997
21. Quarter Schützenstrasse, Aldo Rossi, 1984-1997
22. Haus Am Checkpoint Charlie, OMA & Peter Eisenman, 1985-1996
23. GSW Headquarters, Saubrich Hutton, 1995-1999
24. Kreuzberg Tower And Wings, John Hejduk, 1968
25. Jewish Museum, Daniel Libeskind, 1999
26. Axel Springer Campus, OMA, 2013-2020
27. Netherlands Embassy, OMA, 1997-2003
28. Pierre Boulez Music Hall, Frank Gehry, 2018
29. Galerie Lafayette Berlin, Jean Nouvel, 1991-1996
30. Exhibition Hall of German History Museum, Ulf Peil, 2004
31. James Simon Gallery, David Chipperfield, 2019
32. Jacob And Wilhelm Grimm Center, Max Dudler, 2009
33. Memorial for The Murdered Jews Of Europe, Peter Eisenman, 2003
34. DZ Bank, Frank Gehry, 2001
35. Reichstag, Norman Foster, 1999
36. Marie-Elisabeth-Loders-Haus, Stephen Bionikis, 2003
37. Futurum, Richter Musikowski, 2017
38. The Cube, BUN, 2020
39. Berlin Congress Hall, Hugh Stubbins, 1957



Chipperfield says in an interview with BauNetz Media for Berlin: "It doesn't satisfy any of the conventional conditions of a European city. It is a laboratory, a work in process, an experimentation, a place where carries so many complex issues. Sort of intensified condition. It can harbor very different interpretations." (Chipperfield, 2018).

Berlin as a laboratory of architecture hosts plentiful the world-class architecture of several influential architects of theory and practice. A selection from the architectural collection of the works of architecture in the city is mapped above.

Left: 18. Wilhelmstrasse 36-38, 400
Rossi, 1981-1988



Right: 22. Haus Am
Checkpoint Charlie,
OMA & Peter Eisen-
mann, 1985-1990



1. Bauhaus Archives,
Walter Gropius,
1964-1979



26. Axel Springer
Campus, OMA,
2013-2020



34. QZ Bank, Frank
Gehry, 2001



Left: 35. Reichstag,
Norman Foster,
1999



Right: James Simon
Gallery, David Chip-
perfield, 2019

SMALL SCALE:

The site is well connected to the city center by several kinds of public transportation such as bus and metro lines.

site access

It is located at a 10-minute walking distance from the closest urban node Potsdamer Platz, 5 minutes from the Berlin Philharmony building, and sits right next to the New National Gallery.

On the south of the site, the Landwehr Canal flows and on the north of the site, the Tiergarten is easily accessible by walk.

It is also possible to access the site with a private vehicle since the site is situated adjacent to the Sigismundstrasse. A secondary connection street is also defining the boundary between the project site and the new regional gallery.



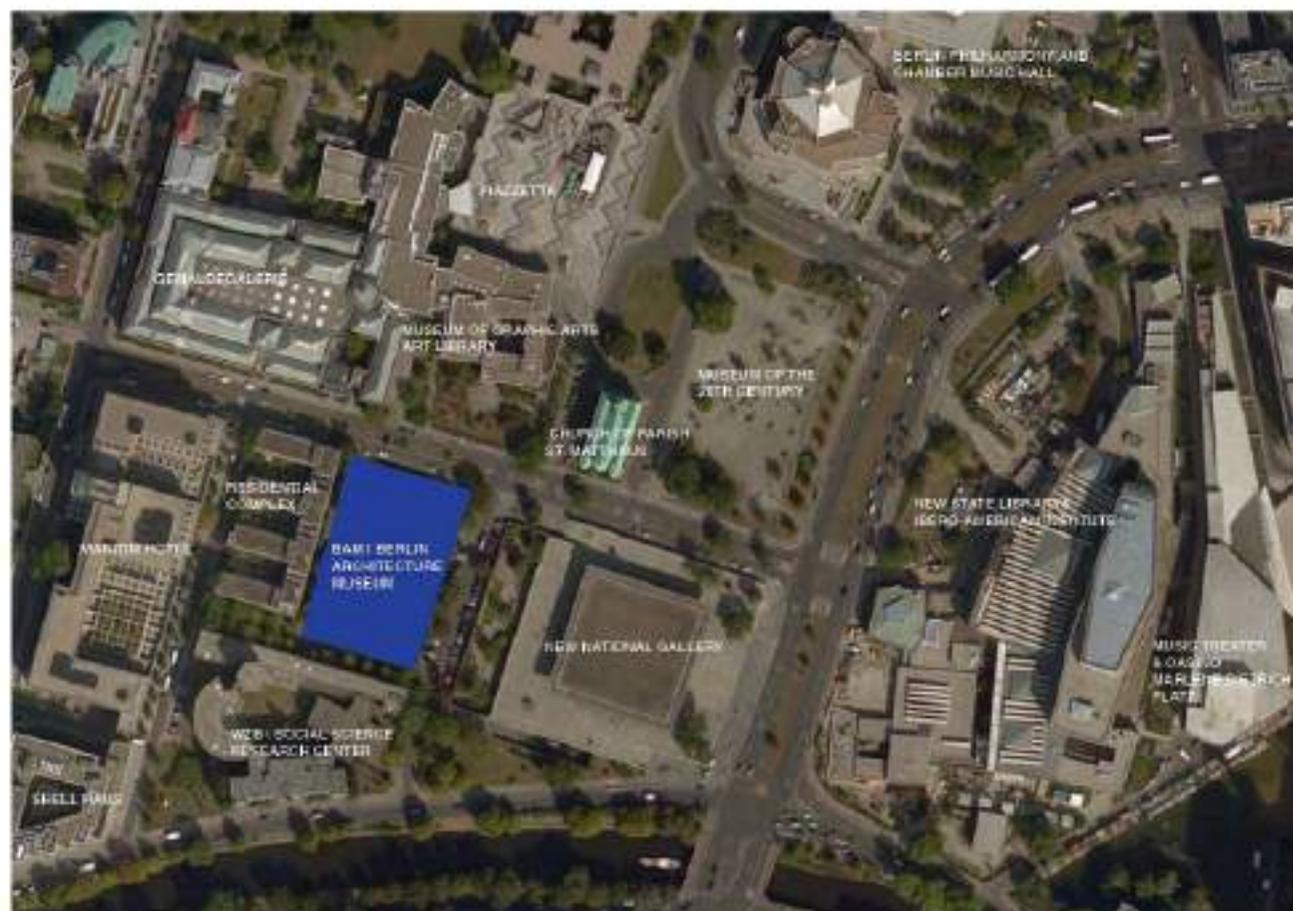
SMALL SCALE:**Kulturforum**

The site is a part of the area called Kulturforum. The cultural forum of Berlin is a collection of cultural buildings concentrated in this area. Deepened analyses of history, development, and cultural importance, as well as the morphological features, are documented in the following chapters of this research.

Situated in this cultural complex, the site is surrounded by the Gemäldegalerie -art gallery-, Museum of Graphic Arts and Art Library, and Church of Parish St. Mattheus. New National Gallery of Mies Van der Rohe, Social Science Research Center of Berlin, and the residential complex designed by Kurt Ackermann. In proximity, the Museum of the 20th Century designed by Herzog & de Meuron is currently under construction.

Berlin Philharmony and the Chamber Music hall designed by Hans Scharoun stand as landmarks and other architectural monuments in the area. ...

All the artistic disciplines are represented in this macro complex except for Architecture, hence the proposal will be seeking a representation of the architecture within architecture itself. (ARCH-medium, 2019)

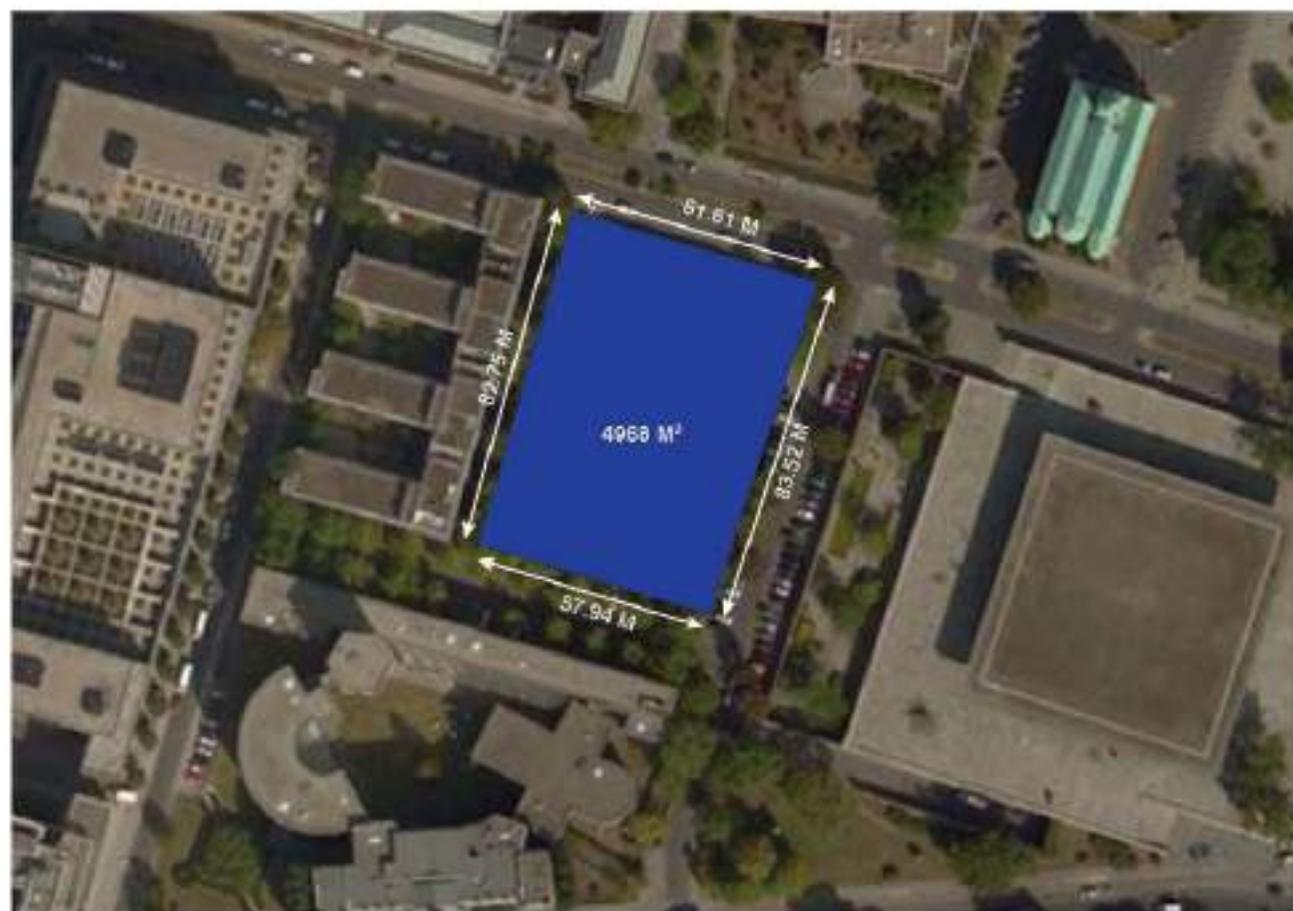


X-SMALL SCALE:

The rectangular site of around 5000m² is oriented on the north-south axis. It has a flat topography and is a part of the urban fabric through having an intimate relationship with the neighboring buildings and the public surfaces.

building plot

The residential building, the closest structure, has a height of 20 meters while the Social Science Research Center is composed of a 12 m height linear volume and a tower of 25m height. While the New National Gallery has a low-rise quality, the bell tower of the St. Matheus church reaches 44 meters. The competition proposal doesn't suggest a height limit for the proposal but the qualities of the neighboring buildings have been considered for the missing studies.



LAYERING OF THE CONTEXT

A layering study has been performed to isolate and better understand several features and qualities of the site as a part of the site analysis. The first two maps on page 29 illustrate the borders of the Kulturforum and the trace of the demolished Berlin Wall giving an idea of the social context of the area while the Berlin Wall was still in presence and today.

The study also isolates the urban elements such as the urban blocks with plots, the road network, and the buildings along with separate illustrations of natural elements such as water, green areas, and trees.

The site is pointed out in each map to demonstrate the relationship with these individual layers of urban elements and surroundings.

The land-use map (Senate Department for Urban Development and Housing, RNP (Berlin Land Use Plan) 2015) of the context is studied to better understand the urban functions. It is seen that the site is located in a cultural context of public buildings and public spaces. The area on the west is identified with an administrative character while on the eastern side Potsdamer Platz and its surrounding is highlighted as a commercial/business district.

Besides, the cultural area is buffered by Tiergarten as a green land on the north while on the south a mixed-use area of residential and commercial activities is highlighted.



KULTURFORUM



BERLIN WALL TRACE



URBAN BLOCKS AND PLOTS



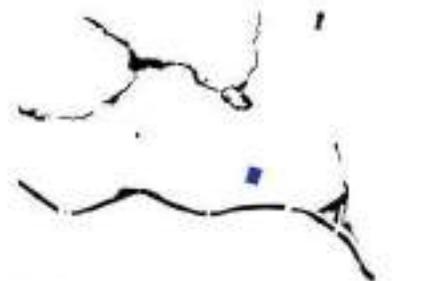
ROAD NETWORK



FIGURE GROUND



PUBLIC GREENERY



WATER



TREES

3. HISTORICAL BACKGROUND

Beginning of the 20th Century

During the 19th century, Berlin became one of the largest and most prominent industrial cities in Germany and Europe. The development and the increase of the population led to a necessity for a structured urban plan. Berlin Stadtplan (on the left) published by German cartographer Julius Straube provides an overview of the urban structure and the built reality of the city in 1910.

As Bors states "In 1907 the two architect chambers of Berlin jointly called for a new master plan to formulate a set of solutions to the perceived problems of the nineteenth-century city. The exponential growth of the city beyond its administrative borders, unregulated speculation, the lack of coordinated planning instruments, the need for a comprehensive transport network, and the social problems perceived in the dense typology of the Berlin block, all fueled the need for a new ordering of the city" (Bors, 2016). In 1910, Hermann Jansen is announced one of the two joint winners of the Greater Berlin Competition. His proposal stepped around the central theme of 'open spaces' and an urban structure of inner and outer rings had a significant influence for the subsequent urban planning. (Bors, 2016)

Throughout these developments Berlin was the capital of the German Empire, accompanied by the incoming World War, the city was facing scarcity and economic struggles. Pulling through World War I, the monarchy got overthrown and Berlin became the capital of the newly established Weimar Republic in 1918.

In 1920, by the Great Berlin Act, the city expanded to new municipal borders. This resulted in the city becoming the largest city in Europe and enabled a holistic and integrated urban planning vision.



Berlin Stadtplan,
1910
Julius Straube

Berlin during the regime

The Greater Berlin Act was an important foundation for the rise of Berlin into a cultural center of Europe in 1920. People like the architect Walter Gropius, physicist Albert Einstein, painter George Grosz and writers Arnold Zweig, Bertolt Brecht, and Kurt Tucholsky settled in the city.

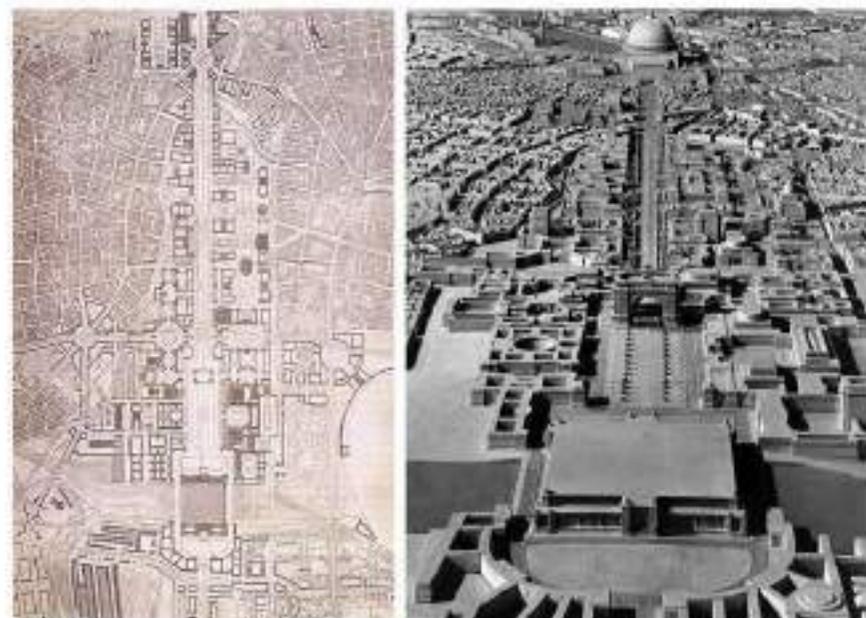
In 1933, Adolf Hitler was inaugurated as chancellor of Germany. This moment in time set the beginning of a new era for Berlin, Germany, and the world. As Nazi Germany was ruled under the National Socialism regime, Berlin was under the focus of a megalomaniac planning project by Albert Speer, the court architect of Hitler. Taken from *Encyclopedia of the City by Cities*: "In the twentieth century, the hubris has intensified: rather than academe, civic leaders have proposed elaborate reconstructions of whole cities. Hitler proposed a wholesale redesign of Berlin to reflect the cultural aspirations of the Reich." (Caves, 2006)

Akkan mentions in his research that Hitler's dreams were translated by A.Speer a Megacity with monumental triumphal arches and government halls which took a central position in the plan. (Akkan, 2020). The Speer plan for Germania was never built as the Nazi regime was defeated in World War II.

The superimposed plan of the Speer plan also indicates the urban condition before WW2, it is seen that Berlin had a very consistent and dense urban morphology consisting of courtyard buildings with continuous facades defining the road network.



A. Speer, North-South Axis: 1933 (plan)-1937
www.stad-entwicklung-berlin.de



Berlin, 1939, Third Reich.

North-South Axis. Hitler and his architect Albert Speer made plans for the new Berlin a world city or Welthauptstadt Germania.

Demolition, division, and reconstruction

During WW2, the city got heavily damaged, losing major amounts of housing stock. Bombing and intense street fighting in the closing stages of the war destroyed 80% of the city center.

1944 marked the end of the war, resulting in the city of Berlin being divided into 4 sectors under the rule of western allies of the USA, France, and Britain in West Berlin and Soviet control in the East. As the Cold War continued, the construction of The Berlin Wall was initiated by Soviet rule in 1961. The building of the wall cemented the destruction and the separation to another level physically dividing the city into two parts.

Buchanan affirms the gravity of the circumstances resulting from bombing and reconstruction as follows: "The war damage in many German cities was far greater in scale than in the country (Britain), so it is interesting to see what use has been made of the comparatively greater opportunities. It is a mixed story, as it is with our own bombed cities, and it can be said that nothing radically new or revolutionary has emerged in the course of reconstruction." (Buchanan, 1964)

Elmer and Vitaly expressed that the two sides of the wall had different approaches to the reconstruction of the city as West Berlin was respecting the basis of the Athens Charter, the East Berlin prioritized the reconstruction of Stalinallee. They mention that "at the same time previous constructions, made by precious materials, were demolished to be substituted with buildings made of prefabricated elements to create cheaper houses for the workers." (Elmer & Vitaly, 2020)

In an effort to rebuild Berlin, many initiatives have been taken such as Interbau in 1957 and IBA 1987 exhibitions.

Interbau Exhibition in 1957 was centered around the reconstruction of Hensaviertel (a residential area of West Berlin that was destroyed in several air raids in 1943) and provided a guideline for the reconstruction of Berlin. More than 50 architects, including Le Corbusier, Alvar Aalto, Arne Jacobsen, Oscar Niemeyer, and Walter Gropius, from all over the world turned their visions for a modern way of living into reality with their contribution to Interbau 57. (Wagner-Consalman, Interbau 1957 LIVE) Interbau exhibition was one of the largest events of the 1960s in Germany and had a great impact in the modern movement in architecture and theory of architecture along with its impressions in art.

23 years after the Interbau exhibition, in 1979 a new initiative has taken to organize a new building exhibition, aiming to compensate for the destroyed residential building stock and urban renewal. Van Gerner explains "Josef Paul Kleihues, who was in charge of the section relating to new construction, talked about a dialogue between modernity and tradition that was meant to lead to the so-called 'critical reconstruction' of the city" (Van Gerner, 2016) From 1979 to 1987, IBA covered an extensive area of the city focusing on the areas Tegel, Prager Platz, Südliches Tierparkviertel, Südliche Friedrichstadt, Luisenstadt, and Kreuzberg.

