

Research on the Application of Handicraft Technology in Mural Painting

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Abstract: In this paper, through the re-recognition of germanium materials and traditional production techniques, the production methods of the silk fresco murals have been improved, and the craftwork techniques used in frescoes have been reorganized to rejuvenate the traditional craftsmanship.

1. Overview of Traditional Process

The enamel process is a colorful, glass-like handicraft made by baking enamel glaze on the surface of a metal tire and firing it. The reason why germanium technology can be applied to murals is that the properties of germanium materials play a crucial role. The raw material for the crucible is enamel glaze, which is a mixture of metal oxides and is ground into a pellet by a machine. This material has the characteristics of heat resistance, cold resistance, water resistance, etc., and the color is bright and heavy, the color is stable and never fade, the grain appearance has a crystal texture and other characteristics, has a certain texture effect. The color of the glaze is also very rich in more than 100 kinds, including deep yellow, medium yellow, light yellow, light yellow, silver orange, orange, imitation yellow, silver, rhubarb, copper yellow, yellow, silver yellow, the pink, silver orange red, red dates, coral red, orange, burgundy, copper red, silver Dalan, porcelain silver Dalan, silver yellow and so on.

The craftsmanship has a long history in the West. The early craftsmanship was used in jewelry. With the continuous development of craftsmanship, religious utensils, living utensils, ceilings, and walls were all decorated with dragonflies. One of the masterpieces is the fifty plaque plaque in the "Klosterneuburg Altar", placed in a trilobal archway framed by a descriptive inscription. The middle row of the plaque is depicted in the New Testament, beginning with the Annunciation and marked with "sub gracia," or the world "shrouded in the glory of God's mercy," that is, after the birth of Christ. The medieval eaves entered the stage of prosperity and development. All the medieval and religious instruments such as communion cups, wine glasses, reliquary boxes, jewelry boxes, grazing sticks and spoons were decorated with beautiful enamel. The interior ceilings and walls of the French feudal manor were also decorated with painted panels. The Byzantine period was widely used in the decoration of religious objects and in the decoration of jewelry. The "colored" decoration process was used. The pattern was designed according to the design of the gold or copper blanks, and coated with transparent or opaque glass toner. , and then burned and polished. Byzantine technicians created subtle, miniature images that radiate jewel-like light in multiple colors. The masterpiece of this period was Palad Oro, an altar screen in San Marco, Venice, and it was believed that around 1105 it was taken from Constantinople to Venice. By the end of the 12th century, the quality of Byzantium began to decline. It has been hundreds of years since China was introduced into China. The craftsmanship was introduced into China from the Arab region through merchants and craftsmen in the Yuan Dynasty. After the Ming Dynasty and the Qing Dynasty gradually entered its heyday, and formed a cloisonne with Chinese characteristics. In the Qing Dynasty, the "Office of Production" was established. By the Qian Long period, the craftsmanship had been unprecedentedly developed, and there were numerous examples of enamel products. The contents produced were also more colorful than in the Ming Dynasty, and the types of enamel enamel were increased and the enamel was more polished. After the Qianlong period, the craftsmanship gradually declined and there was basically no handed down work.

There are many types of enamel technology, and according to the production process, enamel

can be divided into five types: silk enamel, abortion rake, painting enamel, transparent enamel, and hammer rake.

The silk enamel is made by cutting a fine copper wire into a desired shape using needle-nose pliers or tweezers according to the pattern, and then soldering it to the copper tire using silver solder powder. After cleaning, according to the color indicated by the pattern, a variety of enamel glazes can be filled into the welded copper wire gaps in sequence using a small spatula.

The early development of abortions is not yet clear. It was revealed in the Seltic arts of Western Europe in the later period of Rome and Rome. The production of abortions in the late 11th and 12th centuries was particularly prevalent in areas centered around the Rhine Valley near Cologne and the Meuse River Valley in Belgium. The most famous enamel craftsman in this period was Nicholas of Verdun.

The paintings are also known as porcelain enamels, and are basically the same as those used for making copper tires. A white enamel glaze is painted on both sides of the copper tire, and it is baked into the kiln to make its surface smooth. Generally, two glazes are painted and two fires are used. The firing temperature of porcelain is generally between 720 °C and 820 °C. We will design a good pattern on the thin and water-resistant paper (such as burrs, tissue paper) on the ink line to draw down, behind the burrs or tissue paper to be placed on the Korean paper, the paper spray moist, and then hang in accordance with the predetermined site flat On the glaze of the glaze, gently tapping, also known as "draft", this method is the older copy method. According to the well-written manuscript, the red and black colors extracted with the nitrocellulose were used to trace the porcelain surface, and the pattern was drawn. Dyeing and tinting on the screen after hooking the ink line and burning it. Then there is the daddy child. The so-called "daddy child" is painted flat on the floor of the flower buds. The method is: the ground and flowers together with the color, first on the ground color, after the flowers and leaves, flowers or leaves can be on the first, burning a fire and then on the ground color, the last one by one can be flattened.

