

Innovative Practice of Jingdezhen Linglong Porcelain Lamps Based on Dunhuang Mural "Three Rabbits with the Same Ear"

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Abstract: As one of the important representatives of China porcelain culture, Jingdezhen Linglong porcelain has a profound historical and cultural accumulation. In recent years, with the development of society and the increasing demand of consumers for artistic characteristics, the cultural value of Jingdezhen Linglong porcelain has been rediscovered and innovative design and application practice have been carried out. By combing and analyzing the development and production process of Linglong porcelain, the "three rabbits with the same ears" pattern in Dunhuang murals was artistically redesigned, and it was innovatively applied to the design of Linglong porcelain lamps, and the traditional patterns were applied to modern lamps for case practice. The purpose was to explore how to carry out innovative cultural design on the basis of traditional techniques, expand its artistic expression, adapt to the market demand of the new era, and promote the innovation and high-quality development of Jingdezhen Linglong porcelain.

1. Introduction

1.1. About Jingdezhen Linglong Porcelain

Linglong porcelain has a long history, it is one of the four famous traditional porcelains in Jingdezhen. It is fresh, elegant, exquisite, subtle and beautiful, which is the essence of Chinese excellent traditional ceramic art. Its manufacturing process is to carve many regular "exquisite eyes" in the porcelain blank, fill them with exquisite glaze and burn them into translucent bright holes, which is hailed as "glass-stuck porcelain" and has been famous at home and abroad for hundreds of years.[1] Xu Zhiheng recorded in "Talking about Porcelain in Drinking Liuzhai": "Plain porcelain is very thin, and those who carve patterns and reflect cyan are called shadows and carved flowers, while those who have holes on both sides are called exquisite porcelain." [2] Since the 20th century, Linglong porcelain, as one of the representatives of traditional crafts in China, has been attracted much attention and research. Linglong porcelain production with Jingdezhen as the center has gradually resumed, and many new Linglong porcelain workshops have appeared in other areas.

1.2. Development Status of Linglong Porcelain in Jingdezhen

The development of Jingdezhen Linglong porcelain has probably gone through four stages: origin, prosperity, rise and fall and modern revival. Burners were produced in Jingdezhen porcelain in the Song Dynasty, and the lid of the smokehouse was decorated with hollows. At that time, porcelain kiln technology developed rapidly, and Linglong porcelain became popular. Linglong porcelain is sold at home and abroad with its exquisite craftsmanship and exquisite decoration. During Xuande period of Ming Dynasty, Linglong porcelain was innovated and developed on the basis of hollowing out technology. It combines the ingenuity of carving skills. It is exquisite and fresh. In the Qing Dynasty, porcelain workers skillfully combined blue and white with exquisite Linglong porcelain. The exquisiteness of green and transparent and the blue and white of emerald green set off each other and complement each other, which enriches the artistic charm of blue and white exquisite porcelain. During the Ming and Qing Dynasties, the development of Jingdezhen Linglong porcelain reached a peak. Jingdezhen exported its high-quality porcelains to Europe and Southeast Asia, and the quality and technology of porcelain ushered in a new qualitative development. At the beginning of the 20th century, due to historical reasons and changes in market demand, Jingdezhen's ceramic industry experienced a trough. However, after the founding of New China, with the government's support and revitalization of Jingdezhen porcelain art, Jingdezhen Linglong porcelain glowed with new vitality, especially since the reform and opening up, decorative porcelain types were more extensive, decorative themes were rich, and product types were more diverse. Modern Jingdezhen Linglong porcelain is based on traditional techniques. It integrates modern elements and innovative designs, and gradually moves towards domestic and foreign markets.[3]

Through the historical evolution, Jingdezhen Linglong Porcelain has been constantly innovating and developing in technology and design, inheriting the proud tradition of ancient China ceramics. Nowadays, Jingdezhen Linglong Porcelain, as a classic traditional ceramic art in China, is deeply favored by domestic and foreign consumers for its exquisite craftsmanship and unique aesthetic feeling.

2. Integration and innovation: the road to the development of modern Linglong porcelain

With the development of society and modern market economy, modern Linglong porcelain art has encountered certain constraints while developing. To solve this problem, firstly, we should completely change the false concept of standing still and simply imitating the traditional model, and reform and innovate the modern Linglong porcelain design under the guidance of modern design concepts. Modern Linglong porcelain design should pay attention to the combination of art and design, not only inherit the traditional Linglong porcelain non-legacy technology, but also integrate modern design concepts and design elements, so as to improve the aesthetics and modernity of products. It needs to adapt to the needs and aesthetics of modern consumers. On the one hand, we should attach importance to manual production, on the other hand, we should introduce modern technology and equipment to improve the accuracy and efficiency of production technology. Give full play to the advantages of traditional art with national characteristics and better serve modern life. For example, 3D printing technology can be used to carve and present more diversified shapes more accurately. Figures 1 and 2 show the "Moon Shadow Lamp" designed and produced by "RuoYouGuang" studio. This exquisite porcelain desk lamp is made by using modern exquisite porcelain technology and integrating aluminum alloy cnc sandblasting anodizing technology. Besides, there are chandeliers and floor lamps. Before and after the two pieces of porcelain light and shadow staggered, forming a crescent, bright as jade. The ceramic tiles of lamps combine Jingdezhen's thin-shell porcelain and Linglong porcelain. The thinnest part is only 1mm, and the