Interbau 1957 and IBA87 exhibitions transformed the city into a canvas of architectural manifestation, experimentation, and expression. They changed the identity of the city and set it to be a mosaic of ideas while critically rebuilding the urban heritage and memories.



Berlin, 1946. War destructions in blue. www.stadtentwicklung.berlin.de



Berlin, 1953. www.stadtentwicklung.berlin.de



Berlin, new constructions including the Berlin Wall between 1953-1989 in red. www.stadtentwicklung.berlin.de

Unification and reconnection

New housing stock came with new typologies and morphologies of modern residential blocks. After 28 years of separation, East and West Berlin got united by the fall of the Berlin wall in 1989. The reunification came with new questions on urban planning and reconstruction as well as preserving the memories of the past.

After the reunification in 1991, Hans Scharmann was appointed as the city architect with a mission to reunite Berlin. He followed the intellectual heritage and critical reconstruction methodology handed down by the BA 1987 exhibition. It is stated by the Senate Administration for Urban Development and Housing that 'Between 1999 and 2010, the development of Berlin's inner-city areas was significantly influenced by the Parwerk Innenstadt Berlin... On the basis of the urban planning strategy of a "critical reconstruction", convincing urban solutions were reached, which made an important contribution to the integration of the city after war and division... Since 1999, the Parwerk Innenstadt has been continuously reviewed and updated within the administration (Senatsverwaltung für Stadtentwicklung und Wohnen, Parwerk Innere Stadt, 1999)

By utilization of the urban plan, the void that remained by The Berlin Wall got filled, and Potsdamer Platz and Friedrichstraße were rebuilt and revived during the 1990s.

Today, Berlin is the largest and the capital city of the Federal Republic of Germany with an urban population of 4.4 Million. Berlin remains the ever-changing city of architecture, a cultural mosaic in constant evolution with pieces of memories that survived the time.



Berlin, 1989.
West and East
Germany.
www.stad-entwicklung.berlin.de



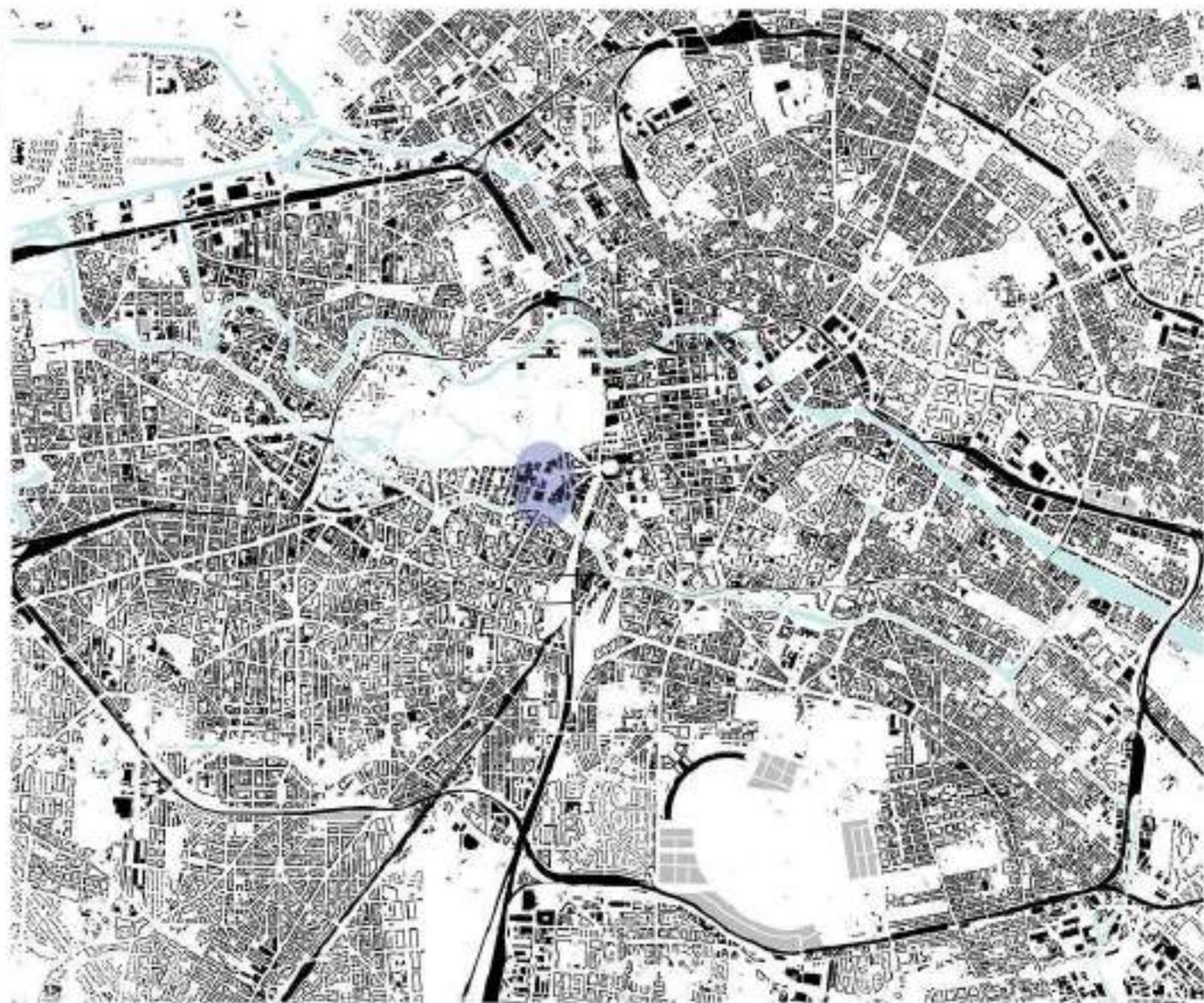
Berlin, destructions -including the Berlin Wall-between 1989-2001 in blue.
www.stad-entwicklung.berlin.de



Berlin, new buildings between 1989-2001 in red
www.stad-entwicklung.berlin.de

Today

Today, Berlin is the largest and the capital city of the Federal Republic of Germany with an urban population of 4.4 Million. Berlin remains the everchanging city of architecture, a cultural mosaic in constant evolution with pieces of memories that survived the time.



Berlin, 2010.

Kulturforum
over time

The area Kulturforum is settled in today has also been subjected to changes over the course of time. Once a residential neighborhood with a dense texture had an initial transformation by planned demolitions to realize the grand vision of the court architect of Nazi Germany, Albert Speer. Dramatical destruction resulted from the heavy air raids of World War II in the area. The residential texture has completely diminished from the surface of the earth.

After the division by The Berlin Wall, the plans to realize a new cultural area in West Germany materialized by the construction of Scharoun's Philharmony building in the Kulturforum. Right after the Philharmony, the second prominent member of the new cultural forum, the New National Gallery of Mies van Der Rohe took its permanent place in the area. Hveltum and Hermansen criticize this twosome in *Tracing Modernity* as "It is a curious historical coincidence that Scharoun's Philharmonie and Mies' National Gallery, the two most typical representations of the polarity in modern ar-

chitectural thinking, share the same space on the Kulturforum in Berlin. The grey zone which separates them can be understood both literally and metaphorically: The space of the forum in its contemporary state is a sad memento of twentieth-century inability to create a genuine public space." (Hveltum & Hermansen, 2004) The critique of the 'grey zone' represents here the discontinuity of the modern culture as well as the missing link between the context and the architectural artifacts in the area.

The additions to the area continued as the forum gained its cultural character. A wide range of artistic branches was represented in the architectural complexes of dedicated museums. The forum transformed itself into an open-air museum of architectural artifacts.

In 2015 the architectural design competition for a new museum was announced to realize the newest member of the family, the Museum of the 20th Century. Besides, the public spaces between the buildings are being reappraised.





4. THE KULTURFORUM

KULTURFORUM

Kulturforum is an area in Berlin dedicated to a cluster of cultural buildings. It was built in the 1960s as Hans Scharoun's "Berliner Philharmoniker" building won the first prize in the design competition.

Following the division of the city into East and West Berlin, Museum Island which was the cultural center of the city remained behind the wall on the Eastside. The separation and the destruction of the Tiergarten district brought out the necessity to plan a new cultural quarter in West Berlin, as a counterpart to Museum Island.

West Berlin held an architectural competition in 1965 for the design of the entire Kulturforum. The expectations were high, and the most compelling design was to offer no less than a "structural characterization of what a museum means for us today" (Eder, 2020). Here, it is significant to highlight that the pursuit of meaning in the architecture of a museum, is perpetual and contemporaneous to every era.

After the completion of the Berlin Philharmonic building of Scharoun, New National Gallery took its place in the cultural forum, embracing its contrasting modern glory. The development of the area has been continued by the openings of Staatsbibliothek (1973), Musical Instrument Museum (1984), Museum of Decorative Arts (1985), and Chamber Music Hall (1987). In the 1990s, the revised designs of Rolf Gutbrod for the Gallery of Prints and Drawings; and the Art Library realized and took their place in the architectural collection of the cultural forum. The opening of Gemäldegalerie in 1998 marked the end of the 20th century for Kulturforum.



The metamorphosis and development of the area are preceded by the start of the refurbishment of the New National Gallery, by David Chipperfield Architects.

Chipperfield states "The refurbishment and modernization aim for maximum preservation of the existing fabric, with a minimum visual compromise to the building's original appearance... The refurbishment does not represent a new interpretation, but rather a respectful repair of this landmark of the International Style." (David Chipperfield ARCHITECTS, 2020) The architect's critical implementation of renovation without an additive interpretation is notable, ensuring its legitimate glory for the coming decades.

In 2015, the Prussian Cultural Heritage Foundation held a new design competition for the Museum of the 20th Century in Kulturforum. The winning design of Herzog & de Meuron broke ground in 2019 in its permanent location between the New National Gallery and the Berlin Philharmonic building.



KULTURFORUM**chronology:**

(Kulturbesitz, The KULTURFORUM in Berlin – always a place of the avant-garde 2015) www.nationalgalerie20.de

from 1685 - French Huguenots settled in the district.

18th century - First summer villas along Tiergartenstrasse, (from 1790)

1844-46 - St. Matthew Church built by Friedrich August Stüler.

1858 - First embassy (China) erected in the Tiergarten district.

1937 - Resolution to redesign the Reichshauptstadt (imperial capital) on plans by Albert Speer from 1938 - Residential houses torn down for the Nord-Süd-Achse.

1938 - Construction starts on the Haus des Fremdenverkehrs (House of Tourism) at the future Runde Platz, the intersection of Speer's north-south axis.

1943-45 - Bombing and almost complete destruction of the Tiergarten district.

1946 - Collective plan for the redevelopment of Berlin, created by Hans Scharoun.

1956 - Design competition for the concert hall of the Berliner Philharmoniker "Berlin Philharmonic Orchestra" on Bundesallee; Hans Scharoun receives 1st prize.

1956-60 - Reconstruction of St. Matthew Church.

1959 - The Senate decides to move the Philharmonie to Kämpferplatz in order to emphasize its significance for all of Berlin.

1960-63 - Construction of the Philharmonie.



1963-68 - Construction of the Galerie des 20. Jahrhunderts by Ludwig Mies van der Rohe.

1963/64 - Project competition for the building of the new Staatsbibliothek (State Library) with a section on urban planning ideas; Hans Scharoun receives 1st prize.

1965 - Stiftung Preussischer Kulturbesitz takes over the Galerie des 20. Jahrhunderts, calling it the Neue Nationalgalerie.

1965/66 - Open competition for the Staatliche Museen zu Berlin; after a revision, Rolf Gutbrod receives the commission.

1967-1976 - New Staatsbibliothek zu Berlin is built.

1968 - Preliminary design for a chamber music hall; Hans Scharoun receives a direct commission.

1969 - Planning for Musikinstrumenten-Museum/Staatliches Institut für Musikforschung (Museum of Musical Instruments/State Institute for Music Research) begins; direct commission goes to Hans Scharoun.

1972 - After Scharoun's death, Edgar Wisniewski completes the construction of the Chamber Music Hall.

1978-85 - Kunstgewerbemuseum (Museum of Decorative Arts) is constructed by Rolf Gutbrod.

1979-82 - Musikinstrumenten-Museum is constructed by Edgar Wisniewski.

1984 - Competition for surface design of the Piazza; Heinz Mack receives 1st prize.

1984-87 - Chamber Music Hall is constructed by Edgar Wisniewski.

1985/86 - Critical discussion of Gutbrod's concept for the museums and announcement of a new competition; Hilmer & Sattler und Albrecht, and Schürmann each receive 2nd prize.

1987 - Hilmer & Sattler und Albrecht are commissioned to continue Gutbrod's museum buildings and to erect a new building for the Gemäldegalerie (Old Master Paintings).

1989 - Berlin Wall is opened.

1991 - Urban planning competition Potsdamer/Leipziger Platz (Kulturforum excluded); Hilmer & Sattler und Albrecht (with idea for a connection to the Kulturforum) receive 1st prize.

1998 - Gemäldegalerie building opens.

2006 - Berlin parliament adopts master plan for the further development of the Kulturforum.

2009/10 - Outdoor spatial concept by Valentien + Valentien is revised and agreed.

2014 - Renovation and complete restoration of the Neue Nationalgalerie begins by David Chipperfield starts.

2015 - New museum for the "Museum des 20. Jahrhunderts" at the Kulturforum is announced.

2016 - The winners of the design competition were announced; Herzog & de Meuron submitted the winning design for the new building for the Neue Nationalgalerie - Museum des 20. Jahrhunderts at the Kulturforum in Berlin.

2019 - Museum des 20. Jahrhunderts by Herzog & de Meuron breaks ground.



View of the Kulturforum. The start of construction on the Neue Nationalgalerie is visible in the background (1990). © tps / Rolf Koenig



The steel and concrete construction of the Neue Nationalgalerie. Was erected with hydraulic jacks and lowered onto eight supports (1967). © Dresdner, Staatliche Museen zu Berlin



Museum of the 20th Century. Herzog & de Meuron

KULTURFORUM

buildings



The architectural character of the context can be likened to a sculpture garden of modern architectural monuments. Each one of the buildings expresses itself in its unique form, materials, and relationship with its context.

The image above enumerates the members of the Kulturforum. Each of the buildings is studied and documented to better comprehend the built nature and contextual reality of the area.

Coupled with the images, each building is tagged by its names, and basic information containing the name(s) of the architect and designers, the year of completion, and their function. This documentation exhibits the diversity of the architectural reality in the area.



1
SHELL HOUSE
Shell-Haus
Eck Fohlerwirth
1953-1951
Otto Obelk



2
MAREN CONGRESS HOTEL BERLIN
Hotel Maren
Hilhaus + Hilhaus
2005
Hilf



3
PINKOS ART GALLERY
Galeriepinkos
Rolf Gubrod & Hiner & Sallert
1982-1983
Art history museum



4
Social Science Research Center of Berlin
Wissenschaftszentrum (WZL)
Janusz Sliwka, Michael Wilford & Associates
1999
Research Center



5
RESIDENTIAL BLOCK
Wohnen am Kulturforum
Hilf Ackermann
1985
Residential block



6
GALLERY OF PRINTS AND DRAWINGS & ART LIBRARY
Kupferstichkabinett & Kunstbibliothek
Rolf Gubrod
1987-1992
Art museum & library



7
MUSEUM OF DECORATIVE ARTS
Kunstgewerbemuseum
Hillemontsen Hilmer & Sallert
1957-1955
Art museum



8
NEW NATIONAL GALLERY
Neue Nationalgalerie
Ludwig Max van der Ploeg
Redaktion: David Chipperfield (2019-2023)
1962-1968
Art Gallery



9
CHURCH OF PARK ST. MATHIAS
St. Mathias-Kirche
Friedrich August Söller
(Rebuilt: Jürgen Ermann)
1844-46 / 1959-1993
Church



10

MUSEUM OF THE 20TH CENTURY
Museum GedenkHerzog & de Meuron
2000
Modern art museum

11

CHAMBER MUSIC HALL
KammermusikHerz Schönm & Edge Wenzel
1994-1997
Auditorium

12

THEATER AN DER POTSDAMER
PLATZHerz Schönm
1963
Theater

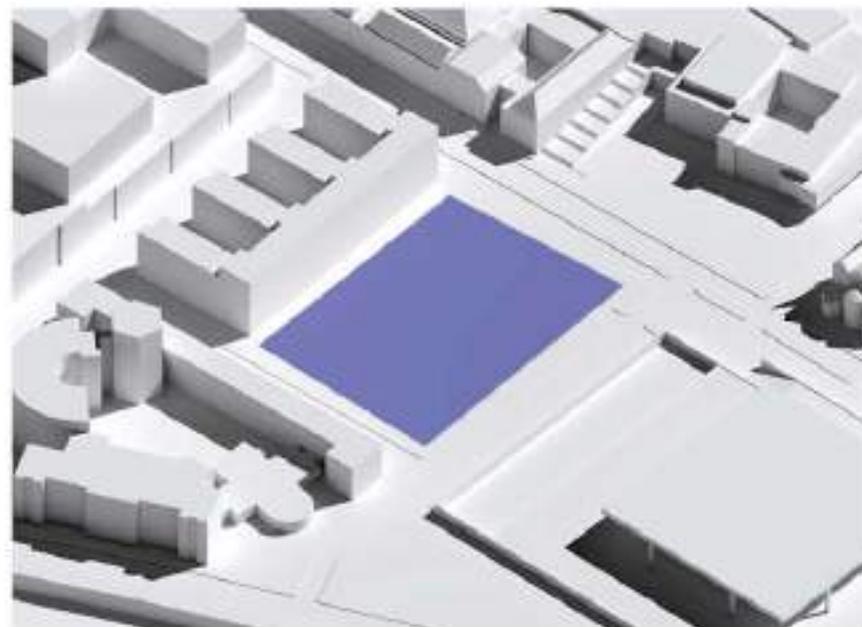
13

MUSEUM FOR MUSIC INSTRUMENTS
Musikinstrumenten-MuseumEdge Wenzel
1979-1980
Museum

14

NEW STATE LIBRARY & GERMANIC INSTITUTE
Neue Staatsbibliothek & Germanisches InstitutHerz Schönm
1971-1979
Library & Public

15

MUSIK THEATER & CASINO MARINA
DITCH RIOReno Reno, Christoph
1990-1990
Theater

Surrounded by the monuments of the modern movement, the site embraces the opportunities and potential to add to the context with a new perspective and a new architectural artifact.

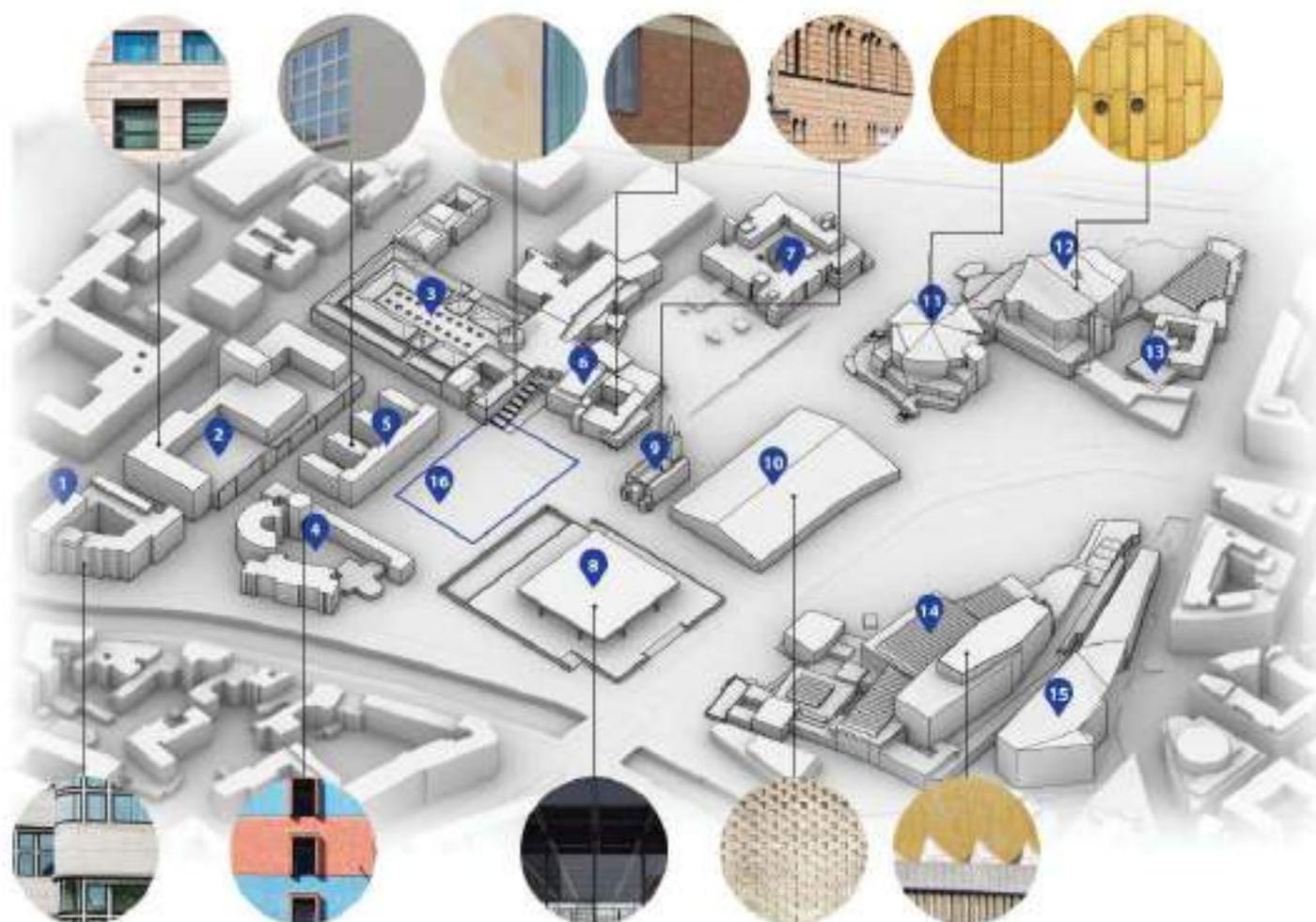
Location, orientation, and relative position of the site to the neighboring buildings could be counted as the strengths of the plot as it is backed from the two sides by the Social Sciences Center and the residential building. Another advantage of the plot is its relationship with the New National Gallery and Gemäldegalerie entrances.

