

## Modern technologies in artistic ceramics

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**Annotation:** Badi ceramics have endless aesthetic and functional capabilities. Its artistic and technical qualities can be used in architecture, monumental and decorative art, sculpture and design. A rich historical experience convinces us that ceramism is subject to solving complex problems of synthesis with architecture. In modern art, the desire for a variety of materials used for all artists is more pronounced in the obora.

**Keywords:** Ceramics, ceramics, craftsmen, glass, metal, art

In their work, craftsmen focus on both traditions and new concepts, using all the tools that can be useful for applying their creative ideas to life. Sob, many craftsmen experiment with materials such as glass, metal, plastic when decorating ceramics, and sometimes even refer to other forms of art, such as photography. And today, ceramics are still in demand, continuing many centuries of tradition and gaining a new voice. Appeal to traditional ceramics serves as a reason for many artists to reflect and a starting point for the creation of a new artistic language.

The distinctive features of ceramics and the ability to incorporate important works in it allowed you to create a variety of works, from huge monumental and decorative reliefs to small shapes. Artists have discovered the richest opportunities to synthesize shape, color and space in this material, master new systems and themes.

The phenomenon of ceramic restoration in Russia at the end of the 20th century is natural and fascinating, as for centuries the leading role due to climatic conditions and lack of solar in the Northern Country has played with color, not form. Therefore, the visual culture of Russia before the 20th century is determined by painting. The synthesis of shape and color in artistic ceramics significantly increased the emotional impact of works, forcing ceramic artists to use the entire arsenal of artistic expressions in perceiving the world in complex color-plastic relationships, vision, feeling and thinking abilities. Decorative art was not limited to simple knowledge, but was carried out in new artistic forms, which became a movement of cognition.

In the late 20th and early 21st centuries, the works of Russian decorative ceramics had the color and plastic principles of construction characteristic of other types of art, but the peculiarities of this material made ceramics an independent type of creativity. Local decorative ceramics were distinguished from abroad by the depth and expressivity of the artistic image, romantic sexuality, philosophical attitude to the world, and high skill. In the last third of the 20th century, well-known sculptors I. Efimov, I. Frix-har, A. Sotnikov, and V. Vasilkovsky, whose activities contributed to the rapid development of national craftsmanship and its achievements in international exhibitions. Support for art by state and public organizations, active work of creative houses and art factories in Moscow, and later in Krasnoyarsk contributed to the birth of specific ceramic schools. Leningrad

The first clay dishes appeared during the Neolithic period, settlers moved on to a lifeless lifestyle and needed household goods for long-term storage of food. Later, people learned to burn clay in a fire, which made it more durable and waterproof. This time includes the first evidence of decoration of clay dishes. The history of the existence of ancient humans became available to us thanks to preserved clay objects and their fragments. From 12000 to 2000 BC, the first mud-made items tossed in low temperatures were produced on the Japanese isles.

In 5000 BC, Chinese ceramians invented the ceramic wheel. The earliest enamel-coated specimens were found in the Valley of the Nile River and coincided with this time. The Egyptians invented an "Egyptian paste", but the mystery was not yet strong enough.

In Mesopotamia, 4000 BC, the first products are produced in a circle, and the first types of secrets are obtained. In 2000-1000 BC, similar secrets were used during the Mino civilization of Crete, its products became the first European ceramic.

In 1400 BC, Mino's civilization disappeared, leaving containers made of tourniquets to generations.

In Persia, wonderful ceramic artifacts with a polished surface were created. Most often, the objects are decorated with imaginary creatures. In northern Europe, items of ordinary shapes without decoration are produced.

From 1000-500 BC, shooting techniques were developed in China during the Chjou dynasty. It was delivered to 1200\*. A "stone mass" (10) containing raw cholein is obtained. Around 1000 BC tried to produce porcelain. In Greece, large decorative vases with a bright surface, decorated with complex geometric patterns, are produced. The geometric style changes the black figure style, and then the red figure style.

The famous bouquet technique, which thrived in the 700s and 400s BC, allowed for the acquisition of products with a dark, whipped surface that imitated the metal.

From 500 BC to 300 BC, the shapes and decorations in Rome resemble the Greek style. The firing technique is being improved. Lead secrets are used.

