

Investigating the Evolution of the Role and Architecture of the Museums

D. Moussazadeh, A. Aytug

Abstract—The architecture of the museum is the most exciting space for an architecture to discover and investigate. Undoubtedly, those museums that have been largely supported by people have come to be cultural memorabilia, moreover holding competitions in museums, producing new publications for theoretical or intellectual debates, and new designs lead the museums to be the most effective and attractive place for work and study. The importance of museums as centers of knowledge, science and art has increased over the last century. Museums have moved from being a place specific to the first-class of the community, to a place used by the whole community widely. By considering these reasons, the value and importance of museums in today's society is imperative. Finding common features for museum architecture in the decades after 1990s has become more difficult than previous decades. The purpose of this article is to examine the effect of museums and their position in society on architectural design of museums from the beginning to the present. In other words, this research aims to investigate the history of museums, their roles, duties, uses, their relationship with users and their position and, consequently, the impact of all these factors on the design of museum architecture. Finally, the main objective of this article is to find the position of museums in the community and their architectural form in the present century.

Keywords—Museum, form, architecture.

I. INTRODUCTION

ACCORDING to the Greek mythology, nine beautiful and young girls of Zeus and Monemesis, as inspirational divinities of the order and the arts of God, have created art. The museum is the site of gathering and thinking for these fairy-tales, which is inspired from Muses [1]. In ancient Greece, the museum is also used in the meaning of garden, temple, holy centers or halls of festivals [2], [3]. In 1792, museum was decided to name the places which keep, protect and present the objects with cultural values, as museums. In 1946, the International Committee of Museums established in France defined the museum as follows: Museums are institutions for evaluation, especially for promoting public opinion and education, which are managed according to the interests of the public [6]. In short, museums are places for displaying and keeping artistic and scientific works or objects used in art and science in a permanent or temporary manner.

The word museum reappeared in the 15th century in Florence in order to depict the collection of Lorenz. This word was used in the 17th century in the local sense to depict antique

objects. In the 18th century this word was used in the meaning of a place to maintain and display the collections for the public, at the end of this century the use of this word was limited to the names of places to store and present a work that was worthy of being a cultural heritage. Until the 19th century, museums and collections were often used together [4].

A Dutch sociologist replaces the existing description for the museum with a philosophical description from the perspective of viewers. According to him, "The museum is an inviting environment for truth, thought, goodness and beauty. The invitation to this thought leads to the clarification of the concepts of nothingness and human existence on the one hand, and it strengthens the connection between human beings and the sensitive and fragile nature of them, on the other hand." This definition changed the attitude of collecting objects by museums over the years, and investigated the museums as the centers of service and development of society [5], [6].

The collection and storage is a common feature of all living things. Humankind, from the beginning, has been collecting and keeping rare, holy, special and beautiful objects [7]. In ancient civilizations, activities such as collecting, protecting and displaying, though with primitive and diverse methods, resulted in widespread collections that clearly depict the rich history of the museum and its progressive stages [6]. Initially, this behavior continued instinctively and gradually became conscious, purposeful, and systematic over the time. In the next stages, these efforts led to the realization of comprehensive scientific and theoretical studies over the time [4], [6]. In summary in the 18th century, with the freedom of these collections for the public use, museums began to be institutionalized, and during the 19th and 20th centuries, they entered a process of transformation with different purposes and speeds. Museums have shifted from an object-oriented perspective to a humanity-oriented perspective and identified education as their primary goal. In the early 21st century, they identified their task under three headings: keeping the objects, research, and communication. In addition, due to the development of people's understanding of the aesthetics, interpretation and examination to achieve a certain level of beauty, community management and concurrency of amusement and learning progress, make the goals of the present museums.

II. FORMAL DEVELOPMENT OF MUSEUMS' ARCHITECTURE IN THE COURSE OF THE HISTORY

Both in Plato's and Aristotle's Academy there was a museum, but the emergence of the legend of the museum dates back to the fourth century B.C, which began with Alexander's

D. Moussazadeh was with the Department of Architecture and Technology, Yildiz Technical University, Istanbul, Turkey (phone: +98-9143071927; e-mail: delaram.moussazadeh@gmail.com).

Prof. A. Aytug is now with the Department of Architecture, Yildiz Technical University, Istanbul, Turkey (e-mail: aytug@yildiz.edu.tr).

Museum and lasted for more than seven centuries [10]. Mainly the pioneer of today's museums is thought to be the museum founded in Alexandria. It originally belonged to scientists and it was a place for research, and there was also a collection of objects, plants and animal parks and the main function of this center was learning philosophy. At that time, apart from this institution, there were other centers for collecting and keeping objects.

The development of museums and their architectural changes are examined in four sections:

- 1) Museums until the 19th century
- 2) 19th-century museums
- 3) Early 20th century museums
- 4) Museums from the middle of the 20th century to date

III. MUSEUMS UNTIL THE 19TH CENTURY

In the 16th century, science and art progressed very quickly, and the artists found a high position, and as a result, collecting their works was started. During this period, collectors began to buy the works of current artists. In this century, with the conscious presentation of collections to the public, the first step towards the formation of today's museums was formed.

