

The Protection and Development of Rice Paper as a Human Intangible Cultural Heritage in the Perspective of the Triple Helix

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Abstract: Based on the historical development and contemporary dilemma of Rice paper, it is proposed to scrutinize the overall development of the non-heritage Rice paper based on the triple helix perspective. Under the triple helix perspective, three types of subjects, namely, academics, government and industry, play their roles in the process of transforming the multiple values of Rice paper into modernity. Academics explore the theory of Rice paper to promote the dissemination of theory, government policy to guide the development path of Rice paper, and industry to develop Rice paper cultural and creative products to realize the innovation of heritage. The three types of subjects adhere to the protection and innovation, and support each other to form a network to realize the systematic construction of the cultural ecology of Rice paper.

Keywords: Intangible Cultural Heritage; Rice Paper (Xuan Paper); Triple Helix Mode; Preservation; Development.

1. Introduction

Rice paper is an outstanding representative of China's traditional handmade paper-making techniques, which was listed as one of the first batch of national intangible cultural heritage in October 2006, and in September 2009 it was listed as intangible cultural heritage of mankind by the United Nations Educational, Scientific and Cultural Organization (UNESCO). Guo Moruo praised Rice paper: "Rice paper is the artistic creation of the Chinese people, without which Chinese calligraphy and painting would not be able to express the wonderful flavor of art." [1] rice paper intangible cultural heritage as an important element of traditional Chinese culture, in the literary and artistic circles are highly valued, but the rice paper consumers are mostly engaged in traditional calligraphy and painting painting enthusiasts, a single product and niche consumer groups, resulting in a large gap between the higher cultural status of rice paper and the development of rice paper state.

2. Characteristics and Advantages of Non-Heritage Rice Paper

Rice paper as a proper noun, first appeared in the Tang Dynasty famous scholar Zhang Yanyuan authored the "famous paintings of the past dynasties". In the Qing Dynasty, Hu Pu'an, a master of Chinese literature and a native of Jing County, wrote in "Paper - Rice paper": "Jing County was known as Xuan city in ancient times, and the production of paper was the best in the country, which was called Rice paper in the world, and it was made in Xuan city, hence the name is Xuan paper (the same as Rice paper). Rice paper is made of green sandalwood bark and straw as the main raw materials, the raw materials in the natural environment through the sun and rain to make it weathering, adding kiwi vine juice and other special preparations, and then by the core technology of pulping, paper fishing, paper tanning, etc., and ultimately made of high-quality brushes calligraphy and painting paper. A high-quality rice paper from the collection of raw materials to the final paper, it takes more than a hundred procedures,

one to two years to complete, but also because of the complicated procedures, the long time to protect the reputation of rice paper.

As a professional paper for calligraphy and painting, rice paper has the advantages of good ink moistening, long durability, good insect resistance, and light but not slippery, pure texture, rubbing and folding, and so on, so it is known as "the king of paper", "millennium life paper". In the process of writing and painting, the different needs of the use of the formation of raw type, or cooked type, which is due to the initial and secondary processing of paper to different degrees, the formation of ink staining differences. Green sandalwood skin accounted for 40% -60% is called cotton, 60% -80% is called net skin, more than 80% is called special net skin, different ratios of green sandalwood skin to form the softness of the paper, the texture of the sense of difference and feel, different performance of the rice paper products to meet the needs of consumers a variety of uses.

3. Development of Non-genetic Inheritance of Rice Paper

At the beginning of the Yuan Dynasty, Cao Dashan moved to Xiaoling, Jing County, and based on the study of Cai Lun's paper-making skills, he mobilized his family's strength and combined it with Xiaoling's natural resources and climatic conditions to improve his paper-making skills and achieve a leap in the quality of paper. Cao's ancestor started the production of rice paper in Xiaoling, making Xiaoling the birthplace of Chinese rice paper, and his descendants made their living by making rice paper, which was once the main body of the rice paper technique inheritors. [2] In the rice paper technology inheritance process, the Cao family has always been adhering to the family tradition of male not female, nephews not son-in-laws, and later generations of the industry to make big to hire helpers, helpers are only engaged in the process of heavy physical and light technology in the process, high-level rice paper the core technology is still mastered in the hands of Cao's family [3].

