

Innovation of traditional Ceramic Technology and Modern Ceramic Technology

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Keywords: tradition; ceramic technology; modern; innovation

Abstract: Firstly, this paper briefly introduces the ceramic technology and expounds the traditional ceramic technology, including the concept of traditional ceramic technology and ceramic technology in different periods. Then analyzes the modern ceramic technology, and specifically analyzes the relationship between traditional ceramic technology and modern ceramic technology, including the functional relationship and artistic relationship between traditional ceramic technology and modern ceramic technology. Finally, analyzes the development and innovation of the modern ceramic technology, in order to make more people deeply understand the innovation of traditional ceramic technology and modern ceramic technology.

1. Introduction

Chinese culture has a long history and has spread many ancient crafts, of which the most representative is ceramic craft. At the present stage, while keeping the traditional craft, the ceramic craft has been continuously innovated and reformed, incorporating many modern elements that conform to the public's aesthetics, and its production craft has gradually become more perfect. While keeping the essence of traditional ceramic technology, modern ceramic technology adds many new artistic elements. Ceramic works are more contemporary and have more obvious differences from traditional ceramic technology.

2. Brief introduction of Ceramic Technology

Ceramic technology can be traced back to the Stone Age, when ceramics were widely used in people's daily life. In the Stone Age, ceramics were used by human beings as containers for storing objects and articles for daily use. With the changes of the times, the progress of society and the further development of ceramic technology, ceramic products have gradually become ornamental, become artistic works and become common handicrafts in human daily life. China's ceramic technology has a long history, but modern ceramic technology can no longer only continue the traditional ceramic technology, and needs to inject "fresh blood". Foreign artistic elements are gradually applied to our country's modern ceramic technology, which makes the development of ceramic art meet the new aesthetic style of modern people.

3. Traditional ceramic technology

3.1 The concept of traditional Ceramic Technology

The concept of traditional ceramic technology is to use inorganic nonmetallic minerals, such as clay, as raw materials to produce industrial products through professional ceramic artists. In the early days of pottery making, it was relatively simple. Craftsmen mixed clay or a mixture of clay and made it into the required shape. After calcination, finished porcelain with different shapes was produced. At this stage, the productive forces of society are continuously developing and progressing, and the finished products of porcelain are gradually becoming more exquisite.

3.2 Ceramic Technology in different periods

During the Shang and Zhou dynasties in our country, there were specialized ceramic production jobs in the society. During the Shang and Zhou dynasties in our country, there were specialized

ceramic production jobs in the society. During the Warring States period, craftsmen gradually attached importance to the beautiful decorative patterns and lifelike flowers and birds on the porcelain when making the porcelain. In order to make the fired pottery smooth and full in color, they began to apply glaze technology to the firing of the pottery. During the Warring States Period, lead glaze was mainly used to glaze pottery. During the Western Han Dynasty, a variety of colored glazes also gradually emerged. When it developed to the Tang Dynasty, there appeared the Tang tricolor which is well known to modern people. Tang tricolor is a warm glazed pottery that uses green, brown and yellow as the main colors and adds a small amount of other colors and is fired at low temperature. The appearance of the Tang tricolor in the Tang Dynasty marked the peak in the history of pottery making.

During the Shang Dynasty, craftsmen used kaolin to calcine when making white pottery. At this time, the temperature of burning pottery was as high as over 1,000 degrees. With the continuous development of pottery-burning technology and its development to the Tang Dynasty, there has been a quality close to the standard of modern advanced fine porcelain. In history, the mature period of porcelain burning technology was Song Dynasty, when famous porcelain kilns appeared, including Yaozhou kiln, Jingdezhen kiln, Yue kiln, Longquan kiln, etc. The five famous kilns called by later generations, including Ding kiln, Jun kiln, Ge kiln, Guan kiln and Ru kiln, also appeared during this period. Jingdezhen porcelain, which is well known to modern people, is unique in style, varied in variety, rich in decoration and graceful in shape. At the same time, it enjoys the good name of "sound like a chime, thin as paper, bright as a mirror and white as jade". Known as Jingdezhen's four traditional famous porcelains, colored glaze, pastel, exquisite and blue-and-white porcelain are now also popular ceramic handicrafts at home and abroad.

Blue and white porcelain reached its peak in the Yuan Dynasty. Since the Ming Dynasty, there have been more dazzling porcelain works represented by blue and white exquisite porcelain. The glittering and elegant and exquisitely carved blue and white exquisite porcelain has become a unique and distinctive masterpiece in the history of pottery making. In the Qing Dynasty, with the rise of enamel color technology, the production technology of porcelain also changed. During this period, there were pastel porcelain with soft and elegant tone and glossy porcelain surface. Traditional ceramic technology reached its peak during this period.