The side road separating the plot from the NNG could be utilized as a supporting public space for the new museum of architecture.



KULTURFORUM

materiality



The materiality of the context is as diverse as the architectural reality. The endeavor of self-expression of each building puts together a rich material palette for the area. Although the use of natural stone and brick facades could be claimed as common in the area, the utilization and the combination of the materials are observed to be different according to the architectural expression. While the pink and blue striped plaster facade of the Social Science Center stands out, the use of yellow metal cladding of Scheroun buildings indicates a familiar relationship.

There could be many ways to answer to this materialistic reality while designing a new building, such as insertion of new material to stand out in the palette, opting for one from the palette, or suggestions of a neutral material neutral to the palette.

KULTURFORUM**urban network:**

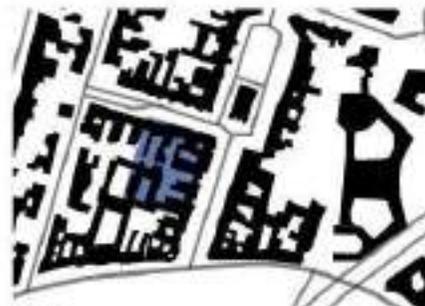
Mostly pedestrianized, all the buildings in the cultural forum are connected through an invisible public network. The proposal site is situated at a critical point, remarking the potential for the future building to be a key element to complete the cycle of movement in a strategic manner.

Over time, the proposed site has also faced a set of transformations and facilitated several buildings. Before WWI it was a residential neighborhood with a dense urban texture. The bombing of Berlin during the war destroyed the area.

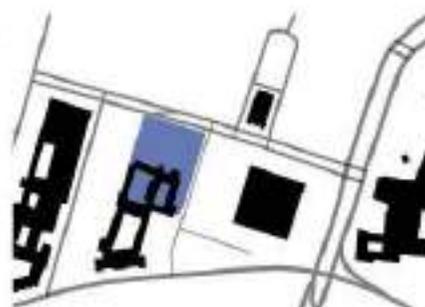
After dressing the wounds of the two World Wars, the site hosted an extension to the former Reichsversicherungsamt, the highest supervisory and legal authority of social insurance in the German Empire. (WZB Architecture, n.d.)

Currently, a single-story L-shaped building sits on the site. When suggesting the dedicated plot as the project site, the competition brief disregards this mentioned building.

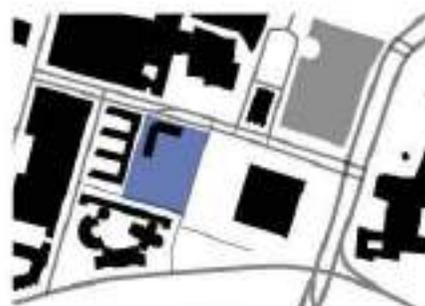
Adapting to the series of events, destructions, and constructions that the city of Berlin has undergone, the site was in constant transformation, hosting and bidding farewells to its temporary residents. For one more time, the plot is put under the scope to project a new architectural entity, a museum of architecture. Aiming to provide a new member to this architectural choir of a context and provide a new perspective on the memory of the area and the architecture of a museum.



1936



1976



2020

KULTURFORUM**plot over time**

NEW NATIONAL GALLERY

With the support of Werner Dohmann, head of the Department of Planning and Construction of the city, the Senator for Construction and Housing Rolf Schwedler invites several times Mies van der Rohe to design a building for the city of Berlin, but his efforts were vain until the architect became convinced in the spring of 1961. (Wachtel, 1995)

1968 marked the opening of the monument of modern architecture, the first and only building by Mies van der Rohe in Berlin.

The building resembles a Greek temple standing on its stylobate with its exhibition pavilion and podium. The architectural composition consists of a 1.8m thick steel roof plate floating on 8 cruciform columns and the retracted glass box. The building is designed on two levels: the exhibition pavilion elevated from the street level and the lower level consisting of permanent exhibitions and a complementary sculpture garden.

47 years after its opening, in 2015, the museum was closed to visitors and the refurbishment work was started by the international office of David Chipperfield architects. The building is planned to re-open in 2021 for visitors.

New National Gallery, for its architectural value, monumental features, and exquisite architectural expression, is the strongest design driver in the context. Neighboring the Gallery, the Museum of Architecture should have an appropriate response to this substantial determinant. The architect should adopt an approach to enable the old and the new monument to coexist, harmonize and strengthen each other.



In 2015, as the New National Gallery closed its doors to visitors, a competition for the design of the Museum of the 20th century has been announced.

The competition brief states the scope and the aim: "The new building ought to enrich and complement the architectural ensemble of the Kulturforum with outstanding architecture. At the same time, the building task is tied to the challenge of updating the idea of an art museum and developing it further. The aim is not only to create ideal spaces for art and the art experience. The art museum should at the same time be a place of encounter and interdisciplinary debate – both programmatically and architecturally." (Design competition brief the museum of the 20th century, 2016)

460 proposals have been submitted to the ideas competition and 10 of those were awarded. 42 proposals have been submitted to the design competition from architecture and landscape offices around the world. (Kulturbesitz, 2016)

The winning design for the Museum of the 20th Century was submitted by Basel-based office Herzog & de Meuron. Resembling an extension of a traditional section of a "house" with a gable roof, the uniform volume is divided by two intersecting inner passages, defining 4 thematic areas. A brick weave is utilized in the facade expression relating to the neighboring structures.

The winner's design is set to be completed in the next few years. (Kulturbesitz, 2016) The Museum of the 20th Century is considered another influential structure in the area for being the most recent addition to the cultural forum collection of buildings.

MUSEUM OF THE 20TH CENTURY

5. MUSEUM OF ARCHITECTURE

A linguistic study could be used as an essential tool to better comprehend the virtue of function, formations, and potentials of the space to be designed. A deepered search on the linguistics of spaces would help the architect to understand it and design accordingly and innovatively by being freed from the typical formations, expanding the limits of creativity. To be able to comprehend the essence of a Museum of Architecture, a linguistic study has been conducted, providing a perspective through the semantics of the spaces.

In the case of a Museum of Architecture, the determinative group has been de-constructed into its building blocks and the words "Museum" and "Architecture" have been focused on separately, investigating the definitions and etymologies with the intent of rethinking with an unprejudiced mindset as an architect.

The definition 2b of the word "Architecture" by Merriam-Webster online dictionary asserts that architecture is a unifying form. (Merriam-webster.com, Architecture) This definition doesn't suggest a morphological characteristic but a performative feature. While the etymological description of the word "Museum" by etymonline points out the practice of learning. (etymonline.com, Museum (n.))

A syncretical approach by conjugating the provided information, interpreted by the designer, provides an alternative definition for the museum of architecture as a unifying place of learning, revealing new potentials for the designed building.

Architecture (n.) ar·chi·tec·ture

1: the art or science of building
specifically : the art or practice of designing and building structures and especially habitable ones

2a: formation or construction resulting from or as if from a conscious act

2b: a unifying or coherent form or structure

3: architectural product or work

4: a method or style of building

1560s, "the art of building, tasteful application of scientific and traditional rules of good construction to the materials at hand," from Middle French architecture, from Latin architectura, from architectus "master builder, chief workman".

Meaning "buildings constructed architecturally" is from 1610s.

Museum (n.) mu·se·um

1: an institution devoted to the procurement, care, study, and display of objects of lasting interest or value

2: a place where objects are exhibited
an art museum

1610s, "the university building in Alexandria," from Latin museum "library; study" from Greek mouseion "place of study; library or museum, school of art or poetry," originally "a temple or shrine of the Muses," from Mousa "Muse".

The earliest use in reference to English institutions was of libraries for scholarly study (1640s); the sense of "building or part of a building set aside as a repository and display place for objects relating to art, literature, or science" is recorded by 1680s.

DEFINITION

ETYMOLOGY

MUSEUM
EXPERIENCE

text on walls



artworks on walls



free-standing objects



hanging objects



manipulated grounds



multi-levelled experience



increased wall surface



openings in walls



colored walls



oversized objects



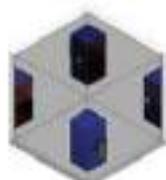
video screens



projection rooms



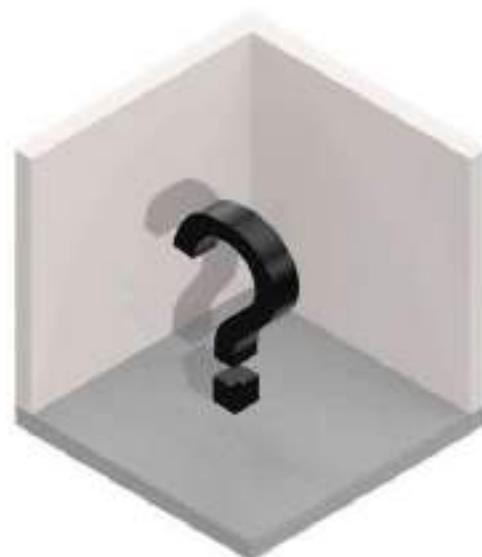
virtual space



reflection room



immersive room



What makes a museum of architecture the museum of architecture? What it can offer to differentiate itself from any other museum? These are some of the questions to be asked to be able to provide an exquisite experience of visiting a museum of architecture.

Characteristics of a typical museum experience are described and listed to make an inference about the architectural and technological tools used in the exhibitions. These elements could be referred to as actions of exhibition strategies. Decided by the curators or designed by the architects, each of the actions adds on a perception-based quality to the experience.

What a museum intends to provide is learning through exposure. A typical object of exhibition is usually exposed explicitly often coupled with verbal or auditory explanations to enhance the exchange of information. The architecture of a museum in this case offers a spatial frame, a structure for the narration, a canvas for the technology to be integrated, or a fac-

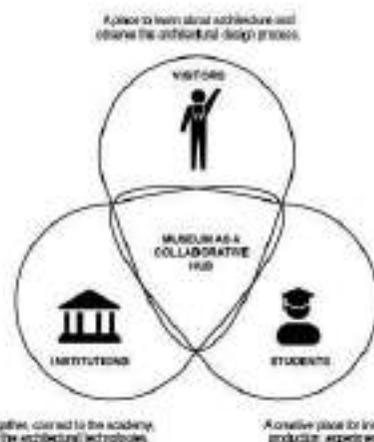
tile settlement for the intangible information.

A museum of architecture, by its synthesized definition, should offer more than a perception-based exposure of artifacts but provide an architectural communication between itself and the users. The building itself then becomes the artifact of exposure, stimulating a sophisticated experience beyond the exhibition space.

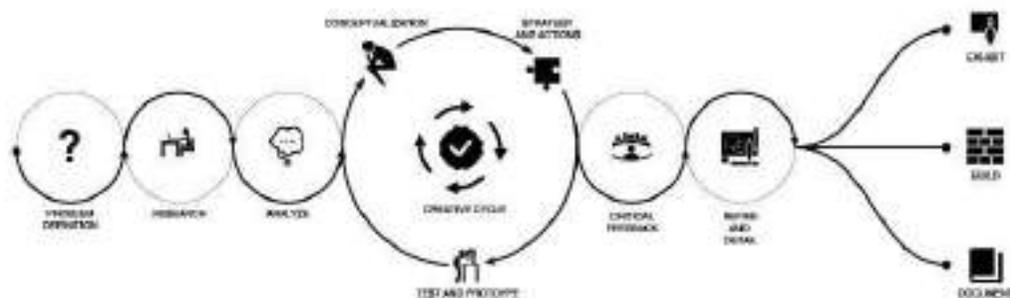
The meaning of an artifact (in this case the architecture itself) differs according to the reader who intends to understand and communicate. Since every individual has a different background of knowledge as a result of different professional/personal backgrounds, there are infinite number of information that a work of architecture can provide. Hence the potential beyond the exhibition space could transform from exposure to expression, encounter, experiment, manufacture, and more.

MUSEUM
BEYOND
EXHIBITION

A PLACE OF COMMON INTEREST AND COLLABORATION



The Museum of Architecture aims to be a place of common interest and collaboration. Acting as a hub to bring together different groups of people in the architectural society of Berlin. As a museum, the building becomes a place to learn about architecture and observe the architectural design process. For the institutions, the building offers spaces to gather, and connect to the academy and provides a window to the latest architectural technologies. The students, on the other hand, activate the building by constant production, experiment, research, and inspiration from the qualities of the building itself.



VISION AND OBJECTIVES

Total museum experience for everyone, by thematizing architecture.



Museum as a learning space and the building as the object to exhibit.



The project must provide a rich architectural experience and have the qualities to be a representative of the architecture of the era.



Context like an open-air architecture museum where buildings act as stand-alone sculptures in their plots.



Documentation and working spaces as a part of the museum exhibition for the visitors. Representation of the off-stage process.



PROGRAM



The program in the BAM competition brief was divided into three categories as Exhibits, Documentation and Working, and Service. Respecting the brief all the programs have been introduced in the project proposal. In addition to the brief student exhibition spaces, a small auditorium, an immersive room along with a supporting basement lobby, storage space, and a coat room is included in the building program.

The additive programs have been intended to support the existing program and/or enrich the museum experience for the users.

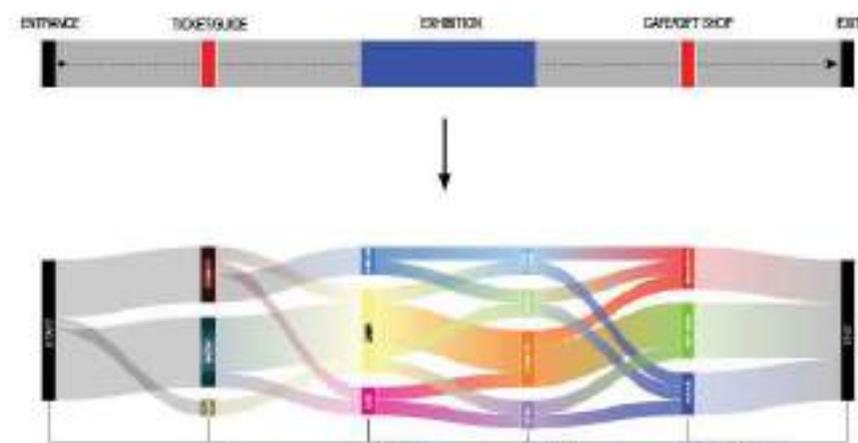
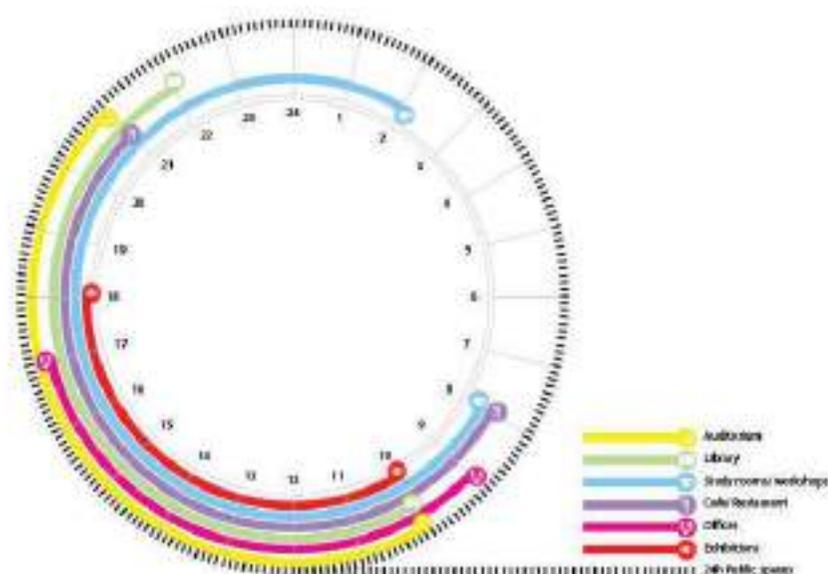
A foreseen time-use diagram has been illustrated to propose an activity chart based on time.

Since the proposal is serving several user groups and the functions are categorized into

two distinctive main categories, the typical narrative and sequence of events of the museum experience have been reconsidered.

It is intended to branch out the linear story arc into several lines, considering the options the building could provide and the relationship between the users and the functions, the main destination in the building, and the supporting program.

The plot of the visit has been enriched by multiplying the connectors and the relations of the spaces with the users.



EXHIBITION
FLOW
TYPOLOGIES



CORRIDOR



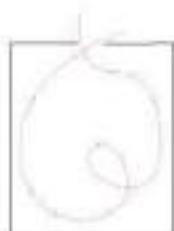
CAN FRAMES Museum
Jord Borrás



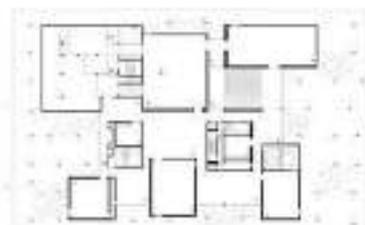
LINEAR CHAIN



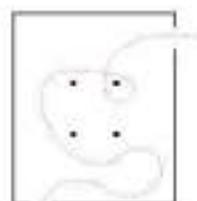
Arsenal e Cordelle (Venice Biennale)
Antonio De Ponti



GALLERY



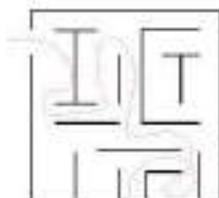
Perez Art Museum
Herzog & de Meuron



OPEN PLAN



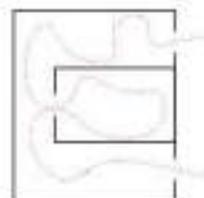
The Broad Museum
Diller Scofidio + Renfro



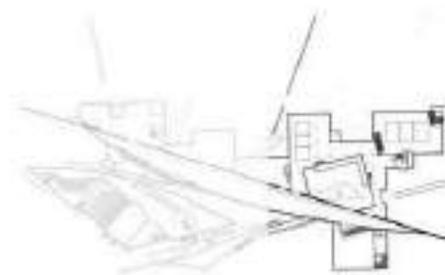
LABYRINTH



MUDEC Museum
David Chipperfield



ROOM IN A ROOM



ARKEN Museum of Modern Art Exterior
CF Moller Architects

EXHIBITION
CONTENT

An architectural exhibition can accommodate architectural products of different scales. From the basic tools of drawings and sketches of the architectural design process to the paintings and photographs of the architects and buildings. The pieces of furniture designed by architects provide a perspective of the architecture of ergonomics and total design, while sculptures shaped by architects expose the artistic side of the profession.

The physical models provide a perspective on the ever-changing and evolving nature of the design process. While physical models present the design at several scales, the 1/1 mock-ups offer insight into the technicality and the details of the construction phase.

At the same time, an immersive experience of architecture could offer an experience beyond imagination while virtual reality adds a synthetic perception to reality. Augmented reality could be utilized to enhance the quality of exchange of information in the museum experience.

