

Research and Development of Huili Green Pottery Based on School-Enterprise Cooperation Platform

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Keywords: School-Enterprise Cooperation; Meeting; Green Pottery

Abstract: Huili County is located in the south end of Liangshan Prefecture, Huili Province. It has historically been an important commercial and cultural transportation town on the border between Huili and Yunnan. In order to further understand the local national culture. Based on the platform of school-enterprise cooperation, the author studied the research and development of Huili green pottery. The study found that the pottery there was named "Meeting Green Pottery" because of its special chemical composition and mineral composition, so the pottery pieces it used to produce a variety of green. It is also because of its unique geographical location, which has created a distinctive Han-Bao border national culture that is different from the Bayu and different from the Chu.

1. Introduction

The Huili Basin extends in the northeast direction. For a long time, local residents have been using mudstone and siltstone in the “red layer” of the area as raw materials for firing bricks and earthenware [1]. Because the concentrator uses a large amount of lime during the beneficiation, the pH in the ore dressing wastewater is too high, and the residual flotation agent causes problems such as high COD, high heavy metal content, and strong foaming of the wastewater. Affect the beneficiation index [2]. The ceramsite adiabatic anti-corrosion coating provides anti-corrosion, heat preservation and external protection (waterproof, acid-base salt and UV-proof) in the form of coating, and its self-weight is reduced by 50% compared with the traditional form (eg: galvanized iron on glass wool wrapped steel belt) Leather, stainless steel plate) [3]. They not only work in a strong corrosive environment, but also keep moving and rotating, and bear the impact and wear of different media [4][5][6]. It is generally believed that super insulation material refers to the insulation material whose thermal conductivity is lower than that of "no convective air" under the predetermined service conditions. For this reason, according to the actual situation of Huili green pottery, the treatment methods of natural degradation, coagulation and sedimentation, adsorption and separation were studied respectively, in order to explore the effective way of comprehensive utilization of Huili zinc ore dressing wastewater [7].

2. Methodology

Huili green pottery has its unique technological properties in the firing process. Ceramics made from the same pottery material can show different color changes with the furnace temperature, flame and kiln location [8]. Compared with other green pottery producing areas in China, it is rare in China that it does not need glazing, does not add pigments, has bright colors, good texture and unique kiln transformation. Its characteristics are as follows: first, the body is white and thin; second, it is glazed once and fired at high temperature; third, the glaze is pure, bright and translucent, beautiful as jasper [9]. Because of its high water absorption rate, it is not a kind of porcelain, so people call it "fine pottery". Its unique cultural connotation, abundant raw materials and unique firing process have brought wide reverie and artistic creation space for ceramic artists. The craftsmen first painted patterns with a material called "earth" locally, and then applied a transparent glaze for underglaze color [10]. "Tuzi" is rich in iron, manganese, diamond and other materials, and its color and Yuxi kiln blue flowers are called an important area for firing blue and

white porcelain. The “Jiyu” brand green pottery craftware produced by Huili Art Ceramics Factory was rated as a quality product in Huili Province. The color pottery jar was awarded the second prize of innovative products in the national art and craft industry appraisal and sold to many countries and regions.

Huili County is an ancient city, the gates are well protected, and the green tiles are still bright. Although the initial time for experts to manage pottery is still inconclusive. However, from the accumulation layer of the existing ancient kiln site, there can be found a single-handle sauce glaze jar with Tang style, a Green pottery print bowl of the Song Dynasty style, a blue-and-white style dish of the Yuan Dynasty, a large bowl, a goblet and the like. It can be concluded that the development of the ancient folk ceramics industry was earlier than the surrounding areas, and it should have been mass-burned as early as the Tang and Song Dynasties. As there is no record of Huili green pottery in ancient books and county chronicles, it can only be analyzed from the objects exposed on the ground and existing cultural relics. The single handle of sauce glaze has the style of Tang Dynasty, while the shape and firing of bowls have the style of Song Dynasty. Local old people recalled that when they were children, they had the impression that they would sell large quantities of locally produced ceramics to other areas. It was evident that the manufacturing technology had reached a fairly high level at that time, and there was a relatively complete production system of supply, production and marketing. Huili kiln has gradually attracted widespread attention in the ceramic collection circle. In Huili area, especially in Chengdu, Huili kiln has aroused a considerable collection fever, and its ancient pottery's value has been increasing.