Transparent enamel is a transparent enamel coated in an open sash structure that is welded together by a single wire or thin metal wire instead of welding the wire to a metal tire like a buret wire. A piece of metal or mica plate is often used as a movable pad so that it can be easily removed after annealing and cooling, resulting in the same effect as a small tinted glass window. This technique was developed in France and Italy in the 14th century and is widely used to make containers and jewelry, and in Russia it is used to make coffee cups.

The hammer rakes are made with a hammered pattern according to the design pattern. Then the enamel is filled with the enamel according to the color draft, and finally it is baked at high temperature. The only difference between the hammer fetus and the abortion fetus is the difference in the starting method. Hammer carcasses are made on the back of the carcass by a method of hammers, which are made on the surface of the carcass by sculpting.

2. The Innovation of Modern Silk Enamel Craft

The traditional silk reeling process requires high-temperature firing, while the modern reeling process does not require firing, and the material retains granular shape. It is based on the traditional process to innovate materials and processes. Instead of high-temperature firing, the resin is poured and the wire and glaze production techniques are applied to the graphic work. The modern silk reeling process uses metal wires to embed a variety of patterns, fills the glaze and glue into the pattern, and finally fills the entire screen with resin to form a transparent film. The silk enamel process is rich in color and smooth lines. It not only contains the traditional beauty of the silk enamel, but also incorporates modern beauty due to the innovation of techniques.

The modern production method of silk enamel:

Tools: Aluminium-plastic board (or wood board), gold-plated wire, adhesive, scissors, tweezers, syringes, straws, palette knife (different model size), polyester film, rubber roller, special crystal liquid

2.1 Extension

Choose the aluminum-plastic board (or wood board) as the bottom board to make, the board surface of the aluminum-plastic board should be flat and there must be no other defects. Aluminum plate thickness is generally more suitable in 1.5CM. If it is too thin, the screen after the production is completed is easily deformed. Spread the copy paper on the aluminum-plastic plate, put the design draft on top of the copy paper, and then you can draw a sketch.

2.2 Silk

Before using the adhesive, inhale the adhesive into the syringe and cut the gold plated wire with scissors to facilitate the subsequent operation. The tweezers used for silk reeling also need to be reconstructed. It is necessary to wrap the transparent glue around the top of the tweezers. In general, thicker entangling points are more conducive to subsequent operations.

Point the syringe at the line on the aluminum plate and gently push the syringe rod inwards to evenly spread the adhesive on the line. When it is applied, the area should not be too large. After applying the adhesive, wait for a few minutes. The glue dries to make it easier to stick to the gold plated wire. When reeling silk, it is necessary to pay attention to straightening the gold-plated wire, and then cut the gold-plated wire that has been cut off, and use the end of the scorpion that was just made to have the scotch tape straight. Specifically, one hand presses the gold wire against the wooden handle of the spatula and the other hand quickly pulls out the gold wire, and the pulled wire is smooth and parabolic. Use less force when twisting, so that the gold-plated layer on the gold-plated wire does not fall off.

When twisting, use your left hand to hold one end of the gold plated wire so that the gold plated wire is perpendicular to the surface of the aluminum plate. Hold the tweezers with your right hand and clamp the top of the gold plated wire to align the top of the line. The left hand bends the gold plated wire according to the shape of the line. Repeatedly from top to bottom several times gold-plated wire, so that the gold-plated wire and adhesive bonding and fixing each other, in accordance with the screen line cut off the end of the gold-plated silk thread, such a gold wire to do a good job. Note that if you encounter lines with turning points, you will need to clamp the gold-plated wire where it needs to be turned. The other hand will only hold the gold-plated wire and bend it in the direction of line turning. If the turning angle is less than 45 degrees, Can not be bent, need to restart a gold wire. After all the lines are finished, they are allowed to stand for one hour to dry. After the gold wire is completely fixed, it can be colored.

2.3 Coloring

Before coloring, it is necessary to pour the pigment into clean water and stir it. At this time, the impurity powder mixed in the pigment will float in the water. Pour the water in the bowl into the empty bowl and add the clean water to the bowl for washing. In this way, after several times of panning, until the color of the bowl is free of any impurities, the panning can be ended. According to the design of the color draft, it shall be put in the palette, and then pour it into the glue and stir it evenly.

When coloring, use a palette knife to grind the glaze and glue to fill in the pattern. The thickness of the filling glaze is generally more suitable for 2/3 of the height of the gold wire, so that the color is not easy to spill out of the cross-color. If it is too full, it is easy. If there is too much moisture in the color, use a straw to suck the moisture out of the color to prevent the moisture from spilling over the screen. Immediately afterwards, the bottom plate is shaken smoothly, allowing the color to become even and even. Be careful not to force too much, otherwise it is easy to cross-color, if the color spills out of the picture, we use a pipette to place a drop of clear water, dilute the color with a straw to remove the color. In this way, each glaze filled with a color must be shaken to ensure the consistency of the entire picture. After painting is complete, dry the entire picture in a well-ventilated place.

