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Museum's Open Space

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Abstract

Museums are institutions that carry on the cultural and artistic treasures of societies to future generations. Economic social, cultural and philosophical thoughts in the world have changed the understanding of museology. At the beginning of the 20th century, modern architects brought new expansions to classical museum typology. In the 1970s, museums began to draw attention as the city's landmark and meeting points. Along with the museums, courtyards, squares and gardens, which are open spaces of museums, have also changed. By joining the city life, they became new social attraction centers. Museums and museum open space from Turkey and the world in the study areas, classified under the headings of traditional and contemporary, will be analyzed under the headings of form, style, material, elements of boundry, planting design, activities area, urban furniture, and function. In order to demonstrate the changing today's museum's open space; an analysis will be made using spatial experiences, observations, syntactic analysis technique. Study's contribution to the literature will be determined by the design approaches of contemporary and traditional museum open spaces. As part of the museum identity and character, it will be pointed out that the open spaces of the museum are as important as the design of the museum buildings.

Key Words: Museum, Museum's open space, Public Spaces, City, Identity

1. Introduction

Museums conduct the historical and cultural value to future generations. The museum is the educational institutions that shape the future that reflects society's scientific, cultural and historical past. In addition to its storage, protection, documentation, and repair functions, it also undertakes an educational function. Once visited in the past, they have become dynamic centers with their ever-changing collections, not places that no longer need to be visited. Museums act as a catalyst to transform the city. Museum gardens also participate in urban life as public spaces that are socialized. Museum gardens are part of the open space system of cities. The multifunctional structure of the museums also finds its reflection in the open areas of the museum. Museum gardens can be used effectively due to the lack of open space in the cities. Museum's open spaces are also an important element of museum's identity and character.

2. What is The Museum?

There are various definitions in the literature regarding the museums, which shed light on scientific research and come to the fore with their educational activities, as well as display function, which plays an important role in the collection, preservation, and survival of cultural heritage.

The definition of a museum has evolved, in line with developments in society. Since its creation in 1946, ICOM updates this definition in accordance with the realities of the global museum community. According to the ICOM Statutes, adopted during the 21st General Conference in Vienna, Austria, in 2007:

A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment (URL-1).

3. Periods Of Museum Architecture and Museum's Open Space

Museum concept—which dates back to antique Greek temples, progressed with the initiation made by bourgeois who exhibited their own art works in a part of their houses during the late 17th century. Progression of museums -

which were first designed for exhibition and preservation- can be separated into three subtitles: pre-modern architecture, modern architecture and post-modern architecture (Artun, 2012, p. 55-56).

Museum's open spaces are also important as a public area as well as museum buildings. It is possible to determine the evolution of museum architecture in museum open spaces.

Pre-modern architecture: Traditional museum buildings are generally constructed with re-use of historical buildings after the restoration. Of those buildings transformed into museums; palaces come first. Palazzo Medici- the house of Medici family- is accepted as the beginning of European museums.

Palace museums are important that display of qualified historical items its inside and they contain in terms of period features. The open areas of these buildings also exhibit period features. In this meaning, there is cultural and historical value of the palaces and museums in Turkey and the world. (Figure 1)



Figure 1. Dolmabahçe Palace and garden (Photos: Ataoğlu, 2012).

Glyptotek (1816) designed by Leo von Klenze in Munich and Altes Museum designed by Karl Friedrich Schinkel in Berlin have been regarded as museum typology called as neoclassic Museum with rotundas and monumental stairways (Atagök, 1999).

Rigid arrangements outside these museums are generally formed in exhibition plans with the same rigidity (Pevsner, 1976). Geometric formation based on axial symmetry can be seen in the open areas and gardens of the museum. (Figure 2)



Figure 2. Altes Museum, Athens National Museum (Photos: Ataoğlu, 2018- 2015).

Modern Period: 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 the 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.

