

Experimental Design—"Techniques" and "Skills" in the Pottery Making of Chongqing Rongchang, China

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Abstract: Traditional handmade crafts are the treasures of Chinese culture and art. In the past, most of the research on handicrafts in the academic circles centered on the production, inheritance and protection of handicrafts, emphasizing the intergenerational inheritance and development and revitalization of traditional crafts, with less attention paid to the improvisational initiative of handicraft makers' artistic creation, as well as to the discussion of the intervention of multiple subjective forces in the process of artefact production. This paper, based on the Chongqing Rongchang pottery-making crafts as the research object, discusses the influence of improvisation factors and philosophical concepts on the design and production of pottery from the perspectives of design and anthropology. It points out that gold, wood, water, fire and earth are multiple elements and multiple subjective forces that cooperate and intervene to jointly create transform, and jointly create the aura and uniqueness of the objects. The element of improvisation should not be excluded from the inheritance and protection of handicrafts, on the contrary, it is intertwined with "technology" and "witchcraft", and is part of the handmade-craft, or even the handmade-craft itself.

1. Introduction

In the 1920s, the French anthropologist Marcel Mauss, in his study of "The Gift: The Form and Reason for Exchange in Archaic Societies", pointed out that there existed in primitive societies a notion of mélange of people and things and practice that emphasized the interconnectedness of all things. In general, "people melted their souls into things, and things into their souls,"^[1] it is promoted that people and things were intertwined and shaped by each other. By no coincidence, in the 1940s, Mr Fei Xiaotong pointed out in his article "Humanity and Machines: The Future of Chinese Handicrafts" that "man and things are compatible, and man completes his life in things."^[2] In production, "a craftsman has expectations and satisfaction for his handiwork. He may engrave his name on his handiwork, the ruin or glory of the output is his ruin or glory."^[2] Although Mauss and Fei discussed the relationship between human beings and objects from different standpoints in China and the West, both of them emphasized that the social fact and artistic-philosophical concern

of the "blending of object and self". However, most of the existing research focuses on the production, inheritance and protection of traditional handicrafts, emphasizing the intergenerational inheritance and revitalization of traditional skills, with less attention paid to the initiative of the craftsmen themselves and the involvement of multiple subjects in the process of artifacts production.

In fact, "making things" itself/process is a practical process of interconnectedness and symbiosis between "technology" and "witchcraft", "people" and "things". This process involves not only how the "written" and "oral" knowledge systems embedded in the technology of making things shape the artist's skills, identity and aesthetic sensibilities, but also the interference and collaboration of multiple factors such as clay, fuel and rituals in the making of things. These improvisatory and episodic factors are often overlooked by researchers, but they are the main forces that shape the "aura" and the subjective force of life.

Given this, this study takes the artistic practice of pottery making in Rongchang of Chongqing, China, as an entry point to present, from the perspective of design anthropology, the fact that the generation/production of wares cannot be done "manually" alone. The rhythm of everything itself, such as "timing" and "location", and the cooperation and intervention of multiple forces together create and shape the uniqueness and uniqueness of the wares.

2. Handicraft production, heritage and creative design

As a technology, craftsmanship includes both the social and personal dimensions of technology. As the social dimension of technology, researchers have pointed out that handicrafts are deeply embedded in local social structures and relationships, and are connected to local culture, environment, myths, aesthetics, and social division of labor, and have become an integral part of local cultures and representations of daily life,^[3] and that their artistic value can stimulate the vitality and activeness of the traditional Chinese culture.^[4] As for the individual dimension of technology, some researchers have found that although the artistic practice and expression of individual craftsmen have unique personalities, they do not lack the overall expression of society and the collective, yet in the context of modernization, there are many difficulties faced by the inheritance and development of handicrafts.^[5] Therefore, researchers have begun to turn to the inheritance and protection of traditional skills, and have pointed out that the protection of traditional handicrafts should not be limited to the technology itself, but should also take care of the environmental and economic-political relations intertwined with the technology.^[6] The skills should be an organic whole, protecting both the process by which the technology is "teach by personal example as well as verbal instruction" and the tools, concepts, production space and natural environment associated with the skills,^[7] so that the skills can be innovatively transformed and developed in the inheritance, and inherited and protected in the creative development. Leaving traditional skills in their original location and relying on local people to sustain them is an academic viewpoint commonly supported by scholars in recent years.^[8]

However, researchers have found limitations in analyzing crafts/skills as mere cultural heritage to be preserved and developed. This is because, in the context of essentials conservation, the issues of socialized skills, embodiment^[9] and disembodied issues such as emotion, mindfulness, practice and perception are not fully presented. Technology, as a kind of "bodily skill" and "embodied knowledge", needs to be explored and practiced over a long period before it can be integrated into the practitioner's experience of the limbs and sense organs.^[10] The skills of embodied knowledge are passed on from generation to generation, through imitation and practice, forming habitual skills and design ways of thinking, and the presentation of their skills is also arbitrary. Chen Zunci notices that craftsmanship is formed through mutual exchange and that it is not merely a "consistency"

within a certain region, but rather an integration of different skills from that regional structure. ^[11]Therefore, whether in the social or personal dimension, the grasp and study of objects should return to the objects themselves, focusing not only on the materiality of the objects but also on the intellectual traditions and ritual practices behind the "man-made objects".