In 1563-1567, the Thai Gallery, founded by V. Albrecht may have been the oldest building built in line with the museum's goals.

By approaching the 17th century, collections that were used for studying or for personal gain increased significantly; Although they were known by other names, they are still referred to as a significant process in the historical development of the museum, because they carry the features of the museum's collection and structure in their own right. Also, in this century the evolution of collections into museums in the universities of European countries was very common. The first university in the form of a museum is Ashmolean which was founded in 1677 by Elias Ashmole in the University of Oxford. Therefore, a private college, considered as a public space, was first opened for public use [7].



Fig. 1 Ashmolean Museum, England, 1683, Sir Christopher Wren

In the 18th century the museum became a place where the use of it was open to the public. In the organization of the museums, the political, social and social development factors of the 18th century, and especially the French Revolution, were of great significance. In 1746, a new idea for the collection of works at the Royal Palace was presented to the public. Thus, collections that were selected according to the

personal choices of religious and governmental officials, noblemen and elites, were opened for public use [8].

In 1793, the Louvre Museum in Paris was founded as a part of the state education system for public use and is one of the oldest and most famous museums in that period. The importance of folk culture grew by the foundation of Louvre museum, and this museum was the first museum to serve as a learning tool for people's use [8]. Another important museum of this period is the Luxembourg Museum in France.

Until the early 19th century, museums continued their activities in the form of art exhibitions in palaces and large villas. The Victoria and Albert Museum in London is one of the most prominent examples of this type of museum.



Fig. 2 Louvre Museum, France, 1793



Fig. 3 Museum of Luxembourg, France, 1750



Fig. 4 Victoria and Albert Museum, England, 1852

IV. MUSEUMS IN THE 19TH CENTURY

At the beginning of the nineteenth century, the neoclassical architecture, especially in Germany, the United States and England, has been used in the architecture of the museums. Glyptothek museum located in Munich like the temples of Greece with the entrance pillars, a circular shape of temples and high stairs connecting the second floor to the entrance, has formed a temple-like museum [9].



Fig. 5 Glyptothek, Germany, 1830, Leo Von Klenze

After the Industrial Revolution (1833-1830), with the restructuring of society, museums' architectural form has undergone fundamental changes. After this period, the idea of constructing and designing a museum with a palace or temple architecture was ignored. The museums were designed in such a way that visitors can easily enter it; overall, museums were inviting and attractive buildings.

In the middle of this century, the impact of the industrial revolution, the use of steel, concrete and facilities, which made the use of concrete possible, led to a series of major changes and developments in the architecture of museums. In this period crystalline and glass-like monuments, such as the "Crystal Palace", which was founded by Josef Payson in 1850-1851 in London [4].



Fig. 6 Crystal Palace, England, 1851, Joseph Paxton

V. EARLY 20TH CENTURY MUSEUMS

In the early 19th century and before that, there appeared traditional museums, which were far from the community that was only used by the affluent, and elite of the community, but in the early twentieth century, in the wake of social and political events, museums evolved. The belief in the power of civilization and the universalization of art has transformed the role of museums in the community [9]. Museums by offering

opportunities for people to spend their leisure time played the role of impartial, funny, entertaining and enjoyable places to compensate the lack of educational facilities for the middle class and working class and all the people of the community. As a result of these thoughts and changes in the use of museums, the architecture of museums with the people and contributed to the development of society as a result of understanding the role of museums in today's society [10].

From 1920 onwards, in line with the influences of Bauhaus's attitude and the slogan of "Form based on Performance", we see designs with this insight and creation of spaces based on performance and function. The most prominent example of this attitude can be seen in the "Museum of Modern Art", designed in 1930 in New York by George Ho and William Lisa. This museum, which is very similar to commercial buildings, shows a great overlap with the attitudes of classical museums [6].



Fig. 7 Museum of Modern Art, USA, 1929, Yoshio Taniguchi & Edward Durell Stone & Philip Goodwin

At the beginning of the 20th century, there were a number of contemporary art museums in America and Europe; in the second half of this century, with the impact of the development of industry, the number of science and technology museums increased. During this period, a significant increase in the number of museums around the world led to the establishment of international associations related to this issue. The foundation of the International Museum Council in 1926 and ICOM triggered a series of studies and decisions on the principles of the functioning of the museums, the training of personnel, the development of diverse activities and the setting of some principles and standards in 1946 [9]. Facilities of the technology as a result of industrial revolution, the formation of new ideas in the process of modern architecture and the continuation of the Second World War in this period, affected the architecture of the museums. Buildings designed with this attitude will be able to meet the changing needs of the community and the flexibility of usage for different purposes [10]. The 20th-century gallery, made by Miss van der Rowe, is a prime example of these museums.