The New National Gallery, designed by Mies van der Rohe in Berlin, has influenced the 20th century museums with its transparency. The transparent museum integrates with the sculpture exhibition in its garden. (Figure 3)



Figure 3. New National Gallery, Mies van der Rohe, Berlin, 1962-1968 (URL-2).

Postmodern Architecture: Museum buildings continued to increase in number during 1950s and 1980s became a turning point in the development of museum architecture. New constructions with novel advancements in design

and function that challenged the general typology were created. Museums were turned into a culture-center with temporary exhibitions and shows, meeting and conference halls, research and study units, libraries, hobby spaces that enabled participation from all ages, workshops, cafeterias, restaurants, bars and museum sale-points. Museums whose collections were not visited again became dynamic culture and entertainment centers with continuously organized temporary exhibitions and educational activities (Broto, 2013), (Canbakal, 2002), (Jodidio, 2011).

Museums during 1980s were designed in the form of remarkable, iconic, monumental constructions where the architect demonstrated his creativity and which -transforming the city- provided an image and identity (Ataoglu, 2016).

The museum garden and open spaces also constitute a strong focus as the new public spaces of the city with its activities.

4. Material and Method

In order to determine changes in open areas of the museum, analyzes were made on the field study, spatial experience, observations and analysis on site plan. For this, five museum structures, which draw attention with their architectural constructs in the literature, have been selected. (Table 1)

- Pompidou Center (Rogers ve Piano, 1977)
- Jewish Museum (D. Libeskind, 1998)
- Akropolis Museum (Bernard Tschumi & Michalis Photidias, 2000)
- Quai Branly Museum (J. Nouvel, 2006)
- MAXXI Museum (Z. Hadid, 2009)

In order to exemplify this striking change in the information of the museum's open space, were determined and analysed topic below:

- Location in the city, accessibility
- Form-style
- Character feature - identity - architectural language combination
- Events-functions
- Urban furniture
- Landscape-planting-water element-material
- Borders
- Disabled access

Table 1. Museums

MUSEUM	LOCATION	ARCHITECT	YEAR OPEN	COLLECTION
POMPIDOU	Paris, France	R. Rogers & R. Piano	1977	20 th .c. art
JEWISH MUSEUM	Berlin, Germany	Daniel Libeskind	1998	Jewish Memorial Museum
QUAI BRANLY	Paris, France	Jean Nouvel	2006	Africa, Americas, Oceania and Asia ethnic art
AKROPOLIS MUSEUM	Athens, Greece	Bernard Tschumi &	2009	Antique Period
MAXXI MUSEUM	Rome, Italy	Zaha Hadid	2010	Contemporary Art and Architecture

5. Museums

5.1. Pompidou Center

According to the Grunenberg (1999, p.102); the most striking change in the comprehension and function of the modern art museum was probably at Pompidou Center. The institution that works in this colossal building which was built with a futuristic design is much more than a traditional museum. In Pompidou Center; there are art collections and exhibition galleries as well as a public library, industrial design center, forum, performance center for dance, theatre and music, cinema, workshops for children, sale-points and a cafeteria. In the museum; rich examples of 20th century and fauvism, cubism, surrealism art movements can be seen. Although the building led to disputes due to its scale and form in the urban space when it was constructed; it became popular. It served as a catalyzer in the urban reforms and joined urban life with its front-open-space where street artists present their performances. (Ataoglu, 2016).

The visitors enter the basement, take the moving stairways and then go upstairs; which enlivens the center. In Foster, Siegfried Kracauer's words; the favorite picturesque form of the building is composed of locals of the building and their walking around and meeting are defined as mass ornaments (Foster, 2011, p. 50-51) (Figure 4).

5.1.1. Pompidou Center's Open Spaces

Location in the city, accessibility

Pompidou is located between the traditional building blocks in an area of 2 hectares on the Beaubourg plateau of Paris. The building covers half of the area. It is located in the district of urban transformation in Paris. It served as a catalyzator in the urban reforms and joined urban life with its front-open-space where street artists present their performances.

