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# FACTORS INFLUENCING THE ARCHITECTURAL PLANNING OF WATER-ENTERTAINMENT HEALTH FACILITIES

## Ibragimov N.Kh.

Samarkand State Architecture and Construction University, Samarkand, Uzbekistan. Senior lecturer (Phd), Chekaeva R.U.

Eurasian National University, Professor, Nursultan City., Kazakhstan **Axmedov I.H.** 

Samarkand State Architecture and Construction University, Samarkand, Uzbekistan. Lecturer.

**Abstract:** The article considers the influence of natural climatic conditions, socio-cultural-geographical, urban planning, economic and ecological-landscape factors in the architectural-planning of water and entertainment health facilities. Differences in the architectural-planning structure of resort buildings in Switzerland and the Maldives were compared and features of the natural landscape character were identified in the choice of architectural forms.

Keywords: SPA, healthy lifestyle, factors, natural, climate, recreation, urban planning, landscape, function.

#### 1 Introduction

Caring about the health of the population is one of the main social issues of the countries of the world. The peoples of the world are focusing on the use of parenting because of their physical health and spirituality. The role of water and recreational facilities in achieving such noble goals is expanding. The market of in our country is still developing, the construction of water and entertainment facilities throughout Uzbekistan is taking place in a unique way, and their number is growing every year. There are several separate facilities in the capital and regional cities that call themselves SPAs. Although most of these facilities are equipped with a variety of technological equipment and have a well-developed infrastructure, they are all built according to "empirically" developed rules. The study of natural climatic conditions, sociocultural-geographical, urban, economic and ecological-landscape factors influencing the design and implementation of this type of public buildings determines the relevance of the research topic.

## 2 Purpose

In the formation of the architecture of water-entertainment health care institutions, their typology, architectural-functional planning and urbanization of the environment is to study omillarni.

## 3 Methods

Comparison and comparison of various graphic materials, conducting information sources and natura research on existing water and entertainment health facilities, studying and summarizing on the basis of special literature on local and foreign experience in the design and construction of water and entertainment health facilities, critical and comparative analysis of scientific and project materials.

#### 4 Problems

Lack of scientific research in the design and implementation of public buildings of this type; in the study of the problem, the absence of a single sideshow, as well as the type of building, such as the center of a water and entertainment health institution, in the list of types of public buildings; lack of development of

specialized construction norms and rules, parameters and composition of the main rooms, functional-planning and volumetric-spatial models; water and entertainment health facilities by the local classification of institutions and the lack of systematization. In addition, this study will serve to a certain extent in the expansion of the typological framework of public buildings, the study of emerging new types of water and entertainment health facilities, the formation of the principles of their architectural planning and the determination of functional planning models.

## **5 Literature Review**

A lot of scientific work is devoted to the study of the architecture of citizens, among which aquaparks belonging to the architecture of recreation, physical health complexes and fitness clubs, as well as hotels are close to the research areas of the theme of this water and entertainment health institution. Therefore, in the study of this topic we rely on scientific research that is to some extent relevant to the above types of public buildings, such scientists as H.M. Ubaydullaev [1], T.A. Khidoyatov [2], made a significant contribution. Objects of recreation and health have been considered in the scientific works of L.G. Lukyanova [3], A.S. Uralov [4], D.V. Ezhov [5], N.N. Stroeva [6] studied the main aspects of the design of facilities such as reception facilities, health, entertainment, preventive treatment and tourism;

# **6 PROSPECTS AND RESOURCES.**

The term "water-entertainment health facilities" of the topic is interpreted as a public institution, the task of which is to ensure the health improvement of the human body by providing water-health services in different situations of water [4]. The term "SPA", which is used abroad, is an analogue of the concept of a water-entertainment health care institution in our country. This term came from the Latin phrase "sanus per aquam", which in the Uzbek language means" recovery by water". The result of the analysis on the formation of the architectural environment in the process of evolution development of existing water-entertainment health care facilities, the following most important factors that determine the structure, content and formation characteristics of the water-entertainment health care environment include: natural-climatic, ecological-landscape, urban-social, cultural-geographical, economic.

#### 6.1 Natural-climatic conditions

one of the most important factors that diversify the formation of the architectural environment of a water-entertainment health-improving institution, namely, the development of the site, the forms of structures and their functional and planning features (Figure 1). The climate predetermines certain principles for choosing the planning structure of structures, structures and equipment of buildings. Many traditional methods of folk architecture arose and formed as a result of the need to overcome adverse climatic factors.