THE DESIGN MUSEUM - LONDON

CASE STUDY

OMA, ALLIES AND MORRISON, JOHN PAWSON
 10.220 M²
 LONDON, UK
 MUSEUM / GALLERY
 2007-2016
 (Restoration and redevelopment)

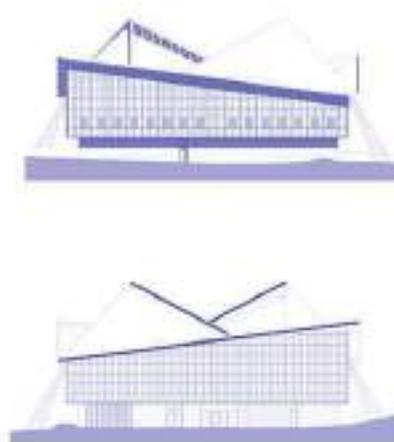
The Design Museum London has been selected to analysed as a case study project both for its program and the formal features.

Located in Kensington, London the building designed by Robert Matthew and Stirling Johnson Marshall partnership as the Commonwealth Institute. The building opened in 1962 and was actively used until 2015.

In 2007, the Commonwealth Education Trust has been established as a successor to the Commonwealth Institute. Following this change the site was acquired in April 2007 by Chelsfield Partners in a joint venture with the original owners, the Leicester Estate leading a restoration and redevelopment. (Bayley, 2008)

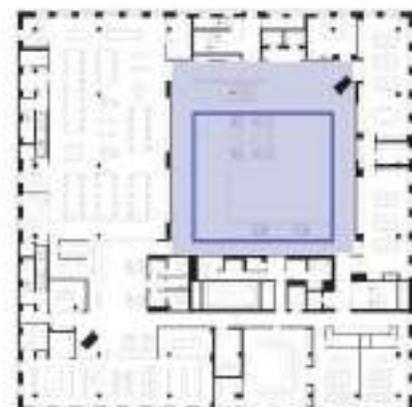
Along with five other architectural firms, OMA was invited by Chelsfield deputy chairman Sir Stuart Lipton to consider the potential of the Commonwealth Institute site. OMA's proposal sought to save the grade II* listed building by reinterpreting it into the modernist monument, the new home for London's Design Museum while retaining its distinctive copper roof and parabolic form. (OMA.eu, 2017)

The exterior and structure have been refurbished and the interior has been substantially altered to accommodate the Design Museum. (Donald Insall Associates, 2011)



THE SILHOUETTE

The sloped roof geometry of the building amplifies the overall expression providing an elevated experience over the basic square footprint of the building.



CENTRAL CIRCULATION

The circulation is provided through a central patio connecting several levels by a system of staircases.



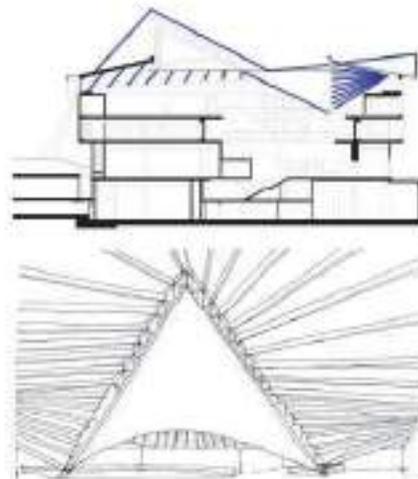


Design Museum strikes notice with its double-curved roof structure unifying the spaces beneath it while adding a formal complexity over a basic square footprint. A simple move redefining the experience and the appearance is significant. Slender beams in repetition are translating the complex roof form into a familiar language and a consistent expression for the users.

A central patio offering a place to gather and circulate acts as a social core for the building while providing vertical and visual connections.

Another feature to point out as a part of the case study is the choice of the materials and the way they are used.

Design Museum states: "Many of the materials used in the original construction of this building were sourced from Commonwealth member countries of the time. The hardwood floors of the galleries came from Nigeria and Ghana, while the aluminum for the window frames came from British Guiana (later Guyana). This use of materials was intended to suggest



UNDER THE SAME ROOF

Exposed beams carrying the roof unify the total museum experience. The repetitive language of the slender elements translates the complex double-curved roof geometry.



MATERIAL PALETTE

A neutral material palette is used providing an honest atmosphere to the museum and giving the main stage to the artifacts.

that the building was a co-operative endeavor by the countries of the Commonwealth." (designmuseum.org, n.d.)

Exposed concrete, hardwood floors, and aluminum features are utilized in an honest way to the material's nature, providing a neutral background and giving the main stage to the artifacts in the museum space. A neutral material palette is used providing an honest atmosphere to the museum and giving the main stage to the artifacts.

6. PROJECT PROPOSAL

FINDING ITS OWN VOICE IN THE ARCHITECTURAL CHOIR

It is a challenge to design a museum of architecture in the everchanging city of architecture, Berlin, as a cultural mosaic in constant evolution.

As the competition brief states: "The Museum of Architecture of Berlin should appear as an additional character that will come to join the set of buildings of the Kulturforum and its relations with the urban context will be also part of the subject of this competition." (ARCHmedium, 2019)

The mission hence requires an extensive understanding of this context of many potentials and opportunities through studying the relations with the built environment and the neighboring monuments of architecture. The building should be a coherent fit to the environment, finding its own voice while being a member of this architectural choir.

The proposal should suggest a way to realize itself while taking the courage of being a museum inside museums and exposing architecture from inside and outside. It should be the bounding element of its architecture and the architectures of the context.

Freed from the typologies, a unique togetherness of the form and function, along with the programmatic distribution was the key quest of this proposal. Imagining a place where different communities of common interest could gather, interact, and exchange information, while producing, experiencing, learning, and studying architecture became the main driver and motivation of the design process.

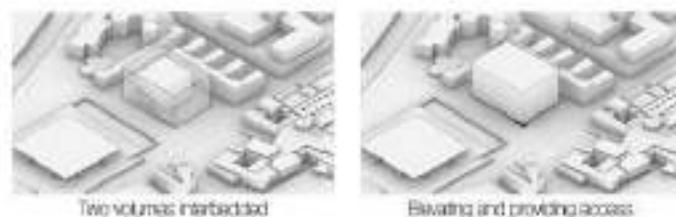
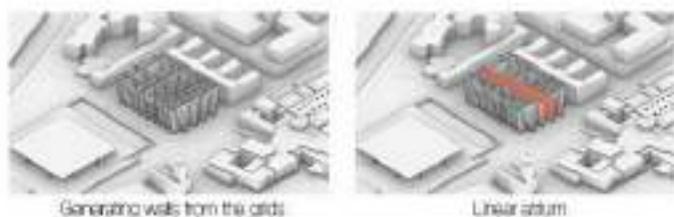
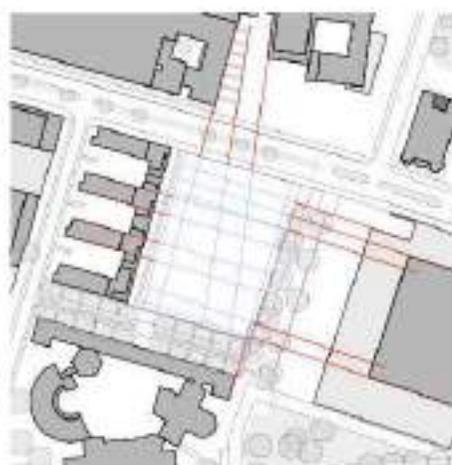


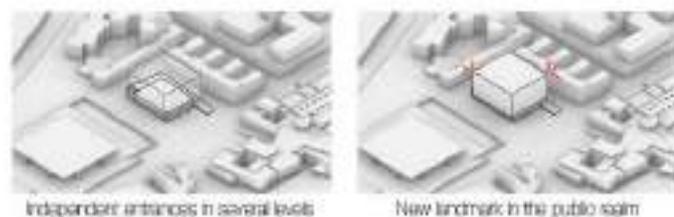
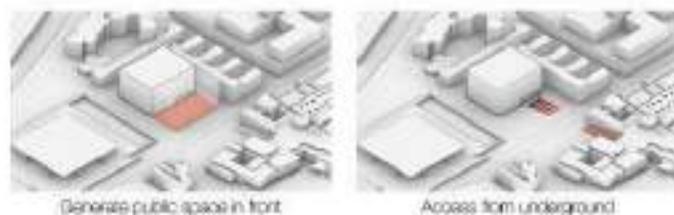
**CONTEXTUAL
REFERENCES
AND
FORM FINDING**

The journey of the form-finding started with a formal reading of the context. Traces of the elements such as building limits, staircases leading to Gemaldegalerie and New National Gallery, the structural grid of the New National Gallery, and alignments have been considered. The traces are extended through the plot limits and generated a non-regular grid of reference.

This grid and/or critically selected extensions of traces have been considered in the initial attempts of form-finding in the building plot.

Several strategies have been generated and studied in the process. This exercised led to the final concept generation of the proposal.



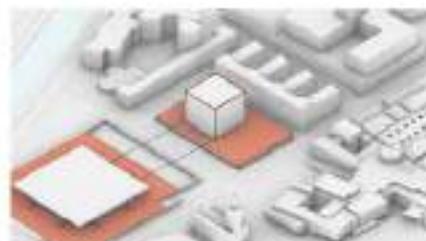


The exercise of form-finding strategies revealed several tendencies in the design process. When examined from a holistic perspective in addition to the use of the referential grid, it is seen that encapsulating/grouping of exhibition and learning functions, attributing to the existing urban connections, the orientation of the building entrance, and manipulation of basic forms through simple actions or compositions were common in several attempts.

Although each of these attempts of form-finding could have been developed further to be the final concept of the proposal. The information extracted by the experiments and the ideas derived from the process have been married to give form to the final concept richer of potentials.



CONCEPT



Exhibition spaces as podium &
Learning and documentation spaces as a cube



Existing entrance of the context
carves out the entrance to the museum



Rotation for the entrance



Exhibition spaces stretch gradually
enveloping the learning spaces.



Study volume generates a vista
towards the city and the Cultural Forum



Entrance is emphasized by combination of the
existing stairs.



Balconies to provide a new point of view to the context



A new landmark in the public realm

The massing studies of the form-finding journey have led to the final concept generation. The idea of dividing and grouping the exhibition and learning functions became the point of departure. Inspired by the composition of the New National Gallery, the exhibition spaces are formed as a podium and learning functions were encapsulated into a cubic form.

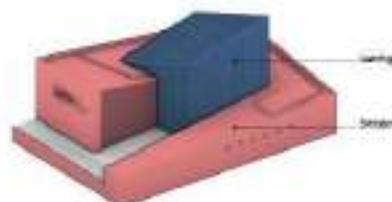
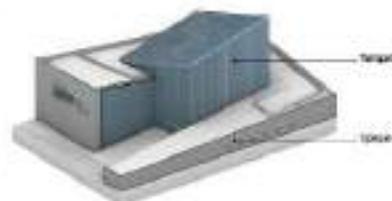
The connection elements to the network of museums in the Kulturforum, the staircases providing access to the NNG and Gemäldegalerie had been prolonged to carve out the 'podium' and define the entrance to the museum.

The central core has slightly rotated to orient the entrance at a perpendicular angle. The podium has been stretched gradually to increase the exhibition volume, enveloping the central core and the learning functions. The cube then had been modified by a simple move of pushing one corner down, offering a vista to the Kulturforum and towards the Potsdamer Platz.

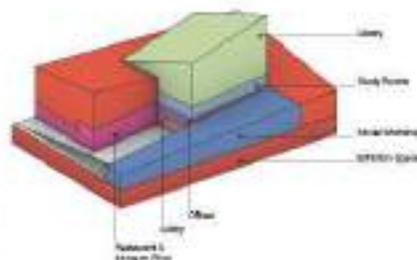
The entrance carved out by the existing attributions has been introduced a staircase and a ramp to continue the common language of ascending before entering indoors.

Openings in the enveloping walls of the galleries have been defined to provide a new point of view to the open-air architecture-museum quality of the Kulturforum. The enclosed balconies punched out from the galleries enabled the visitors to have an extensive experience of architectural exposition.

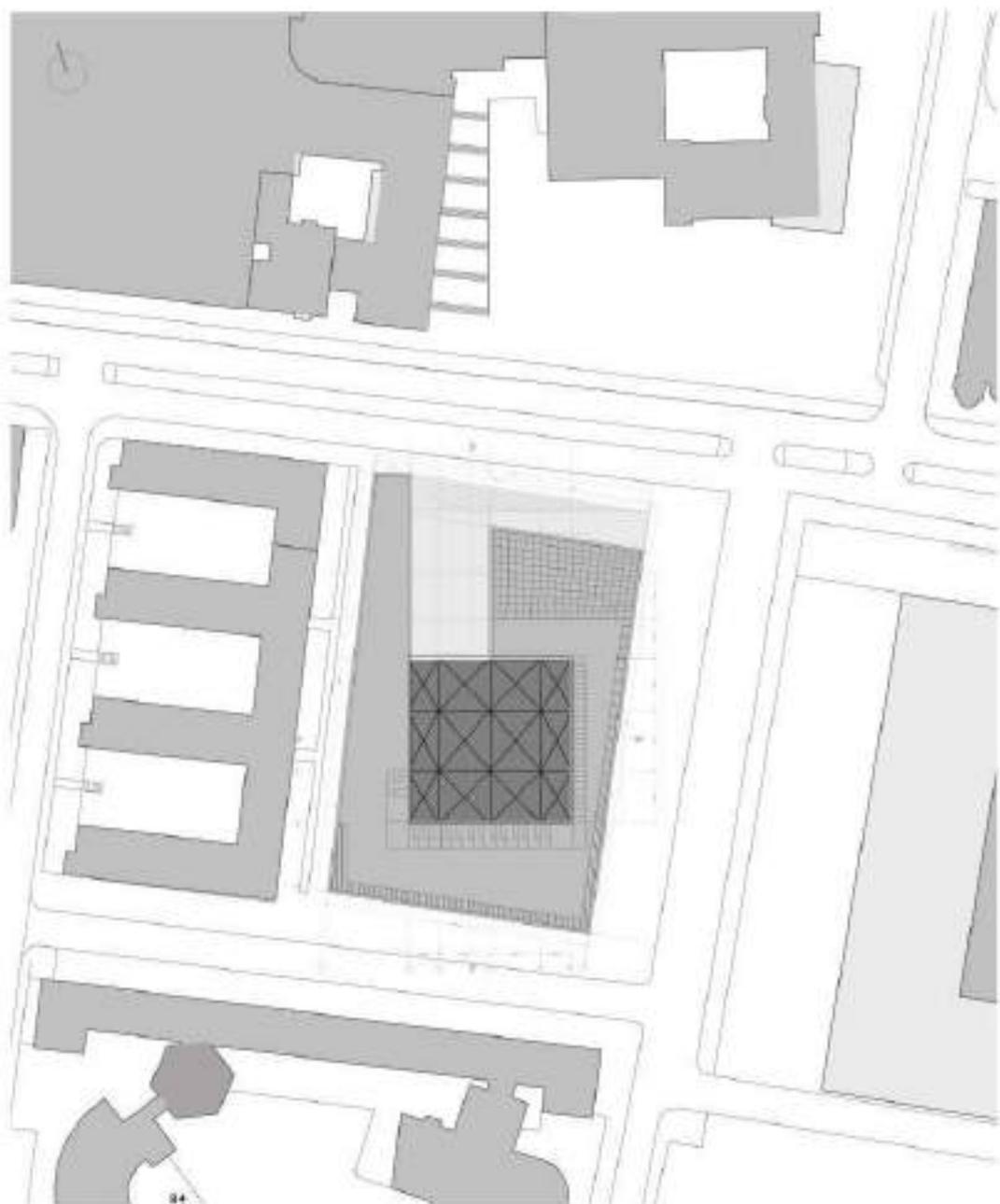
The proposal re-acting its role in this architectural theatre as a new landmark also gives back a modest public space in the public realm while being a backdrop to the urban life.

EXHIBITION /
LEARNINGOPACITY /
TRANSPARENCY

PROGRAM






**RELATIONSHIP
WITH THE
CONTEXT**

A monolithic envelope surrounding the glazed central core welcomes the visitors from the North facade, creates a backdrop to the public space on the Eastside, and respects the residential building on the West by providing space in front and maintaining a low height.

The building is slightly elevated from the street level, a ramp integrated with stairs collects the visitors from New National Gallery and Gemaldegalerie building and directs them to the carved-out entrance.

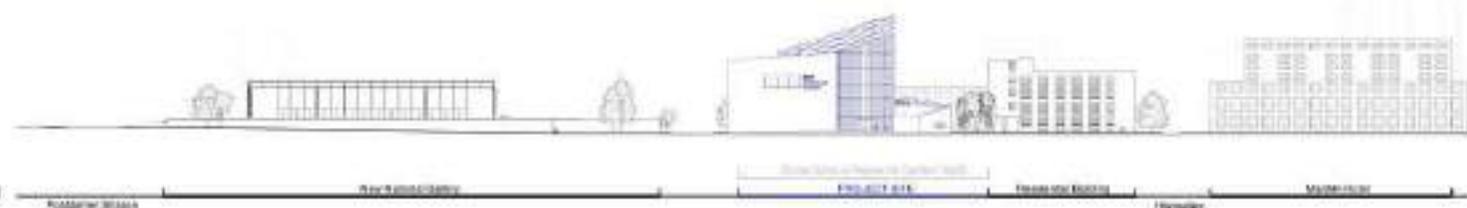




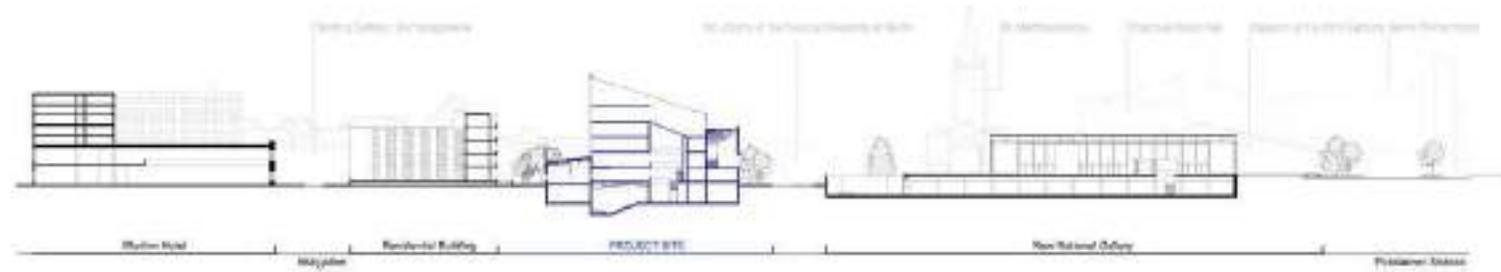
Section AA'



North Elevation



Section BB'



East Elevation







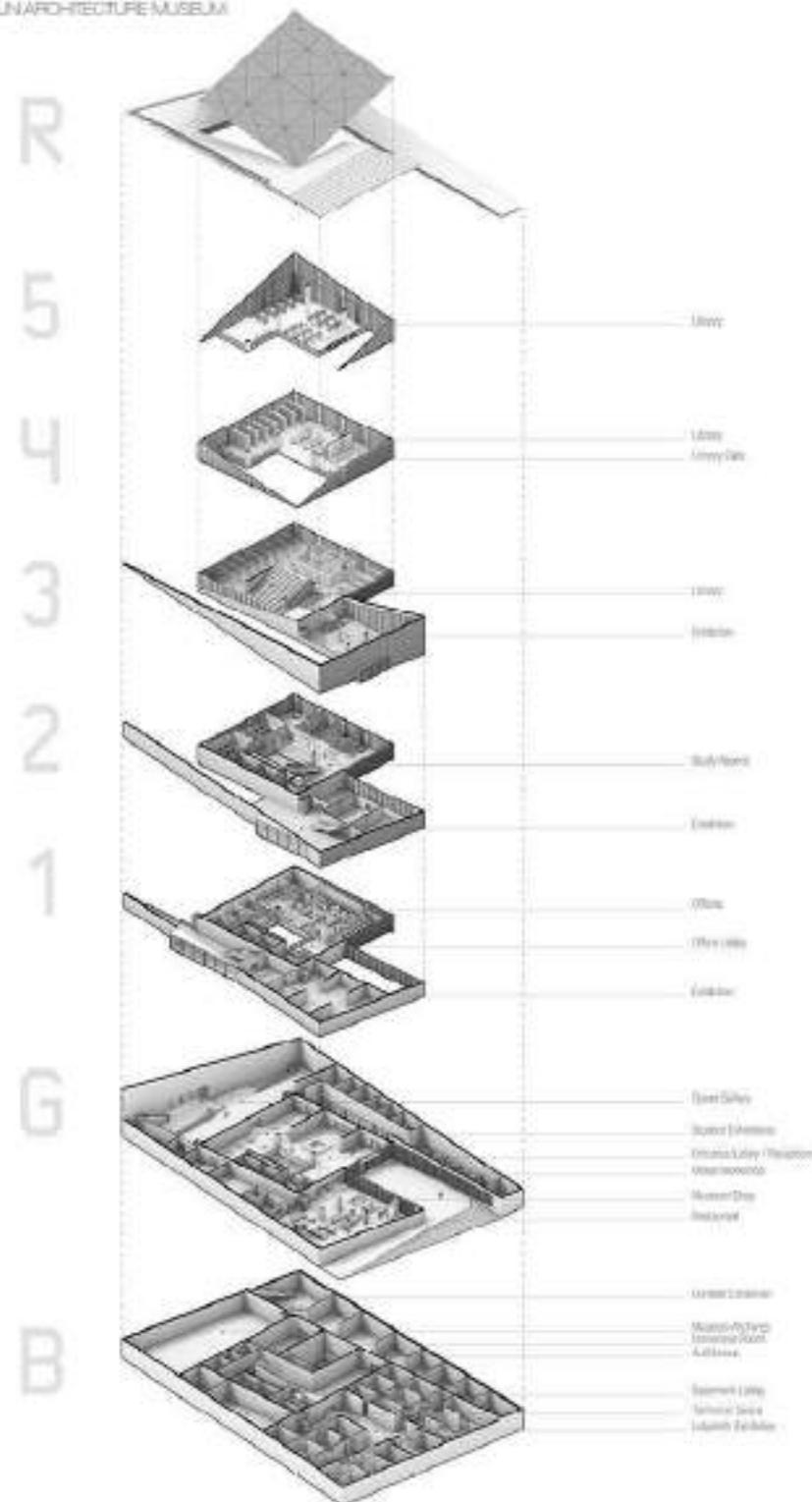
The exterior material palette is decided to be as neutral as possible in the context of multiple materialities. The envelope walls are clad with basalt stone panels; exposed concrete frames the punched-out openings from the exhibition spaces, bringing the interior materiality to the outside. Slender mullions of aluminum window frames support the monochromatic materiality concept.

