



Architectural Promenade and MAXXI Museum

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Abstract

There exists disagreement over the content, purpose, and form of museums, which can be traced back to the Greek temples of antiquity. There is, however, consensus over how museums should be organized, display their art, and circulate their collection. Le Corbusier's concept of the promenade was defined to analyze the circulation setup of the MAXXI museum, which attracts attention with its design in contemporary museology. In this study, the components of the promenade setup for the MAXXI Museum were identified by analyzing photographic sequences taken from the perspective of a mobile observer. To bring out the current museum circulation design, the MAXXI Museum promenade layout was analyzed using spatial experiences, observations, syntactic analysis techniques, and semantic analysis. The purpose of the study is to shed light on how the circulation structure of modern spaces is changing through an analysis concept of a promenade. This brand-new museum area provides a spatial journey with surprises.

Keywords: Promenade, circulation, museum, Le Corbusier, MAXXI Museum.

Mimari Promenad ve MAXXI Müzesi

Öz

Eski Yunan tapınaklarına kadar uzanan müze tanımı, içeriği işlevselliği, formu ile tartışma konusu olurken eserlerin sergilenme biçimi, galerilerin formu ve müze sirkülasyonu tartışmaları da güncelliğini korumaktadır. Bu bağlamda, çağdaş müzecilikte tasarımıyla dikkat çeken MAXXI müzesinin sirkülasyon kurgusu Le Corbusier'in promenad kavramı tanımlanarak analiz edilmiştir. Bu çalışmada, MAXXI Müzesi promenad kurgusu, hareketli gözlemcinin gözünden fotoğrafik sekanslarla analiz edilmiş, promenadın öğeleri saptanmıştır. MAXXI Müzesi promenad kurgusu mekansal deneyimler, gözlemler, sentaktik analiz tekniği ve semantik irdelemeler kullanılarak günümüz müze sirkülasyon tasarımına ışık tutması için analiz edilmiştir. Çalışmada, Le Corbusier'in promenad kavramı ile günümüz çağdaş mekanının değişen sirkülasyon kurgusuna ışık tutmak amaçlanmıştır. Bu yeni müze mekanı, sürprizlerle mekânsal yolculuk sunmaktadır.

Anahtar Kelimeler: Promenad, sirkülasyon, müze, Le Corbusier, MAXXI Müzesi.

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1. Introduction

Museums are cultural establishments that educate the public through their exhibitions of art and preserve cultural heritage for upcoming generations. “In 1926, the International Museums Department; in 1947, “The International Council of Museums (ICOM) was established” (Gerçek, 1999). Since its founding, ICOM has revised its definition of a museum to reflect the evolving field of museology. The most recent museum definition, which ICOM discussed and voted on in Prague in 2022, is as follows:

“A museum is a not-for-profit, permanent institution in the service of society that researches, collects, conserves, interprets and exhibits tangible and intangible heritage. Open to the public, accessible and inclusive, museums foster diversity and sustainability. They operate and communicate ethically, professionally and with the participation of communities, offering varied experiences for education, enjoyment, reflection and knowledge sharing (ICOM, 2024).”

Contemporary Museums present the sanctuaries of museums, according to the meaning of the Greek Word Museion, the origin of the Word museum, just like the magnificent temples erected in antiquity, today’s museum buildings are temples of our bourgeois enlightened cultural ideals (Uffelen, 2011).

There exists disagreement over the content, purpose, and form of museums, which can be traced back to the Greek temples of antiquity. There is, however, consensus over how museums should be organized, display their art, and circulate their collections. Gallery forms and circulation have been discussed in relation to museum architecture, as Taricat (2016) notes.

“The public opening of buildings to exhibit art was delayed until the eighteenth century. Thus, debates started about what kind of circulation would be best—whether it would be long galleries or connected rooms, useful warehouses, or cosy lounges. These are still contentious issues in today’s contemporary museum setups.

The hallways ought to be interconnected and explain one another, much like a chain’s rings do. It is necessary to arrange the works in chronological order, following the divisions that nature makes, if we acknowledge that there is an open book that will teach us the chronology of the previous centuries and that we read how the events in this book progressed. The way museums are organized chronologically makes them naturally turn into encyclopedias and educational institutions with a wealth of knowledge fit for a scholar. The museum had headings and paragraphs, just like a book, and its layout helped to categorize and divide” (Taricat, 2016).

Collections in modern museums comprise thematic exhibition layouts, more adaptable space setups, and circulation systems rather than being read cover to cover like a book.

The design of museums' circulation areas is important. Circulation the term is one of the keywords of the museum design. Le Corbusier stated that circulation is one of the important problems of architecture. Architectural promenade can be defined as a voyage with surprises in the space. Architectural promenades provide guests with a variety of unexpected and constantly shifting viewpoints. The promenade makes it possible to establish the relationship between the spaces. Promenade architectural is a concept developed by Le Corbusier. Why is promenade architecture important? “Promenade architecture is a concept which refers to designing of walkway or a promenade that combines architecture, urban planning and landscape elements. It can be designed to be used by pedestrians, cyclists or other forms of transport. It is a way to create a pleasant environment or atmosphere in a location as people enjoy their walk and appreciate the surroundings. It can also be used to connect different points of interest in a city such as parks, monuments and cultural sites. The overall purpose is to create a better quality of life and be source of pride and joy for the people who live and visit the area” (Moore, 2024).

2. Material and Method

The design of museums' circulation areas has changed significantly since the advent of modern architecture. Neo-classical, modern, and post-modern museum structures and circulation areas were discussed in this context as part of the study's scope. Le Corbusier's promenade concept was defined

to analyze the MAXXI museum's circulation setup, which is one of the most prominent structures in contemporary museology and draws attention due to its circulation design. The purpose of the study is to shed light on how the circulation structure of modern spaces is changing through an analysis of Le Corbusier's promenade concept—an architectural promenade that is defined as an incredible journey through space—conducted in the MAXXI museum.

As traditional representation models like orthographic plans and section planes would not be sufficient, the promenade setup, a method of creating an architectural space index, was used in this study to determine the perception of space created. The space setup was analyzed using photographic sequences acquired by the movement of the mobile observer.

A sequence of events that occur one after the other within a specific time frame, or a collection of images that together constitute a whole in a motion picture, is how Le Corbusier creates the architectural promenade.

In Villa Meyer, Le Corbusier draws the sequences that represent these successive viewpoints (Samuel, 2010). In a similar vein, Cullen (1961) employed movement-based serial sketches to capture the movement and temporal sequences of urban space. In his work, *Manhattan Transcripts*, Bernard Tschumi (1981), utilizes sequential sequences as a model of architectural representation within the fiction of movement and architecture. In this study, the components of the promenade setup designed by Zaha Hadid for the MAXXI Museum were identified by analyzing photographic sequences taken from the perspective of a mobile observer. Using syntactic analysis techniques, Clark & Pause (2005) looked at several structures and their circulation that garnered attention in the architectural literature.

To shed light on the contemporary museum circulation design, MAXXI Museum promenade layout was analyzed using spatial experiences, observations, syntactic analysis techniques, and semantic analysis.

3. Findings and Discussion

The design of museums' circulation areas is very important subject. Neo-classical, modern, and post-modern museum structures and circulation spaces were discussed in this context. Le Corbusier's concept of the promenade was defined to analyze the circulation setup of the MAXXI museum, which attracts attention with its design in contemporary museology. The components of the promenade setup designed by Zaha Hadid for the MAXXI Museum were identified by analyzing photographic sequences taken from the perspective of a mobile observer.