yield is extremely low. The base adopts aluminum counterweight, which ensures stability and also has many color choices visually. The brightness of the moon shadow lamp is not too high. It will be well integrated when placed in different places such as bedside, desk and living room. The work well integrates design, technology, art and concept, and it is a good modern design work of atmosphere lamp.



Pictures source: <https://m.tb.cn/h.5Kdon5kCyWyif6K?tk=EJTHWSmCz0A CZ3457>

Figure 1: The "Moon Shadow Lights"(1) Figure 2: The "Moon Shadow Lamp"(2)

Linglong porcelain, as the representative of China classic traditional ceramics, bears rich cultural connotation and artistic spirit. On the basis of inheriting the traditional porcelain-making technology, modern Linglong porcelain needs continuous integration and innovation to promote its high-quality development. We should pay attention to the cultural inheritance of handicraft skills and the display of the spirit of great country craftsmen. On the basis of the original ceramic materials, modern Linglong porcelain should explore the application, integration and innovation of more new materials, such as crystal, glass and artistic ceramics, so as to enrich the texture and touch of products. Modern Linglong porcelain is no longer limited to the traditional functional applications such as utensils and sculptures, but also involves interior decoration, artworks, gifts and other product fields to meet people's pursuit of beauty and aesthetic needs. Only by integration and innovation can Jingdezhen modern Linglong porcelain develop with high quality in the new era, which is the necessity of the development of the times and the only way for modern Linglong porcelain to carry out national inheritance and development.

3. Characteristics and Value of "Three Rabbits Sharing Ears" Pattern in Dunhuang Murals

3.1. Cultural background and artistic characteristics of the pattern of "three rabbits sharing ears" in Dunhuang murals

Dunhuang is an important transportation hub and cultural center of the ancient Silk Road in China, where many people from different regions and religious backgrounds gathered. In Dunhuang Grottoes, the painting pattern of "three rabbits sharing ears" was very popular in the Sui and Tang Dynasties and the Five Dynasties and Ten Kingdoms period, which can be seen in many grotto murals, as shown in Figure 3, Cave 407 of Mogao Grottoes in Sui Dynasty. In the picture, "Three Rabbits with Common Ears" consists of three rabbits, each of which occupies a position in the pattern. They are usually lying or sitting, and their images are funny and lovely. The most striking feature is that three rabbits share a pair of ears. The heads and ears of three rabbits are connected together, which form the image of three ears connected. This design form is extremely unusual,

giving people a unique and wonderful feeling. [4] Rabbits in Dunhuang murals are usually very gentle and lovely, and their expressions are soft and honest. Their eyes are big and round, revealing a friendly and kind atmosphere. Dunhuang murals are mainly expressed by line drawing and color filling. The lines of rabbits are delicate and smooth, giving people a soft touch. The painters skillfully use the changes of lines and the treatment of details to make the details such as rabbit hairs more vivid. Rabbits in Dunhuang murals often use bright colors, such as red and yellow. These bright colors give people a sense of vitality and celebration. This pattern usually appears in Buddhist or Taoist scenes, which reflects the integration of these two religions. In Buddhism, the rabbit symbolizes spirituality and kindness, while in Taoism, the rabbit is regarded as a fairy beast, which has auspicious significance. The pattern of "three rabbits with the same ears" has various meanings and is often interpreted as the liveliness and cleverness of rabbits. The image of "three rabbits with one ear" represents the unity and cooperation between them, and also symbolizes that people should unite together to face difficulties and challenges together. In addition, rabbits are regarded as breeding animals, in which the word "common" means that rabbits have strong fertility and represent the meaning of prosperity and abundance. The pattern of "three rabbits with the same ears" on Dunhuang murals often appears with other auspicious patterns, such as lotus flowers and dragons. Together, these patterns convey good wishes such as good luck, wealth and longevity, and represent people's hopes and visions for the future. [5] [6]

The pattern of "Three Rabbits with the Same Ear" in Dunhuang murals bears rich cultural connotations. It not only has rich auspicious meanings and good wishes, but also represents the multi-cultural exchange and integration in Dunhuang area. Through the observation and interpretation of this pattern, we can better appreciate and understand the uniqueness of Dunhuang grottoes art and its important influence on Chinese and foreign art and culture.