Consider the complex of natural conditions that determine the recreational specialization of the territory.

- hydrogeological characteristics of the area include the presence of fresh water reserves, balneological (Mineralnye Vody), balneo-mud (therapeutic mud and salt lakes), thalassotherapeutic (sea water) resources;
- the presence of forest, park plantations, steppes is a characteristic of the territory and its landscape. In addition, plants actively affect the human body with the help of phyto-healing components that they produce. In this regard, the types and areas of parks and forests are a condition for the recreational specialization of the territory.

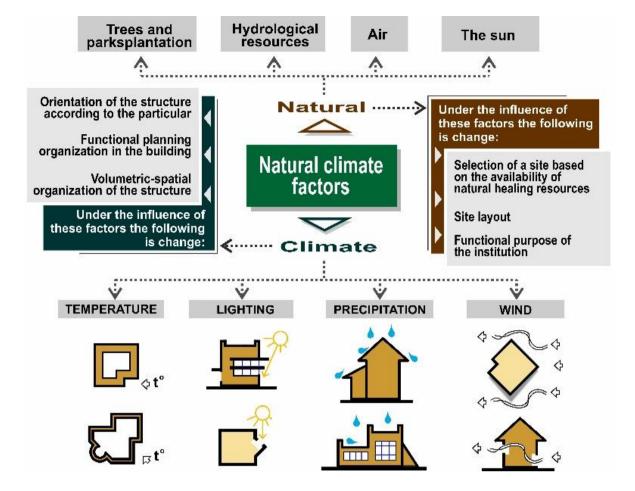


Figure 1. Block diagram of the influence of the natural and climatic factor on the architecture of water-entertainment recreational facilities.

#### 6.2 Social

The complex of social factors unites the following: the growth of the well-being of the population that leads a healthy lifestyle, the reduction of the working week, the development of the recreational sphere of the region. The totality of the recreational needs of society is the need: to restore the working capacity of the employed population; rehabilitation; treatment; sports, tourism; the need for rest. It should also be noted that the industrialization of modern society creates a large stress load on the population and, accordingly, determines the need for rest, recreation, restorative activity, including with the help of water-health procedures. Therefore, industrial cities are places of increased demand for water and health services. This factor reflects the demand of the population regarding one or another functional type of a water-entertainment health-improving institution, and also predetermines the emergence of new typological units.

# 6.3 Cultural-geographical factor

The cultural-geographical factor includes a complex of ethnic and regional cultural features of the territory on which water-entertainment recreational facilities are being designed, which in turn affect both the spatial structure and the function and set of premises of the designed complex. For a more detailed study of this factor, a comparative analysis of two resort water and health facilities is proposed for consideration: "Olhuveli Beach & Spa Resort", Maldives and Tschuggen Bergoase Hotel & Spa, Switzerland (Figure-2). Two water-entertainment health-improving institutions have been selected, which differ, first of all, in their geographical location, as well as climatic conditions and cultural traditions, which leaves their mark on the architecture of these public facilities. In terms of spatial organization, the complexes that are being compared have a number of differences: the first one consists of one volume, the second one consists of several volumes. According to such an organization, the water-entertainment health-improving establishments as part of the Swiss resort occupies the area of one building, in which groups of the main functional zones are located; (Figure-2, a) [7], area 5300 m². The complex formed an unusual geographical

configuration of a natural basin surrounded by mountains. The three-dimensional composition of the Swiss resort reflects the stylistic trends of modern architecture and the plasticity of the volume repeats the lines of the surrounding nature, the mountain landscape, and the steep relief to the maximum.

In the resort, which is located in the Maldives, in addition to one facility of water and entertainment recreational facilities for general use, each of the residential villas is designed with a local compact water and recreational area for individual use by visitors who occupy the apartments of this villa. (Figure 2, 6) [8]. The area is 4876 m<sup>2</sup>.

Volume-spatial composition was developed in the traditional style of local architecture, local natural environmentally friendly materials were used for construction, constructive solutions of buildings are typical for the area and fully reflect the architectural traditions of this geographical region. According to the master plan - the island is divided into several different ecological zones: the bay, the beach, coastal zones, and forests. Each zone has its own water activities: a water amphitheater and SPA center in the Laguna zone, a beach zone with two restaurants, a nature study center in the forest zone and a swimming cafe, a bar and a diving center in the coastal zone. The above factors of influence are also reflected in the volumetric and spatial solution of structures and the choice of building materials. During the construction, modern building materials and structures were used.

