

Principles for the Use of Small Buildings in the Historic Urban Environment

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Abstract: We know that since time immemorial, humanity has tried to create an entertaining and pleasant environment for their recreation and cultural enjoyment. In parks around monuments of different countries, devices were created in different ways. Among them are the ancient gardens of Turan, Samarkand, Khiva, Bukhara, Timurids. The skillful use of water features, ornamental plants, and wonderful architectural techniques in landscape nature has made historical cities even more beautiful.

Keywords: Decorative trees, landscape shrubs, landscape of historical cities, Chorbog.

Introduction. In Uzbekistan, along with the problems of large-scale improvement of buildings, the architecture of historical monuments, the study of such areas as landscape architecture, landscape design and floristry, the promotion of various experiences in the field of effective innovative ideas, I realized the relevance of my topic. The prosperity and beauty of our cities, regions and villages are associated with the ideal creation of landscape solutions. Including parks, parks, recreational gardens, ornamental trees and ornamental shrubs, various forms of flowers (MAF) create a more perfect landscape solutions environment. One of the most important issues in effectively solving the problem of the development of historical cities is the use of monuments at the present time. Improvement and restoration of city centers in accordance with the requirements of the time (especially in cities with historical and architectural monuments), the relationship of old and new buildings is associated with the landscape environment.

Main part

In landscape solutions for the environment of historical cities, we perfectly apply the principles of using innovative methods and devices using the example of historical monuments of Samarkand. At the same time, we will create a special look and comfort in the landscape environment of the historical monuments of Samarkand. We will improve the ecology of our historical monuments.

In a state of realizing national identity. We will enrich our experience in the field of innovative renovation of the landscape environment of historical monuments of old Samarkand. At the same time, the principles of creating aesthetic comfort in the environment of monuments will be implemented. We will create new directions and apply them in holistic connection with the environment.

Materials and Methods

Materials and Their Use in Landscape Design provides a unique, encyclopedic focus on the efficient use of the raw materials that form the foundation of our environment—stone and brick, wood and aggregate, cast and precast concrete and asphalt. When using information devices, raw materials and the impact on the external environment come first. Currently, the materials used in landscape environments vary. (Fig1).



Figure 1

However, it is necessary to know how to choose the right materials in the landscape design of the environment of historical monuments. Materials are prepared from natural and artificial mixtures and selected according to the purpose of the design.

Over the past decade, we have seen large-format 3D printing and composite materials start to be used in landscape architecture. Some of these examples have been successful, and some have failed (splitting layers in 3D printed benches); however, the technology and materials are evolving to a point in which we can use recycled plastics in many of our products we use including decking, edging, tree staking and various other products used in landscape architecture.



Figure 2

Abiotic migration of matter in landscapes occurs primarily in two forms.

occurs:

- 1) bodies of different sizes, formed as a result of weathering or decay, move along the slopes under the influence of their own gravity, formation of mechanical discharges in running water and dust particles in the air in the form of manufacture;
- 2) movement with water and various geochemical or substances dissolved in water (various gases) involved in biochemical processes will be in shape. (Fig. 2).

Results and Discussion

Taking into account the historicity and world status of the city of Samarkand, the work being carried out in the field of repair and restoration of the historical part of the city, its architectural monuments, adapting them to modern social and tourist purposes and thus preserving them for future generations, recreation of the population, i.e. improvement of the external environment, landscaping, floriculture, organization and formation of new gardens and parks, boulevards, climate mitigation are part of the comprehensive work for the further development of the historical and eternally modern city.

The territory of Samarkand is rich in underground waters located at a depth of 1-20 meters. Groundwater moves closer to the surface as the topography decreases away from the mountains. In the lowest parts of the valley, especially in the deep beds of the mentioned streams, there is a lot of underground water that has formed springs. Undoubtedly, the springs served as the main source of water for the ancient inhabitants of Samarkand.

The location of water features is even more important in a historic landscape environment. In general, a device decorating a historical environment must not only be compatible with the environment, but also not cause harm. Any water device can impact the environment when it is placed. For example: humidity. Based on careful research, it is necessary to place historical fountains and water features around the monuments. To prevent moisture from affecting the building, it is permissible to select suitable devices.

- the principle of continuity - taking into account cultural traditions;
- principle of efficiency - rational use of materials and structures, taking into account ergonomic requirements;
- the principle of complexity - not individual small architectural and landscape forms, but their complexes, including functionally and structurally interrelated elements of the subject-spatial environment of landscape design;
- the principle of combining benefit and beauty - landscape design of small architectural and landscape forms that simultaneously perform decorative functions.
- In landscape design, small architectural landscape forms are taken into account:
 - social requirements - taking into account the needs of different socio-demographic groups of the population (for example, determining the size, theme, color scheme of children's play equipment, taking into account the age groups of children, landscape design of ramps, taking into account the structure of the human body, the height of handrails) taking into account cultural traditions, features. Spending residents' free time choosing equipment and landscaping elements;
 - environmental requirements - ensuring environmental protection, taking into account the growing conditions of plants, the level of air, water, and soil pollution when placing small architectural and landscape forms;

- economic requirements - reasonable use of material, small architectural forms, identification of resources, labor costs in the manufacture and use of small architectural and landscape forms;
- safety requirements - preventing injuries (for example, setting a safe height taking into account the shape, characteristics of the surface of the playground equipment), ensuring fire safety, compliance with sanitary and hygienic standards (for example, not using toxic materials).)
- functional and design requirements - determination of dimensions, selection of materials, design solutions, taking into account the purpose and features of the use of small architectural and landscape forms;

technological requirements - technology for manufacturing small architectural and landscape forms, small architectural forms made of wood, taking into account the characteristics and capabilities of the materials.

- aesthetic requirements - organization of space taking into account architectural, compositional, artistic patterns of formation;
- urban planning requirements - urban planning and landscape conditions, organic introduction of small architectural and landscape forms into the environment.
- Landscape design of small architectural and landscape forms is aimed at improving the architectural and landscape environment of settlements, taking into account the social and functional needs of the population.

Conclusion

Small architectural and decorative forms in landscape architecture objects are elements of artistic design and can perform various functions. They are combined with the general style, decorate, create variety, give functional functions to objects, add brightness to their symbolism and, again, can provide information about orientation to a particular area of the park being visited. Architectural elements and structures are divided into the following groups:

- decorative architectural elements – fountains, statues, vases, gazebos and trellises;
- architectural elements of ideological and political content - monumental monuments, busts;
- elements of cultural, everyday and utilitarian content - exhibition pavilions, summer theaters and cinema halls, open theaters, reading rooms, buffets, minds, desks, benches;
- for a relaxing holiday – verandas, observation decks, gazebos;
- for active recreation - children's playgrounds, physical training grounds, dance halls, attractions.

In conclusion, it should be noted that small architectural structures should be used in the landscape environment of the historical environment in accordance with their function and architectural design.

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