After the founding of the People's Republic of China, after the stage of public-private partnership, rice paper hereditary

bearers appeared outside the Cao's social personnel. The quality of high-end rice paper is closely related to the skills of the core craftsmen, "national non-genetic heritage" Mao Shengli, although an ordinary worker in Jingxian Red Star rice paper factory, because of the superb paper copying skills to obtain the "twenty representatives", "Great Country Craftsman", and "Model Worker" and other honorary titles, reflecting the importance of craftsmen in the production of rice paper.

Examination of the history of rice paper can be seen, non-genetic inheritance as the main body of inheritance, has been the identity of a relatively single, a small number of skilled craftsmen have been in the non-genetic inheritance of the backbone of the position. However, including rice paper technology, including rice paper cultural heritage, excessive reliance on a few non-genetic inheritances to drive the overall protection and inheritance of non-heritage rice paper, neither reasonable nor to meet the development needs. rice paper survival and development need to expand its social space, expand the scope of its inheritance subject, combined with its characteristics and advantages to enrich its inheritance form, the formation of inheritance of fertile ground.

Contemporary, China's participation to the main body of the rice paper production and cultural dissemination activities, has been expanded from individual people, to academia, government, enterprises and other pluralistic subjects, different subjects involved in the activities of non-legacy, to promote the common concern of all areas of society rice paper culture. In the process of presenting the rice paper culture, the multiple subjects combined with the multiple values of rice paper for modern transformation, adhere to the traditional skills, the development of the form of innovation, the formation of rice paper culture with contemporary characteristics of the inheritance system.

4. Three Types of Subjects Together to Build Rice Paper Cultural Heritage System

In the national innovation system, the integration of resources of different subjects can realize the utility that the sum of elements is greater than the original whole. American geneticist Lewontin first used the triple helix model to explain the relationship between genes, organization and environment, and Etzkowitz et al. extended the triple helix subjects to universities, government and industry, emphasizing that the three types of subjects play a role and synergize with each other in the national innovation system and promote the spiral development of innovation activities. Traditional culture inheritance requires the participation of as many subjects as possible, and the cross interaction of multiple fields in order to form an endless vitality. At present, the three types of subjects formed by academia-government-industry each play their own roles in the inheritance of Rice paper culture and form a common force to promote the overall development of Rice paper culture system.

From the point of view of synergy and sustainable development, the academic community uses Rice paper theoretical research as the main form of recording, organizing and publicizing Rice paper culture; the government, as the top-level designer, seeks policy assistance for the development of Rice paper culture; and the industrial sector uses products as a hand to promote product diversification and expand the environment and function of Rice paper use.

Under the triple helix model, each subject protects the traditional techniques of rice paper, innovates the cultural heritage of rice paper, and strengthens the linkage and synergy among multiple subjects, optimizes resources, and promotes the development of the contemporary rice paper cultural system.

5. Protection and Innovation of Pluralistic Subjects in the Perspective of the Triple Helix

With the goal of protection and inheritance, multiple subjects play their roles in their respective fields; academics publicize the theory of rice paper culture and capture the hot spot of rice paper culture development; the government formulates the core value norms of rice paper culture and guides the cultivation of rice paper inheritors and the development of the rice paper industry; and the business sector extends the product chain on the basis of high-quality maintenance of the traditional skills, creates cultural innovations by visual means, and seeks for a new opportunity of the development of rice paper industry. The enterprise sector will extend the product chain on the basis of high-quality maintenance of traditional skills, create cultural and innovative products by visual means, and seek new development opportunities for the rice paper industry.

5.1. Academic Subjects: Recording, Organizing and Disseminating Theories of Rice Paper Culture

Despite the fact that rice paper, as the first of the Four Treasures of Literature, has a history of more than 1,500 years, specialized investigations of rice paper by domestic academics did not begin until the 20th century. The earliest scholars who researched the technology of rice paper can be traced back to Hu Old Woman Yu's "Paper Saying - rice paper" (1923). 1936, China Paper Research Institute conducted field investigation and research on the production of rice paper, Wei Yongqi and Zhang Yonghui formed a report on the collection of raw materials for the production of rice paper, the processing process and the sale of investigation reports on the rice paper manufacturing industry "and" Anhui rice paper industry of the synthesis "is the rare original material on the Republic of China period. The original information about the rice paper. After the founding of new China, especially in the last century after the 1990s rice paper culture research gradually increased. With the increase of national efforts to protect the non-heritage in recent years, the non-heritage Rice paper has been paid more and more attention to, and the related research results have also shown rapid growth.