Indeed, traditional craftsmanship as a tradition is often intertwined with the act of writing texts, folk beliefs and rituals, and even the direction of the work is governed by them. ^[12]British anthropologist Malinowski on the construction of canoes and witchcraft, the indigenous people face how to take the material, who takes the material, how to give form to the product, who owns it, who uses it and so on, accompanied by a series of rituals and taboos, and the belief that witchcraft will interfere with and affect the speed of the canoe and the survival of the survival of the indigenous people overseas travelling safety. ^[13]German researcher Jacob Eyferth also in Sichuan Jiajiang paper-making research found that paper-making technology can not be completed by an individual alone, he does not belong to a family or a production workshop, but the family or community common property, belonging to the ancestor and all the descendants of the ancestors. Based on people's gratitude and obligation to their ancestors, the production and circulation of papermaking technology is directly related to the reproduction of family culture. ^[14]However, Tim Ingold, a British anthropologist, argues that craftsmanship is not sorcery or magic connecting humans and gods and that craftspeople have already formulated the schema of what they will make beforehand in the form of a kind of "virtual object", which embodies a kind of cultural habitus. ^[15]The two sets of techniques, "written text" and "oral text", are often seen as guides to action in the making of things. Although the value and role of oral craftsmanship are often devalued by mainstream society, even some researchers argue that oral texts are more about moral values than technical transmission. ^[14]However, the hand-craft inheritance and influence between the "elite" and the "masses" has never been closed, on the contrary, they penetrate, learn from and merge in their contact with each other.

Generally speaking, the current academic research has paid attention to the influence of factors such as written, oral, rituals and bodily techniques on the technical practice and intergenerational transmission of knowledge of "man-made objects", while the intervention and presence of incidental or improvised factors, especially in the process of "work/object" becoming and production, are still discussed negatively and absently, even abstracting the presence of improvisation and non-human forces as well as natural factors as inanimate production materials and tools, resulting in large-scale production and a large number of homogeneous artifacts. Therefore, it is necessary to improve the homogeneity of embellishment, to go beyond the limitations of existing natural and cultural studies, and to rediscover the different forms of aggregation of "works/objects" and the multiple interventions of forces, so that the objects can present their different aura and uniqueness.

3. Improvisation factors and design philosophy in pottery making

Pottery is often regarded as an "earth" and "fire" blend of art, but it is the potter and gold, wood, water, fire, earth and other elements of a common shape, the common illusion of intermingling, and with different civilizations between the skills of the exchange of wisdom crystallizations of mutual understanding. Chongqing Rongchang is China's western "ceramic capital", and Rongchang's Anfu Town is the heart of China's western ceramic capital, the pottery has a long history of production, originating in the Han Dynasty, the development of the Song Dynasty, prevalent in the Ming and Qing dynasties, the heyday in the 70s of the last century, so far more than 2,000 years of historical precipitation. It is famous both at home and abroad for "red as jujube, thin as paper, sound as chime, bright as mirror". The products exported to a large number of countries such as the United States,

Japan, the United Kingdom, Germany and the Netherlands.^[16] Due to the unique characteristics of clay, glaze decoration and firing techniques, Rongchang pottery, together with Yunnan Jianshui pottery, Guangxi Qinzhou pottery and Jiangsu Yixing Zisha pottery, is known as the "Four Famous Pottery of China", and is also known as "China's Three Great Pottery Capitals", together with Jiangsu Yixing and Guangdong Foshan. In 2010, Rongchang pottery production techniques were included in the national intangible cultural heritage (ICH) list. At present, Rongchang has developed from a pottery "Taoyao center" to an "ICH city" in the West, gathering generations of potters and ceramic artists from all over the country who make pottery for a living. Here, skills are exchanged and learnt from each other, growing freely, forming a pottery habitat of "harmony and difference" and "eclecticism". Rongchang has become a gathering place for people's emotions and a space for ICH inheritance, protection and innovation.