3. Result Analysis and Discussion

The decorative patterns of bowls in Huili primitive green pottery are mainly decorated along the outer edge, mostly with two consecutive ribbon patterns. The bottom of the bowl draws a lot of patterns. The inside of the bowl is covered with glaze. There are one or two circles of lines on the bottom of the bowl. The inside of the circle has the word "Fu" or the group-shaped pattern, most of which are highly decorative flower patterns. The Huili clay also contains a certain amount of P, rC, Cu, Mn, sr, rZ and other elements. Because of the existence of these elements and minerals, they have different physical and chemical properties and different melting points. Therefore, under the conditions of different temperatures and flames, pottery products can naturally show a variety of green tones, forming a unique green pottery with kiln change phenomenon. Therefore, as a kind of Green pottery, their glaze color belongs to bean blue, glaze color is transparent, there is no opaque effect. Now we have established: bowls, plates, cups, cans, cylinders, dishes, bottles, oil lamps, candlesticks and so on, most of which are commonly used in daily life. At the same time, some collectors also collect small green glaze statues, incense cones and green glazed pottery roofs for buildings. According to textual research, they are products of Ming and Qing Dynasties. Different specimens obtained from different deposits prove that Huili pottery kiln began in Yuan Dynasty and flourished in Ming and Qing Dynasty, and has continued to this day.

Huili green pottery has not been interrupted up to now. The first reason is that there are sufficient raw materials for pottery firing, local firing and local sales. According to the investigation of existing debris conditions and the comparative analysis of the chemical composition of pottery raw materials and fetal glaze commonly used in the locality, some experts have come to the conclusion that Huili ceramics can be classified as stoneware in practice. Its patterns have the characteristics of fluent and unrestrained, simple pattern composition and rough painting, with a variety of flower decorations as the most common. In particular, due to the presence of a large amount of dolomite, it is possible to form a glass luster and a velvet luster on the surface of the ceramic product without additional glazing. Some scholars will compare the ancient pottery pieces with the blue-and-white ancient porcelain pieces unearthed from Yunxi kiln in Yunnan. It is amazing that the placenta of Huili ancient pottery tablets is actually more delicate, dense and lighter than the latter. The firing temperature is also high, reaching 1280 degrees.

4. Conclusions

Huili County is located in the southwest Liangshan Yi Autonomous Prefecture of Sichuan Province. It is located on the north bank of the Jinsha River and connects with Yunnan Province in the south. Although the location is remote, its unique geographical location and long-standing border culture of Han and Han have created a distinctive culture, art and history. With the development of the national economy, various daily-use ceramic products, architectural ceramic products (glazed tiles, tiles, etc.) and arts and crafts ceramics will gradually develop. In view of the unique process performance of the meeting Green pottery, the products are simple and elegant, so they have certain market competitiveness. Huili ceramics is an important origin of Huili and Yunnan ceramics, and plays an important role in the development history of Huili and Yunnan ceramics. It has an important reference significance for studying the development of Huili and Yunnan ceramics, and also provides an important evidence for studying the changes of culture and economic development in the history of Huili and Yunnan. In many museums, we have seen Green pottery decorated with printing. Comparing these printed Green pottery with the classical ceramics, it is found that they are so similar. Green pottery is mostly in the form of bowls or plates, which are burned by open fire with nail spacing. There are nail marks on the inner bottom of bowls and plates. In such a corner, we can produce so many ceramic products with novel styles, superb craftsmanship and numerous quantities. We can't help but say that Huili ancient kiln has matured and reached the level of pure fire.

Acknowledgements

Key topic of Sichuan Education Department in 2017: Research and development of Huili green pottery based on school-enterprise cooperation platform, project number (17SA0073).

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