FORMATION OF WATERSIDES ON THE BOSPORUS AND SPATIAL DEVELOPMENT OF BOSPORUS WATERSIDE GARDENS

Petek JAWDET ABDULLA

Department of Architecture, Faculty of Architecture, Istanbul Aydin University, Florya, Istanbul/Turkey

E-mail: petekmuhittinoglu@gmail.com

Abstract- As one of the unique beauties of Bosporus, Bosporus watersides have been composed and formed through long ages along the Bosporus. Not only an architectural form and a residential type, the Bosporus watersides also were being a part of the culture in which they were built. They project the life traditions of the ages in which they were built. Their users were using those buildings as summer resorts, comprised of a hall, wide rooms, kitchen and other components. The gardens of the watersides also have had their own characteristics, and they were setting out unique beauties. The gardens of the watersides in Bosporus were beyond comparison by their organizational schemes and landscape designs. The watersides were designed with a garden within the bounds of spatial possibilities. The gardens were decorated with colorful flowery plants. Many watersides, which were built in Bosporus, have reached until today. As a type of residences, these buildings are among the most important buildings of Bosporus. The Bosporus watersides have unique architectural samples and features and they need to be well preserved. However, it has been identified that some of those structures have disappeared in time. There are many causes for such a removal. By analyzing these causes, we need to preserve these buildings better nowadays. Bosporus watersides and their gardens today need a better protection by effective policies to be produced. Having unique architectural features and styles, those buildings also are a part of our culture. We must better protect our historical and cultural patterns. This is a must to respect our history and culture too.

Keywords: Bosporus watersides, Bosporus, Architectural form, Residence, Culture, Gardens of watersides.

1. FORMATION OF WATERSIDES ON THE BOSPORUS AND FEATURES OF WATERSIDE GARDENS

Bosporus watersides are one of the unique beauties of stanbul. Waterside structuring on the Bosporus dates back to the depths of history. After the conquest of stanbul, many watersides in various sizes were built along both sides of the Strait. These watersides built on both sides of the Strait have national characteristics and quite attracted foreigners [1]. In the fifteenth century, Bosporus watersides were the dense residential area outside of Be ikta walls. In the Ottoman, watersides were usually places where pashas and sirs resided in summer. These gave an appearance disconnected from the city and the public. The watersides leading the original Bosporus life were the ones owned by dignitaries, officers and merchants along the Strait. With the construction activities carried out over time, many settlements were formed on the Bosporus. Baltalimanı, Emirgân, Tarabya, Rumeli Kava 1, Anadolu Kava 1 and Vaniköy settlements were established in this way [17]. While new settlement areas along the Strait were forming and their populations

were increasing, Bosporus became a preferred location for the Sultans and leading statesmen. Summer places, watersides and mansions on the Bosporus had become resort areas of senior officers of the government. The wooden ones located on the shores on the Bosporus were called watersides, while the wooden ones in gardens in the resort areas of Istanbul and the masonry constructions with harem and selamlık (the portion of a house reserved for men) were called pavilion and mansion, respectively [1]. From the Bosporus watersides, the Strait could be watched with all its glory. stanbul had gone through many periods in history. At the beginning of the seventeenth century, it was influenced by westernization efforts. At that time, stanbul met with the "beautiful city" concept. In this process, the Tulip Era was experienced and construction of fountains, open public spaces and gardens were intensified [10]. On the Bosporus, while waterside structuring towards the Black Sea was intensifying, also waterside structuring in Be ikta, Tophane and Fındıklı was observed. Navy and trade had influenced the waterside structuring in these regions. In the middle of the seventeenth century, important watersides began to be built. In the

coastal area of Be ikta, watersides of important statesmen, kazasker (judge of the army) and muftis have been found [4].

The Bosporus watersides have their own unique architectural form. The Bosporus watersides are wooden structures. The Bosporus watersides, which can be defined as a type of residence used as resort area by their residents, also transfer us the living traditions of their time. Watersides located in the coastal area of stanbul are one of the housing types resulting from the socio-economic structure in the historical process. These structures describe life style of an era and the community.

Until mid-way through the eighteenth century, the Bosporus watersides were built in the classical style. Construction of Rococo style and the Empire-style watersides had begun by the end of this period and during the reign of Mahmud II, respectively. The Tanzimat reform era, on the other hand, has brought a new understanding of architecture. Tanzimat dignitaries had large wooden watersides to be constructed on the shores of the Bosporus. Foreign architects, who were brought for the first time in the seventeenth century, have led to a new architecture in the construction of the watersides and other buildings. In this era, Italian Fossati, English Smith, French Gerner, Bourgeois, German Bernrarnodi and Zaranko were among the famous architects who came to Istanbul. With this new understanding of architecture, palaces and watersides of the statesmen started to be built according to the European taste [7].