Fig. 8 Twentieth Century Gallery, Germany, Mies van der Rohe 1962

VI. MUSEUMS FROM THE MIDDLE OF THE 20TH CENTURY TO DATE

The museum was introspective until 1950, but after this period, the museum as before, like the holy shrine, was not publicly available, on the contrary, it created close links with its modern consumers. In other words, by the middle of the 20th century, museums were passive and static places waiting to be seen by a specific group of society [5] while museums today are not waiting for the viewers and are actively attracting them. That is, the museums are doing their best to attract users and have a task more than waiting for others to come [9]. One of the museums that have been designed in this way is undoubtedly a monument added to the eastern part of the Washington International Gallery.



Fig. 9 The eastern wing of the National Gallery of Washington, USA, 1978, I. M. Pei

Changing the use of places, such as commercial buildings, stations and palaces, into the museum is another viewpoint that has influenced architectural design of museums since the mid-20th century to the present. Large Buildings that have lost their usefulness or are not using their full capacity, are capable of being used for different needs for the benefit of the community and meeting the needs of cultural centers [3]. Especially in the years after the 1960s, leaving the shops by their artists and looking for new places, we saw the conversion of buildings that were industrialized to the museum. On the other hand, some large-scale artistic works need more places to display. The Museum of Orsay (1980-1986) in Paris, which is the result of transferring the train station to the museum, is

one of the most important examples of this group of museums [7].



Fig. 10 Museum of Orsay, France, 1986, Renaud Bardou, Pierre Colboc, Jean-Paul Philippon

Form and shape in the 20th-century museums are of great importance, and the most important example of this new attitude, with its new forms of design, is certainly the Guggenheim Frank Lloyd Wright's Museum in the New York city. This museum is designed as a unique place for art and is a prime example of the changes made in the design of the museum and the forms used in them throughout history; eventually it can be considered as a milestone in the design of museums [11].



Fig. 11 The Solomon Guggenheim Museum, USA, 1959, Frank Lloyd Wright

Since the mid-20th century, artists have put their artwork in a neutral environment, and the establishment of museums such as Guggenheim has flourished the creativity of architects. On the other hand, knowing the artwork and the construction of museums had been of those factors that affected the design and creation of other museums.

Uber Museum was founded using comfortable, flexible and influential forms of the artistic libertarian movement in 1972-1982. Although the design of the museum was carried out by Hans Hooliel, the main person behind the design of this museum was Claddar, the first director of the museum. Claddar sees the museum's construction as a whole art with the artworks inside it. He adds that museums should not be homogeneous, with only one permanent user, but they must have different functions with a mixture of different styles [12].



Fig. 12 Abteiberg Museum, Germany, 1982, Hans Hollein

Other important developments of this period, especially after the 1970s, are the change in museum programs and the degree of their complexity. Presenting and displaying the works were insufficient, and the formation of new needs led to the creation of more rigorous programs. In the course of time, museums, in addition to displaying the arts, turned into cultural centers of the city, which included research, education, and socialization activities [13]. In line with this viewpoint, the center of Pompidou in Paris was founded on the basis of transparency and modern design as the first museum with these features. This building was designed with a library for the public use in the form of an art center by Richard Rogers and Renzo Piano in 1977 [14].



Fig. 13 Pompidou center, France, 1977, Renzo Piano, Richard Rogers, Peter Rice, Mike Davies

During this period, museums such as the Guggenheim Bilbao Museum, with their positive effects for their region and their success in the development of that region, have been pioneered for the design and establishment of museums elsewhere in the world. Museums are of great importance to the cities in terms of tourism and tourist attraction. Today, in all parts of the world, we are seeing the rise in the number of museums, designed by famous architects with the purpose of developing the region.

VII. CONCLUSION

According to the studies, there is a close relationship between the role of the museum in the community and its design. In short, the construction of museums at any time represents the technologies of the day, the views of society, the scientific achievements of that period, the existing politics

and culture, and most importantly the way the society views the art, the artist and the relation between art and the artist and community.

In the 21st century, there are many different approaches for designing museums. The co-ordination of culture and technology has formed a large part of the design of museums; hence, the traditional definition of museums has completely changed. The tremendous transformations that have taken place in the museums in the last century have made the museums more than a mere place of simplicity and made their social, intellectual, and cultural formation more complex. This new approach to museums, as it opens the way for a community to be modernized, leads to a cultural identity and sense of belonging, but nonetheless stands in the face of discrimination, and provokes a humanist approach for knowing the foreigners.

In short, today museums are in their golden age. The architecture of the museums further illustrates their architects' understanding of aesthetics. These architectural searches are used to find the best and most beautiful one in today's technology. As it was said, after 1990s, finding common features in the architecture of museums was much more difficult than before. Apart from the technological features of the architecture of museums, the museum was built as an integral whole with an artwork inside it, because displaying, keeping and presenting an unusual artistic work in a place of high absorption which are referred to as an artwork by themselves, will definitely be more meaningful and fantastic.

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