3.1. Circulation Design in Museum Architecture

“The origins of the oldest museum in Modern Europe date back to 1581. In that year Medici set up a gallery with pictures, statues and other precious things on the Uffizi Museum. The Uffizi Museum has a U-shaped layout consisting of two long wings, to the east and the west” (Fossi, 2017) (Figure 1).

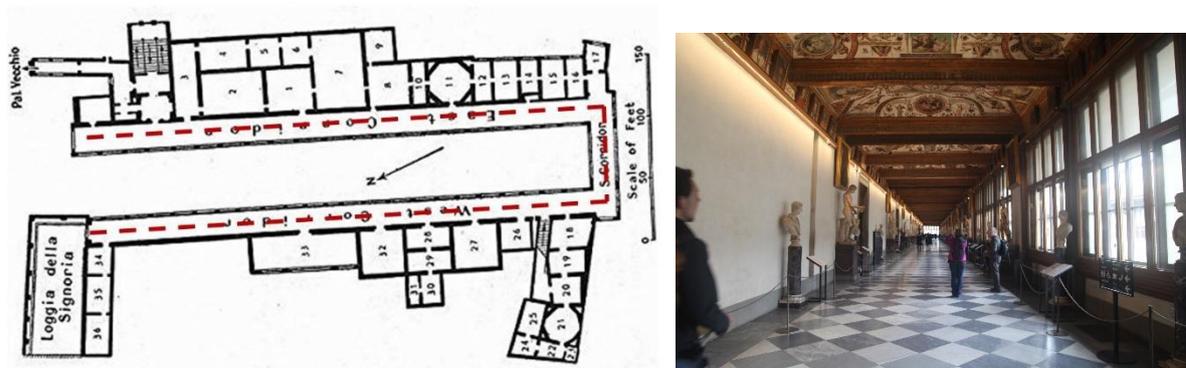


Figure 1. Uffizi Museum linear circulation scheme (Alamy, 2024), Giorgio Vasari, Florence, photograph (Canbakal Ataoglu, 2018)

Vasari created the galleries of the Uffizi Palace in Florence, which subsequently served as a model for museology and exhibition design (Artun, 2012).

The three principal museum typologies of the nineteenth century -the temple, the palace, and the exposition hall (Typified by the *Altes Museum* in Berlin, the *Musee du Louvre* and the *Grand Palais*, respectively) have given birth in the twentieth century museums (Lowry, 1996).

In the 19th century, museums began to be built in the capital cities of Europe. “There are many examples of the 19th-century museum. In Munich, the *Glyptothek* was designed by Leo von Klenze as a classical temple. *Altes Museum*, isolated in its urban setting and distinguished by an arcade and an unbroken series of galleries, expresses the cultural status of the city” (Marotta, 2012).

The challenge facing 19th-century museum architects was not only determining the right style but also structuring the museum's interior as a novel kind of ritual space (Duncan & Wallach, 2004). *Altes Museum* is a prototype for national, and international art museums (Artun, 2017). The layout of the *Altes Museum's* galleries is arranged around a rotunda in Figure 2, which shows a linear circulation scheme (Figure 2).

Altes Museum was arranged around two inner courtyards. Its center consisted of a large rotunda which Schinkel modelled on the Roman *Pantheon* (Steffens, 2016). Schinkel would preserve the world of classical perfection in his rotunda, designed to be the visitor's first encounter with the museum (Crimp, 1997). The dome not only served as a reception area and foyer leading into the different areas of the collection. Here, the sight of a beautiful and noble room must create an atmosphere of pleasure and the recognition of what this building holds”, as Schinkel noted getting the visitor in the right mood was of such major importance to Schinkel that he devoted approximately a third of the floor's area of the museum to the rotunda and staircase in his plans (Steffens, 2016).

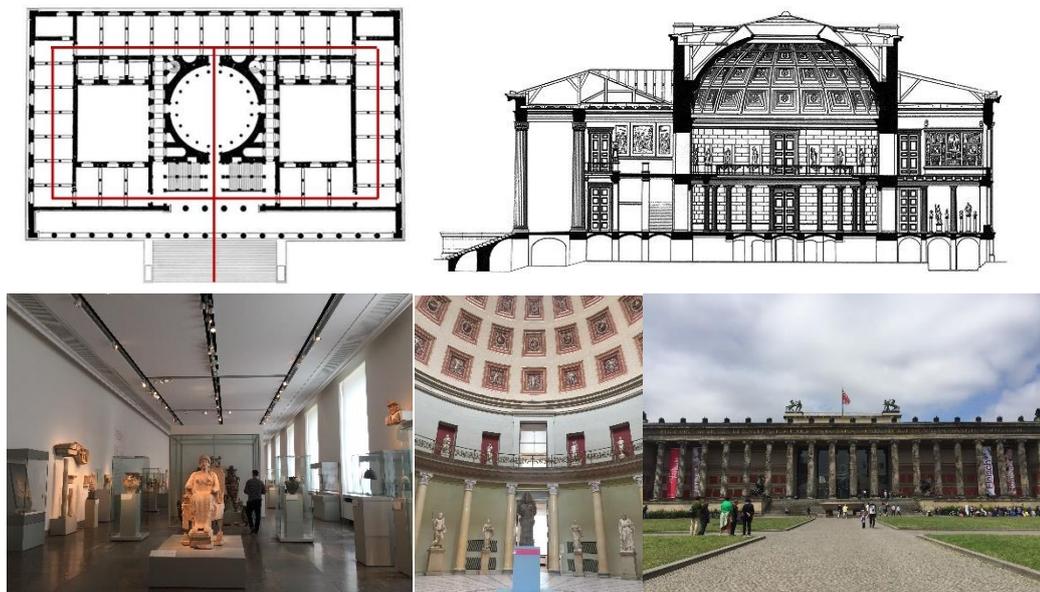


Figure 2. *Altes Museum*, Karl Friedrich Schinkel, Berlin, 1823-1930, plan, linear circulation scheme, section and rotunda (Archiweb, 2024); *Altes Museum's* exhibition space and façade, photographs (Canbakal Ataoğlu, 2018)

With the effect of Modern Architecture and Bauhaus; museum architecture started to move away from 19th-century neoclassic museum architecture. With the museum designs made by pioneers of modern architecture –like Le Corbusier, F.L. Wright, Mies van der Rohe, Louis Kahn- a new era started and museum architecture underwent a radical change in the 20th century (Canbakal Ataoğlu, 2016).

The introduction of new museum typologies in the 20th century has escalated discussion from a whisper in the 1930s and early 1940s, with the gridded open space of buildings such as MOMA and Mies's to full voice in 1959, with the directed flow of Frank Lloyd Wright's Guggenheim. If the open spaces of MOMA and of museums by Mies represent Modernism's paradigm, Wright's spiral is its

antithesis. At the Guggenheim Wright respected the classical museum typology of a central dome and grand stair (transformed by him into a ramp) and at the same time revolutionized the relationship between art, architecture and the viewer. Like Le Corbusier in his Musée Mondial project, Wright emphasized movement as opposed to geometry (Newhouse, 1998).

In 1931, Le Corbusier, designed the museum with unlimited growth, in which galleries were arranged spiral-like on a single floor (Cohen, 2013). Le Corbusier developed the concept for the Museum of Unlimited Extension. The concept has its roots in his project for the *Mundaneum*, or World Museum, which he proposed as an ascending ramp in the form of a square spiral, resulting in a form that has been called a “helicoidal ziggurat (Christenson, 2016). There are only three versions of this type of Corbusian museum in the world: in Ahmedabad (1957), in Chandigarh (1965), and in Tokyo (1959) (Figure 3).