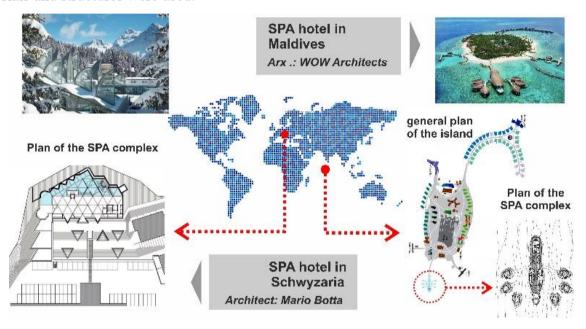


Figure 2. Examples of differences in the architectural and planning structure of resort water and recreational facilities in Switzerland and the Maldives

#### 6.4 Urban planning

Regarding the urban planning factor, it covers both the analysis of the location of the water and entertainment recreational facility in the structure of the city or outside it, and the location within the urban development, as well as subordination to the main features or dominance over the formed architectural and urban environment (Figure-3).

The location of water-entertainment recreational facilities in the planning structure of the city is significantly affected by their functional purpose. The urban planning analysis of the placement of a water-entertainment recreational institution in the planning structure of large and largest cities allows us to identify several characteristic methods of their placement:

- downtown:
- in the territories adjacent to the center;
- in the center of residential areas and microdistricts;
- on the border of the city;
- out of city.

The location in the city center necessitates organic compliance with the architectural ensemble of the

street, square, and neighboring buildings. At the same time, the building of a water-entertainment health-improving institution is often the main architectural dominant of the development of the microdistrict, it stands out for its number of storeys and originality of architecture. The design of water-entertainment recreational facilities in the central dense urban development determines the compact form of the structure. The site configuration determines the choice of a certain type of functional and planning organization of the object. Most of the buildings of water-entertainment recreational institutions in the central part of the cities are characterized by a low number of storeys, a rectangular or trapezoidal shape of the plan.

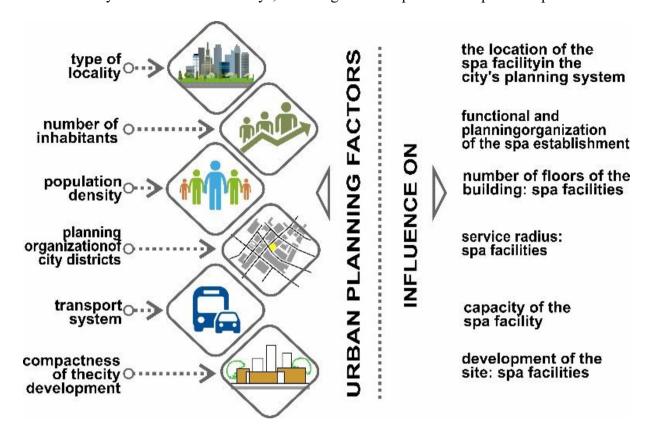


Figure 3. Block diagram of the influence of the urban factor on the architecture of a water-entertainment recreational facility.

#### 6.5 Economic factors

Economic factors affect the rationality of designing the construction of water-entertainment recreational facilities, in particular, on the planning structure of groups of premises of various functional zones, horizontal and vertical communications, in connections between floors and premises within the same floor, ease of use of premises by various functional groups, the use of local and environmentally friendly building materials.

## 6.6 Landscape-ecological

The location of water-entertainment recreational facilities in an urban or suburban park area determines the combination of the architecture of the building with the features of the surrounding natural landscape, which implies a number of landscape and environmental factors (Figure-4).

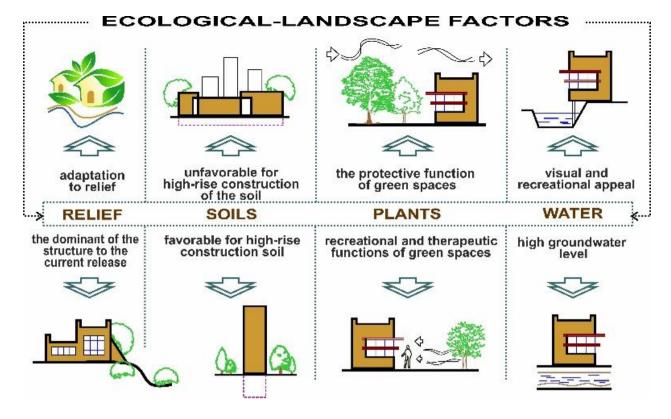


Figure 4. Экологик-ландшафт омилларнинг сув-кўнгилочар соғломлаштириш муассасаси архитектурасига таъсирининг блок схемаси.