City's trend of development along the Strait beginning in the seventeenth century has made progress towards integration of the area with the city in the eighteenth century. Residential areas, where waterside structuring was developed on the Bosporus, have been differentiated from other residential areas with the urban character created by its socioeconomic structure [2]. Westernization movement that has begun in architecture in general in the seventeenth century continued in the eighteenth century.

In the eighteenth and nineteenth centuries, spatial changes occurred on the Bosporus. On the other hand, this area gained importance. Throughout the nineteenth century, eclectic-style and large-size palaces, mansions and watersides were built on the Bosporus. The architectural character of the Bosporus has changed and gained prestige. On the other hand, it has entered into the process of urban

integration and living in these places during the entire year [13][14].

Watersides built on the Bosporus were very adversely affected by the First World War and the War of Independence. Watersides that have been abandoned and left to decay were seen. Thus, continuity of the spatial texture of the Bosporus began to be damaged. Until 1950s, the Bosporus has deprived of the nature of urban structure [9]. However, residential structures kept their old forms and watersides continued to exist dominantly in the area.

Spatial changes in the Bosporus have been influenced by the economic and social changes. In the periods when the Bosporus was far away from the city, watersides of the upper income group were located along the shores of the Strait. Today, interactions among the spatial, economic and social facts have changed the social and cultural structure in the Bosporus. Bosporus had been detached from the city for a long time and kept its nature of being an area of small village settlements. Different ethnic communities in the Strait also had an impact on shaping the area. Other than Turks, Jews, Armenians and Greeks were also living here [11].

Bosporus watersides have unique architectural and functional characteristics. Watersides on the Bosporus are composed of several units. Bosporus watersides are built with large halls and rooms within the bounds of spatial possibilities. Kitchen was another important part in the waterside. Meals were cooked and served here. It is observed that all units and functions required to be in an average residence were included in the watersides.

Gardens of the Bosporus watersides also have their own characteristics. These were adorned with diverse and rich plant varieties offering a unique beauty to the beholders. Gardens of the Bosporus watersides were areas where functionality was brought to the forefront with the organizational schemes. Landscaping was remarkable. The gardens were decorated with colorful flowering plants. Watersides were designed to have a garden. Spatial possibilities were decisive on the size of the gardens.

2. CURRENT NEED OF BETTER PROTECTION OF THE BOSPORUS WATERSIDES

Watersides are the pearls and the most important structures of the Bosporus. Many of the watersides built on the Bosporus have survived until today. However, some of them have disappeared. There are samples detached

from their functions by changing their functionality. These watersides are currently used for other purposes. Such samples bring the requirement of better protection of the Bosporus watersides on the agenda. Because of the changing life style and desires over time, some of the Bosporus watersides lost their original functions and began to serve for other purposes. Some of them began to become nonfunctional and entered in the process of vanishing [1].

In the development of structuring on the Bosporus, enforced laws are determinant. Structuring of the Bosporus is directed by these laws. Watersides, mansions and village settlements in the course of history were developed by this way. However, recent laws are found to be serving more to improve the building stock in the region. Criticisms in this respect have increased and consequently, a protection approach in the Bosporus has begun be adopted in 1970s. Protection understanding that began on a structure basis has started to gain a spatial nature by the formation of a new protection approach in the 1970s. With the adoption of protection approach by the decision taken in 1970 for preservation of the remaining ones in the destroyed Bosporus, the Bosporus Coastline Protection plan at 1/5000 scale has been the first study on July 15, 1971. This plan has been important for protection of coastal watersides but insufficient for the Bosporus in general. An important decision affecting the silhouette was taken in the plan. To provide continuity of the coastline on the vacant lands between the watersides, construction of new buildings on the empty spots so as not to exceed 9.50 meters height has been permitted

Due to structuring limitations on the Bosporus by the Bosporus Law No. 2960, rent increase brought by the constraints has created an intensive pressure on the historical structures located in the area and caused failure of retaining most of them with their original features. In this regard, it is expressed that, for preservation of the significant historical watersides and other civil architectural examples on the coastline within the area, a protectionist planning approach must be supported by holistic decisions and sub-scales also need to be addressed [16].

The first study conducted to protect the historical integrity of the Bosporus was regarding registration of the watersides in the coastline of stanbul Bosporus by the Supreme Council of Real Estate Antiquities and

Monuments (GEEAYK) in 1970. In this context, it has been renewed on May 13, 1972 and 89 pieces of first degree, 209 pieces of second degree and 67 pieces of third degree historical artifact structures have been identified [6].

