Dome-Shaped Fountains

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Abstract: The article gives an overview of the design of a new dome figurative fountains and project scheme, with a brief introduction to the fountain landscape architecture from ancient to modern times.

Keywords: construction, architectural, ancient, bent surface, fountain, temperature, coolness, umbrella.

According to doctors, fountains are very useful for human health. Pure water gives pleasure to winter, lifts the mood and relieves fatigue. In people who watch the fountain, blood circulation and brain function are improved, the nervous system is calmed.

The ensemble of fountains, in terms of architectural style and size, not only adorns the surrounding buildings, but also serves to cool them on hot summer days. It stabilizes the temperature and cools the environment.

According to ancient finds, the earliest fountains appeared in ancient Egypt and Mesopotamia. Initially, the fountains were used for irrigation of cultivated plants as well as ornamental plants. The Egyptians planted orchards in front of their houses and built fountains to irrigate them.

Similar fountains have been used in Mesopotamia and Persia, which are famous around the world for their magnificent gardens. The use of fountains is also popular in the East. According to the paintings on the carpets of the ancient Orient, the rules of using four main objects were followed in the creation of the Persian gardens: water, flowers, plants and fountains. The stairs in the Muslim gardens and the corridors of stone slabs of different colors, the gushing fountains, the unity of light and shade, were a special highlight.

Later, similar parks were established in Toledo, Grenada, and elsewhere.

Trees, flowers, water, light and shade were also widely used in the creation of other styles of gardens. A vivid example of such landscape architecture can be seen in the gardens of the Taj Mahal Palace and Shalimar Gardens in India.

The basis of such gardens are ponds full of water and artificial waterfalls, fountains, which flow from the mountains. Fountains have become important in China and Japan. For example, in the design of the Japanese park Kyoto, built by Buddhists and priests, great attention is paid to these aspects. As a result, each part of the garden has its own charm, which gives a special mood and serenity to everyone who visits the garden.

New discoveries and advanced technologies play a key role in the creation of modern fountains. The landscape architecture of the Persian Gardens was the basis for the creation of fountains and gardens in Europe. In the Middle Ages, the first gardens were built in front of monasteries. The gardens, like the Persian gardens, were created in 4 parts and consisted of flowers, fruit trees, plants and cultivated vegetables. In the middle of the garden, there is a pool or fountain, which is convenient for relaxing, gathering thoughts, and praying. But in the Middle Ages, as in ancient times, the fountains were used for irrigation and drinking water. It was not until the Renaissance that fountains in Europe became the main bright part of the architectural ensemble. In this, the Roman-Greek method is based. Gradually, conveniences began to be created in the supply of water to the fountains. The Lante Palace was an example of the renewal of the Italian style. Innovations in landscape architecture spread throughout Europe.
In France, landscape art flourished by the 17th century. A striking example of this is the permanent king of the world-famous Versailles Gardens, which was the basis for the creation of such palace-garden ensembles all over the world.

By the end of the 17th century, English-style gardens and alleys began to become a tradition. At the same time, there have been changes in the appearance of waterworks.

Modern fountains are remarkable for their ability to rise to great heights. One of the most famous fountains is the Fahda King Fountain in the Red Sea. The rising water rises to a height of 260 meters, up to 318 meters in good weather can be raised. [2]

New discoveries and advanced technologies play a key role in the creation of modern fountains. At present, modern advanced techniques are used in the creation of new views of the fountains, combining the creativity of the artist, the ideas of the artist, the innovations of the architect, as if creating new works of art. This can be seen in the fact that in modern landscape architecture the water moves in different ways as the water rises to a height, that is, in the movement of water in accordance with the different colored rays of lighting fixtures and the sound of music.

Nowadays, scenes of the use of fountains for various purposes are being devised. They are used in shopping malls, office buildings, and crowded parks to make them more accessible to people. The following dome-shaped fountain awning with water flowing from its surface is an example of one of such conveniences created for people. The reason for the domed design of the roof of the porch, we know that from ancient times the roof of buildings and structures is treated in the form of a dome, which mainly improves air circulation inside the building. Given the same feature of the domes, the water flowing from the surface of the domed pieces placed around the awning projected in the picture creates moist air, and the domed springs help the moist air to circulate inside the awning.
Pic. Dome fountain project proposal
This (see picture) dome-like, circular-shaped platform on which the seats are placed under a transparent window with water flowing from the surface in the form of an umbrella rises 20 cm above the ground. Transparent umbrella springs made of light and thin organic transparent body with a height of 2 m, a width of 50 cm and a height of 150 cm are placed around the perimeter of the platform, leaving 15 cm from the edge. Dome pieces can make up five or six pieces. The lower spaces of the dome pieces are open. The lower part of the pieces is mounted on the platform and the upper parts are joined together. The upper part of the dome pieces is inclined inwards, while the edges, in contrast, are slightly inclined outwards. It is from this edge that the water pipes are placed on both sides, from bottom to top, along the sloping surface, and at the top the water flowing down from the two pipe ends and the openings along the sides of the ends flows down along the outer upper part of the transparent canopy. Due to the fact that the upper part of the transparent canopies is wide and the lower part is narrow, the water flow directed from the top to the bottom does not spread outwards, but flows downwards in the collected state. Water falling from above flows out through a small ditch carved in a circle along the edge of the platform.

The seats, placed inside the awning with water flowing from the transparent glass surface, give a special mood to the rest. When such a domed fountain umbrella is widely used in recreation parks, dining areas and amusement parks on hot summer days, it serves to cool the heated air and retain moisture, while giving people a high mood.
**Literatures:**