Academic discussion and research on Rongchang pottery have also fallen into the limitations of the humanistic research paradigm, focusing only on the technology itself (how "earth" becomes "ware"),^[17] while neglecting the discussion of the intervening links between culture (kiln rituals), nature (temperature, wind, light, and fire), and other forces and improvisations. The discussion of cultural (kiln ritual), natural (temperature, wind, light, fire), and other forces and improvisation intervened in the session. In fact, oral and folk techniques permeate daily practice and the life of objects, constituting the potter's philosophy of art and design.

Adhering to the philosophical concept of pottery making "set the spirit of all things, the essence of the earth". The Rongchang's potters attach great importance to drawing design inspiration and essence resources from traditional culture. Especially more genuinely around the traditional Chinese philosophical concept of "gold, wood, water, fire and earth" as a point of departure, "to moisten earth with water, to make fire with wood, and to make gold with fire; When nourished by water, the ware has spirit."^① This is a breakthrough from the "object-centred" or "person-centred" mode of pottery design and production, which is reflected in the evolution of the "clay" into the "vessel". This is particularly evident in the evolution of "earth" into "utensil". In an "incomplete state,"^[18] "clay" undergoes 24 traditional processes, including slurring, billeting, carving, glazing, and firing, to metamorphose into unique pottery, completing the shaping of the different stages of the self's life. Throughout the entire production process, "clay" interacts and gambles with people and multiple elements, and it is no longer a lifeless object waiting to be fired but becomes an actor that brings together people, objects, and all of nature into one.

In addition, Rongchang's potters are constantly exploring the details and logic of the intergeneration of all things from life and nature. Natural improvisation elements such as grass, trees, wind, rain, clouds, and sunlight are all incorporated into the production of pottery by the potters, and each part plays an independent part, constraining each other and weaving together to generate. The use of plant ash is a reflection of the potter's knowledge of improvisation and design and demonstrates technical innovation and exploration. After the pottery is fired at high temperatures, the natural ash of the plants remains on the objects, undergoing natural changes and kiln transformations, presenting endless aesthetic variations and the original color tones of the plants, contributing to the uniqueness of the objects.

In the view of the Rongchang people, pottery making is a kind of cultivation. Each piece of pottery not only carries and translates the emotions and thoughts of its creator but also condenses and reveals the essence and chronology of all natural things. Therefore, the artistic creation of pottery-making skills is different from Walter Benjamin in the book "Experience and Poverty", "the work of art in principle is never reproducible. Whatever is done by man can always be imitated."^[19] However, the uniqueness of wood-fired ceramics; the rhythms of nature itself, such as "timing" and "location"; the uncertainty corresponding to improvisation; and the episodic practice of

^① Interview with Guan Yongshuang, head of the "Xishan Rain" pottery studio, 17 February 2022.

experimental work, make it difficult to reproduce ceramics in its entirety in the machine age. The worlds of "people" and "things" are revealed, so that "each thing is born in harmony with the other, and each thing is nourished by the other".

4. The spirit of creation: The language and practice of pottery making in Rongchang, Chongqing

The element of chance and improvisation in the production of pottery is also reflected in the firing process. Firing is a process of injecting the soul into the pottery, and it is also a process in which human beings achieve unity with the clay and fire, and the natural instincts of human beings and nature are released and complete the process of blending things. In Rongchang, the pottery-making process is undoubtedly a reproduction of the inherited culture. The practice of praying to the kiln god and following tradition during the firing process undoubtedly demonstrates the uncertainty of the process and the fact that man is only a participant in the process, not the master.

There is a saying in the Rongchang pottery industry that "Yao, the son of heaven, Shun, the greatest emperor, they are both ancestors who created the kiln and the kings of exotic treasures". Before firing each batch of pottery, the kiln owner and the potter have to sacrifice to the king of the kiln, praying for the shelter of the kiln god, to guarantee the safety of the firing process, and to improve the firing rate and uniqueness of the products. In Rongchang, every time a potter opens a kiln to fire pottery, he or she will carefully prepare a sacrificial ceremony. Usually, the kiln owner has to "prepare six paper money, three pillars of incense, a pair of candles, a rooster, a piece of knife, two strings of firecrackers, the kiln owner ignites the paper money, candles and incense, and leads all the people to stand in front of the god with reverence, reciting words under their breath, and the kiln owner takes three bows, and the firecrackers sound, and then kills the rooster, and drenches it with chicken blood for a week around the kiln site, and then holds the rooster three times in front of the kiln door, and kowtows to the king of the kiln, and finally, the kiln king is sacrificed to the king of the kiln. Then in front of the main kiln door, holding the cock in his hands, he would make three bowings and nine kowtows to the kiln king, and finally, on the tail of the cockerel, he would pluck nine chicken feathers and dip them in the blood of the chicken and affix them to the kiln door of the third warehouse." ^[20]At this point, the entire sacrificial ceremony ends, and the pottery makers enter the fire-lighting session and begin firing the pottery. Pottery makers in Rongchang regard the kiln sacrifice as an important part of the process of obtaining the soul and aura of the vessel, and even young pottery makers with modern education follow the tradition of the kiln sacrifice. Although the ritual practices of the younger generation of potters are more simplified compared to the older ones, and the offerings are no longer animal sacrifices but fruits and food instead, the potters usually fast for 1-3 days before the rituals, and participate in the making and production of pottery with an ethereal and humble body, mind, and posture. Both animal sacrifice and food sacrifice reveal that human control over the fire of the kiln is not at the whim of man, especially throughout the process of pottery firing, which requires the help of multiple subjective forces other than man. The fact that some of the pottery was defective after the kiln was opened reveals once again that even in today's society, where fire control technology is so advanced, when potters use the kiln to fire pottery, they still cannot fully control the direction of the fire and the various possibilities that arise in the interaction between the clay and the fire, to ensure that every piece of pottery comes out of the kiln in perfect condition.

