Specific Aspects of The Use of Water Devices in Landscape Design

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ABSTRACT

This article discusses the requirements for modern water devices, modern trends in the design and construction of water devices, measures for the efficient use of water in the design of water devices, and discusses the design of hydroparks and water parks. At the end of the article are the final conclusions and concepts.

Keywords: Engineering requirements, technical-economic requirements, environmental requirements, hydroparks, hydrocarusel, wellness, water mountain, water attraction.

Introduction

Efficient use of water resources, one of the most important natural resources of our lives, is one of the most pressing issues today. Measures for the efficient use of water should be considered in the design of water devices. Water devices can be used in almost all parts of the country. In particular, in the areas of settlements, parks, parks, s, public buildings and educational institutions, sports, industrial enterprises, kindergartens, interiors and so on.

Main Part

2.1. Environmental, engineering, technical-economic and memorial requirements to water devices. There are several requirements for the design of water devices, the main of which are environmental, engineering, technical, economic and architectural requirements. Environmental requirements for water devices are aimed at ensuring that these devices are made of local, environmentally friendly building materials as much as possible, without adversely affecting the environmental condition of the devices and the health of the people who use them. At the same time, it is necessary to take into account such factors as long-term durability and longevity of water devices.

Engineering requirements for the design of water devices include engineering capabilities in the construction of these devices, the strength of their structures, resistance to moisture, cold and heat and various other man-made influences, their ease of construction.

Feasibility studies include savings in the construction of water devices, the use of locally produced materials and materials, as well as increasing the technical capacity of built water devices.

The architectural requirements for the design of waterworks provide for the high level of artistic and architectural design of these devices, the presence of attractive compositional solutions, meeting modern aesthetic requirements[1].

2.2. Prospects for the design and construction of water devices. Formation of water systems in urban landscape design. With the growth of urbanization, the rapid growth of buildings, the density of the location, mankind is changing the ecological situation in cities, there is a need to harmonize the landscape of buildings with nature, a rational combination of urbanization and components of the living environment.

In order to improve the urban environment, water-green systems of settlements, including green areas and water devices are being formed. Landscaping recreation areas in front of residential buildings, water-health centers in the city, the creation of an aquatic environment that is beneficial to people in all respects are of great importance today. The design and construction of promising areas of construction of water facilities should be able to meet all the requirements. Especially as a means of reducing noise, as a means of combating high levels of air pollution, multi-storey buildings are of great importance in areas where industrial buildings are located[2].

The construction of hydraulic structures is also a means of expressing the architectural and artistic appearance of the city. In green spaces around the entrances to architectural ensembles, large buildings, for a panoramic view of the environment, landscape design, water structures are the main requirements that must be taken into account when planning green areas. Also, the inclusion of water facilities in the design components will help to create water facilities and create new directions of design.

Use of water devices in functional and environmental regulation. Traditionally, water devices are placed in places where people visit in public. Artificial water devices are used to irrigate lawns, flowers, ornamental plants, as well as to decorate the exterior of fountains, waterfalls, cascades. Fountains and other devices serve to improve the microclimate characteristics of the environment.

The choice of sites takes into account the availability of natural water bodies in the planning and construction of urban centers, settlements, landscapes and recreational areas. In the absence of natural water bodies, artificial devices are built.

As a result of the creation of artificial water devices it is possible to increase the ecological sustainability of any building environment, improve its quality, regulate humidity, create favorable conditions for plant growth

Figure 1. General view of the (Tashkent).

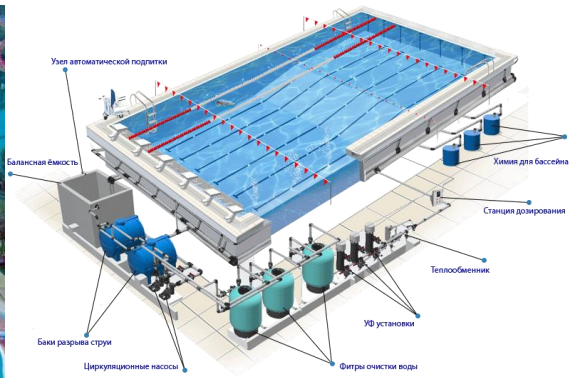

Figure 2. Constructive and schematic structure of the pool

The decorative and artistic properties of water devices, the use of sound-absorbing properties of water in static and dynamic states open up rich possibilities. The feature of water reflection is widely used in architecture. In spring and summer, water bodies with a depth of at least 1.5 meters should be constructed in water basins located in areas where the population rests[3].

2.3. Design of hydroparks and water parks. Hydroparks, water parks serve the purpose of sports fitness and recreation

around the water. Their appearance is defined by structures such as harbors for sailing and motor boats in outdoor pools and hangars, indoor and outdoor pools, distinctive water attractions, hydrocarousels, water trampolines (paddles), floating stage platforms, restaurants, bridges and ropeways. In the hot arid climate of Uzbekistan, these parks are the most suitable.

We know that each building has its own unique appearance due to its function. In any case, this applies to water parks. There is no concept of a model project in the design of water parks. Each will have a unique architectural look that embodies the traditions and customs of the area in which it is located. The unique appearance of the water park helps it to be recognized and take a special place in the service.

The official typology of design has not been developed today. But today we are witnessing that the architects of the world are designing indoor and semi-indoor water parks in the form of a multi-faceted pyramid, dome or semicircle. When thinking about the appearance of a , its architectural solution should focus on enhancing the functional aspects of the in addition to the function of a direct entertainment center. Today, s provide the following services: 1) water slides; 2) different views of the bathrooms; 3) SPA salons; 4) fitness; 5) wellness and other health services. In general, today's modern is a complex with multifunctional, health and entertainment, modern service system. It's architectural solution should reflect the internal function of the .

Construction of water parks is a complex technical process. Therefore, in this project, great attention is paid to the engineering part. Engineers are provided with working projects based on precise engineering calculations, such as the design of large steps with a complex design solution, the closure of a space with a shell volume-spatial solution, the design of cantilever floors, artificial caves and rocks [4].

Conclusions And Recommendations

Water material is a priceless gift of nature, which allows you to create wonderful compositions, give a person esthetic pleasure, can have an emotional impact. Therefore, in the design of water devices, it is necessary to take into account the natural properties of water and use it efficiently. Today, young and old alike are well aware that the appearance of several states of water, such as calm (water window), gushing, sounding (waterfall), jumping up and down(fountain), spreads the human tongue.

References:

1. Rakhmatova M.M. Research and make recommendations on promising areas for the use of water devices in the design of landscape design objects. Master's dissertation. – Samarkand, 2019.
2. works.doklad.ru
3. studref.com
4. Rakhimov K.D. Modern trends in the design of gardens and parks. Volume 3. – Tashkent: "Mashhur-Press", 2017.