Inspired by the form of the balconies, outdoor seatings are designed in the public space. Although it is a minimalist addition to the urban realm, the seatings provide another type of interaction with the building proposal while providing an occasion to enjoy the view of the New National Gallery.

A NEW
PERSPECTIVE

Designing a museum of architecture in the context of architectural monuments in an environment resembling a sculpture garden required a relevant strategy. The need to include the context to the museum experience led to a discussion of whether to add a new sculpture to the collection or providing a new perspective to the garden. The solution is found in the question itself by providing a unique sculpture

as a new point of view to the context. Each exhibition level is introduced with an opening to the context, providing a new lookout to the neighboring monuments of architecture from different eras. Redefining them as in-situ objects of the exhibit.

EXPLODED
AXONOMETRIC

The program of the building is distributed according to the grouping concept of the functions. While the enveloping volume contains the exhibition spaces, the central core of the composition is equipped with the learning functions.

The basement level accommodates two types of exhibition areas - the labyrinth and the corridor exhibitions. In addition to the exhibition spaces, an immersive room and a small auditorium are located in the central footprint of the basement level. A large area dedicated to the museum archives is also taking its space in the underground level along with a technical room.

The visitors are welcomed in the ground level with a generous entrance lobby and a reception space. These spaces also act as a distribution point for the circulation having direct connectors to the model workshop and the restaurant with a museum shop.

A space dedicated to the student exhibitions and the Grand Gallery of the museum also takes their place on the ground level. The Grand Gallery here is connected to the underground exhibitions and the first level exhibitions hence the visitor flow remains.

On the first level, exhibition spaces continue on the outer envelope while the offices for the museum staff are accommodated in the central volume.

The second level contains the study rooms for the architecture students. The study rooms have direct access to the library above and the roof garden. Exhibition spaces continue on the second level with double-height spaces unified under the sloping roof geometry.

On the third level of the building the exhibition terminates and connects to the library. Central volume encapsulating the library space serves the visitors, students, and museum staff. Access to the roof-scape is also granted to the users from the third level.

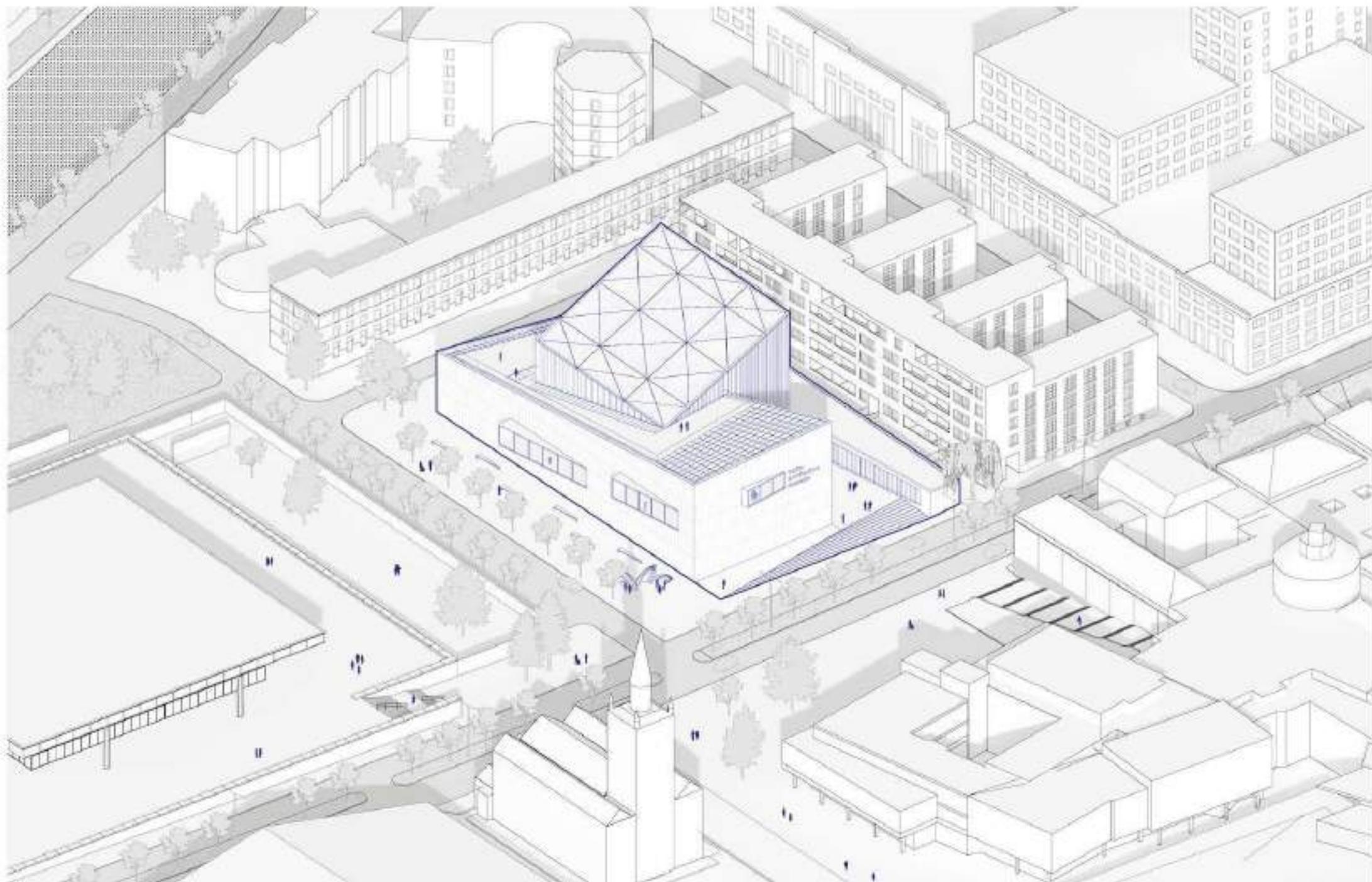
The library continues on the fourth level of the building, the two levels of the library are connected by auditorium steps. A small cafeteria is also located on this level, serving the library users.

The fifth and the final level of the building contains the last level of the library under the glass roof.

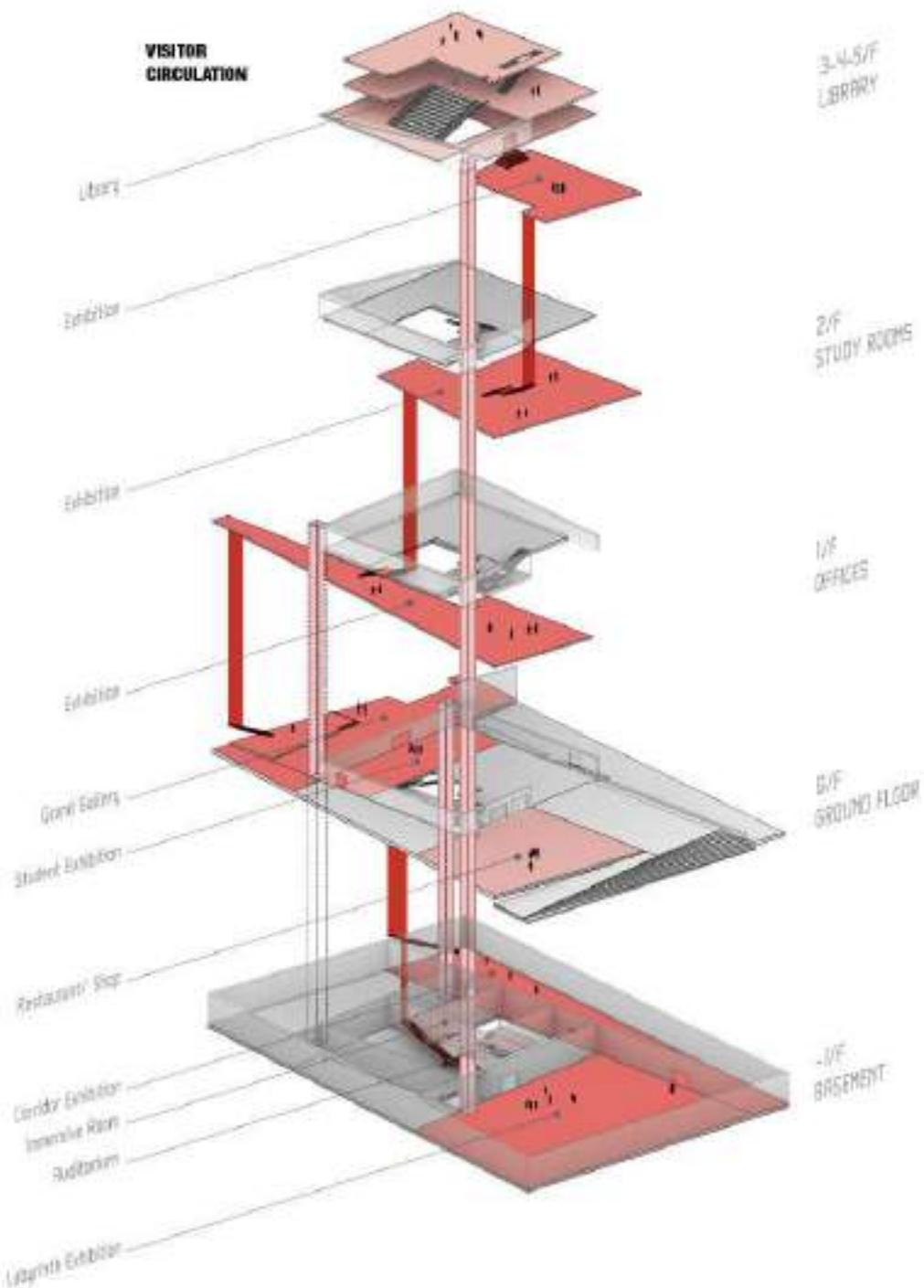
The ascending roof of the building is given access from the 2nd and 3rd levels. A soft landscape covering the roof surface offers a calming break for the students and a pleasant end to the museum visit for the visitors.

The roof also facilitates a continuous strip of skylights providing natural light to the exhibition spaces beneath. A portion of the roof-scape is dedicated to PV panels for a self-sustaining approach.

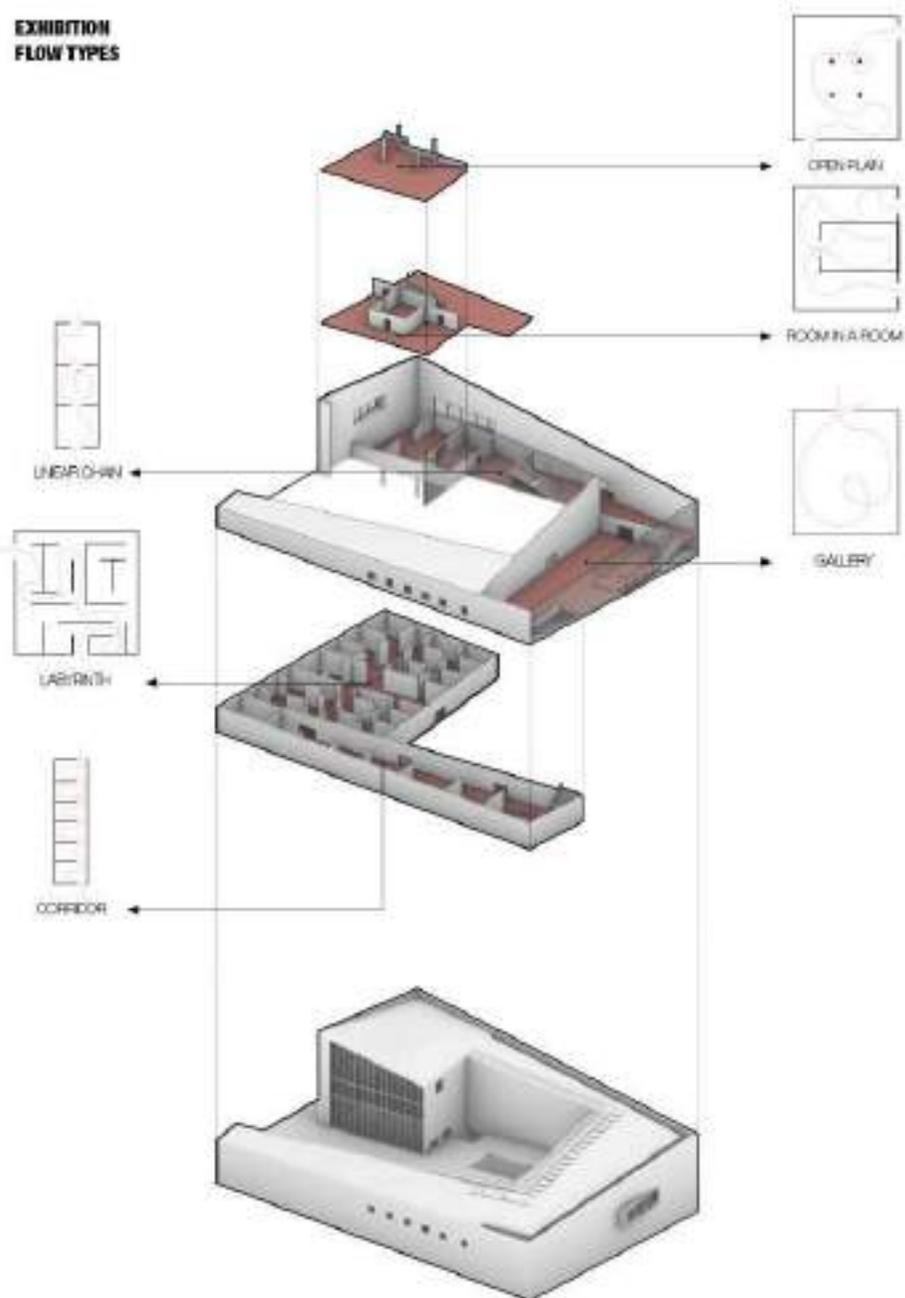
PROGRAM
ORGANIZATION



VISITOR CIRCULATION



EXHIBITION FLOW TYPES



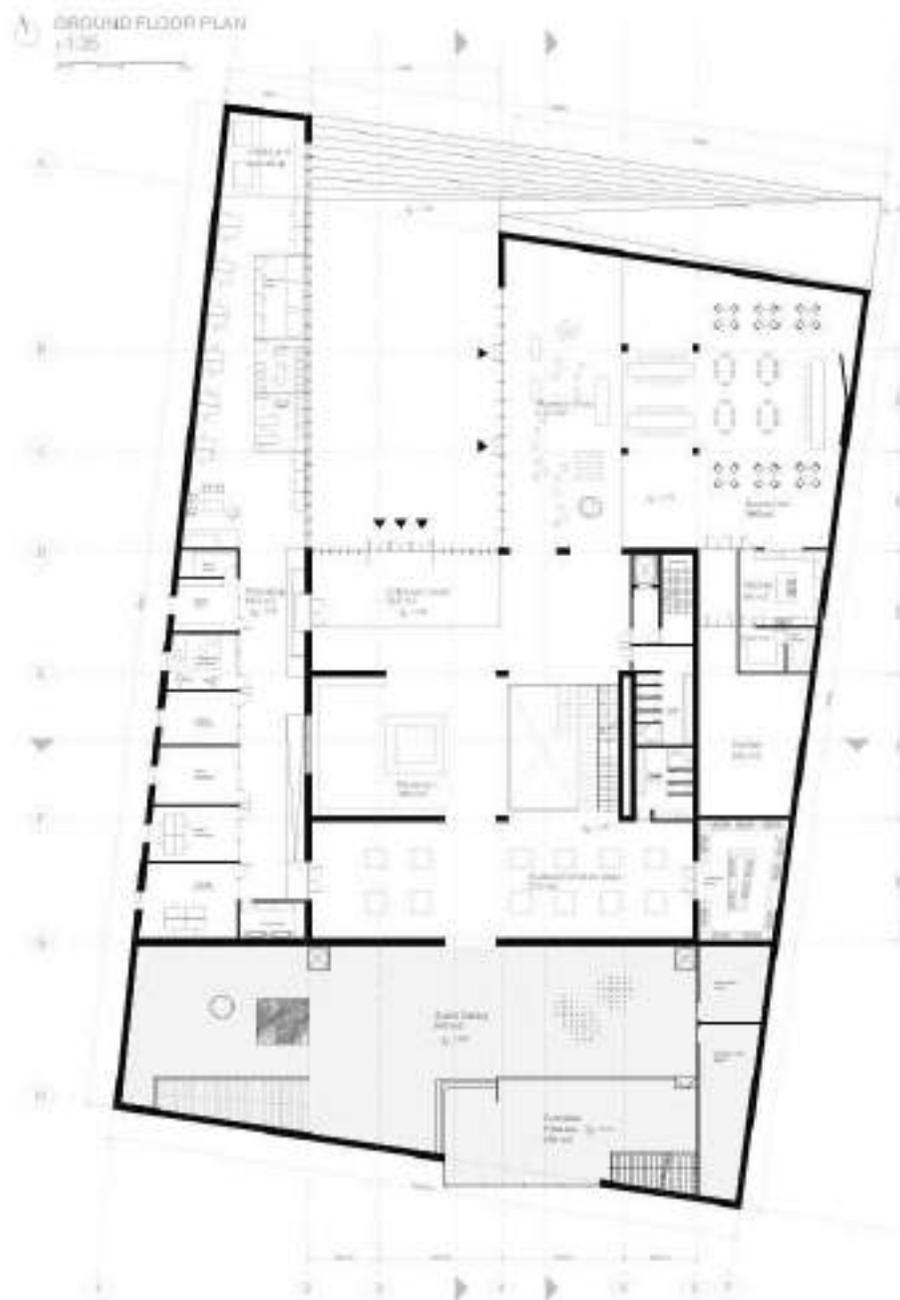
BASEMENT PLAN

**BASEMENT
LOBBY
&
UNDERGROUND
GALLERIES**

The basement lobby which is directly accessed from the entrance lobby is performing as a distribution space for the auditorium, immersive room, and the museum archives and acts as a buffer space for the underground exhibitions at the same time.

The underground exhibition spaces are divided into two categories by their spatial characteristics. The Labyrinth Exhibitions are defined by a maze-like well system increasing the exhibition surfaces while the Corridor Exhibitions are characterized by parallel divisions in sequence, adapting the linear nature of the dedicated space. The corridor terminates at the Rotonda where it connects to the Grand Gallery space on the ground level.