Form-style

The hightech style of the museum building is symbolized by the exposed plumbing pipes on the prismatic mass. The pure form of the facade coincides with the pure rectangular form of the square. The mechanical installation used in the facade was also included as huge installation pipes in the open area of the museum.

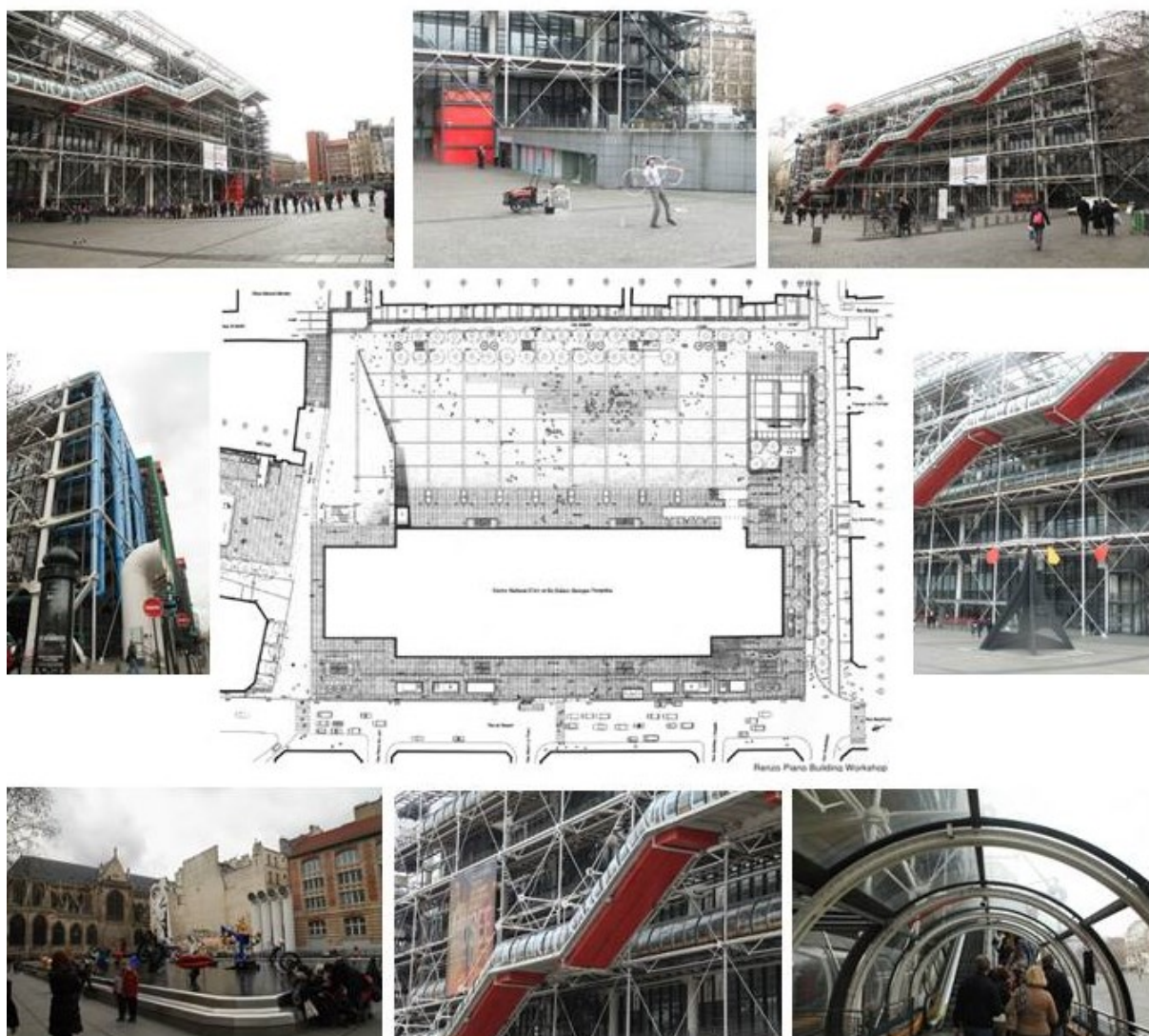


Figure 4. Pompidou Center's Open Spaces (Plan, URL-3) (Photos: Ataoğlu, 2013)