In 1971, first planning was made on protection of the Bosporus and 1/5000 scaled Bosporus Coastline Protection plan was created. In this plan aiming protection of the current watersides on the Bosporus, for the vacant plots in the coastline, construction of new buildings consistent with the registered buildings and maximum at the height of 9.5 meters was proposed. However, this decision was widely criticized for its consequences on the watersides. Conservation planning efforts for the Bosporus region has started in 1990s. The first study on protection of the watersides constituting the identity of the Bosporus was carried out with the Registration of stanbul Bosporus Coastline Watersides by GEEAYK

Bosporus watersides have unique architectural samples and features, and need to be well preserved. However, it has been identified in the study that some of those structures have disappeared in time. There are many causes for such a removal. By analyzing these causes, today, we need to preserve these buildings better. Rapid urbanization is one of the main reasons. Rapid urbanization has been observed in stanbul, particularly since 1950s. There have been massive migrations from the rural areas to stanbul. Unplanned urbanization has revealed itself by destroying green areas and building non-zoned structures. Green spaces in the city have rapidly turned into built-up areas. Bosporus watersides have been very adversely affected by these developments [12]. With the failure of effective enforcement of the relevant laws, unplanned structuring in the Bosporus has been overlooked for many years and Bosporus watersides have been adversely affected by this. Some social and cultural factors, legislation and laws, the development of road and sea transportation have been effective on the changes in terms of spatial use of the gardens and watersides on the Bosporus. As a result, watersides and gardens in the Bosporus are being subject to changes in use. Some watersides have disappeared due to reasons such as fire etc., and some have been destroyed by changing their functions. As the Bosporus watersides cannot be protected, it is not possible to see their unmatched landscape. Yet, the Bosporus watersides were magnificent also with their

gardens. Gardens were adorned with diverse and rich plant varieties. We can still see the richness in the samples being able to survive until today.

Gardens of the Bosporus watersides have undergone spatial changes in the history due to some factors. In this respect, development of road and sea transportation constitutes a significant factor. When road transportation was undeveloped, the Bosporus was a resort area and sea transportation was in the forefront [8]. With the development of road transportation, traffic congestion began to be faced in the region; one of the precautions to relieve traffic was construction of causeways along the coastline, which affected the Bosporus watersides very adversely. Gardens of many watersides have been destroyed. In 1971, when 1/5000 scaled structural plan studies of the Bosporus were carried out, together with the Bosporus villages, planning of the watersides and the coastline was also addressed. An important decision affecting the silhouette was taken in the plan. To provide continuity of the coastline on the vacant lands between the watersides, construction of new buildings on the empty spots so as not to exceed 9.50 meters height has been permitted

Constructed causeways cut off the sea connection of the watersides and led to loss of their originality. Examples to these changes can be seen from picture 1,2,3.



Picture 1. The Fuad Pasha Waterside and its relationship with the piled road, 21/01/2014



Picture 2. View of pailed road in Sariyer, 21/01/2014



Picture 3. View of on a piled road in Yeniköy region, 21/01/2014

Today, there are watersides with damaged and detached connections with the sea because of the causeways. Many examples of damaged watersides and gardens in this way are available in the history. For instance, the main axle connecting Hidiv ismail Pa a (Khedive Ismail Pasha) Yalısı to the garden and parts of the garden up to the main entrance have disappeared and its connection with the sea has been lost. The part of the main axle within the boundaries of Emirgan Woods and the part other than interferences with paving were preserved [3].

Analyzing the gardens of the Bosporus watersides, it is seen that these gardens were designed as large as possible, and that a wide variety of garden flowers and tree species is included. Thus, a unique beauty is demonstrated to the beholders. Organization schemes are also remarkable. The presence of a pool in the garden is noticeable in the first

place. Thus, connection of the gardens with water is established. The pools have fountains so that an aesthetic view is provided as well as an element that relaxes people. As the Bosporus watersides were built adjacent to the Strait, one of their fronts is facing the sea. The garden establishes the connection of the waterside with the sea. Boathouses can be seen in the coast section of the garden. In the history, each of the watersides located on the Bosporus had its own boathouse.

Gardens of the Bosporus watersides dazzle people with their colorful flowers and these gardens have a unique beauty. Gardens of the Bosporus watersides are decorated with colorful flowering plants offering an incomparable beauty.

3. CONCLUSION

Bosporus watersides are the pearls and the unique beauties of the stanbul Strait. They have been formed and shaped on the Bosporus for many years. Watersides are the most important structures of the Bosporus. They have unique examples of architecture and features. However, in the historical process, some of these watersides were destroyed.

Architectural influence of different eras can be seen on the Bosporus watersides. The influence of Turkish civil architecture continued until the middle of the eighteenth century. After this date, the Western influence has started. Bosporus watersides have taken its fair share from reform decisions of the Ottoman due to various reasons. After this, similar to other buildings the Western influence has begun to be seen on the Bosporus watersides.