“The central area of the National Museum takes the form of a large hall, with a single post supporting its glass roof. The hall is extended by a ramp that provides access to the galleries. As one walks up, it gradually reveals the full extent of the vast space. The galleries, whose muffled atmosphere recalls the confines of an aquarium, are lit evenly by a complex system that regulates the amount of daylight that is admitted” (Architectural Moleskine, 2023) (Figure 4).

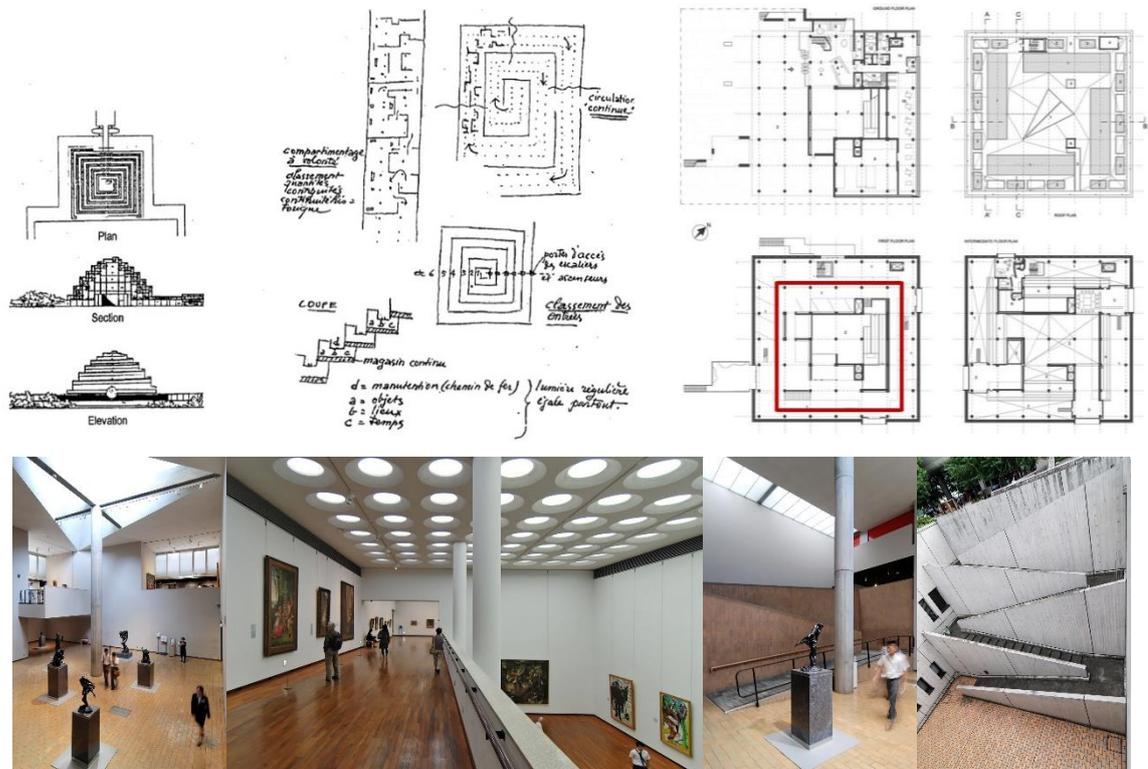


Figure 3. Museum of Unlimited Extension, scheme, (Architectural Moleskine, 2023); National Museum of Western Art, Le Corbusier, Tokyo, plan and photographs (Archiweb, 2023)

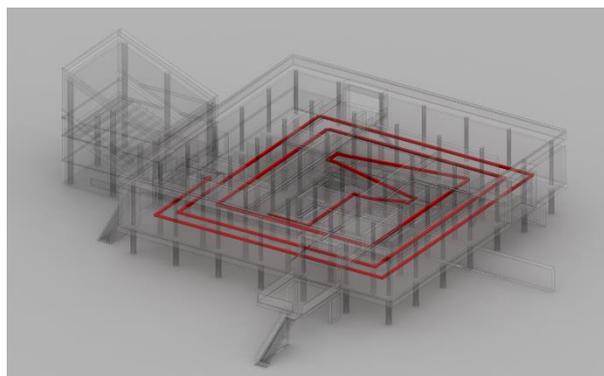


Figure 4. National Museum of Western Art, spiral circulation scheme (Architectural Moleskine, 2023)

In the 1960s, new trends in architecture led to the development of the museum as a kind of kinetic, dynamic machine. The introduction of a movable skeletal structure allowed flexibility of use, as in Renzo Piano and Richard Rogers' design for the Pompidou Centre in Paris. The external escalators and flexible space create a museum architecture liberated from its contents (Jodidio, 2011).

In 1988 the *Deconstructivist Architecture* exhibition was held at the Museum of Modern Art in New York and sparked new concerns about architectural composition. Leading architects in this period were Peter Eisenman, Frank Gehry, Zaha Hadid, Coop Himmelblau, Rem Koolhaas, Bernard Tschumi and Daniel Libeskind (Jodidio, 2011). In this period several architects each with their own distinct vocabulary have created what will be referred to here as the new museum (new in design as well as age) (Newhouse, 1998).

This change in direction is central to understanding museums in the '90s. The museum became a work of art and a theatrical space that was more important than even the works on display (Canbakal, 2002-2003).

"Like some futuristic work, the museum traces the defining lines of the city like an urban sculpture, an icon in the landscape of the public domain. Finally, Holl with his Kiasma Museum created a Le Corbusier-style promenade and fashioned the linear and spiral space into a design that speaks of the cultural and social blend of our time" (Jodidio, 2011).

The promenade, with its unexpected circulation structure, is viewed as a tool of spatial construction and narrative in the dominant structures of modern architecture and museums. A visitable contemporary artwork is what is meant to be understood by the MAXXI Museum (Arkitektuel, 2023). The MAXXI Museum served as the study's subject because of its promenade design, circulation system, and sculptured staircase, which together define the building's identity and flow of flexible spaces and galleries.

3.2. MAXXI Museum Circulation Diagram

The MAXXI 21st Century Contemporary Arts Museum, Zaha Hadid-designed, was situated in Rome's Flaminio neighborhood in 2009. The museum (29,000 m²) was built to revive the local economy in the former residential areas. The building has 21,200 m² of interior space and 10,000 m² of total exhibition space. The building is designed as two stories above ground in a flowing linear form, with its orientation towards the surrounding buildings and existing axes (Figure 5).

The object-oriented gallery space is rejected by the museum's architectural style. Hadid (2011): "The neutrality of many museums from the 20th century was created by modernist utopian space. It is now essential to contest this circumstance." Hadid's position challenges the white cube architecture that defines the museum gallery's discourse, which places the artwork at the center of the space. MAXXI is a work of art that should be seen because of its exhibition spaces, which flow into one another, its unique and remarkable circulation system, and its interior design, which skillfully uses materials like glass, concrete, and steel.



Figure 5. MAXXI Museum, Zaha Hadid, 2009, Rome, photograph (Hadid Architects, 2024)

Today's architects have made an effort to create interior spaces that are difficult to perceive through the use of orthographic tools like sections and plans, particularly in designs created after the 1980s. Particularly in circulation areas, this search and differentiation has become apparent. With their form, color, texture, and design, circulation areas and elements have come to represent the lifeblood, center of attention, and symbol of the structure (Canbakal Ataoğlu, 2009; 2014).