Character - identity - architectural language combination

Escalators and mechanical installation giving a colorful appearance on the façade give the building and the square a strong identity. While going upstairs from the escalators; it is a different spatial experience to stare at Paris, the square in front and the people here.

Escalators revive the square and add dynamism to the public space. The square is a platform for displaying modern works of art, like as the museum's contemporary art collection. There are different and huge works of contemporary art in the square. Architectural language unity has been provided.

Events-functions

Sitting, resting, artistic activities are held in the museum square. Street artists showcase their performance. The buildings surrounding the square are joined to the square by eating and drinking and selling souvenirs on the ground floors.

Urban Furniture

In the museum square, there are seating units, bicycle parking, direction signs, and bookmarks.

Landscape-planting-water element-material

The square is dominated by hard ground and there are rows of trees in the north of the square. In the west of the area, there is a fountain pool decorated with the works of artist Igor Stravinsky. The floor is natural stone cladding.

Borders

The walls of the platform formed with a slope in the east and west direction limit the square. The trees in the north direction and the large symbolic white ventilation pipes are the elements that borders the square.

Disabled access

Disabled access can be provided with the platform, where the lower entrance level is reached with a slope from the upper road level in the north.

5.2. Jewish Museum

Covering more than 10000 square meters, the Berlin Jewish Museum was designed by geometrically constructing some relationships within an invisible matrix network. Outside and gardens are formed by the zigzag breaks drawn by the building in relation to the historical building next to it. According to Libeskind, the broken line forms the history of Berlin, the destructive element in it tells the space and the Jewish history of Berlin. This gap carries the metaphor that Berlin Jewish history cannot be exhibited (Libeskind, 1999). (Figure 5)

5.2.1. Jewish Museum's Open Spaces

Location in the city, accessibility

It is located at the intersection of Wilhelmstasse, Friedrcihstasse and Lindenstrasse in Berlin. The building was designed in the garden of the Old Court Building, dating to the 18th century. It is located in the residential district.

Form-style

The building is one of the examples of the deconstructivist style from Post modern thought and architectural movements. The structure contains strong concepts and dramatic space constructions that the designer wants to convey with these concepts.

Character - identity - architectural language combination

The geometry and concepts that make up the architectural character of the building are experienced at every scale of the design. The broken lines in the plan formed the facade character. These characteristic lines gain continuity in garden design. The glass-structured courtyard of the historic building, the staircase of Libeskind, the monuments in the garden, are the strong characteristic elements that add character to the building and the garden.

Events-functions

The museum cafeteria opens in the garden. Eating and drinking events can be held in the museum's garden.

Urban furniture

In the garden of the museum, there are seating and resting units, benches for sunbathing, direction signs.

Landscape-planting-water element-material

The museum garden has soft grounds and includes different plant types and groundcover plant. There is a decorative pool with a fountain in the garden of the museum.

Borders

The walls of the building and plant are borders of area.

Disabled access

There are ramps for disabled access between the museum entrances and the garden level.

