The element of water in the architecture of archaic societies

Abstract
The article studies the historical, cultural and artistic interpretation of the element of water, embodied and visualized in the architectural-artistic images of archaic societies. The analysis of evolutionary and transformational processes have been based on a combination of historical and archaeological reconstructions, cultural, and art-study methods.

Key words: art culture, architecture, art image, archaic society, the element of water

Introduction
Water, the natural and biological factor of life, H₂O – from ancient times belonged to the objects of deification and religious worship of human. Together with the atmosphere and the lithosphere, water forms a hydrosphere – an independent living environment. The unique ability of water is its inexhaustibility and self-renewal, the existence in various forms – vaporous, solid, liquid; water is characterized by high heat capacity and thermal conductivity, solubility. Water is biologically active: life on earth was born in water, and the proportion of water in the human body is 60%. It is inseparable from the technological processes.

Water is also an important social factor. The role of water is exceptionally significant in the civilizational processes. It was a determining factor in primitive human settlements, and, in fact, the main hearth of origin of all civilizations. The creation of artificial reservoirs is one of the most important inventions of the civilization of mankind.

In the vast majority of researches the study of water is taken in the area of industrial, bio-chemical, technical and engineering tasks. However, the element of water has long been the subject of architectural art, historic and cultural figurative incarnations [3]. Consequently, its figurative and content load is important for identifying the place, role and meaning in artistic culture, which "documents" the time in artistic generalizations [6, 14-26].

The analysis of the materials indicates several stages of development of this phenomenon. A significant part of the experience of mankind in this area consists of stages that belong to ancient history, namely, formations, which according to the way of life belong to the archaic ones. These are societies that combine such features as mythical poetic or cult-religious outlook, hierarchical relations between social strata, pre-scientific empiricism, pre-industrial production, state-political styles in the form of despotism, early democracy, military democracy, oligarchy, monarchy [7, 387-389]. The tradition of deification of water, which carried the awareness of the phenomenon of water as an important natural resource, arose and formed precisely within them.

So the origins of this phenomenon come from the early history of mankind, in the time range from the primitive period to modern times. In a cultural sense, this period of human development is usually divided into several stages: 150 thousand years B.C. – 4 thousand years B.C. (first stage); 4 thousand years B.C. to fifth century A.D. (second stage); V-XVII centuries (the third stage; India and China – since the 3rd century, Europe till XIV-XV centuries); XV-XVI centuries (the fourth stage); XVII-XVIII centuries (the fifth stage) [8]. During the specified time in various state formations in different historical circumstances there was a significant number of specimens-artifacts related to the theme of water and water elements. In the modern problem of water resources, this human experience is becoming increasingly valuable. Cultural-artistic analysis of the monuments of Ancient Mesopotamia, Ancient India, China, Egypt, Greece, Rome, Byzantium, Europe, where a prominent place belonged to the element of water, will allow to trace the original content, evolutionary changes and transformations in the content-shaped and composition-al-stylistic decisions of architectural structures, tangent to the specified topic.

The objective of this article is to investigate peculiarities of formation of artistic ideas associated with the element of water in early
archaic societies and to trace their imagery and meaningful expression in architecture and art.

The main part

As an early stage of human development (the first stage), in the conditions of the emergence of magical culture, water was given honor in the form of ceremonies of magic, spells, orders. The main idea was to obtain abundance, security, fertility from the natural elements. There are deer crossing the river, which symbolizes the bone plate from the Grotto Lorte (France) of the Upper Paleolithic era. Given that the art of this time was exclusively ritual-utilitarian, it can be argued that water (river, stream) in this image carries exactly this content. As for the river/stream, it is the symbol of time and life, and for civilizations whose livelihood depended on the irrigation of the land with natural water – a symbol of wealth, cleansing, movement, recovery. In magical rituals aimed at bringing rain, pouring/purification was performed to bring rain. In the dance, stamping with feet imitated the sound of falling rain, pouring/purification was performed to bring rain. In the dancer, water (river, stream) in this image carries exactly this content.

The divine power of the Rulers of Mesopotamia as one of the main elements of the philosophy of the Chinese garden. In Taoism, water represents wisdom, its ability to find a way around obstacles is also a symbol of the triumph of apparent weakness over force. Chinese landscape garden/park that was formed over millennia, was created for reflection and solitude. Its idea is to harmoniously combine human and nature. Surrounding by walls, this garden includes one or more ponds, the composition of stones, flowers, halls and pavilions, combined with winding paths and zig-zag galleries. Walking among them allows you to see the new “pictures” of nature.

In Europe with the development of the Roman Empire ensured the development of architectural and engineering structures with the use of water. Based on the engineering ideas of the Greeks, contained in the writings of Aristotle, Archimedes, Pithagoras, Euclid in mathematics and technology, a new structure appeared, through which the water had acquired the art of the incarnation: a Roman engineer and architect Vitruvius and also an engineer and inventor Heron of Alexandria came up with the idea of fountains, providing it with mechanical, hydraulic, pneumatic, and geophysical devices.