200 BC China. At the funeral of emperor Qin Shi-huangdi, a wonderful collection of terracota statues dating back to this time was discovered. 6000 real size fighter figures. From 300 to 1300, initial materials are brought from Persia to China to produce secrets at low temperatures. 1000 - 1300 is the golden age for ceramic art in China. The famous Chinese porcelum, distinguished by hardness and tone, is made manually.

Arab masters invented the mystery of the "renewable fire", chandelier ceramics (1) with a beautiful metallic reflection. It spread throughout the X-XIII centuries in the Middle East and Spain. This discovery can be considered the beginning of majolice production. In Europe, simple and functional household goods are produced, and here it appeared by the end of the XVI century (majolika, depending on its origin, is often also called tiles).

### **Modern ceramism.**

The development of Ye European ceramics from 1300 to 1600

Period of geographical discoveries and trade relations. Cobalt was brought to China from Persia to paint porcelain. Other minerals were discovered and used to make ceramic dyes of many colors. In Europe, Marco Polo's travels had a profound effect on culture. Chinese porces have been imported. Local craftsmen are eager to unlock the "mystery of China". Chandelier ceramics come to Spain from Islamic countries. From here, through the island, he comes to Italy. Local products with chandeliers are called "majolika". With a porous lump containing iron and lime, but still a mass of white tiles, it is covered with two secrets: non-transparent, high tin quantity and transparent glossy lead secrets. At the end of the XVI century Mallorca Faenza the city became the center of the production of white majolik a (fyans).

The development of Ye European ceramics from 1600 to 1900 . In Japan, along with a thin porcera, the production of a new type of ceramics for the tea ceremony, "Raku", will begin. It is believed that this species was developed by ceramic monks. In Tibet northern YeEurope, industrial production appeared in the 18th century. The first mass ceramic production of high quality in England. In Germany, a porcelain is made that mimics Chinese spears. France is famous for its Sevr production products. Against the background of the famous "Royal Blue" is a picture of a white stock, with abundant dice. Sevr sculptures of matt white sponge cake are known. But industrial production of ceramic products leads to their incomprection. And then appearing in England, the "oreev6va and crafts movement" opposed copying the styles of past times to create original works.

### **Modern techniques and methods of art of artistic craftsmanship**

Artistic craftsmanship is highly esteemed among the people of our country, as well as guests and visitors. Items made of burned clay refer to a common and very ancient type of folk craftsmanship. It uses a natural material that is easily available. Dishes- glasses, cups, plates, tubes, pots, as well as toys for various purposes are the most typical products produced by the people.

The concept of "artistic ceramology" includes all kinds of products made of clay. Depending on the basic raw materials and additional components, terracota, majolika, tiles, porcelain are obtained, which differ in appearance and decoration methods. The terracota has a light red-brown color of burned mud, not covered with a mystery. It easily senses moisture, so it is used mainly for decorative products.

For the purpose of utilizing majolika products with the natural color and porous fragment of burned clay for utilitarian purposes, their surface is covered with secret and colored enamels, which allows the piece to be made waterproof . Majolika décor is enriched by applying angoba-white burned clay in the form of a very thin layer. Against its background, secrets and colored enamels increase sonoride. This is a cheap type of

artistic ceramics. The tiles, unlike the flavor, have a thin lump, which is mostly white in color, and its porousness is mostly destroyed by a transparent secret. Porcelates are the most perfect type of artistic ceramics. Whiteness, mechanical strength, resistance to chemical and temperature influences ensured widespread application in the production of technical products, containers, sculptures and other works of art. Cholesterol, clay, field spati, quartz - indispensable components of the raw mass - form a thin, transparent lump as a result of the shoot. The work of constructive and decorative details with jewelry combined with elegant painting puts the porcel artifacts in a row with the most valuable art and craftsmanship. The methods of production of ceramic ceramics have undergone some changes in the history of the development of these products. Manual blood vessel modelling is still maintained in some parts of our country. But the desire to improve the labour and achieve the perfectly assembled shape of the container led to the use of a plaster with a circle made of clay made of raw clay, something subject to the principle of symmetry. Further changes in the ceramics machine are involved in the transition of a circle from hand-to-hand conversion to foot drive and then electromechanical motion. The principle of its work has survived to this day.