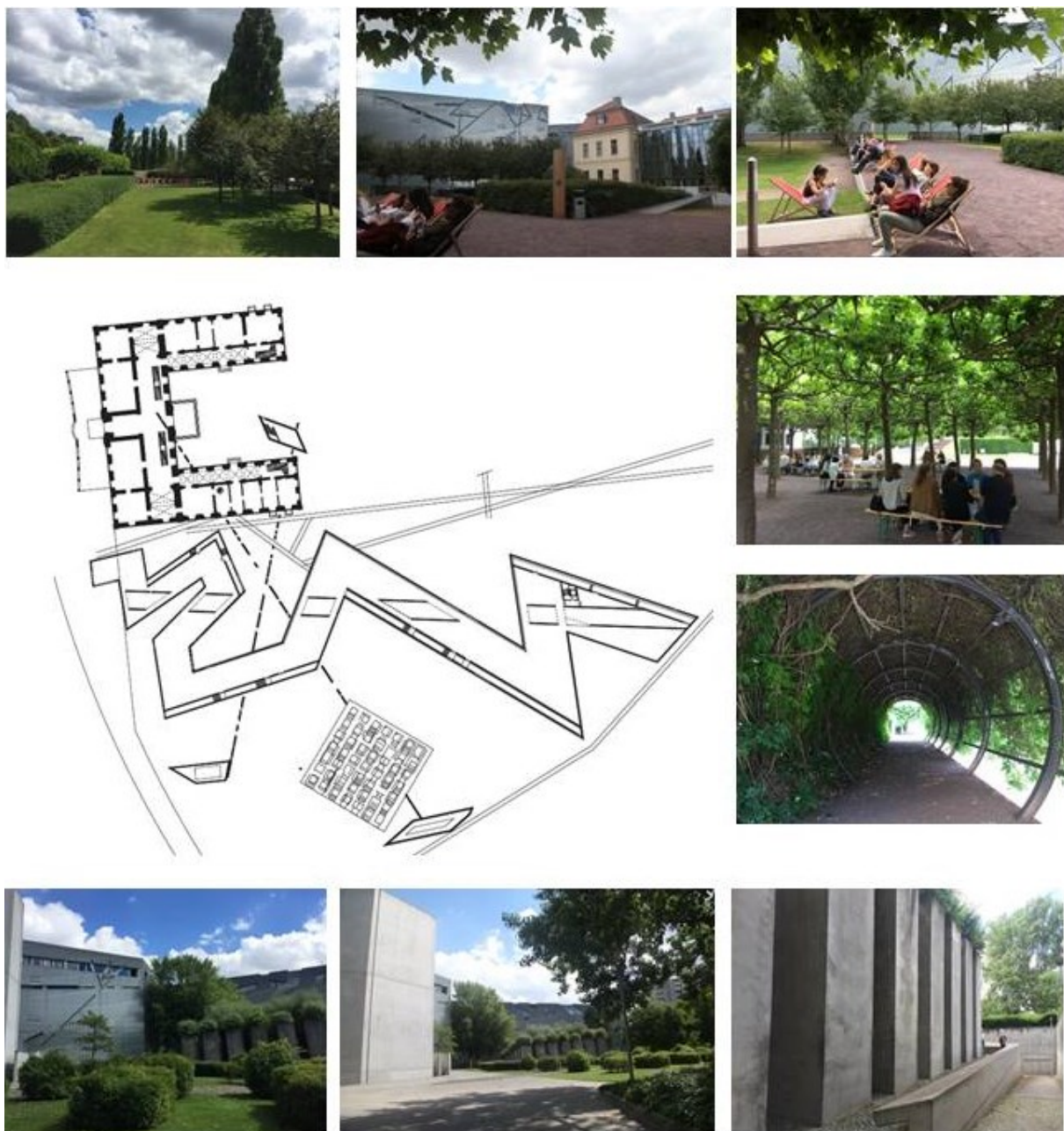


Figure 5. Jewish Museum's Open Spaces (Plan, URL-4) (Photos: Ataoğlu, 2018).

5.3. Quai Branly Museum

With its mass construction and the design of indoor circulation area; Quai Branly Museum is a design of recent history that features urban design principles, earns Paris a symbolic character and produces distinctive solutions. . The City garden functions as a surprising and inviting garden that includes an amphitheater of 18.000 square meters successfully added to the urban structure for open air performances and seminars (Nouvel, 2006).