As Schittich (2013) describes below, circulation areas can define the characteristic features of a building:

“The purpose of circulation is to connect components and spaces in a horizontal and vertical direction. But its elements -corridors, stairs, elevators, ramps- should be much more than pure necessity. Spectacular lifts and escalators, interesting floor plan solutions or space-defining stair sculptures accentuate and characterise the paths through the building. Circulation areas can be designed as inviting spaces to spend time, in communication areas for spontaneous encounters and an exchange ideas, or as places offering a variety of spatial experiences on the way to somewhere else. This makes them a key criterion for successful design”.

The way spaces connected by circulation are organized both influences and is influenced by the formation of circulation areas. Consequently, choosing the design of the circulation system essentially determines the building's spatial layout, particularly in complexly designed buildings (Ching, 2002). There are different types of circulation diagrams. According to Ching (2002), there are several categories for a building's circulation scheme: linear, radial, spiral, gridal, network, and mixed schemes. The MAXXI Museum uses a mixed scheme of network and linear circulation schemes, with multi-alternative circulation routes made up of flowing tracks, ramps, and sculpture-like stairs.

“The purpose of the MAXXI Museum's interior design is to create an energetic and engaging space where people can move around and use the transition areas. Zaha Hadid made an effort to maintain a segmented geometric order and a smooth transition between areas with various perspective points. Like life itself, the structure of this proposed system is chaotic rather than ordered (Arkitektuel, 2023). As seen in the diagram (Figure 6), a linear circulation scheme organizes the functions found in the L mass on the ground floor, including sales unit, galleries, multipurpose hall, entrance foyer, and mini cafeteria. Using Hadid's renowned fluid mass movement network circulation scheme, the museum's signature staircase encircles the atrium and creates a multi-alternative circulation setup. The ground floor's readable linear circulation scheme, complete with a sculptural staircase that beckons surprises, blends well with the building's mixed scheme and the unexpected first- and second-floor network scheme. Hadid (2011) explained how circulation becomes a network of intersecting nodes: “Vectors and circulation disrupt a simple mass.” The general flow of the geometry is followed by both internal and external circulation. In the meeting and conference areas, vertical and inclined circulation elements were utilized.”

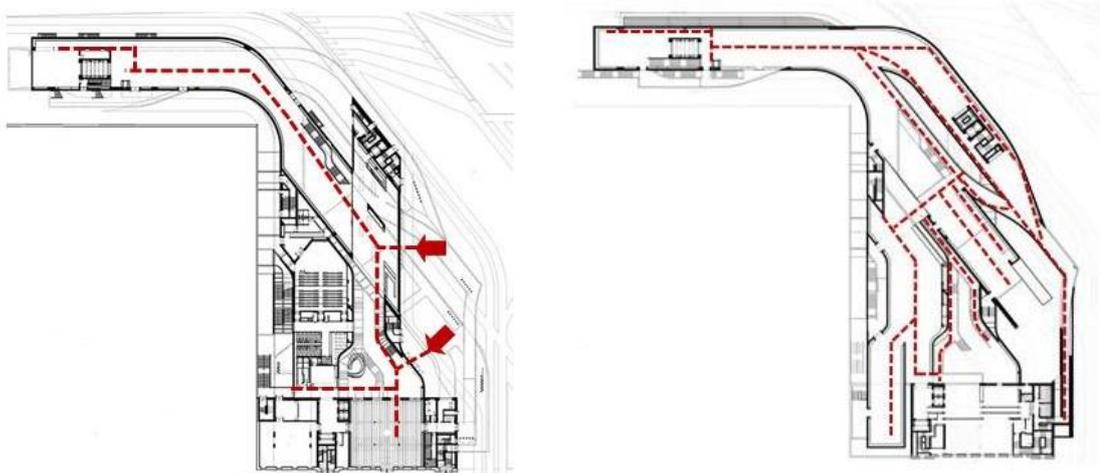


Figure 6. MAXXI Museum circulation scheme (arranged author) (Arkitektuel, 2023)

3.3. MAXXI Museum Promenade Design

Circulation the term seems much too low-key for such a dramatic design. Circulation is one of the most influential components of a design. Circulation areas often serve as the calling card of a building and their individual elements are almost always used as important design features in sophisticated architecture (Schittich, 2013).

One of the main features of Hadid's MAXXI Museum design is the sculptural staircase, which is surrounded by circulation. This unique circulatory system cannot be adequately described by the word circulation. Le Corbusier employs the term "promenade" to characterize the circulation of fiction created through movement and the succession of various viewpoints in his buildings.

3.4. Spatial Elements of MAXXI Museum Promenade Design

The idea of an architectural promenade, which is described as an unexpected architectural promenade in the area, sheds light on how Le Corbusier planned the space with circulation in mind as well as on modern spaces. Promenade is a word for wandering that comes from the French word "se promener," which means to walk or meander. In the past, it referred to well-dressed individuals strolling through the main thoroughfares, seeking visibility. Promenades are now public walking trails where people can enjoy their free time (Macdonald, 2018). Two categories can be used to analyze promenades: building scale and city scale (Soygeniş, 2023).

Le Corbusier was the one who popularized the idea of an architectural promenade and found a way to express himself in the promenade's buildings and signage (Samuel & Jones, 2012). Surprising paths for circulation, architectural promenades provide guests with a variety of unexpected and constantly shifting viewpoints. The promenade makes it possible to establish the relationship between the spaces. In his buildings, Le Corbusier employed promenades with unexpected circulation paths. Le Corbusier created a ramp and gallery as part of the Villa La Roche project, where the homeowners' art collection was on show. He openly acknowledged that he designed a promenade in Villa Savoye, but the concept of a promenade was first realized in Villa La Roche (Samuel, 2010). The sequences in which Le Corbusier portrays these progressively different viewpoints in Villa Meyer are displayed in Figure 7.

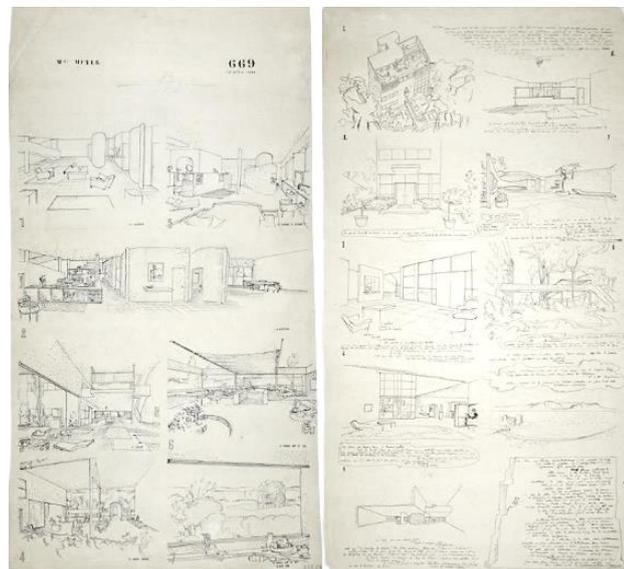


Figure 7. Promenade images and sequences of Madam Meyer's residence (Fondation Le Corbusier, 2020a)

Three fundamental ideas characterize the promenade architecture designed by Le Corbusier: The first involves using a variety of architectural tools to create an entrance that will pique visitors' interest and encourage them to continue; the second involves creating multiple sequential perspectives that follow one another; and the third involves maintaining the relationship between the various components and the architectural whole without interruption (Fondation Le Corbusier, 2020b). Samuel (2010) examined the promenade arrangement in Le Corbusier's buildings using the elements of introduction, questioning habits, orientation, climax, color, and natural light as a dramatic light source in a project

titled "Le Corbusier and the Promenade." MAXXI promenade setup can be examined under the following headings in light of all these conclusions:

- Spatial fluency
- Acting with a sense of surprise and discovery
- Sculpture staircase
- Daylight
- Framing openings that meet the outdoors (Figure, 8).