In modern manufacturing, the ceramic machine is significantly replaced by pouring into plastered split molds. Liquid clay mass-slip - poured into the mold, moisture is absorbed with plaster and the future container is sealed on the walls of the mold. Excess slip is pre-poured, only a small layer remains. The resulting semi-finished product goes through an additional half-day of work: attach the handle and tube, if it is a kettle; cleaning the seams from the pouring; decorate with scratch; surface alignment - cleaning and so on. After its completion, their product is dried. Then passes through the shooting of artistic ceramics.massa

When decorating these products, the picture is often used. Jewelry of this type has a wide variety of techniques. Decorating with angobas is associated with a mixture of thin white or liquid clay dyes, both with full or partial covering of the surface and embroidery in a non-combustion container with a pipette, horn or peat. At the same time, angob does not fully absorb into the fragment, preserving the relief of ceramic decorations. The decoration material contains secrets that are transparent (colorless and colorful) and not transparent. Folk craftsmanship is characterized by the unique use of transparent secrets in the form of a partial coating of products, creating a mat and a bright surface game.

Local technologists led by Professor S. G. Tumanov developed a rich color palette of supralazur and supralazur paints, secrets and enamels, which became the technological basis for Russian ceramics.

Free watering of colored non-transparent secrets-enamels has long been used to create picture effects. The main color of the piece is covered with enamel, while the clear, pale secrets emphasize the natural color of the clay. Painted secreted products, as a rule, are burned in two or three stages. The first is that hurling at the scrap gives strength to the product, ensuring the hardness of the piece. The second shot is made as a final one, correcting the photo and mystery (with a picture with a hidden picture). If eye painting is carried out, then the shot is carried out three times (scraping, watering and eye painting). The light image requires a high shooting temperature, so its palette is more limited. The color spectrum is wider in eye painting, since the shooting temperature of the artistic ceramics does not exceed.700 °C

Some people in this art are centers that create clay toys. It is sculpted manually and painted freely, creating new options every time. In most centers, dyeing is done with glue paints and is associated with a technology that does not require shot (drying and burning of semi-finished products is not excluded). Only in some crafts, the toy is made with the use of the same technology, in parallel with the dishes, with a charm and a shot. Artistic ceramics of this type can be found in many regions of Russia. In public practical art centers with deep historical traditions, the toy stores motifs and images associated with religious ceremonies that represent the forces of nature. Therefore, they reproduce images of a female figure (description of the mother nature), horse, deer, bird. Sculpture paintings are a symbol of events that matter to a person and have a semi-fictional feature that is integrated.

The mud toy, which remains in an outer archaic and sometimes very primitive form, has encountered changes, reflecting new phenomena of real life. In a number of craftsmanship of toy production, images of people - representatives of different social strategists of society - have appeared: farmers, citizens, soldiers, ladies. Along with depicting single symbolic figures in the works of modern masters, multi-figure compositions depicting genre scenes are more and more common. Due to the historical characteristics, these production centers have developed in a unique way for each nation. On this basis, the technology of product

production was developed and strengthened, which became part of artistic traditions describing the uniqueness of the art of ceramic art in every region of our country.

Clay species and their features

Clay is a secondary product of the earth's crust, a sedimentary breed. There are several types of natural clays: ordinary surface clay, refractory, slip (after shooting it resembles a stone), porcelain (basis for porcelain). Each of them has various characteristics: low shrinkage, glass when shooting, bending, deformability, elasticity. In nature, clay almost always contains mixtures. To give the desired properties, a long cleaning and grinding process is required.

Taking into account the requirements for products, ceramic raw materials are created on an industrial scale: porous ceramic mass, majolica, chin, stone mass, coarse ceramic masses.

Each clay mixture includes three components:

- fluxes - fluxes) - substances that help reduce the melting point;
- reduces contraction during drying of cleaning materials - chamotte, sand, sawdust.

For amateurs, clay with natural red or white characteristics will be enough.

Natural red clay. It has a greenish-brown color, giving it iron oxide, which accounts for 5-8% of the total mass. When shooting, depending on the temperature and type of the oven, it acquires a red or white tint. It withstands a temperature of 1050-1100°C. Plastic, well-formed, almost not deformed by proper drying and shooting. It is used in modeling and working with layers.

White clay. When it is light gray, after shooting it gets white or ivory color. Cooking temperature: 1050-1150°C. It is recommended that you keep the peacock shot 900-1000°C (before). Elastic, keeps its shape well. Clay is used for making dishes, plumbing, plates or craftsmanship. To color white clay, paint (pigment) or oxides can be added to the raw composition. Oxides in a ratio of 1.5-6%; pigments - 5-20%. Nam

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