There is ticket-sale point in the unit under main exhibition platform that is 210 meters long and rests on supports which holds it 10 meters above the ground (Demeude, 2006; Nouvel, 2006)

5.3.1. Quai Branly Museum's Open Space

Location in the city, accessibility

Quai Branly Museum is located in the center of Paris, within walking distance of the Eiffel Tower. There is a river and vehicle road on the north front. The museum garden is surrounded by the traditional street texture of Paris with adjacent building facades. In its design reminiscent of narrow long shadow of Eiffel Tower; one of the significant points is that it emerges as a meeting point in the city with gardens, plants and green sites.

Form-style

The colorful boxes in 29 different sizes that come out from the north facade give the building movement outside. This fragmented structure shows continuity in landscape design.

Character - identity - architectural language combination

Tall glass paneling that faces north and parallels to the building and the longitudinal garden of 800 square meters where 15000 plants from 150 different species are seasonally grown isolate the garden from the busy street in front of them. The facade of the building decorated with colored boxes, vertical garden, glass wall is a strong identity element. Topographic formation have been created in garden design. Curvilinear form movements on the ground floor were also maintained in the garden landscape.

Events-functions

In the museum garden, there is a sitting, resting, amphitheater, cafeteria, museum store, ticket office. The museum cafeteria and amphitheater are located so that you can see the Eiffel tower.

Urban furniture

In the museum garden, there are seating units, amphitheater, direction signs, bicycle park, model of the building.

Landscape-planting-water element-material

The museum garden has soft grounds and includes different plant types and groundcovers. The trails are separated from the soft ground by the concrete floor covering. In the south of the garden, an organic water element is positioned in harmony with the garden geometry.

Borders

The vertical garden, glass wall and trees that run parallel to the building along the north facade are a strong border element. A visual border is created with woody plants along the south front.

Disabled access

The entrance level of the building is located on the road level. In the transition from the sidewalk to the museum garden, disabled access is detailed.



Figure 6. Quai Branly Museum's Open Spaces (Plan, URL-5) (Photos: Ataoğlu, 2013).

5.4. Akropolis Museum

With 8,000 square meters (90,000 square feet) of exhibition space and a full range of visitor amenities, the Acropolis Museum tells the story of life on the Athenian Acropolis and its surroundings by uniting collections formerly dispersed in multiple institutions, including the small Acropolis Museum built in the 19th century (Doğan, 2018). (Figure 7).

5.4. 1. Akropolis Museum's Open Space

Location in the city, accessibility

Located in the historic of Makryianni district, the Museum stands less than 1,000 feet southeast of the Parthenon. The top-floor Parthenon Gallery offers a 360-degree panoramic view of the Acropolis and modern Athens. The Museum is entered from the Dionysios Areopagitou pedestrian street, which links it to the Acropolis and other key archeological sites in Athens (URL-6).

Form-style

The museum building is typologically similar to the plain form of Parthenon. It refers to the classical Greek forms.

Characteristic feature, identity, architectural language unity

Under the museum, On an archaeological excavation site, belonging to the M.S. 4th century and M.S 7th century, the museum can be visited inside and outside with a glass floor. In the entrance platform, the excavation area can be viewed from the upper elevation. The museum directs to the Acropolis.

Events-functions

In the garden of the museum, there is an archaeological excavation area and exhibition, seating, resting, security, ticket office.

Landscape-planting-water element, material

The museum garden has soft grounds and includes different plant types and groundcovers. The trails are separated from the soft ground by the concrete floor covering.

Border items

Since the museum garden has an archaeological excavation area, it is surrounded by walls for security purposes.

Disabled access

The entrance level of the building is detailed for disabled access



Figure 7. Akropolis Museum's Open Spaces (Plan, URL-7) (Fotoğraf: Ataoğlu, 2015, 2017).