In the view of Rongchang potters, sacrificing to the god of kiln and fire is a way for the kiln owner/pottery to have an immediate exchange of skills and intercommunication of emotions, with the god of the kiln, while the sacrifices are the gifts offered to the god of the kiln by the potters, the

purpose of which is not only to add an "insurance policy" for the quality of pottery but also, more importantly, for the people to uphold the logic of the intergeneration of all living things. Therefore, each piece of pottery fired by the potter is not a commodity in the general sense, but a work of art with a high aesthetic value of life. The inclusion of kiln rituals, the participation of the kiln god and the self-sacrifice of the animals give the pottery a sacredness and a halo.

The different fuels and interventions in the kiln and kiln firing process in pottery further evolve the "harmonious but different" color and appearance of the pottery. The essence of pottery production "is that the craftsmen use fire to turn soft materials into hard materials"^[21], fire makes the process of pottery production add "heavenly" factors, but also creates the unique traces of the life of the pottery. Rongchang potters believe that a good or bad first fire predicts the fate of all the pottery in the kiln. The risk of accidents and mishaps occurs from time to time, so in the past, the first fire would usually be held by someone who was highly respected in the art of pottery making, and even some folk shamans would be invited to take part in it. This bit of kiln ritual has changed today, but its deep structural logic still maintains a reliance on traditional practices and emphasizes the important role of fire in the process of pottery generation. In addition to fire, multiple factors such as clay, water and fuel are equally important, among which the uniqueness of the glaze colour of Rongchang pottery is attributed to the richness of local natural resources. Rongchang's local natural materials such as pine trees, green hillock trees, mares grass and ferns, with high oil content, are the best wood-fired calcined fire materials for pottery production. The core structure of Rongchang's natural grey glaze is fueled by firewood. During the process of wood-fired pottery making, the ashes of the fuel are carried along with the hot air currents to the pottery being fired. The ash that adheres to the surface of the pottery is then fused at a high temperature of over 1,200 degrees to produce a variegated, shiny and non-absorbent glaze. Similarly, the potter retrospectively evaluates the effect of different fuel qualities on the color and texture of the pottery, depending on the color and shape of the piece.

5. Conclusions

In the essay "The Origin of the Work of Art," which was wrote by German philosopher Martin Heidegger states that our inquiries into "the object factor are perhaps excessive and messy, because the work of art is something else besides the object factor, and this something else forms the artistic factor."^[22] However, the factor "other than the object factor" is often neglected by researchers, but it is deeply embedded in the local pottery design and production process, which has become an important part of the pottery technique. Through the study of the improvisation factor and its philosophy in Chongqing Rongchang's pottery-making techniques, this paper points out that the "man-made thing" cannot be made by man alone, but also includes the result of the joint shaping of the forces of all things. The intervention and cooperation of "nature" (gold, wood, water, fire and clay) and "culture" (sacrifice of the Kiln) make the pottery show different life states and characters. Even if there are defective products or even cracks in the process of firing, its existence is unique. Because of the "dasein" of the potter, the uniqueness of the material and the non-overlapping of the environment, each piece of pottery fired by the potter has a unique halo and personality. And the grasp of the element of improvisation precisely explains the process and practice of revival of "local knowledge" and "traditional knowledge" in traditional arts in recent years. The improvisation factor, as a factor "other than the object factor", should not be excluded from the inheritance and protection of handicrafts; on the contrary, it is intertwined with "technique" and "*witchcraft/art*" and is a part of the technique, or even the technique itself,, and become the cultural schema and action guide for craftsmen to continuously draw inspiration and create art.

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