2.4 Lamination

Before the film is applied, first remove the floating sand on the screen, then pour the stirred crystal liquid on the screen, lay the trimmed polyester film on the screen, and use the rubber roller to roll on the polyester film. Use even force when rolling, remove excess liquid crystal and air bubbles from above, and place heavy objects on top of the screen to prevent the polyester film from lifting. After a day's drying, the crystal liquid under the polyester film will naturally dry out. At this time, the weight can be gently removed from the corner of the screen and the polyester film can be gently removed. In this way, a transparent film is formed on the screen.

It can be seen from the above-mentioned production process of the modern silk shirt that compared with the traditional silk shirt, its production process is relatively simple, and more attention is paid to the texture of the material. In view of the formal rules of modern mural design, the silk enamel process has made some beneficial explorations in the new techniques. It is emphasized that the design does not completely abandon the traditional craftsmanship, but combines traditional craftsmanship with modern design concepts, drawing on traditional craftsmanship. Based on the essence of craftsmanship, the company explored new techniques for craftsmanship in frescoes. In the mural creation process, the unique creativity of the mural creators also injected new blood into the traditional craftsmanship, making it more attractive and eye-catching.

3. Modern Silk Enamel Technology Applied to Mural Design

Mural design is a comprehensive art. Material is an important method used by the mural artist to perform spiritual creation. The application of materials is relatively extensive. The value of the wall painter's use of materials is the most creative in the mural field. The nature of the material is relatively stable, and the use of the characteristics of the color of the enamel glaze in space has been fully verified, and the irreplaceable characteristics of the art form of the silk painting are fully explored. Judging from its own characteristics, the continuous improvement and development of the modern silk enamel technology has led to its diversification in the form of fresco expression, and has been favored by more and more fresco creators.

One of the characteristics of modern silk enamel technology applied to mural paintings is its rich and varied colors. The silk enamel craft raw material is enamel glaze and has a strong expression. The rich color language of the silk fresco murals provides language support for the theme and form expression of murals in the space environment. No matter how complex the designer creates, it can be blended with glazes. As long as it is a perceivable color, the silk enamel technology can achieve the designer's desired color effects. The characters in the works "Yue series" draw on traditional shadow elements and use the length, straightness, complexity, and density of the copper wire to create images and images, representing the changes in the virtual reality, movement, and other aspects of the painting, making the images not only decorative Sex, but also gives people a beautiful and dynamic feeling. In the use of color, with a color of glaze as the main color, on this basis, with the appropriate degree of other colors of glaze to obtain changes, so that the entire work created a both orderly and vitality The effect.

The second feature of modern silk enamel technology applied to murals is the texture change of glazes. The traditional rayon silk enamel process is fired to show the effect of crystal glass, while modern rayon enamel technology eliminates the firing process. Modern enamel technology can produce gradients and textures through an innovative combination of glazes. The creation of frescoes using modern enamel silk enamel technology allows designers to maximize creativity in their space. Modern silk fresco murals have aesthetic requirements adapted to the modern space environment. The purpose of the silk screen frescoes involved in the space environment is to give full play to the particularity of their materials, constantly change their concepts, enhance innovative thinking, introduce advanced creative ideas, and highlights the texture attributes of silk paintings.

The third feature of modern silk enamel technology applied to murals is the change of lines. With copper wire hook line, using ink as material. The copper wire used in modern silk shrines is soft and

hard, and it is well-shaped. It can be used to create a variety of artistic designs that artists have imagined. Take the example of “Xiaoyaoyou” as an example. This work uses the Eight Immortals to cross the sea as a prototype. Through the segmentation of the picture, different spaces and blanks are formed. The use of copper wire to outline the wave patterns on the surface of the water contrasts sharply with the static form of the figure, reflecting the savage, elegant, ethereal, and full of human desires, anger, and grief. The color is fresh and elegant, the lines are frustrated and there is no lack of fresh and elegant, so that the form has more visual impact and decorative.

The craftsmanship in different periods all reflect the particular artistic trend at that time. At the same time, with the development of the times, the craftsmanship has also made corresponding innovations and developments on the basis of inheritance. Today, the enamel technology has been used in mural painting to create a new chapter for the enamel craftsmanship. The silk fresco wall painting is an artistic treatment of the space environment. It satisfies people's spiritual visual enjoyment through its own art form, and directly integrates the artist's artistic emotion into the space environment.

4. Conclusion

With the development of society, in the day when murals were used to decorate buildings, a single material could no longer meet people's needs, providing favorable conditions for the use of murals in murals. Craft is an important part of Chinese culture. It will be combined with murals, and through the inheritance and innovation of enamel technology, the traditional crafts will be rejuvenated.

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