Picture source: https://www.sohu.com/a/440936131_120116137

Figure 3: Cave 407 of Mogao Grottoes in Sui Dynasty, part of the "Three Rabbits Flying in the Sky"

3.2. The reference value of "three rabbits with the same ears" pattern to modern exquisite porcelain design

The pattern of "three rabbits with the same ears" in Dunhuang murals is unique and rare, which breaks the conventional design form and is innovative. Modern Linglong porcelain design can also draw inspiration from it, and create unique and distinctive works by exploring new patterns, shapes and ideas. Dunhuang murals combine different religious and cultural elements such as Buddhism and Taoism, showing the fusion of multiculturalism. Modern Linglong porcelain can try to integrate different artistic forms, cultural elements and design concepts to create works with traditional

foundation and modern characteristics. The pattern of "three rabbits sharing the same ear" in Dunhuang murals has the symbolic significance of auspiciousness, unity and prosperity. Modern Linglong porcelain design can convey positive meaning and vision through patterns, colors and shapes, and bring people blessings and beautiful emotional experiences. Dunhuang murals are characterized by line drawing and detail processing, which endows the rabbit image with rich expressive force. Modern Linglong porcelain design can pay attention to the beautiful and smooth lines and the fine presentation of details, making the works more vivid and exquisite. Rabbits in Dunhuang murals often use bright colors, which increases their visual appeal. Modern Linglong porcelain design can use various color combinations and color matching skills to make the works more energetic and artistic.

By drawing lessons from the "three rabbits with the same ears" pattern in Dunhuang murals, modern Linglong porcelain design can innovate on the basis of maintaining traditional characteristics, break through traditional restrictions, inject new elements and ideas, and create fashionable works that keep pace with the times and are full of unique aesthetic feeling.

4. Innovative application practice of "three rabbits sharing ears" pattern in Linglong porcelain lamps

4.1. Innovative Design of "Three Rabbits with Common Ears"

The innovative design of the top surface of Linglong porcelain is based on the classic pattern of "Three Rabbits with Common Ears" in Dunhuang murals. The redesigned pattern design strives to be more simple, modern and fashionable, with smooth lines. As shown in Figures 4, 5 and 6. The size of the top surface design is variable, and the top surface design can be fine-tuned based on the lampshades with different shapes while maintaining the overall unity and coordination. Because it needs to be carved and hollowed out on Linglong porcelain, the design pattern should not have a large area of "holes", so this pattern is summarized as a combination of points and lines. On the side of the lampshade, the main pattern of the "Three Rabbits with Common Ears" caisson is selected for continuous design, as shown in Figures 7, 8 and 9. It is also mainly decorated by dotting with points and lines, maintaining the pattern format of the classic traditional Dunhuang murals and assisting the classic modeling design of "Three Rabbits with Common Ears" Linglong porcelain, making it more modern and simple, and meeting the artistic and aesthetic needs of modern home decoration.



Figure 4: Extraction of the Pattern(1)



Figure 5: Extraction of the Pattern(2)

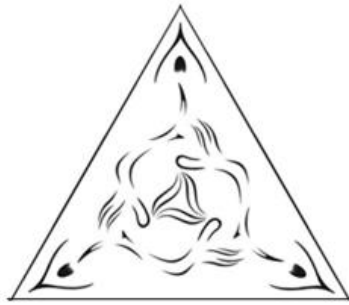


Figure 6: Extraction of the Pattern (3)

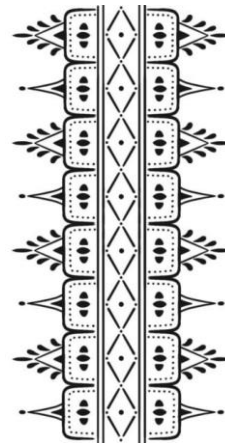
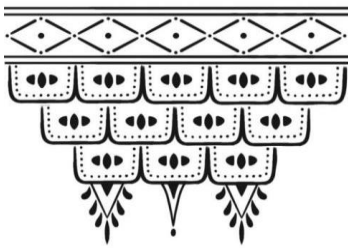


Figure 7: the side decoration pattern design (1)

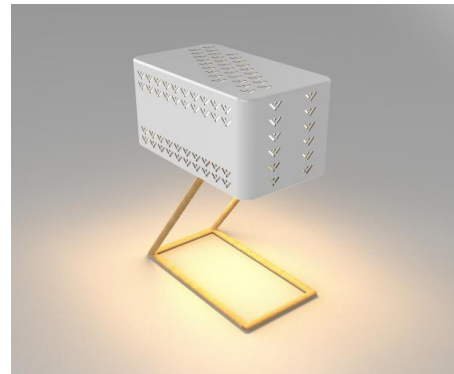


Pictures source: Author's self-painting

Figure 8: the side decoration pattern design (2)