A navigational path that entices visitors to explore the space is created by flowing geometry, stairs, ceiling beams that enhance the area, details, lighting, unexpected openings that lead to the outside world, galleries, and a promenade for visitors entering the museum (Arkitektuel, 2023). The promenade elements, which are defined in Figure 8, are shaped around the circulation setup, which serves as the central component of the MAXXI Museum's design.

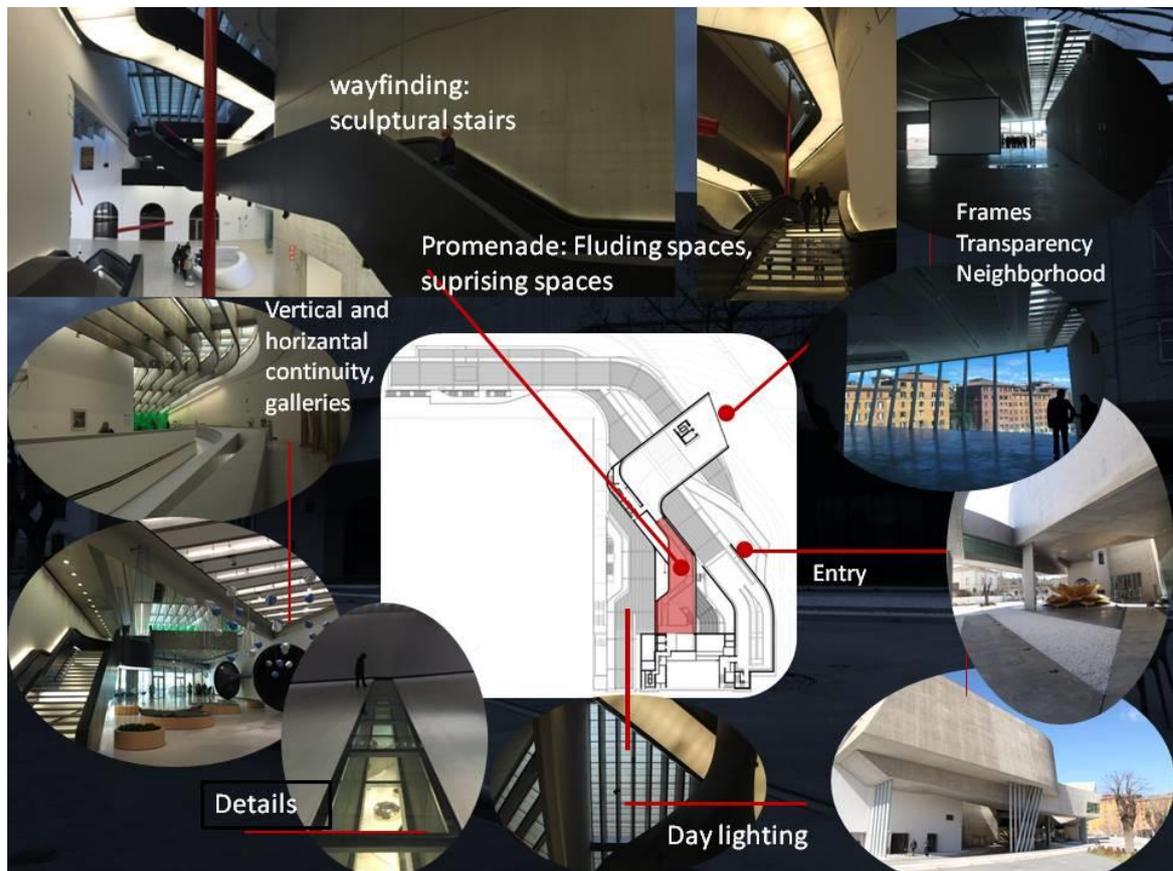


Figure 8. MAXXI Museum promenade elements plan (Arkitektuel, 2023); photographs (Canbakal Ataoğlu, 2016)

Spatial Fluency

Zaha Hadid has emphasized a continuous, almost liquid approach to volumes and forms in MAXXI Museum (Jodidio, 2011). The MAXXI's architecture rises from a daring and original idea for a museum space: flux and force fields, imaginary trajectories traced out by its visitors take shape in the architect's mind and are materialized in space, volumes that project in to the void, walls that curve around and fold upon themselves, unexpected openings to the exterior and look outs onto the full height of the interior characterise the path inside the museum and draw the visitor into a complex and intriguing physical and mental experience (Bilotta & Rosati, 2010).

The circulation routes around the site have been envisaged as currents between areas of different densities, a reflection of the compositional paradigms the architects have employed, based on metaphors of liquids, fluidity and porosity. Both the external and internal circulation follows the

general flow of the geometry, with vertical and oblique circulation elements located at areas of confluence interference and turbulence (Broto, 2013).

The concept of flexibility served as the foundation for the plan layout. Because of the exhibition spaces' consistency, temporary and mobile exhibitions can take place in these areas. Obstacles such as walls that could disrupt the flow of the exhibition spaces have been eliminated (Archiweb, 2023).

The MAXXI Museum's plans demonstrate the gallery spaces' continuity in conjunction with curved stairs and ramps. The Figure continuity section plane across the gallery displays the staircase's smooth and continuous movement throughout the atrium (Figure 9).

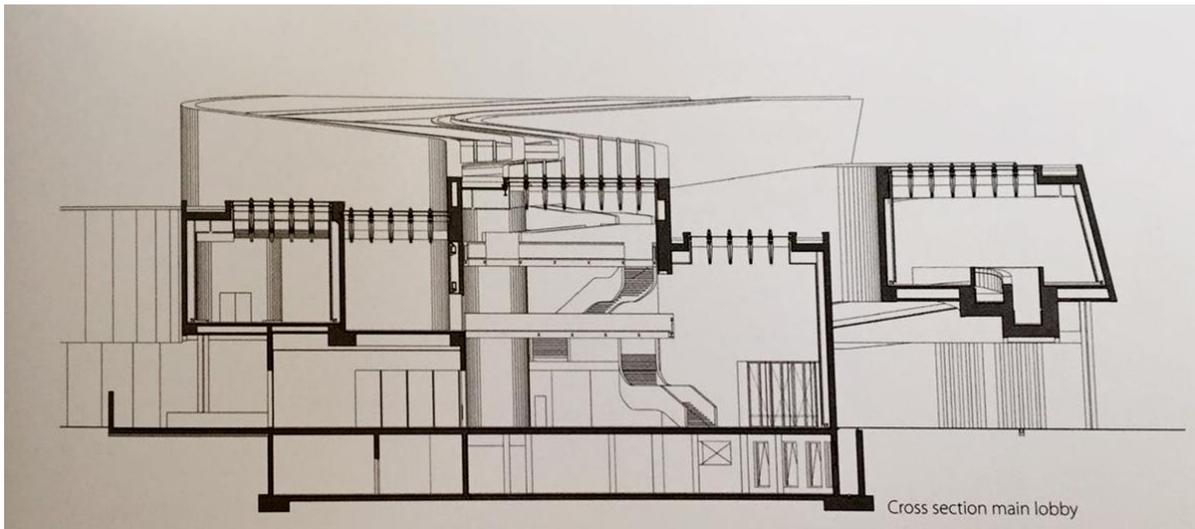


Figure 9. MAXXI Museum section (Arkitektuel, 2023)

Acting with a sense of surprise and discovery

The flow of a guest is where the idea of the free plan originated. As a visitor moves through a building, they perceive both the inside and the outside from a variety of angles and experience various spatial sensations that correspond to various spatial situations (Taricat, 2016).