4. Modern ceramic technology

In the modern ceramic making process, the traditional ceramic making, calcining and forming techniques have been continued, but the traditional carbon kiln firing has been changed into the modern electric kiln firing. This makes the process of firing ceramics simpler, easy to control the firing temperature, and energy-saving and environment-friendly. This is an advance in the history of ceramic technology development. The artistic processing of modern ceramic technology is also gradually being innovated. With the change of modern people's aesthetics and the conflict and integration of Chinese and western cultures, the aesthetic needs of the people in our country have also changed.

Modern ceramic processing pays more attention to the processing of patterns, colors and shapes. Meanwhile, western aesthetic elements are gradually added to the process. The ceramic culture, the expression forms of ceramic technology and the types of ceramics have become more abundant, and the application of ceramic colors and shapes has become more skilled. The continuous progress of science and technology has also determined the further development of ceramic technology. Ceramics are not only ornamental works of art and storage vessels, but also important parts in industrial production due to their characteristics of easy processing, high temperature resistance, non-conductivity, oxidation resistance and corrosion resistance. Ceramics are widely used in the manufacture of turbine hook blades, bearings and rockets, and have become one of the widely used raw materials in the civil production industry and scientific and technological fields.

5. The relationship between traditional Ceramic Technology and Modern Ceramic Technology

5.1 The functional relationship between traditional ceramic technology and modern ceramic technology

Modern ceramic technology continues the appreciation and storage of traditional ceramic technology in function, and at the same time makes the function of ceramic become richer and more widely used with the development of modern ceramic manufacturing technology. At the same time, the traditional function of ceramic is also paid attention to. In our daily life, ceramics are the most commonly used ornamental works of art and storage vessels. Modern ceramic technology enriches the patterns, colors and shapes of ceramics, enhancing the appreciation of ceramics, and ceramic works of art are gradually favored by more and more people.

5.2 The artistic relationship between traditional ceramic technology and modern ceramic technology

From an artistic point of view, modern ceramic technology is different from traditional ceramic technology. With the integration of western art elements, the artistic style of ceramics has gradually changed, and modern ceramic technology has enhanced people's visual sense of beauty. This makes some ceramic craftspeople pay too much attention to popular styles and reject the expression and understanding of artistic beauty in traditional ceramic craftspeople. The essence of traditional ceramic technology, an important component of ceramic culture, and the foundation of ceramic culture are the understanding of artistic beauty. Only when the ceramic craftsman deeply understands the essence of traditional ceramic technology culture and has sufficient understanding of ceramic culture, can he get twice the result with half the effort when making ceramic crafts, and can the crafts he creates better interpret the connotation of ceramic culture.

6. Development and Innovation of Modern Ceramic Technology

Modern ceramic technology reforms, develops and innovates on the traditional ceramic technology. For example, the famous famille rose porcelain is the quintessence of colorful porcelain that absorbs enamel. At present, ceramic technology needs to be based on traditional ceramic technology, using modern science and technology, and at the same time adding western aesthetic elements in the manufacturing process to meet the aesthetic needs of modern people. Only in this way can modern ceramic technology have a unique style. Only when the ceramic-related craftsman has a sufficient understanding of the development history of traditional ceramic technology and the basic elements of ceramic culture can he master the general direction in the process of development and innovation of modern ceramic technology. The development and innovation of modern ceramics can be accepted and recognized by the audience only when the traditional ceramic technology is inherited, new design elements are continuously integrated, and the artistic culture of the combination of east and west is continuously increased.

7. Conclusion

In people's daily production and life, the existence of ceramics is indispensable. Modern ceramic technology pays more attention to the cultural and artistic details of ceramic products, which makes ceramics not only convenient for people's daily life, but also one of the most ornamental artistic works. Ceramic works of art satisfy people's aesthetic and spiritual needs. The emergence, development and continuous improvement of traditional ceramic technology lay the foundation for modern ceramic technology, which is continuously improved and developed on the basis of traditional ceramic technology. Continuous integration of new elements and continuous innovation have greatly enriched the functionality of ceramic works of art. In the future development of modern ceramic technology, it is still inseparable from the "cultural heritage" of traditional ceramic

technology. At the same time, continuous innovation is needed in order to create more functional and exquisite ceramic products that meet the aesthetic needs of the public.

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