Figure 9: the side decoration pattern design (3)

4.2. Artistic effect of innovative design of Linglong porcelain lamps



Pictures source: Author's self-painting

Figure 10: Pre-artistic renderings (1)

Figure 11: Pre-artistic renderings (2)

Linglong porcelain is similar to lamps because of its unique artistic expression of "light transmission" and "light leakage". Linglong porcelain is used in the design of lamps and lanterns as a "lampshade" part. After turning on the light, the body of Linglong porcelain will also transmit light, and there will be light overflow in the hole. Figures 10 and 11 are the design of the early art effect diagram, which simulates the artistic effect displayed after turning on the light. The overall shape of the work is exquisite, and the classic pattern of "Three Rabbits with One Ear" is decorated and reprocessed by using modern design concepts. The artistic form is novel and fashionable, and the modern expression of comprehensive materials is more helpful to highlight the unique national cultural temperament of Linglong porcelain art. When it is installed in modern homes, it can fully

demonstrate the excellent Chinese traditional culture and make modern homes shine brightly.

4.3. Artistic practice and final effect

Choose "Jade Mud" as the base material of Linglong porcelain lamps, first roll the mud into sheets, measure the size and cut it, then carve out the pattern of "Three Rabbits with Common Ears", and after all the faces are carved, wait for it to be slightly hard, and then glue several pieces of mud boards with the slurry made before (the slurry should also be made with the same "Jade Mud"). Figures 12 and 13 show the semi-finished lampshade glued with the slurry. After that, it is best to burn it at a temperature of about 800 degrees to make it harder and less fragile. The next step is to "glaze" with a brush, as shown in Figure 14. Dip exquisite glaze into the carved holes for spot coating. The texture of the glaze is sticky and the tension is very strong. When the glaze is lit, the glaze will not flow down like water. When it is lit into the hole, the exquisite glaze will fill the whole hole like a bubble, but it is not enough to light it only once. The exquisite glaze will quickly dry up, and a lot of water will be sucked away by the dried lampshade mud board. It will only form a thin layer in the hole once, so it needs to be painted 3-4 times until the thickness of the whole hole is as thick as the mud board. Then dip the lampshade with transparent glaze to ensure the smoothness of the oil surface and the consistency of the thickness of oil in all parts. Finally, after waiting for drying, it will be fired at a temperature of about 1200 degrees to complete the manufacture of the lampshade. Combine the actual situation to carry out artistic reprocessing on the base. Figures 15, 16, 17 and 18 show the final product effect of "three rabbits with common ears" exquisite porcelain lamps.



Figure 12: Plain mud (1)



Figure 13: Plain mud (2)



Figure 14: "Point glaze"



Figure 15: Perspective view (1)



Figure 16: Front view



Figure 17: Perspective view (2)

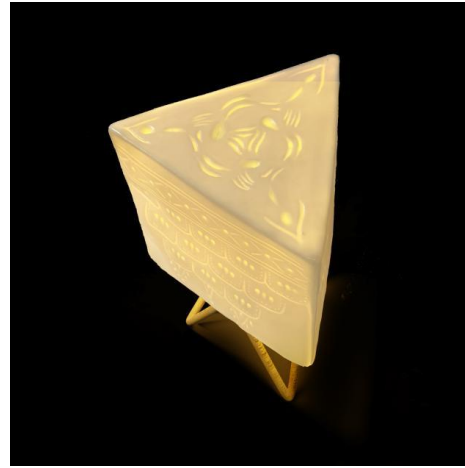


Figure 18: Perspective view (3)

Pictures source: Author's self-painting

5. Conclusion

Jingdezhen Linglong porcelain has rich innovation potential in design and practical application. By redesigning the "three rabbits with the same ears" pattern in Dunhuang murals, Jingdezhen Linglong porcelain can inject new elements and ideas and create unique and distinctive works of art. By combining and applying the elements of Dunhuang frescoes and Linglong porcelain to more novel lamps with common characteristics, we cannot only retain the traditional craft and cultural connotation, but also make Jingdezhen Linglong porcelain have a wider application and audience in modern society. Through the research and application of traditional cultural elements, Jingdezhen Linglong Porcelain can constantly innovate and move towards a more prosperous and high-quality development road. At the same time, it also provides a feasible path reference for the inheritance and innovation practice of Chinese outstanding traditional intangible cultural heritage, which is conducive to the creative transformation and innovative development of traditional intangible cultural heritage.

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