ENTRANCE & RECEPTION



The recessed entrance enhances the engagement of the visitors with the building by providing a glimpse of the model workshop on the right-hand side and the museum shop on the left-hand side while approaching. Hence the museum experience starts even before entering the building. The entrance lobby and the reception area distribute users to the model workshops, restaurant/museum shop, grand gallery. It is connected to the basement lobby downstairs and offices upstairs. The sequence of the double-height lobby, reception, and student exhibition area provides a warm-up before the main exhibition experience.

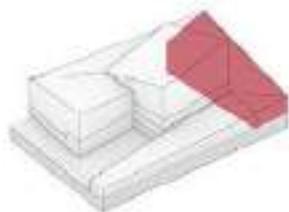


**ENTRANCE & RECEPTION**

The reception area and the model workshop are visually connected, providing the museum-goers an opportunity to observe the production process as well. The museum staff and students can take the stairs or elevators upstairs to reach the offices and student workspaces. The student exhibition area provides the students and architecture schools to exhibit their works. Visitors pass through this area while going to the classroom and main exhibition space.



GRAND GALLERY



The Grand Gallery acts as the heart of the exhibition spaces for being the first space to engage in the museum experience, connecting to the underground exhibitions and the first-floor exhibitions.

High ceilings with exposed beams and the undisturbed quality of the space provide an impressive experience of the space. Two closed rooms (one of them being a video room) are attached to the grand gallery.

Overall space is divided by an exhibition plateau gently defining multiple zones for the expositors, meanwhile providing access to the next level.

Here, it is also possible to observe the architecture of the WZB building by the opening of the facade.

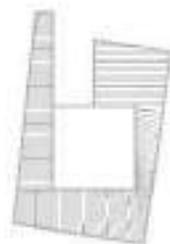


L1
EXHIBITIONS

Level one exhibitions perpetuate from the Grand Gallery by being connected to the space through a staircase and an elevator.

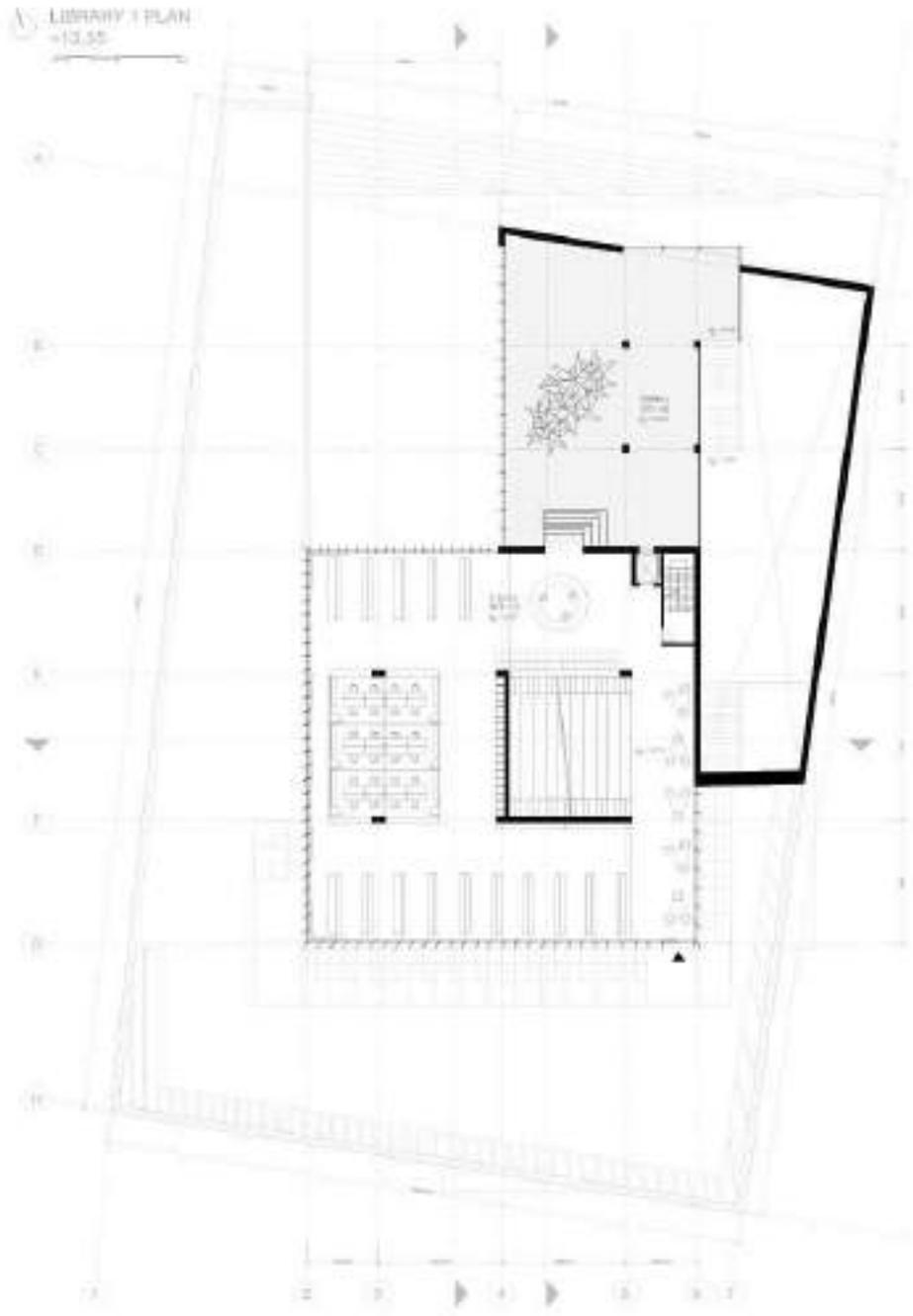
L1 exhibitions are characterized by the sequenced exhibition rooms succeeding one after the other. The facade opening facing the New National Gallery is attached to the spaces signed to the central core and the staircase leading to the next level.

The material palette of the exhibition spaces is deliberately decided to be exposed concrete on the walls and the structure and polished concrete on the floors. This neutral nature of the materials used enables the objects of the exhibition to stand out while the architecture of the museum becomes the backdrop to the object.



The roof is carried by the towering roof beams that sit on the two massive envelope walls. The beams provide a consistent experience for the exhibition spaces in double-height spaces by providing a common language.

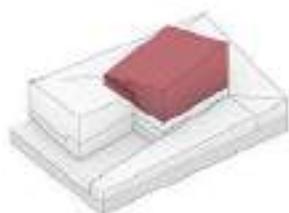
**L2
EXHIBITIONS**



L3
EXHIBITIONS



LIBRARY



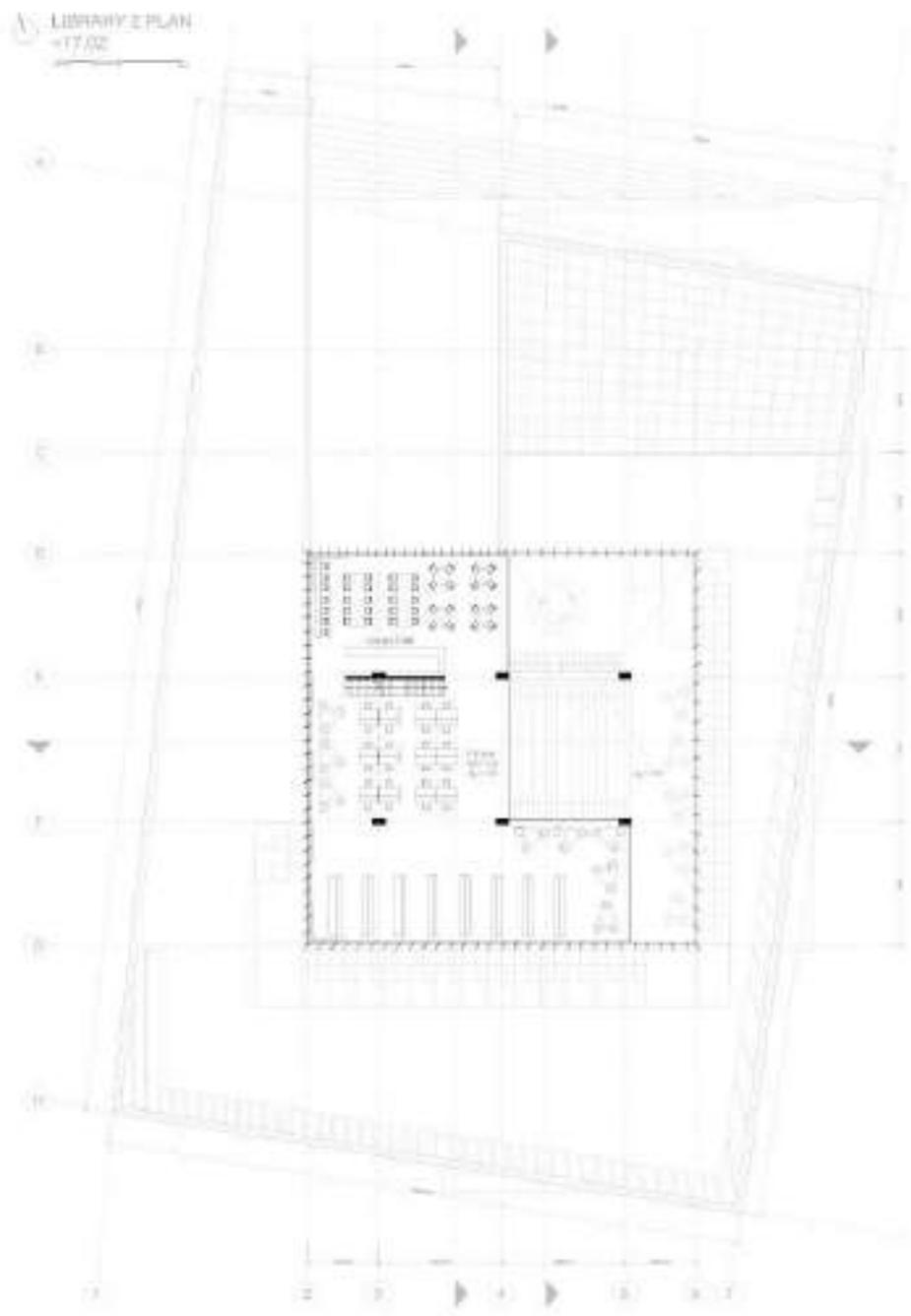
The library changes the material palette with wood to provide a warmer atmosphere for the visitors and students.

A round reception desk welcomes the visitors coming from several connection points to the library.

Mezzanine floors in the space along with the glass roof offer a bright and fresh learning experience for the users. The transparency also creates a contrast with the exhibition experience enhancing the spatial quality and character of the library. The first level of the library holds most of the book stock and facilitates individual or group study rooms for the users.

This level of the library is also connected to the roofscape offering a fresh breath of air and a look-out to the Kulturforum.



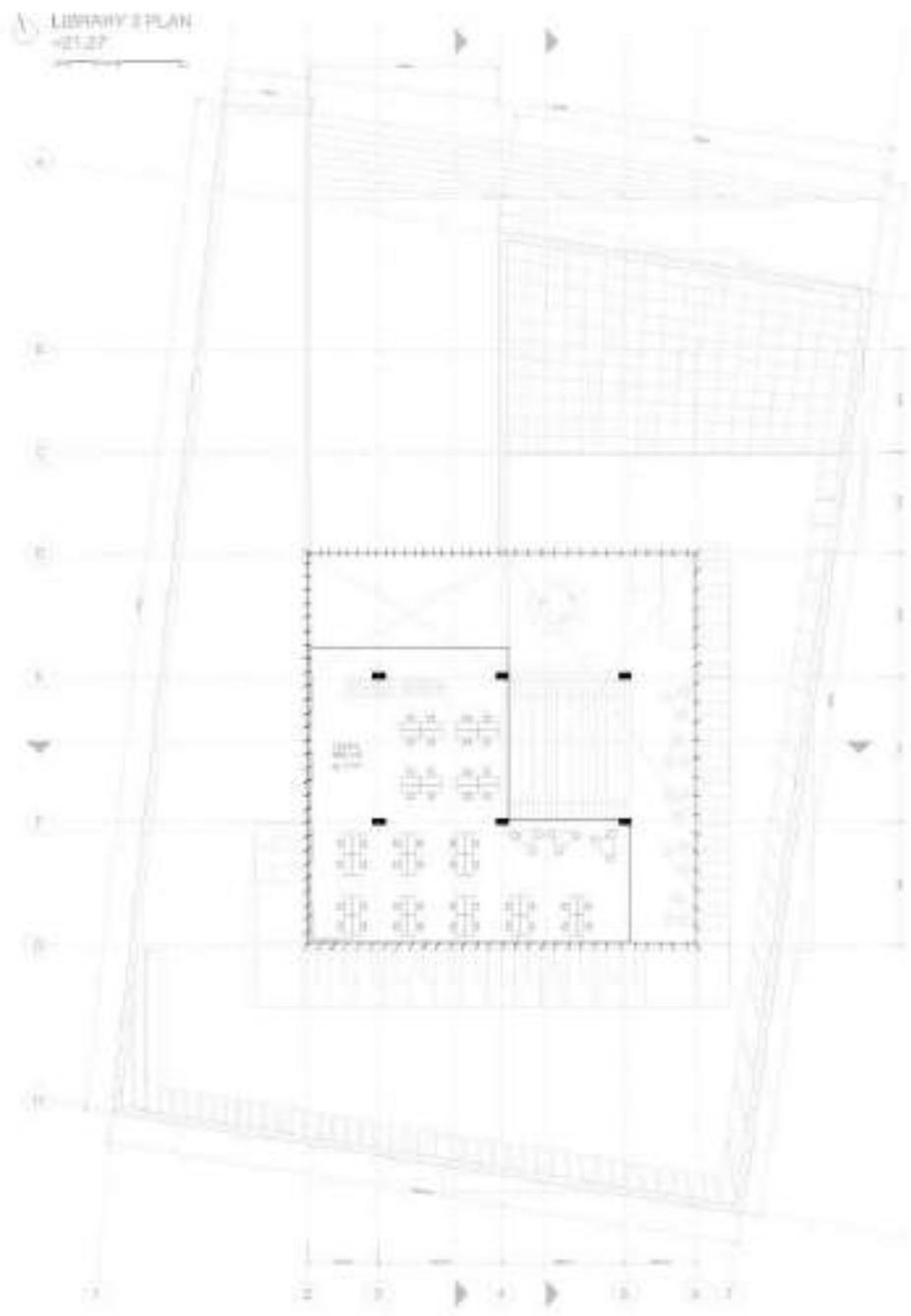


The auditorium steps connect the first two levels of the library and provide a social space for gatherings, talks, or to take a break.

The risers of the steps have been designed as glass openings to let the natural light travel to the levels below throughout the patio.

The second level of the library contains the rest of the book stock and open areas equipped with study desks and sofas.





A small cafe is located in the library where visitors and students can grab a snack and enjoy the view towards the city.

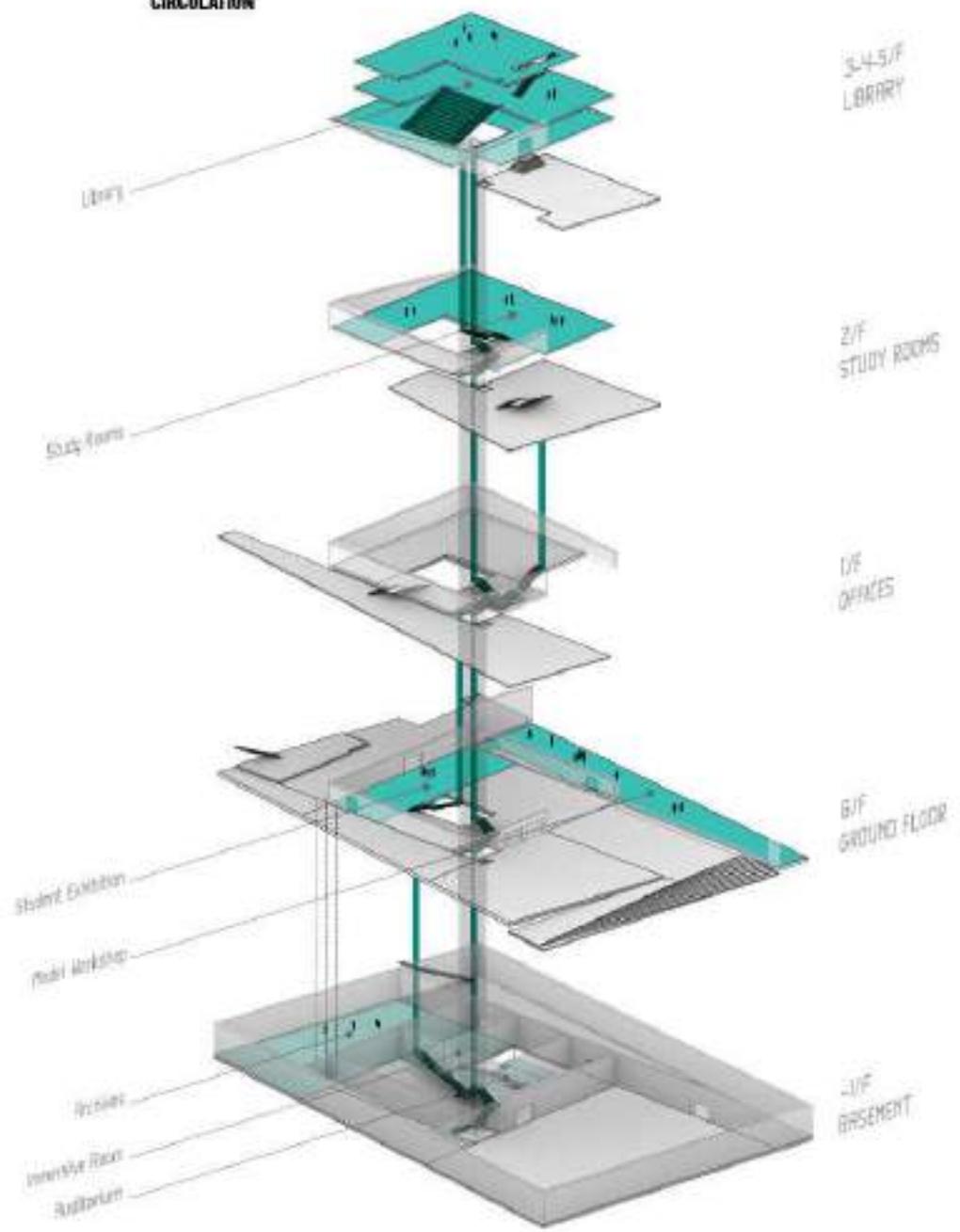
The sloped roof provides views of the New National Gallery, Cultural Forum, Potsdamer Platz, and the city center on the horizon enhancing an intimate relationship with the architecture and the city.

The final floor of the library crowns the building with a double-height study area. The light and velocity can be controlled through the curtains introduced to the glass facade.