A procession of images that the viewer sees as he makes his way slowly through the building is known as promenade architecture. Reading the work within a hierarchical sequence of architectural events is the creation of the architectural circulation system. Le Corbusier developed exterior and interior narratives that come to life as the visitor navigates the movement with the aid of the architectural promenade. The syntagmatic space of movement processes is created by architecture (Samuel, 2007, 2010). In the words of Kürtüncü (2014), "*architectural promenade consists of consecutive, memorable experience moments of the perception of the observer wandering in a structured environment*".

Entering the atrium, the main elements of the project are evident: concrete curved walls, suspended black staircases, and open ceilings catching natural light. By these elements, Hadid, intended a new fluid kind of spatiality of multiple perspective points and fragmented geometry, designed to embody the chaotic fluidity of modern life (Hadid Architects, 2024).

The components of the promenade concept have been defined in the study, and the circulation arrangement of Zaha Hadid's MAXXI Museum has been examined using sequences (items that follow one another for a predetermined amount of time, series), as shown in Figure 10. The sequences were put together by organizing photos that were taken while the black staircase, which defines the design's characteristic, was suspended and hugged the curved walls of the museum's atrium. Figure 12 illustrates the spatial richness through the perspectives of the mobile observer created by the traces on the staircase hugging the atrium through the two floors. This atrium features a long, linear, flowing staircase that is part of the curved wall. It rises and falls along the gallery and wraps between floors,

creating a multi-perspective area that invites users to move around and take in the various perspectives.

You can move through the building with movement, curiosity, and a sense of discovery thanks to the stairs, ramps, galleries, fluid corridors, and an interconnecting series of spaces opening to each other with the circulation artery promenade set up throughout the building. This spatial journey is made more surprising by daylight, flowing ceiling traces, installations suspended from ceiling beams, and the framed outdoor landscape opening. As seen in the MAXXI Museum's atrium and floor plan circulation diagram, the museum provides a variety of options for visitors who are open to surprises and exploration (Figure 10, Figure 11).

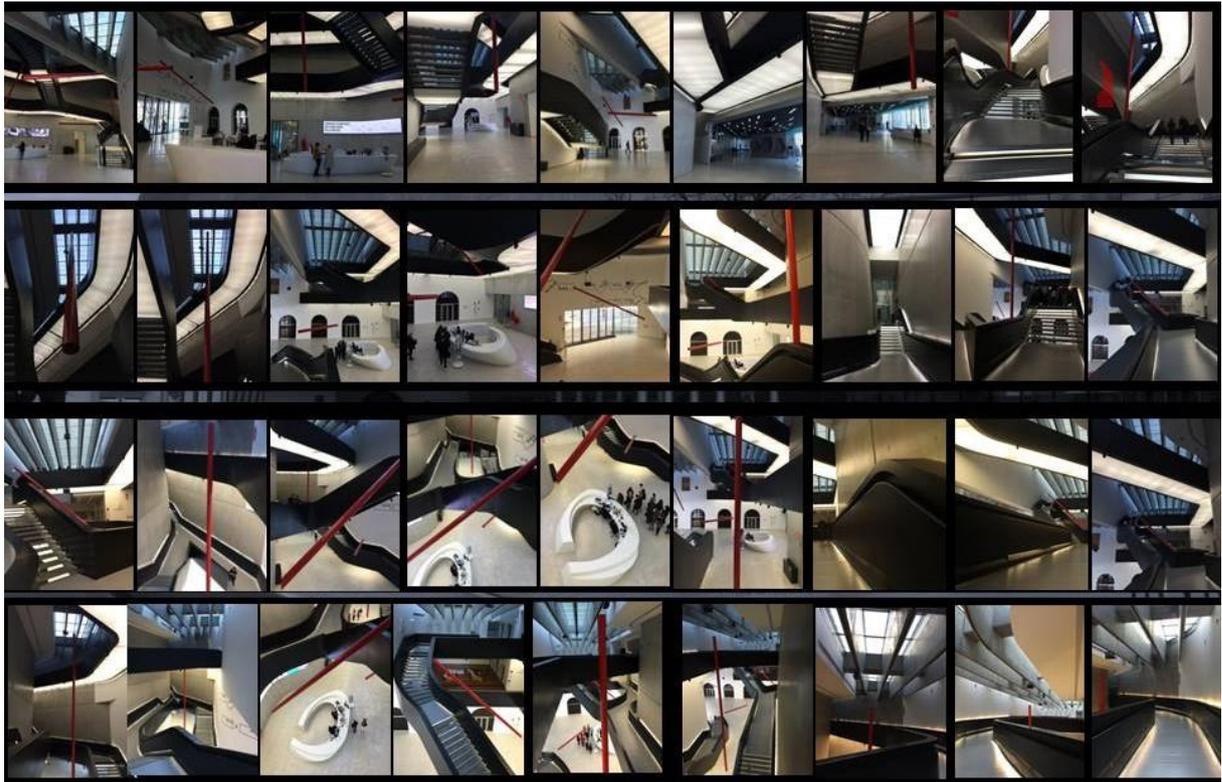


Figure 10. Photographic sequences in the MAXXI Museum atrium, photographs (Canbakal Ataoğlu, 2016)

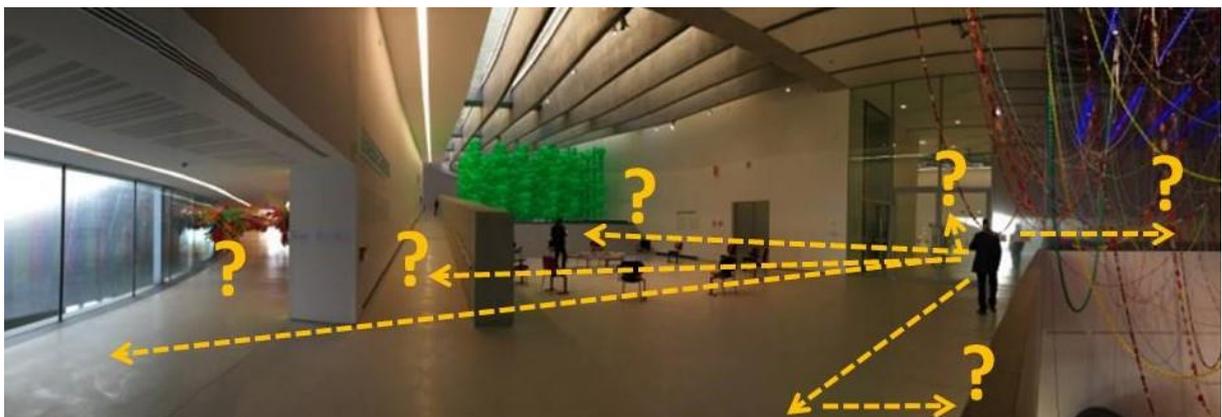


Figure 11. MAXXI Museum alternative circulation selections, photograph (Canbakal Ataoğlu, 2016)

Sculptural staircase

Unlike hardly any other structural element, stairs embody dynamism, making them ideal as enriching sculptural features within rooms. Special attention has been paid to them by architects ever since man started to build for this reason. It also explains the concentration of the essential characteristics of a

particular trend in building history, sometimes even in an exaggerated form, frequently observed in stair structures (Schittich, 2013).