Bosporus watersides are not only an architectural form or a housing type but also a part of the culture in which they were built. Besides their unique architecture decoration, they reflect the living tradition of their times. People were using these locations as places of resort. They had components such as Turkish baths, pools and kitchens, etc. Mostly, they were built of wood on a stone floor and had one or 2 floors. Windows were positioned to face the Strait. Watersides were offering the pleasure of viewing the Bosporus to their users. For this purpose and making more use of the daylight in the interior spaces, windows were kept large. Watersides were designed integrated with nature. Their contact with the water on the one hand and with the greens on the other hand was ensured. Thus, they were designed and made eco-friendly.

Their interiors had also their own unique features. They had large halls and rooms. They also drew attention with the interior decorations.

Gardens of the Bosporus watersides had a unique beauty with their organization schemes and landscaping. Mostly water was used in the side and rear gardens of the watersides. Benefiting from the aesthetic and visual potential of the water in the gardens was intended. Islam religion also has an influence on this. In Islam, water makes connotations of cleanliness and therefore stands out as an indispensable element of arrangements. Water, at the same time, is a relaxing factor. It psychologically relaxes people. For such reasons, water was heavily used in the gardens. Ponds were built in the gardens of the watersides and movements were given to the water with fountains. Thus, aesthetic appearances were obtained. There were pergolas and sitting places in the back vards. Garden could also be used as a separator. By this way, a function was added to it. Harem section of the watersides was sometimes separated from the Selamlık by the garden and courtyards. The watersides were designed with a garden within the bounds of spatial possibilities. Large watersides were built in a garden. Around these watersides, starting from the seafront, sets of gardens were rising after flowerbeds, wisterias, lilacs and roses. Since the lands of watersides were sloping, there were watersides having many sets of gardens. These sets were built in the backyards of the watersides. There were garden pavilion (sitting area) and pines at their peaks. These set gardens seen in the watersides constitute a garden type. Some examples of such watersides are located on the Bosporus. By taking the shape of a half circle, retaining walls in the gardens of the watersides were ensured to become more resistant to static load and have a better grip of the garden in front of them. This kind of garden example is also included in the thesis study. There were also boathouses in the front yards of the watersides. They were in a nature that allows entrance of the water inside the waterside.

Gardens of the Bosporus watersides were being designed with colorful flowering plants so that they were giving a great pleasure of viewing. Tree species used for garden arrangements were various. There were those built in woods consisting of oaks, sycamores and laurel trees.

Due to various factors, gardens of the Bosporus watersides have been changed over long years. Social and cultural factors had influences on these changes. Development of road and sea transportation along the Strait also had an impact on spatial changes of the Bosporus waterside gardens. Other than these, effects of legal regulations and laws on the spatial changes of the Bosporus waterside gardens can be discussed.

There are samples of the Bosporus watersides that have disappeared today. The list of watersides, which are not present today or undergone functional changes, is given in table 1. In the presence of all these examples, today, there is a need for better preservation of the Bosporus watersides. Conversions of the watersides have been examined and the watersides that have been changed and do not exist today are listed in table 1.

Table 1. Watersides located in the European side and undergone through functional changes

Table 1. Watersides located in the European side and undergone through functional changes	
NAME	DISAPPEARANCE REASON - STATUS
THE MÜN RE SULTAN WATERSIDE	parts of the garden have been destroyed and utilized for university's canteen.
THE CEM LE SULTAN WATERSIDE	parts of the garden have been destroyed and utilized for university's canteen.
THE ESMA SULTAN WATERSIDE	garden has disappeared.
THE NA ME SULTAN WATERSIDE	Ç
THE HAT CE SULTAN WATERSIDE	Due to construction of the Bosporus bridge, certain parts of the waterside have disappeared. Restoration works for a hotel are in progress.
THE MUHS N ZADE MEHMED PASHA WATERSIDE	It is used as Hotel Les Ottomans. The side garden has disappeared.
THE EM NE VAL DE PASHA WATERSIDE	It is used as the Embassy of Egypt. Its garden has undergone restoration and refurbishment.
THE ER FLER WATERSIDE	It is used as the Museum of Turkish and Islamic Arts.
THE SA D HAL M PASHA WATERSIDE	garden have been renovated. The woods at the backside have disappeared.
THE FUAT PA A WATERSIDE	It is used as a hotel and restaurant.
THE HMALYAN WATERSIDE	Its restoration by a private institution continues.
PASHA WATERSIDE	It is used as the head office of a private company.
THE MED HA SULTAN-GROOM FER D PASHA WATERSIDE	Hospital; Selamlık section is used as social facilities of stanbul University.
THE HUBER WATERSIDE	Its garden has been renovated. It is used as the presidential summer mansion.

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