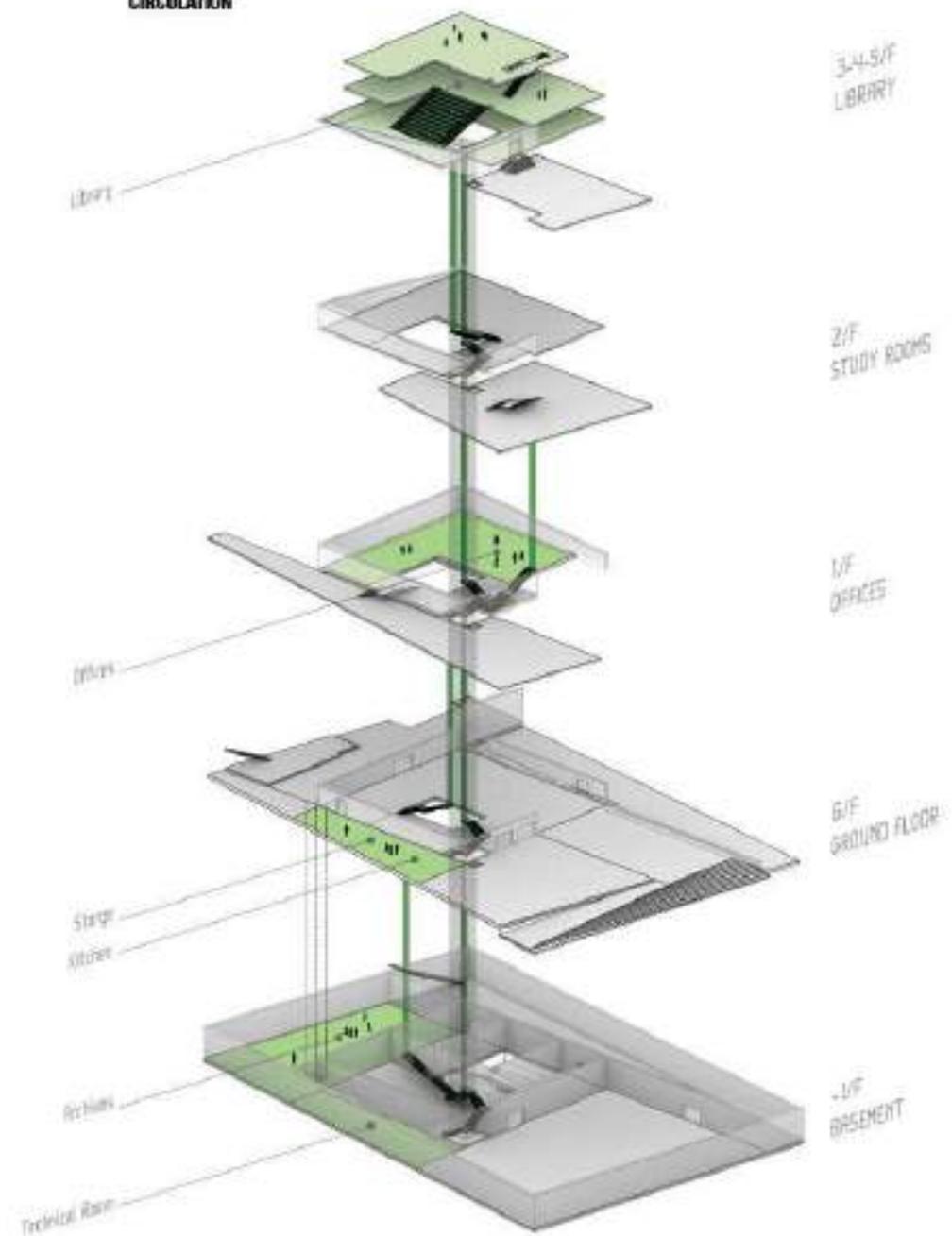
The aluminum fins of the glazed facade, oriented by the rhythm of the beams, help to reduce the excess sunlight to a comfortable level.

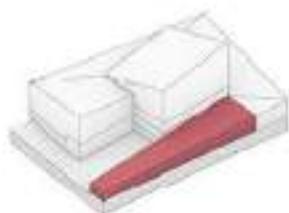


STUDENT CIRCULATION



STAFF CIRCULATION



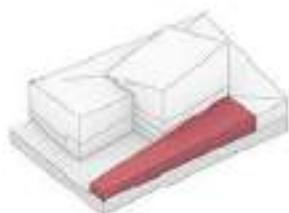
**MODEL
WORKSHOP**

The workshop area is designed as an open plan assembly workspace and individual rooms for material storage, printing & plotting, laser cutting, and photography along with wood and concrete workshops.

In the open-plan assembly area, the 3D printing farm and the robotic arm workshop are placed. Students can also enjoy the coffee station during their break or waiting time.

The robotic arm workshop and the 3D print farm can be seen while approaching the museum entrance. This provides the visitors a unique experience of observing the latest technology used in the architectural design process.



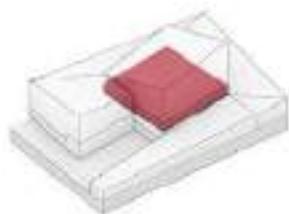
**MODEL
WORKSHOP**

Ericked spaces of the model workshop provide a visual connection to reveal the work inside. A window also provides a perspective from the reception area.

A physical model workshop is a great place for the students to experiment, produce, get acquainted with the new technologies and materials, and engage with each other. The transparency of this place plays a big role in exposing the process to the community and the visitors, by providing curiosity.



STUDY ROOMS



The everyday presence of the students in the Berlin Architecture Museum is one of the key aspects of the concept. The students activate the building, engage in between, and expose the design process to the visitors from an academic point of view. Hence the existence of the spaces dedicated to this community sets the proposal apart from any other museum.

The study rooms for the architecture students are located right beneath the library with direct access to it. Space is divided by glass walls and the rooms are furnished in a way that several kinds of study atmospheres could be offered to the students.

The triangular well along the south facade reflects the exhibition spaces enveloping the learning volume of the building. The access to the rooftop allows the students to take a break in the soft landscape of the sloping green roof.



OFFICES



The office level is accessed by the central staircase in the patio. The office space is designed with an open plan and a set of meeting rooms.

The office could perform beyond the administrative functions such as planning workshops, inviting curators, initiate collaborations with several institutions and communities.

This space is also designed in a transparent manner to expose the managing and planning aspects of the architecture profession.



**MUSEUM SHOP
& RESTAURANT**

Directly accessed by the entrance lobby, the restaurant/bar and the museum shop share the same space. The museum shop is defined by the double-height space and concrete beams while the restaurant area is characterized by single height and a warmer material palette.

The presence of these functions enhances the accustomed museum experience for the visitors. During the daytime, these spaces support the everyday activities of the museum while in special night events such as movie screenings, awards or graduation ceremonies, conferences, or exhibition openings, they act a key role in the experience.

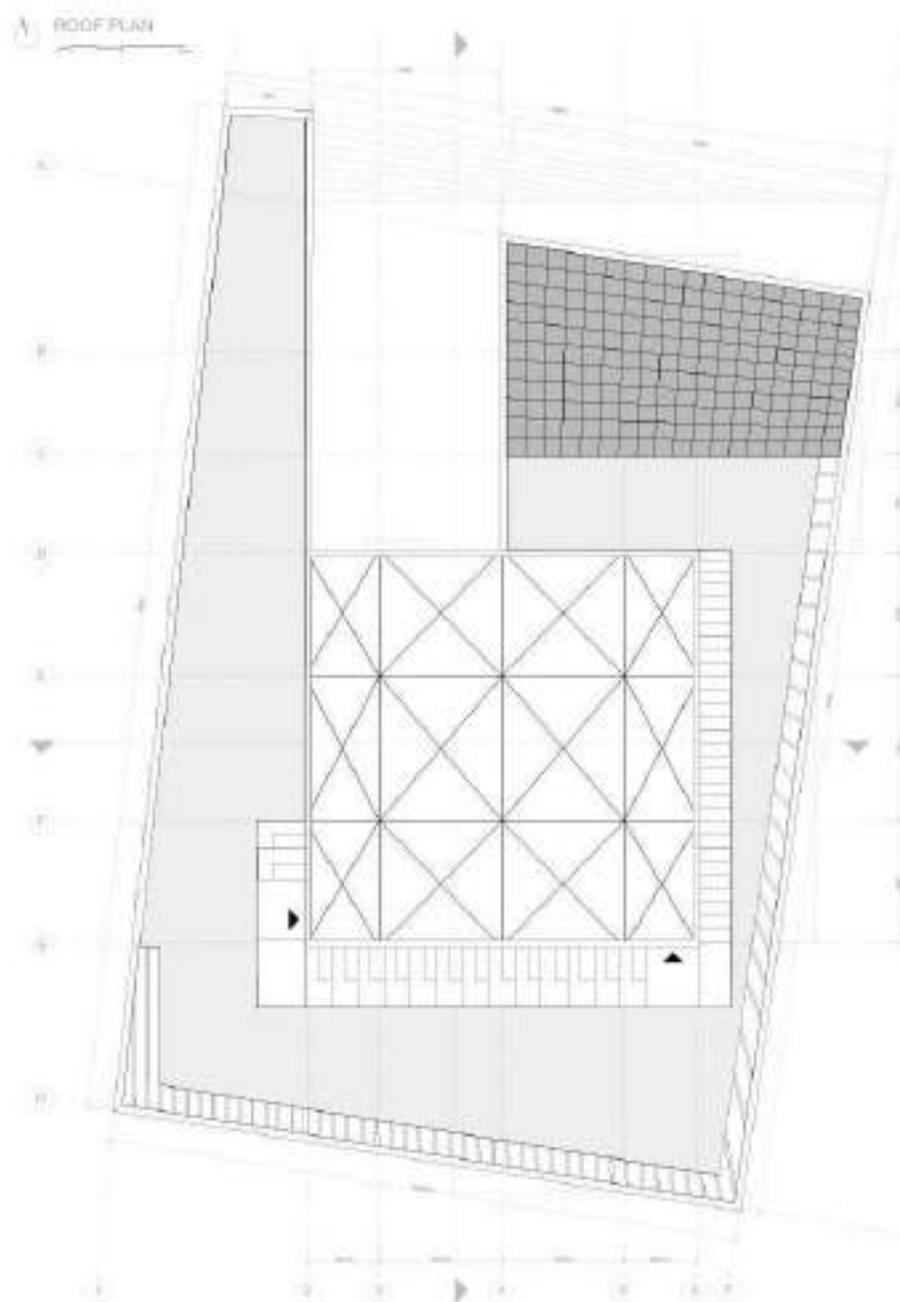


**IMMERSIVE
ROOM &
AUDITORIUM**

The immersive room and the auditorium were two of the additional spaces to the brief and the program of the building. These two spaces multiply the opportunities that the building could offer to the visitors and improve the exchange of information.

The immersive room provokes the imagination beyond the space provided by the architecture. Immersion into virtual reality is a perception of being physically present in a non-physical world. The architecture - ideally - should be able to provide a canvas for the technology to alter the perception of the visitor for a transcendental experience in the non-physical world. The presence of the immersive room is symbolic of the idea to imagine beyond the space.



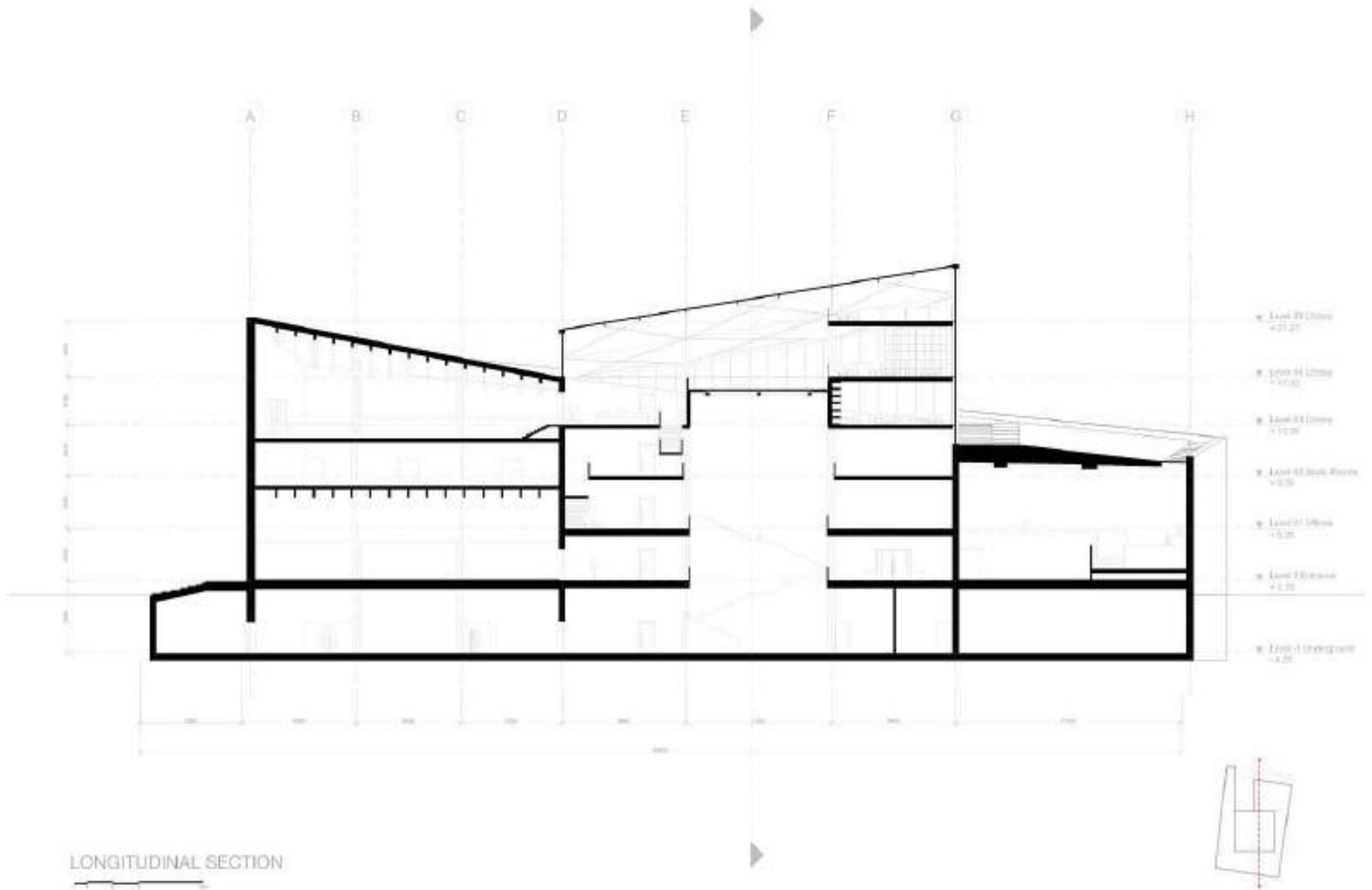


The roofscape following the ascending geometry of the building form offers a soft landscape to the users. Accessed from the second and third levels, the open-air experience provides a new kind of engagement with the building.

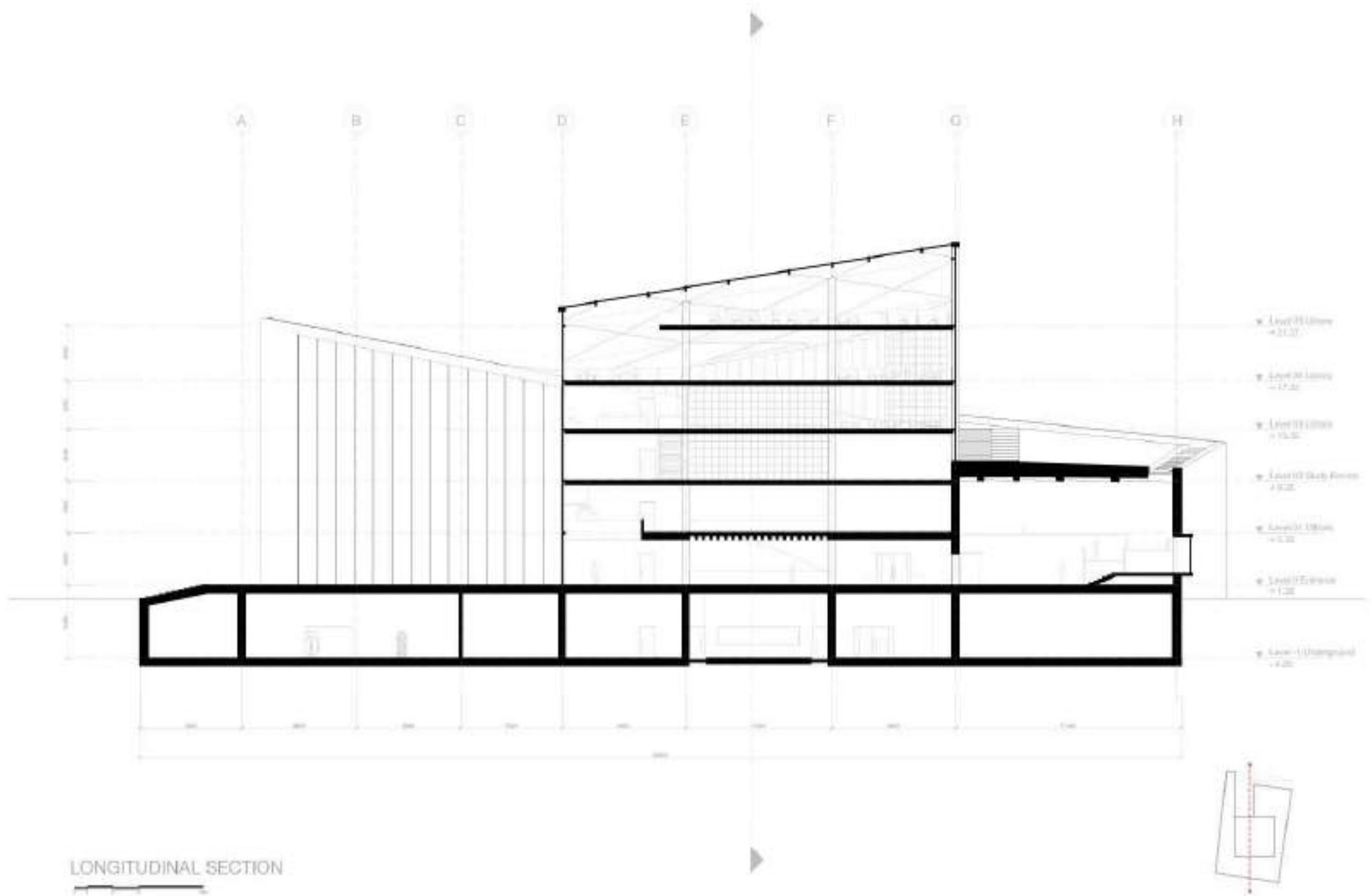
ROOFSCAPE

Stairs attached to the central volume provide a consistent ascending experience while connecting the two levels of the building. The soft landscape of %10 slope allows the users to take a walk on the building and even look through the exhibition spaces through the openings of the skylights.