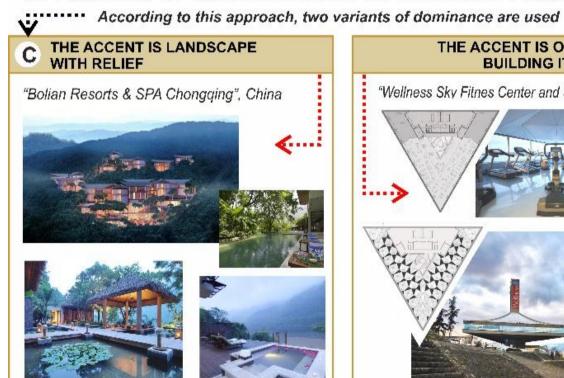
Water-entertainment health-improving institutions are located in tourist and health-improving areas among natural landscapes and are characterized by a direct connection of architectural and planning forms with the surrounding relief. The nature of the natural landscape predetermines the choice of architectural forms, among which there are [3, 231-6et]:

- architectural forms that fit into the landscape (Example: Olhuveli Beach & Spa Resort, Maldives); (Figure-5, A), [9];
- subordination to the existing landscape, in this approach, the natural forms of the landscape and the architectural forms of the building merge harmoniously (Example: "Tierra Patagonia Hotel and Spa", Chile), (Figure-5, B), [10].
- opposition of architecture to landscape or relief. According to this approach, two variants of dominance are used: the first accent is the landscape (Example "Relax Spa of Chongqing", China), (Figure-5, C), [11]; in the second, the focus is on the building itself (Example: Wellness Sky Fitness Center and Spa by 4of7 Architecture, Serbia), (Figure-5, D), [12].





## OPPOSITION OF ARCHITECTURE TO LANDSCAPE OR RELIEF



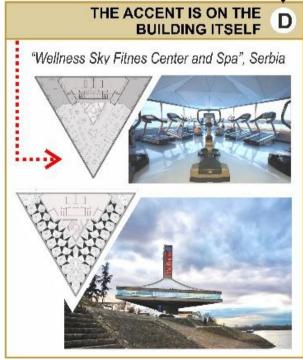


Figure 5. Signs of the nature of the natural landscape in the choice of architectural forms.

## 7 CONCLUSION

An analysis of the formation of the architectural environment of existing water-entertainment recreational facilities in the process of their evolutionary development showed that the most important factors determining the structure, content and features of the formation of water-entertainment recreational spaces are: natural-climatic, landscape-ecological, urban planning, social, cultural-geographical, economic.

It was found that these factors affect the planned structure of the water and entertainment facility and its location within the city. Exactly: to select and build the area; adaptation or dominance to the existing landscape; to the shape of a building; the functional-planning structure and functional performance of the building; influences the adaptation or dominance of the existing architectural environment.

Under the influence of the natural factor, the following changes were identified: site selection depending on the availability of natural healing resources; site planning; the functional purpose of the institution. Under the influence of climatic factors; orientation of the building towards the light; functional planning of the building; influenced the volumetric organization of the building. It is also a factor of urban planning; construction of a site for a water and entertainment facility; to organize a functional plan; the number of layers; the location of a water and entertainment facility in the urban planning system; scope of service; was found to affect the capacity.

A comparison of differences in the architectural and planning structure of resort buildings in Switzerland and the Maldives revealed the following: The three-dimensional composition of the SPA in the Swiss resort reflects the stylistic trends of modern architecture, and the plasticity of the volume replicates the surrounding nature, mountain landscape, steep relief as much as possible. When we pay attention to the architecture of the water-entertainment resort in the Maldives, we can clearly see that the volume-planning composition is created in the style of traditional local architecture, local natural and ecologically clean materials were used in the construction, the constructive solutions of the constructions are specific to this region and fully reflect the architectural traditions of this geographical region.

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