The Romans considered water a gift of the gods, and patron of the water springs – Fontus God, the son of Janus, brother of the Tiber. From the Roman myth about the Jupiter the thunder god, it became clear that Jupiter was the god of water and its sources. In the legends it was common in the art. It inherits the Greek Orphic tradition, according to which walking around the water spring of oblivion and drinking from the water spring of memory at the entrance to Hades, gives immortality. The image of this water spring was reflected in the fountain in the Garden of Youth, created in 15th century. Related topic about the rejuvenating effects of love is reflected in scenes with Cupid, who is standing guard of the fountain. In the Middle Ages the fountain became a symbol of the life-giving spring, in turn, was the Christian symbol of spiritual wisdom. In the fountain – a symbol of the life-giving spring, in turn, was the Christian symbol of spiritual wisdom.
ple with elements of ancient Rus architecture is linked with the legend of the water spring. In Armenia, at the place of the water spring, revered yet in pagan times, the monastery of Geghard was built by Gregory the Enlightener in the 4th century. The church was first carved directly in the rock over the water spring, and later – new churches, chapels that glorified Geghard as the monastery of “seven churches and forty altars.” In the 13th century a spear of St. Longin, “called the spear of fate,” was transferred to a rock monastery. So, the idea of water springs figuratively influenced the planning of Church architecture and the gardens near it.

The Renaissance (fourth stage) – the transition to the culture of the New Age, gave the idea of a water element of a new impulse, marked by the energy of revelations, the change of ideals in the direction of humanism of Greek-Roman antiquity, during this period, despite the internal crisis of Christianity, which led to the movement of the Reformation and the emergence of Protestantism, the main ideological core was faith in man, his mind and earthly life. The heyday of art and science, great geographical discoveries, the rise of astronomy, chemistry, biology, and anatomy have been embodied in new projects. Urban construction addresses to the problem of improvement on a rational basis for the barely first time. Small architectural forms of the city, canals, arcades, fountains, pavings – everything is taken into account for improvement and aesthetic enrichment of its architectural appearance and individuality, which are built not only for irrigation, but also tailored to the needs of defense, water supply, flood protection, for industrial purposes, etc. In Milan they had built an elaborate system that included dams and sluices, in Verona, Mantua, Bologna, Livorno – city defensive objects. In Italy, the middle of the 16th century, the Palazzos became public buildings under the sounds of chants, they returned to the shore. In 1177, Pope Alexander III visited Venice for gratitude for the assistance of the Venetians in the fight against Emperor Frederick Barbarossa. During the ceremony of the procession of the sailors patron St. Nicholas, where church ministers read a prayer, sprinkled the water element, is pulled by tritons, the Greek mythical beings, children of Poseidon, the God of Sea, the messengers of the deep, whose trumpet-shells sounds scared off the enemy (two neighboring sculptural groups). These tritons were decorated for the image of the sea cave with scallop shells, where solemnly sits the master of the sea-shell, where solemnly sits the master of the sea, the symbol of the flow of life and simultaneously a symbol of contemplation. Humorous waterfront, borrowed from Heron the Great, was transferred to the Adrian Sea. According to Herodotus, the sea was a sign of eternal triumph of Venice in its conflicts of its time.

The end of the development of artistic visualizations of Palace and gardens was the Grotto of Thetis, located to the North of the Palace. The grotto was a separate structure, the interior of which, decorated for the image of the sea cave with shellfish products, contained a sculptural group of Martian brothers – “Nereids” (central group) and “Solar Horses,” which are serviced by the servants of Thetis (two neighboring sculptural groups). These ideas were invented by architect Pirro d’Apollon, Grotto of Thetis were built. During the 16th century, science had acquired a civil significance and naturalist Bernard Palissy. A key element of artistic visualizations of Palace and gardens is the symbolism of the water element has given a new idea to the magnificent of the King’s person, which was steadily embodying throughout the construction stages by all architects, artists, decorators and contractors of various construc-

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In Germany, similar problems for a number of parks were carried out by Albrecht Durer. From the 17th century to the modern era, inclusive (the fifth stage), in the new circumstances of the development of culture, the symbolism of the water element has unfolded the movement of Enlightenment, and the famous philosopher Voltaire published a 70-volume “Encyclopedia” (1751-1780). Thanks to the success of science, the West is becoming a leader in world history, superior to the traditionalist oriented East. The end of the development of Baroque ornamental gardens were the bourgeois revolutions that took place in Holland and England. The European community moved to a capitalist way of life. A peculiar reflection of the breaking of the epochs was the Baroque culture, which, in complete contradictions of the style, embodied the stormy conflicts of its time.

Park of the French king Francis I. A number of ideas taken from the natural Sciences – biology, botany, medicine, and alchemy, embodied in the philosophy of architecture, particularly in the caves, which suggested by the French ceramist and naturalist Bernard Palissy.

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supported by the reservoir, in which the water was accumulat-
ed from the Calagna pond, and this water filled under pressure
fountains below in the garden. The Grotto of Thetis lasted until
1684. It was extremely popular with visitors who admired the
game of fountains and the beauty of interior design.
Versailles became a model for the creation of analogues in
many European cities, particularly in Vienna, Dresden, Düs-
seldorf, Lisbon, London, Luxembourg, Munich, Petersburg,
and Potsdam.

Conclusions
Artistic images, dedicated to the element of water, embod-
ied in the architectural and artistic monuments of the archaic
societies are very important as the material and spiritual heri-
tage of humanity. Their cultural and artistic significance con-
sists in the substantive reflection of a number of ideas that
played the first priority in social history – from the origin of
life – to its preservation, protection, ordering on rational ba-
sis, from the supposed possession of elements – to the actual
technical capture by the forces of nature. The analysis of evo-
lutionary and transformational processes in relation to this
context shows that humanity is aware of the
value of water as a unique natural resource
that promotes progress, technical power, and
prosperity. The embodiment of the element
of water in a variety of form, content, purpose
and architectural objects reflected the level of
development and ideological priorities of the
archaic society.

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