As a sculptural form in the MAXXI Museum, the staircase is also in fluid linear form. The full height space of the hall is an intricate geometrical design of stairways and walls made from unfaced concrete, an element that plays a prominent role in the building. By looking upwards from here you soon perceive the existence of a maze-like network of paths, and trajectories; explored progressively, they reveal the building's extraordinary spatial mechanism, which is difficult to comprehend on the first sight (Bilotta & Rosati, 2010). The curved walls are followed by a flowing linear staircase that encourages movement and space exploration (Figure 12).

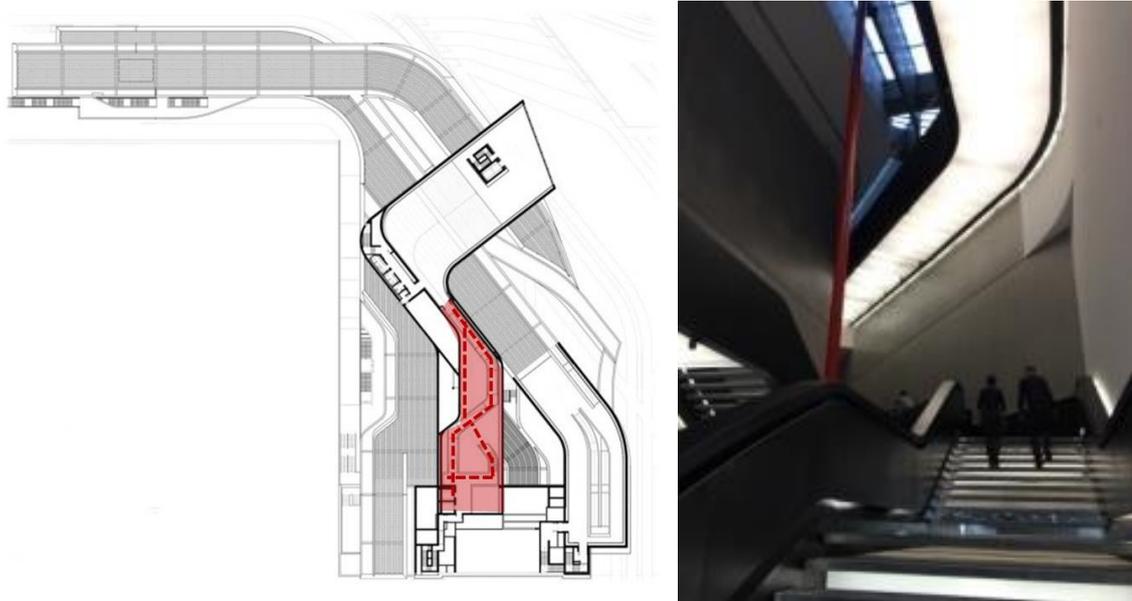


Figure 12. Stairs in the atrium of the MAXXI Museum and circulation scheme plan (Arkitektuel, 2023), photograph (Canbakal Ataoğlu, 2016)

Daylight

“The effective use of daylight is a critical design input that increases spatial qualities, sustainability, and energy efficiency targets in buildings” (Kızılörenli & Tokuç, 2022). Lighting design is important in museum design to illuminate the works correctly. While discussions continue on museum circulation, discussions and research have been conducted on how natural light should illuminate the works in the museum. Details have been developed to ensure that natural light is effective in the space with overhead skylights (Le Corbusier, 1923, 1950). In Le Corbusier's buildings, dramatic daylight and skylights became one of the characteristics of the promenade and the space. In the MAXXI Museum, daylight is brought into the space through the concrete beams on the ceiling and the windows opening to the outside.

“Particular attention has been given to the natural lighting, by the thin concrete beams on the ceiling, together with glass covering and filtering systems. The same beams have a bottom rail from which art pieces are going to be suspended (Archdaily, 2023) (Figure 13).



Figure 13. Daylight in MAXXI Museum, photographs (Canbakal Ataoğlu, 2016)

Framing-openings meeting the exterior

In Le Corbusier's promenade, the visitor meets the views, the landscape and the external environment framed by a surprising circulation structure. "MAXXI Museum's beams, the staircases and the linear lighting system guide the visitors through the interior walkway, which ends in the large space on third level. From here, a large window offers a view back to the city, though obstructed by a massive core" (Archdaily, 2023).

Like Corbusier's promenade, the MAXXI Museum promenade intersects with landscapes framed outdoors and surprising encounters. The promenade, which sometimes opens to the inner courtyard and the neighborhood landscape from different elevations, creates interaction with the external environment (Figure 14).

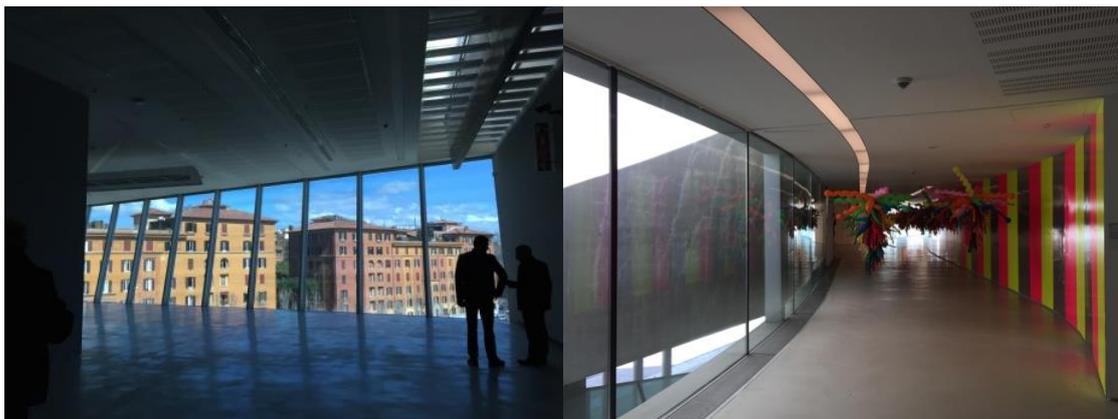


Figure 14. Framing, external environment, photographs (Canbakal Ataoğlu, 2016)

4. Conclusion and Suggestions

The study includes a brief discussion of the evolution of museum circulation and its breaking points. The arrangement of the museum space has been influenced by the Mundaneum project, Le Corbusier's endless spiral circulation museum, and the architectural promenade approach, which enables the discovery of unexpected spaces and diverse perspectives by experiencing the space with movement.

Radical, perceptual, spatial changes and spatial scenarios in circulation area design draw attention, particularly in museum interior design (Canbakal Ataoğlu, 2009; 2016a). The promenade serves as a useful tool for museum circulation and design in this particular context.

The architectural promenade improves the sensory and perceptual experience through a cinematographic spatial journey. According to Samuel & Jones (2012), "promenade architecture is a key term in the language of modern architecture.

The components of Le Corbusier's promenade concept were defined in the study, and sequences—items that follow one another for a set amount of time or series—were used to analyze both these components and the promenade fiction from the MAXXI Museum. The sequences were made by arranging photos that were taken while moving along the black suspended staircase, which is the

museum's signature feature in the atrium (Figure 15). This observation presents a fresh understanding of the museum area, one that is dynamic, and palpable, offers a multitude of viewpoints, flows with discoveries, and contrasts with revelations.