Using the information visualization software CiteSpace to search the research on Rice paper culture after 2000, China Knowledge Network obtained 431 pieces of literature, and 355 pieces of effective literature were selected as data samples after screening. Based on the CiteSpace graph analysis, we obtained the keyword co-occurrence map of Rice paper NRL protection in China from 2000 to 2022, and according to the node changes in the map, we learned that during this period, the field was dominated by the keywords of "Rice paper" and "production technology" and "inheritance". The intermediary centrality of the three keywords "inheritance" is more prominent, followed by "Jingxian Rice paper", "green sandalwood skin", "traditional

culture", "rice paper", "traditional culture", "traditional culture", "traditional culture", "traditional culture", "traditional culture", "traditional culture" and "traditional culture". The keywords "Jingxian Rice paper", "green sandalwood leather", "traditional culture", "Rice paper technology" and "development" are the most popular keywords. Academic research hotspots, but also the development of the field of Rice paper barometer of the current situation and prospects, according to the Rice paper keyword heat, can be found in the field of Rice paper inheritance and innovation is the current field of hotspots.

Rice paper culture hotspot, on the one hand, embodied in the rice paper non-legacy skills to keep the right call, emphasizing the importance of the rice paper technology to protect the ancient method. Cao Tiansheng's rescue excavation and collation of the traditional production techniques of Chinese rice paper, Wang Dachun's processing techniques of rice paper raw material Shatian straw, and Cao Xi's protection of prairie grass techniques express the attitude of protection of rice paper techniques. On the other hand, it is reflected in the thinking about innovation on the road of rice paper development. Tang Chuanxian and Wu Mengyao thought about the proper technical innovation based on respecting the cultural origin from the perspective of productive protection of non-heritage, and Wang Xiwei and Tang Shukun pointed out that the cultural authorization mode is used to solve the problem of lagging development mode of Rice paper industry.

In short, the theoretical research and dissemination of the academic community on the culture of rice paper, reflecting the harmonious unity of protection and inheritance, is a summary of the past of the non-heritage rice paper, thinking about the present and the future, for further clarification of rice paper culture, protection and development of the direction of the direction.

5.2. The Main Body of the Government: The Design of the Development Path of Rice Paper Culture

5.2.1. Government Action to Protect

First, the government formulated rice paper standards, clear rice paper technology of the original core. Early rice paper standards relied on verbal standards formed in the practice of rice paper craftsmen, after the establishment of New China origin rice paper enterprises, in order to maintain a competitive advantage, the development of rice paper industry standards. In the counterfeit products surfaced, the problem of rice paper standards more prominent. 2011 September, under the leadership of the relevant government departments, Anhui Province, rice paper and calligraphy and painting paper standard technical committee opened the rice paper standardization technology development and supervision, thus making the rice paper technology inheritance and the production of rice paper on a benign development track. Compared with the living heritage, the standardized text in black and white in the dissemination process is more complete, clear, according to the standard to start the production of rice paper, is in the rice paper practitioners to expand the scale still maintain the original flavor and high quality. For users of rice paper, the development of rice paper standards to ensure the correct purchase of rice paper has positive significance. Government-led development of rice paper standards, promote the rice paper industry in a benign, orderly track.

Secondly, for the origin of rice paper is named, set the origin of rice paper. rice paper production of raw materials closely dependent on the local unique landscape climate and plant resources conditions, leaving the natural conditions of origin, the quality of rice paper will be affected. However, with the gradual increase in the number of paper-making practitioners, the phenomenon of substandard, bamboo pulp wood pulp made of handmade calligraphy and painting paper posing as rice paper has become more and more prominent. Government departments continue to increase market checks, and gradually rise to the level of regulations and policies. 1999, the state promulgated and implemented the "regional protection of origin regulations", and in 2002 will be set up in Jingxian County as "xuan paper origin", and subsequently awarded the "hometown of China's xuan paper" The active response of the government has greatly protected the enthusiasm of rice paper practitioners.