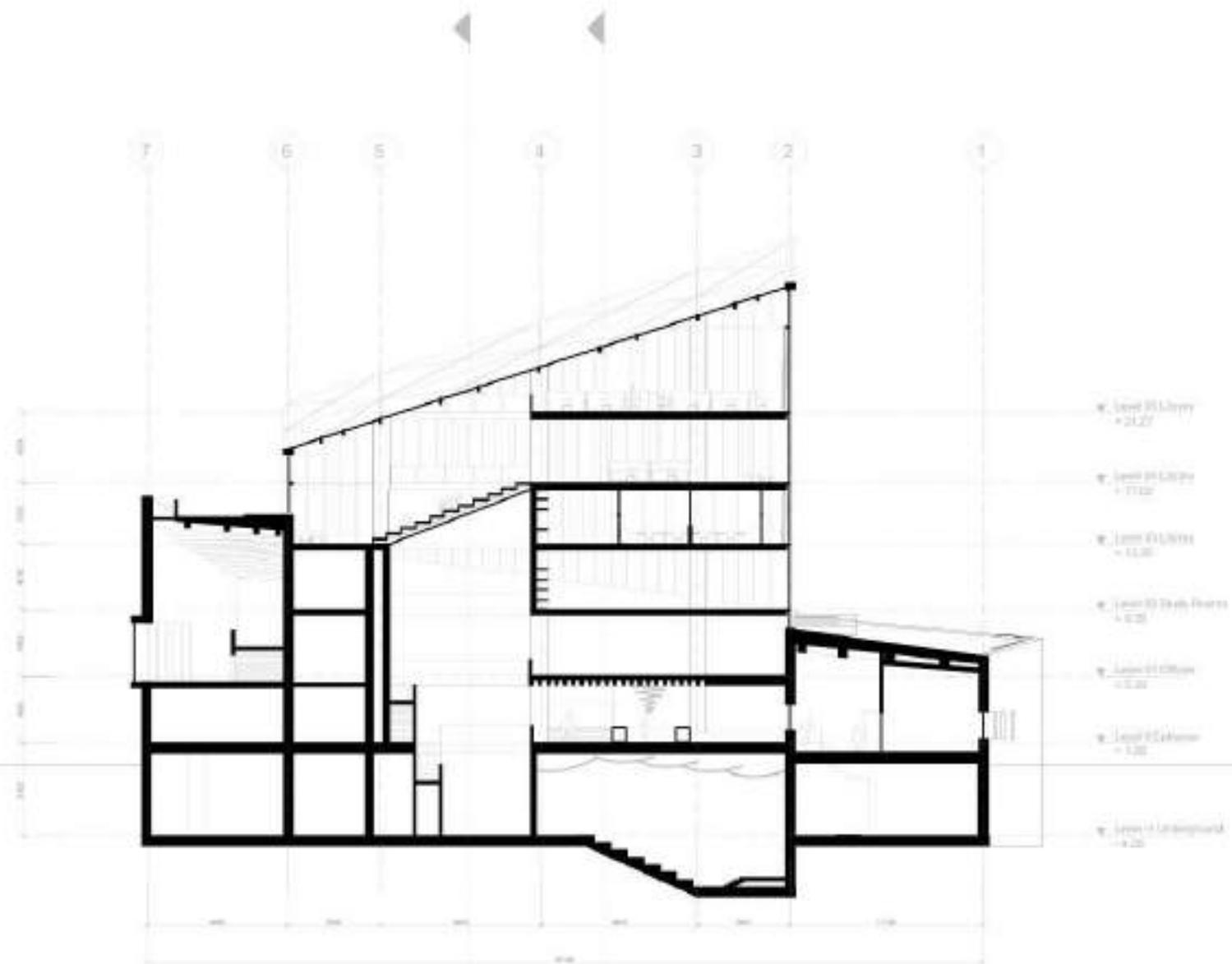




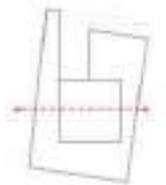
LONGITUDINAL SECTION

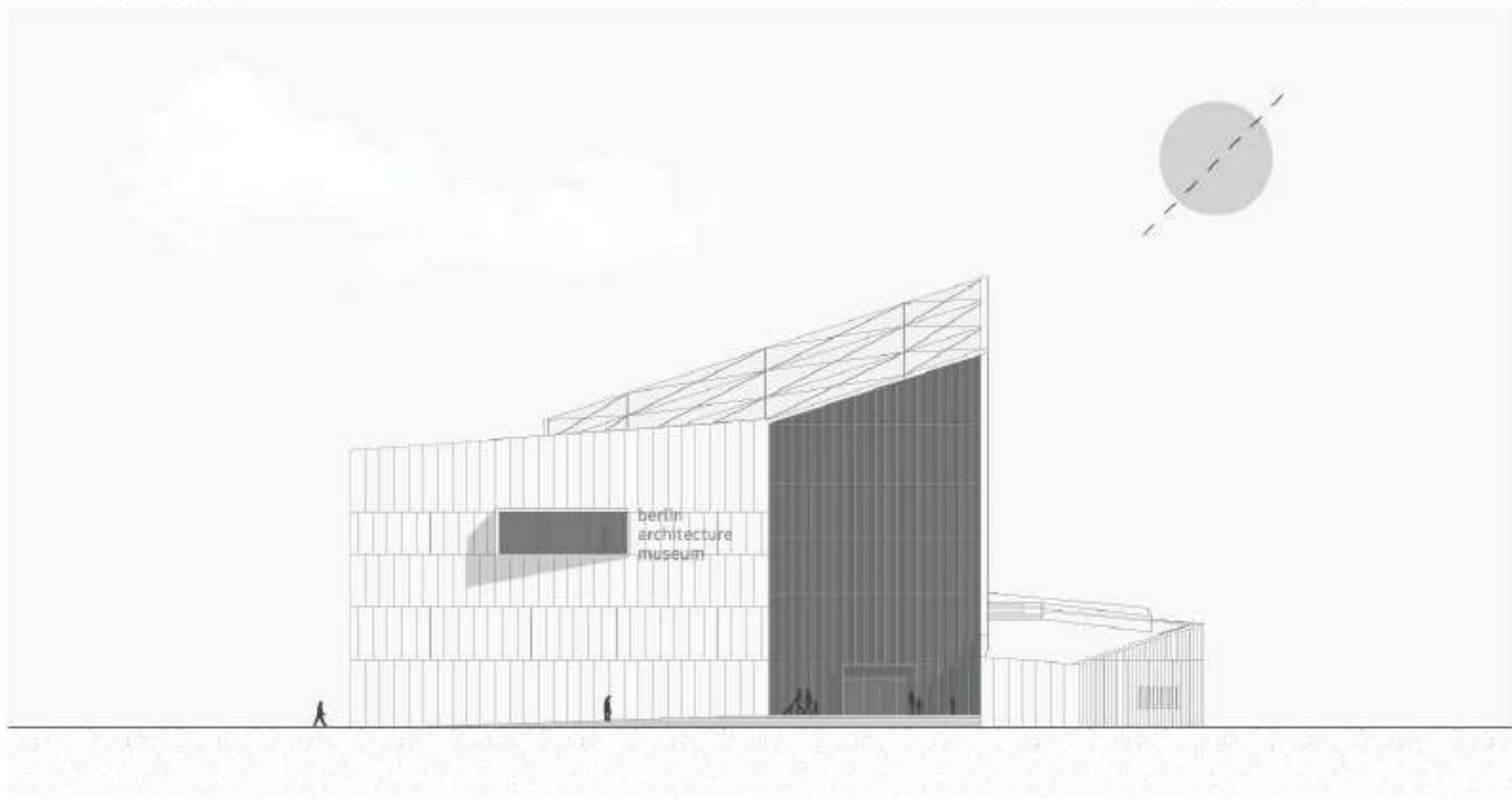


LONGITUDINAL SECTION

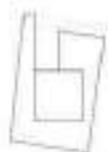


CROSS SECTION

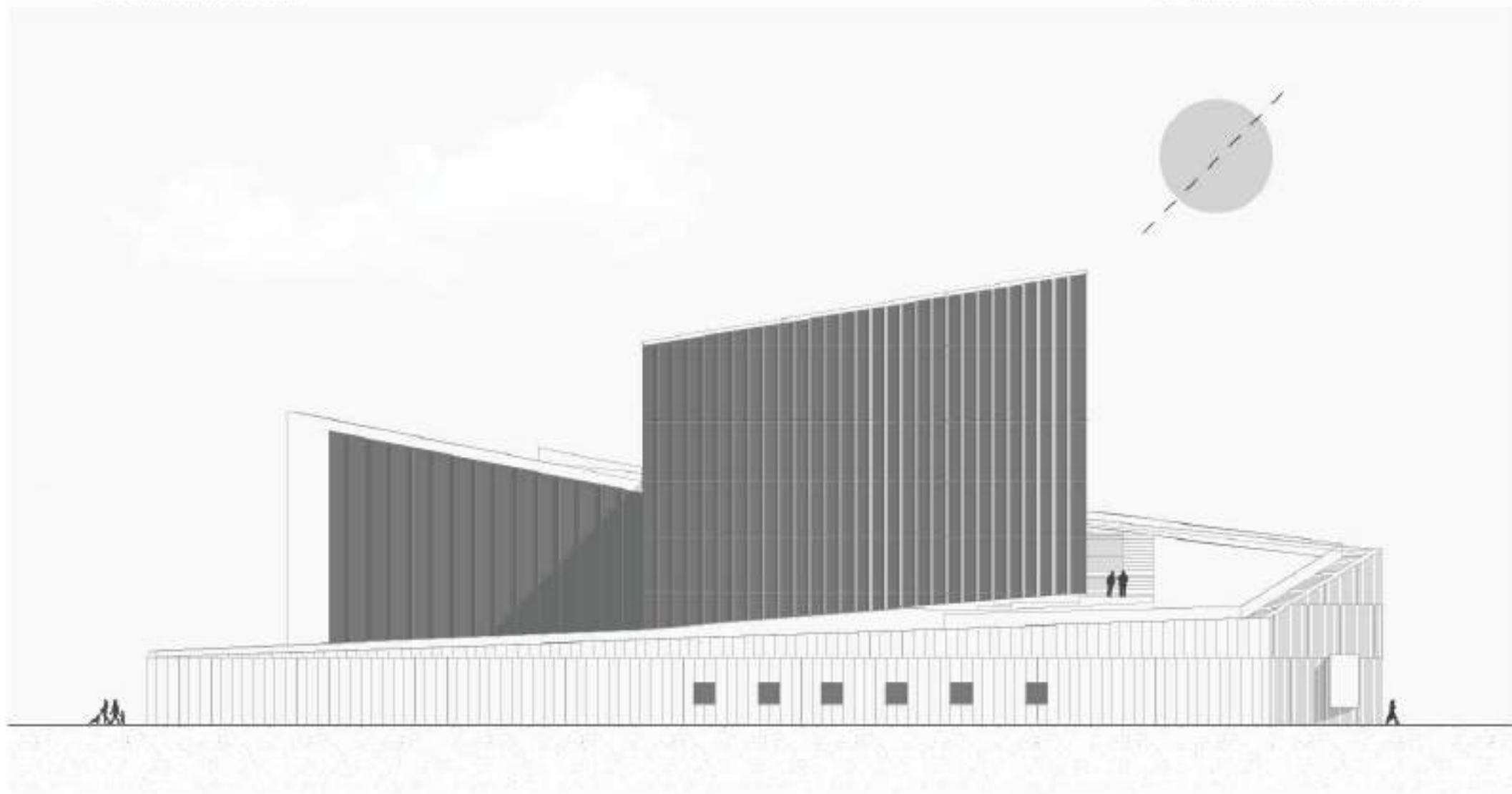




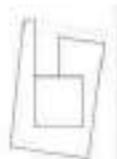
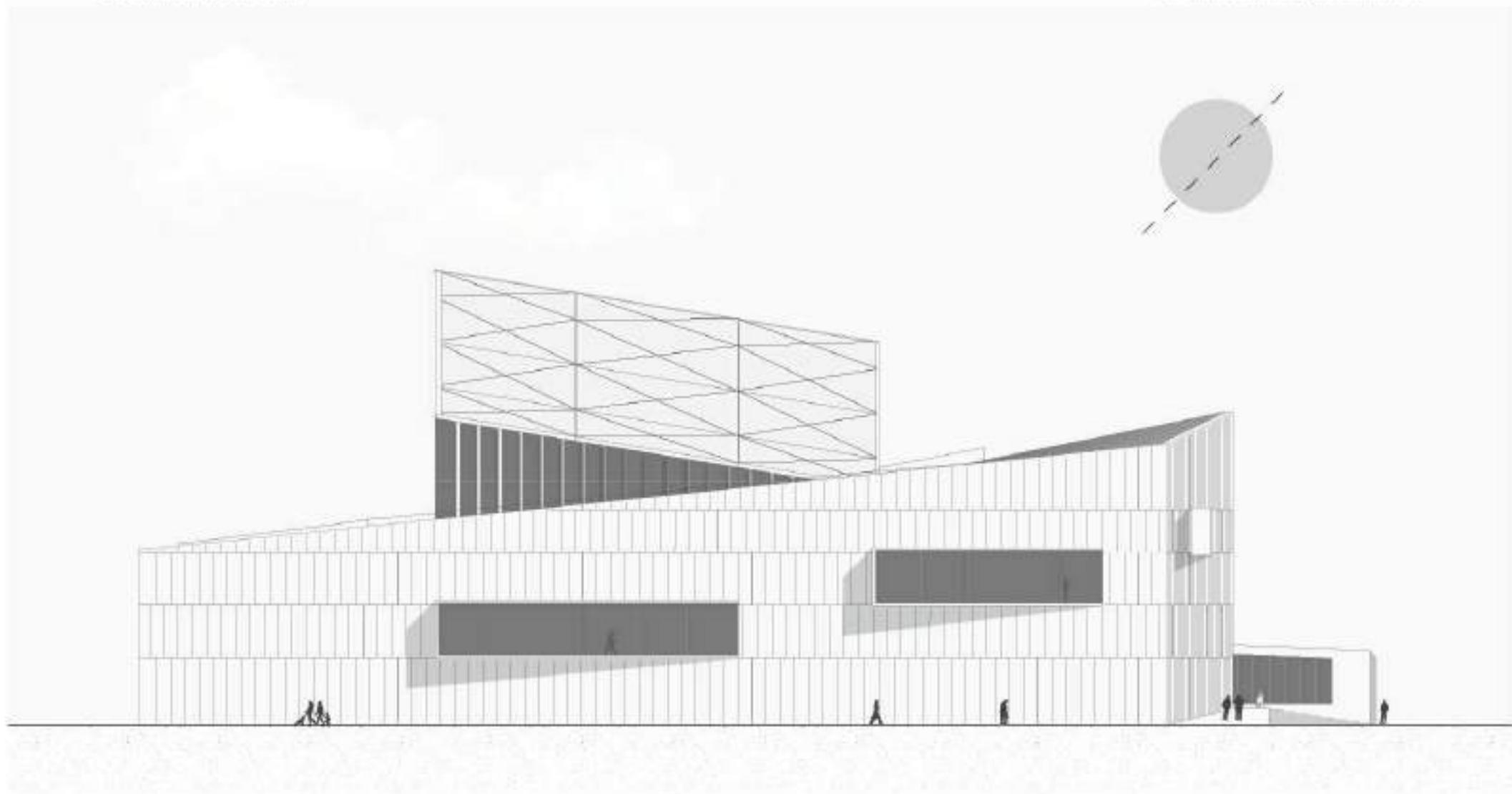
NORTH FACADE



SOUTH FACADE



WEST FACADE



EAST FACADE

CONCLUSION

The pursuit to explore the architecture of a museum beyond the exhibition space had been the central motivation of this thesis work. The journey towards the design of a proposal for the museum of architecture followed two parallel yet interactive paths: an abstract one attempting to synthesise a new meaning to the 'museum of architecture' and a concrete one manufacturing a tangible proposal to the attributed meaning.

As the museum of architecture is redefined as a unifying place of learning, the architectural communication between the object and the users distinguished the characteristics of the entity. Through a transformation from an object to the subject, the building itself becomes the artifact of exposure, stimulating a sophisticated experience beyond the exhibition space.

In his book, *The Architecture of the City*, Aldo Rossi supports this argument as he points out the resemblance of an urban artifact to a work of art: "they are material constructions, but notwithstanding the material, something different: although they are conditioned, they also condition. The aspect of 'art' in urban artifacts is closely linked to their quality, their uniqueness, and thus also to their analysis and definition." (Rossi, 1984). Hence the potential beyond the exhibition space could transform from exposure to expression, encounter, experiment, manufacture, and more.

The meaning of an artifact (in this case the architecture itself) differs according to the reader who intends to understand and communicate. Since every individual has a different background of knowledge as a result of different professional/personal backgrounds, there is an infinite number of information that a work of architecture can provide. Rossi maintains the

discussion on architectural communication as "the concept that one person has of an urban artifact will always differ from that of someone who 'lives' that same artifact." (Rossi, 1984).

The stress on 'living' the artifact directly relates to the architectural experience and the interaction with and within the spaces. A spatial, tangible dimension of the discussion is composed of the material reality, form, contextual response, and how the building operates.

Based on these ideational functions, the proposal for the Berlin Architecture Museum has been designed. The answer to the question "What makes this building a museum of architecture?" is found in the architecture that provides opportunities beyond the exhibition spaces: The Museum of Architecture aims to be a place of gathering, exchanging information, and learning through experience and exposure for the people with the common interest, architecture. The way the building operates enables the co-existence of diverse user groups with active inclusion to the total museum experience as the architecture becomes the common denominator.

Rossi highlights imagination and collective memory as the typical characteristics of an urban artifact. (Rossi, 1984) Kulturforum distinguishes itself as a unique context with a collection of modern manifestations embodied in modern monuments, resembling an open-air museum of architecture. Finding its voice in this architectural choir while being a consistent fit to the building environment was one of the main challenges for the proposal to face. Following an exercise of massing studies, the formal concept is shaped by the relationship, response, and requirements of the context. It was intended to design a proposal that interoperates with

the context, by connecting the other urban artifacts, adding to the urban landscape, and providing new perspectives to this metaphorical sculpture garden of architecture.

The strategy to accommodate the memory of the architectural and urban heritage of this city is based on providing a new layer of experience to the immediate environment as the Kulturforum was composed of strong representatives of the urban memory and cultural heritage. By providing lookout points, the components of the context are included in the museum experience. The new perspectives provided by the museum redefined them as in-situ objects of the exhibit.

The exhibition spaces of varying characteristics and spatial identities are introduced to increase the diversity of the exhibition experience and increase the potentials for the curators and exhibition designers to operate in space.

It can be said that the way the museum of architecture related itself to its environment, its unique context, and the materiality rendered the building Berliner while the exhibition spaces maintained a universal characteristic.

Finally, it is important to mention that the program scope had a significant contribution to the architecture beyond the exhibition space. The functional diversity and the inclusion of supportive spaces such as the auditorium and immersive room provided the users with new opportunities to interact and new modalities to exchange information. As the conceptual grouping of learning and exhibition functions were translated into the form of the building, Berlin Architecture Museum was set to be a place of exposure, expression, encounter, experiment, and an urban artifact.

BIBLIOGRAPHY

Akkan, E. (2020). *A TRACE OF CITY MEMORY* (Unpublished master's thesis). Politecnico di Milano.

Architecture. (n.d.). Retrieved April, 2020, from <https://www.merriam-webster.com/dictionary/architecture>

ARCHmedium. (2019). *Berlin Architecture Museum [Competition Brief]*.

Boyley, S. (2008, March 23). *Review: The Commonwealth Institute*. Retrieved April 12, 2021, from <https://www.theguardian.com/artand-design/2008/mar/23/architecture>

Borst, K. (2015). *Drawing the REGION: Hermann Jansen's vision of Greater Berlin in 1910*. *The Journal of Architecture*, 20(1), 47-72. doi:10.1080/13602365.2015.1004619

Buchanan, C. (1964). *Traffic in towns*. In *Traffic in towns* (p. 217). Harmondsworth: Penguin Books.

Caves, R. W. (2005). *Encyclopedia of the city*. In *Encyclopedia of the city* (p. 88). London ; New York: Routledge, Taylor et Francis Group.

Chipperfield, D. (2018). *DAVID CHIPPERFIELD // Studio Joachimstraße [interview]*. Retrieved June 1, 2019, from <https://www.baunztz.de/archlab/?v=234667603#>

David Chipperfield ARCHITECTS – *Neue Nationalgalerie refurbishment*. (2020). Retrieved April 1, 2021, from <https://davidchipperfield.com/project/neue-nationalgalerie-refurbishment>

Design competition brief the museum of the 20th century ... (2016) [Competition Brief]. Retrieved September, 2020, from https://www.nationalgalerie20.de/fileadmin/user_upload/Seite_Realisierungswettbewerb/Auslobung/WB_W_M20_Task_1c-ohne-Kunst.pdf

Donald Insall Associates. (2011). *Former Commonwealth Institute Building, Alterations and fitting out for the Design Museum*. London: Historic Buildings Architect's Report. Retrieved March, 2021, from <https://www.rbkc.gov.uk/docs/WAM/doc/Other-795329.pdf?extension=.pdf&id=795329&location=VOLUME2&contentType=application/pdf&pageCount=29>

Eder, P. (2020). Kulturforum. Retrieved April 3, 2021, from <https://www.visitberlin.de/en/kulturforum>

Elemen, E. S. & Vitali, M. G. (2020). *Rethinking Memory Through Historical Urban Morphology* (Unpublished master's thesis). Politecnico di Milano.

Hvattum, M., & Hermansen, C. (2004). *Tracing modernity: Manifestations of the modern in architecture and the city*. In *Tracing modernity: Manifestations of the modern in architecture and the city* (p. 96). London: Routledge.

Kulturbesitz, S. (2015). *The KULTURFORUM in Berlin – always a place of the avant-garde*. Retrieved May, 2020, from <https://www.nationalgalerie20.de/en/kulturforum/history-of-the-kulturforum/>

Kulturbesitz, S. (2016). *The ideas competition: From the announcement to the award*. Retrieved April, 2021, from <https://www.nationalgalerie20.de/en/competition/ideas-competition/announcement/>

The making of a landmark. (n.d.). Retrieved April, 2021, from <https://designmuseum.org/building>

Museum (n.). (n.d.). Retrieved April, 2020, from <https://www.etymonline.com/word/museum>

OMA.eu. (2017). *Design Museum*. Retrieved April, 2021, from <https://oma.eu/projects/design-museum>

Planwerk Innere Stadt 1999. (n.d.). Retrieved April 7, 2021, from https://www.stadtentwicklung.berlin.de/planen/planwerke/de/planwerk_innenstadt/index.shtml

Rossi, Eisenman, Ghirardo, & Oakman. (1984). *The architecture of the city*. In *The Architecture of the City* (pp. 32-35). Cambridge: The MIT press.

Senste Department for Urban Development and Housing. (n.d.). *FNP (Berlin Land Use Plan) 2015*. Retrieved April 12, 2020, from https://fbinter.stadt-berlin.de/fb/index.jsp?Szenario=fb_en&loginkey=-showMap&mapId=s_fnp_2015%40esenstadt

Van Gameren, D. (2018). *IBA Berlin Josef Paul Kleihues, Hertz-Walther Hämer et al. [Abstract]*. DASH | Delft Architectural Studies on Housing. (No. 09 (2013): Housing exhibitions), 142-152.

Wachter, G. (1995). *Mies van Der Rohe's Neue NATIONALGALERIE in Berlin*. In *Mies van der Rohe's Neue Nationalgalerie in Berlin* (p. 19). Berlin: Vice versa.

Wagner-Conzelmann, S. (n.d.). *Interbau 1957 LIVE*. Retrieved March 29, 2021, from <https://hansaviertel.berlin/en/interbau-1957/>

WZB architecture. (n.d.). Retrieved April, 2021, from <https://www.wzb.eu/en/the-wzb/wzb-architecture>



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