5.5. MAXXI Museum

The MAXXI Museum, which settled on the L-shaped parcel, embraces two historical buildings on the parcel. The structure is designed in a flowing linear form with its orientation to the surrounding buildings and existing axes.

Curved, smooth walls and the general texture of the structure can be integrated with the classic symmetrical facade design in the courtyard.

With the skillful use of glass concrete and steel material in the interior, Zaha Hadid designed a contemporary art statue that can be walked on in the MAXXI Museum. (Figure 8)

5.5. 1. MAXXI Museum's Open Space

Location in the city, accessibility

MAXXI 21st Century Museum of Contemporary Art, designed by Zaha Hadid, was opened in 2009 in the Flaminio district of Rome. The museum was designed on an area of 29,000 m² to urban transformation area, in the area of the old residential areas. The museum was added to the urban context by following the existing axes as an extension of the surrounding texture with low elevation.

Form-style

The museum building is an example of parametric design.

Character - identity - architectural language combination

In the entrance courtyard, the gross concrete surface of the building complements the concrete floor slabs located on the ground. In order to make the orientation of the building and the circulation artery more defined in the wide courtyard, two different colors of concrete have been used as a trace of the linear flow and formal shaping of the building on the ground. A fluid-looking concrete seating unit is designed in the entrance courtyard of the building, which reflects the integrity of Zaha Hadid's style. Zaha Hadid. The fluid, curved facade of the building was followed by a holistic design approach based on concrete aesthetics by using gross concrete, concrete slabs in the courtyard in the outdoor courtyard, and concrete in the fluid form sitting unit in the courtyard.

Events-functions

The museum garden is located in the cafeteria, sitting, resting, security.

Urban Furniture

In the garden of the museum, there are seating units, direction signs, bookmarks. Seating units are designed from concrete.

Landscape-planting-water element, material

The museum garden has hard ground and trees.

Borders

The borders of the museum garden is surrounded by walls for security purposes.

Disabled access

The entrance level of the building is suitable for disabled entrance.



Figure 8. MAXXI Museum's Open Spaces (Plan, URL-8) (Photo: Ataoğlu, 2017).

6. Results

In the literature, in order to evaluate the open space formations of the museums, in five museum that draw attention with their architectural constructions;

Pompidou Cultural Center (Rogers and Piano, 1977)

Jewish Museum (D. Libeskind, 1998)

Acropolis Museum (Bernard Tschumi & Michalis Photidias, 2000)

Quai Branly (J. Nouvel, 2006)

MAXXI Museum (Z. Hadid, 2009) was identified and analyzed under the following titles:

- Location in the city, accessibility
- Form-style
- Character - identity - architectural language combination
- Events-functions
- Urban furniture
- Landscape-planting-water element-material
- Borders
- Disabled access

As a result of these determinations, the following information has been determined:

Museums are in a position to establish a close relationship with the city within the city's accessibility.

It is seen that they are shaped in current architectural styles with icon value in form and style. It is determined that the museum gardens contain the integrity that they share the same characteristic language with the museum architecture.

It is observed that the museum contains various activities such as eating, drinking, sitting, resting, sightseeing, exhibition, which will add social life to the garden.

The outdoor furniture of the museum are designed as part of the museum identity. The most effective example is Zaha Hadid's MAXXI Museum. In the urban space, museum gardens are designed as social and public spaces. Landscape elements are designed according to the location of the museum. While the hard floor is designed in the Pompidou Center, the Quai Branly Museum is soft ground. Borders differ depending on the location and content of the museum. Solutions for disabled access are detailed.

In the light of this information,

When the open space solutions of today's museums are analyzed

- Museums and museum gardens should be able to create social environments
- participate in urban life as a new focus and meeting place for the city
- be able to participate in urban life with their activities
- be able to meet the open space needs of the city
- be able to convey cultural and historical values
- disabled access solutions with strong landscape features, comfortable access and use.
- open space designs that share the same language as the museum identity should be arranged.

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