Designed as an unexpected circulation layout, the promenade in Le Corbusier's buildings leads the user around the area with ramps and sculptural stairs, unites them with framed views that open to the outside, enlivens the space with dramatic daylight, and creates a relationship between spaces. The promenade ends with a spatial journey via ramps to the roof terrace reaching the framed view. It starts with the ground floor pilotis defining the entrance in Villa Savoye. The piloted entrance of the MAXXI Museum concludes similarly, with ramps, flowing sculpture staircases, and a framed neighborhood view that opens to the exterior of the gallery on the second floor, all of which are illuminated by natural light. As can be seen in the image, this promenade, a spatial journey experienced through movement, offers a variety of spatial experiences, from the pilots at the ground floor entrance to the framed neighborhood view of the gallery on the second floor.

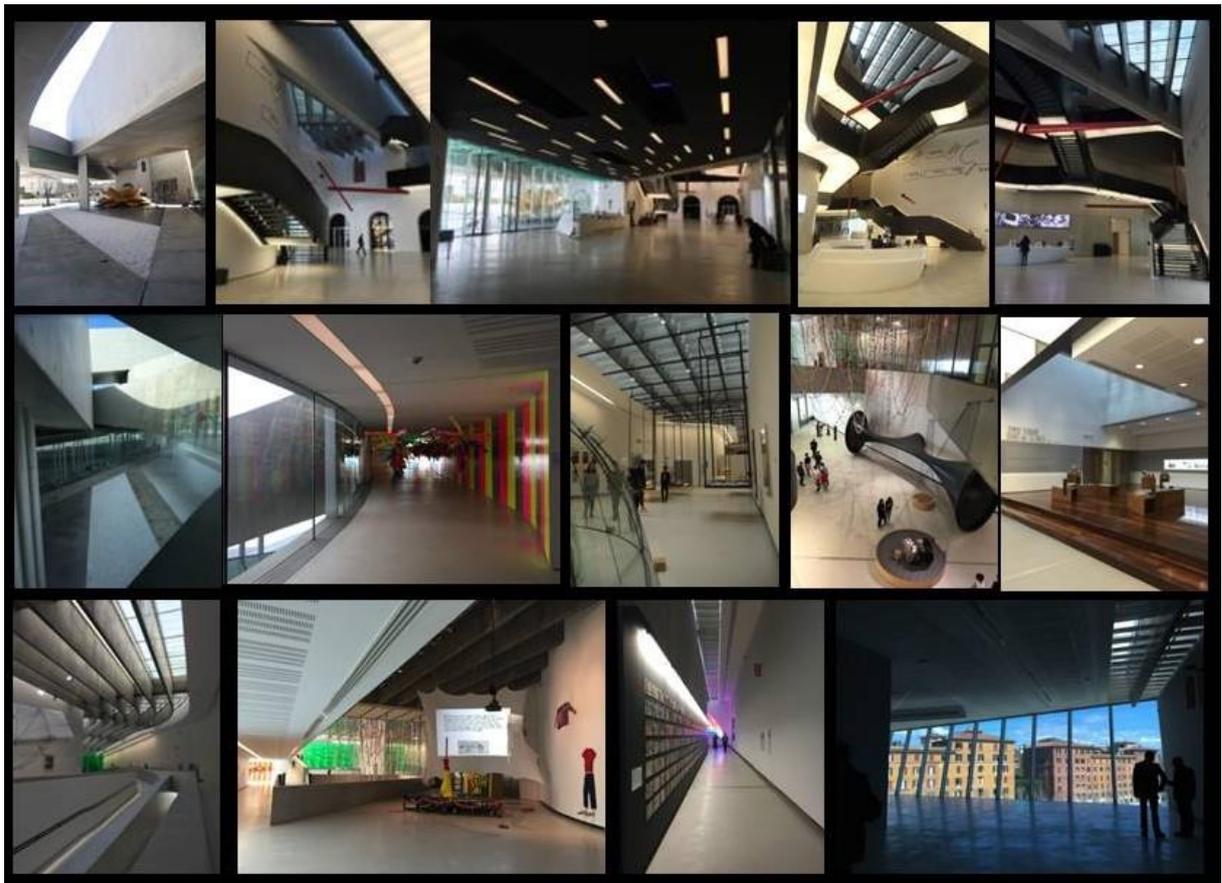


Figure 15. Spatial perspectives on the MAXXI Museum promenade, photographs (Canbakal Ataoğlu, 2016)

MAXXI Museum was analyzed with the following concepts within the framework of Le Corbusier's promenade elements;

- Spatial fluency
- Acting with a sense of surprise and discovery
- Sculpture staircase
- Daylight
- Framing-openings meeting the exterior

According to Taricat (2016), the foundation of Le Corbusier's architectural promenade fiction and free plan understanding is the visitor's movement. The visitor perceives the outside and the inside in perspective from a variety of angles, experiences a range of spatial sensations that correspond to different spatial situations and can perceive spatial situations sequentially with movement and Figure

continuity. Le Corbusier's promenade and Hadid's MAXXI Museum promenade provide evidence for the arguments made by Foster (2013) and Kuban (2001) about the interplay between modernism and deconstructivism.

Kuban (2001) views Deconstructivism as no more than Le Corbusier or other functionalist architects, but rather as a descendant of functionalism and Russian constructivism. According to Kuban, what they were unable to accomplish at the time was to dissect deconstructivism and reconstruct its components.

Known as a deconstructivist architect, Zaha Hadid employed standard architectural drawings to interpret plan, elevation, perspective, and axonometric drawings in a more dynamic way than they appear. She studied Kazimir Malevich's suprematist abstractions. In her initial projects, she made an effort to capture this energy. She stated during the retrospective, "I felt that we needed to re-examine the unproven modernist ideas, not to revive them but to open up new areas in the building's design (Foster, 2011)."

The museum is described as follows in the institutional directory of the MAXXI Museum:

"A challenge to our way of perceiving things and to the traditional idea of an exhibition space, a place where the art and architecture of our time can be experienced in a new way. The old idea of the predetermined path is set aside in favour of multiplicity of possible spatial criss-crossings, without the visitor ever needing to retrace his or her steps" (Bilotta & Rosati, 2010).

For MAXXI Museum;

"Modernist utopian space created the neutrality of many 20th-century museums. Now it is necessary to challenge this situation," said Zaha Hadid, aiming for a new fluid type of spatiality consisting of multiple perspective points and fragmented geometry, as stated by critics (Archdaily, 2023).

The single-perspective linear circulation layout of neoclassical museum typologies, like the Uffizi Museum and the Altes Museum, is significantly different from the galleries and circulation arteries of this new museum.

Featuring Le Corbusier's concept of the promenade, this new museum space, which can be seen in Hadid's MAXXI Museum, offers a spatial journey based on discovery, personal choices, and movement with multiple perspectives and surprises.

It should be noted that Le Corbusier's promenade concept clarifies the boundaries of contemporary space design because it offers more observable and legible spaces and has comparatively fewer alternatives. With its promenade layout, contemporary space creates new identities and rich visuals and sensations in circulation areas.

Furthermore, it is believed that the Promenade concept can direct designers in the creation of rich spaces during the architectural design process, according to an academic evaluation of this study.

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Author Contribution and Conflict of Interest Declaration Information

There is no conflict of interest.

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