5.2.2. Government Implementation of Talent and Industry Change Initiatives

First, talent policy innovation. In recent years, the government has gradually increased the protection of non-genetic inheritors and given generous financial and policy support. National, provincial and municipal non-heritage bearers can get the corresponding annual subsidies, and entrepreneurship, construction of workshops, classes and other behavior to encourage the establishment of special jobs for special positions in the rice paper industry to set up special jobs to give care, and practical solutions to rice paper enterprises in the development of the difficulties. At the same time, on the training of non-heritage talents, the government for the growth of talents to open up a green channel, for school-enterprise cooperation to build a platform for training, for the rapid growth of talents to provide intellectual property rights, financial and other aspects of support. The establishment of Jingxian China Rice paper Painting and Calligraphy Technology College, set up Rice paper related professional initiatives, so that the training of heritage more in line with the contemporary education system, closer to the contemporary needs of young people to grow, and promote the employment problem has been alleviated.

Second, industrial development policy innovation. rice paper industry development has its own development rules, but also can not be separated from the industry surrounding supporting construction. The government issued relevant policies, by encouraging the combination of rice paper culture and art design, tourism, exhibitions and sales and other fields, the formation of growing cultural and creative industry, cultural tourism industry, exhibition industry, etc., to strengthen the public's access to the rice paper technology, the formation of a strong cultural atmosphere of non-heritage, and to promote sustainable development of rice paper culture industry multi-industry. Over the years, the Jing County government through the "paper as a medium, cultural stage, economic singing" Rice paper Art Festival, promote Rice paper cultural performances, Rice paper calligraphy and painting exchanges, paper history seminars, as well as Rice paper trade activities, promote the sustainable development of Rice paper enterprises and its surrounding industries in Jing County. Of course, just rely on the efforts of the local government is not enough, high-profile platform on the show of rice paper culture also need higher level of government support, such as the opening ceremony of the 2008 Beijing Olympic Games, the 2010 Shanghai World Expo this kind of government-sponsored high-profile event, the event on the

rice paper art performances greatly enhance the influence of the rice paper culture.

5.2.3. Industrial Body: Discovering Rice Paper Cultural Products

Rice paper production technology is not only the guarantee of product quality, but also the technology in the era of social and humanistic embodiment, through the history of rice paper technology can see the Chinese society, culture, art, economy, clan microcosm. Rice paper technology protection is the basic work of rice paper non-genetic inheritance, the starting point of rice paper technology protection, not only to protect the core of the ancient paper technology, but also reflect the wisdom of the Chinese people's artifacts, reflecting the idea of creative solutions to the problems of life and production [4]. Yang Yujie of Wucaoge in Jingxian County adheres to the ancient method of dyeing inherited from his family, and produces Ku porcelain green paper, azure paper, and Bijinzo paper, which provides high-quality dyed paper for the restoration of ancient books in the National Library, Capital Library, Dunhuang Museum, and other institutions. As the traditional techniques remain intact, the ancient method of dyeing paper fully meets the needs of restoration, allowing the restoration of contemporary ancient books and paintings to be more smoothly realized. The Qing "Han Yix Hou Fang Chu Statue" displayed in the Anhui China Huizhou Museum is restored using ancient rice paper materials and techniques, and the restored painting shows no traces of repair and perfectly demonstrates the elegance of the original work.

At present, the rice paper industry is faced with a relatively single type of cultural products and functions of the industrial sector, rice paper products to couplets, albums, commemorative rice paper-based, product categories less involved in the scope of people's daily necessities, it is difficult to adapt to the consumer's escalating personalized, living consumption demand. The main body of the industry in the protection of calligraphy and painting paper at the same time, it is more important to excavate the product content, enrich the product form, increase the added value of rice paper cultural products [5].

6. Conclusion

The intangible cultural heritage is a jewel in the cultural history of mankind, and the preservation of its skills and the passing on of its culture is a long and difficult task. Only if all sectors of society pay attention to, support and love intangible culture, this traditional culture can avoid extinction and maintain a state of sustainable development. As an intangible cultural heritage, rice paper has gone through three stages of development, from prosperity to decline to new development. In order to adapt to the needs of contemporary social life, academia, government and industry have to cooperate and synergize in their respective roles. In the synergistic development, Rice paper intangible cultural heritage shows a spiral upward development state, insisting on innovation in the protection of traditional culture, and establishing a sustainable system of Rice paper cultural ecology.

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