

Research on Digital Protection and Inheritance of Xia Bu Culture

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Abstract: As a traditional handicraft product with a strong cultural characteristic, Xia Bu is increasingly unable to keep pace with the development in this modern fast-paced era. To better protect and inherit the Xia Bu, this study has proposed the design of a website and applet around the current state of Xia Bu. Through the analysis of the current state of Xia Bu, this study proposed the Xia Bu around the current popular pc and mobile applications for dissemination and promotion. As a traditional handicraft with a long history, Xia Bu still has important cultural significance and economic value in today's society. However, with the development of modern technology and changes in lifestyles, the Xia Bu industry faces many challenges, such as difficulties in promotion and insufficient markets. To promote the development and promotion of the Xia Bu industry, achieve scale operation, standardize the industry competition, and implement modern management, our team proposes to use web communication. Website and applets mainly include the introduction of the Xia Bu culture, Xia Bu product display, Xia Bu production process demonstration, and the Xia Bu industry information dissemination and other functions. Through the spread of applets and websites, users can fully understand the historical origin, production process, product types, and other information, thus increasing their knowledge and understanding of Xia Bu. In the promotion and future outlook of the website and app, this study focuses on people's understanding of Xia Bu and user experience. In the future, the study will continue to optimize the functions and user interface to improve the user experience and attract more users to participate and use. The Xia Bu will be promoted through modern means.

Keywords: Xia Bu; Applet; Website; Traditional craft; Cultural heritage; Modern technology

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1. Background and significance of the project

Xia Bu, as part of traditional folk handicrafts, has exquisite weaving techniques, unique texture, and strong traditional folk handicraft characteristics; tie-dye, as an ancient folk dyeing process, is rich in patterns, and has the beauty of the color halo that cannot be replaced by other dyeing processes, which has important cultural significance and economic value ^[1]. However, with the rapid development of modern science and technology and lifestyle changes, the Xia Bu industry is facing an industrial crisis. To inherit, promote, and innovate the Xia Bu, the project proposes a brand new concept — the “Cloth Tour” website + applet. This project aims to create a communication platform integrating the introduction of Xia Bu culture, product display, production process

demonstration, industrial information release, and other functions, injecting new vitality into the development of the Xia Bu industry.

The significance of the “Cloth Tour” website + applet is, first, to promote the transformation and upgrading of the Xia Bu industry. The traditional Xia Bu industry has been mainly handmade, the production process is cumbersome, low production efficiency, and market competitiveness. The launch of the “Cloth Tour” website + applet introduces the Xia Bu industry into the digital age, and through the support of Internet technology, improves the visibility and market competitiveness of Xia Bu products, and drives the development of the Xia Bu industry. Second, promote the inheritance and innovation of Xia Bu culture. As a traditional handicraft in the Rongchang area, Xia Bu carries a rich historical and cultural heritage. However, with the changes of the times, the Xia Bu culture is facing the danger of being forgotten. Through the “Cloth Tour” website + applet, the historical origin of the cloth, production process, product categories, and other information can be disseminated to a wider audience, stimulate the public’s interest in the cloth and love, and promote the inheritance and innovation of the culture of the cloth. Third, also lies in promoting the market expansion of the Xia Bu industry. Traditional Xia Bu sales mainly rely on offline channels, limited by geographical and channel constraints, so the market coverage is limited. Through the “Cloth Tour” website + applet, the Xia Bu products can be promoted to the whole country or even the world, expanding the market size of Xia Bu, attracting more consumers’ attention and purchases, and promoting the healthy development of the Xia Bu industry.

2. Analysis of the inheritance and development status of Xia Bu

2.1. Introduction to the intangible cultural heritage of Rongchang Xia Bu

As an important intangible cultural heritage, Rongchang Xia Bu carries rich historical and cultural connotations and unique craft value. Xia Bu originated in the Rongchang area and has become one of the important symbols of local culture after centuries of development and evolution. The craftsmanship of Xia Bu has a long history, combining rich traditional skills and wisdom, and reflecting the wisdom and industriousness of the working people.

The production process of Xia Bu in Rongchang is unique ^[2]. The traditional Xia Bu production process mainly includes material selection, weaving, dyeing, embroidery, and other links, each of which needs to be completed through exquisite hand skills. In the selection of materials, the Xia Bu is made of local unique high-quality cotton yarn as raw material, which is carefully selected and processed to ensure the texture and quality of the Xia Bu. In the weaving process, the Xia Bu is woven on traditional hand looms, with the looms clattering as the artisans deftly operate the looms to weave exquisite patterns and motifs. The dyeing and embroidery process requires the patience and meticulousness of the craftsmen. Through different dyes and embroidery threads, the Xia Bu is given unique colors and patterns, reflecting the exquisite and unique features of traditional craftsmanship ^[3].

The cultural connotation of Rongchang Xia Bu is rich and colorful. Xia Bu is not only a traditional handicraft, but also a carrier of historical and cultural memory. The patterns of Xia Bu are often integrated with the local landscape and humanities, reflecting the rich and colorful human history and folk customs of Rongchang. In the process of making the Xia Bu, the craftsmen often design the patterns according to the seasons, festivals, and living customs, reflecting the people of Rongchang’s love of life and reverence for nature. At the same time, Xia Bu also carries rich blessings and beautiful meanings and is often used as gifts and sacrificial offerings, conveying people’s aspirations and prayers for a better life.

The development of Rongchang Xia Bu is facing challenges and opportunities. With the development of modern science and technology and the market economy, the Xia Bu industry is also facing new development

opportunities and challenges. On the one hand, as a traditional handicraft with a long history, Xia Bu has unique cultural value and market potential, which can attract more attention and love from young people through innovative design and marketing promotion. On the other hand, the Xia Bu industry is also facing problems such as fierce market competition and rising raw material costs and needs to continuously improve product quality and added value, and expand market space and channels.

2.2. Analysis of the inheritance status of Xia Bu craft

Xia Bu is one of the national intangible cultural heritages, and its inheritance and development are affected by the characteristics of the time. With the continuous development and advancement of urbanization and industrialization, the inheritance and development of Xia Bu is facing the situation that there are no successors. Therefore, it is necessary to take effective measures to solve and promote it. At present, Rongchang Xia Bu has the following problems. The inheritance of Xia Bu technology is facing the problem of the reduction of the number of traditional master craftsmen. Many masters with the traditional skills of the Xia Bu craft are gradually aging with time, while the younger generation is not interested in this traditional craft, resulting in a break in the inheritance of the Xia Bu craft. Therefore, there is an urgent need to take measures to attract more young people to participate in the study and inheritance of the Xia Bu craft, to cultivate a new batch of Xia Bu craft inheritance talents, and to inherit the essence of the Xia Bu craft.

There is still the problem of insufficient market demand for the inheritance of Xia Bu craft. With the development of modern industry and the rise of mass production, the market demand for traditional handicraft products is gradually declining. As a kind of handicraft, Xia Bu has a long production cycle and high cost, which makes it difficult to meet the demands of modern fast-paced life. Therefore, it is necessary to expand the market demand for Xia Bu products using innovative design and enhancing the added value of products, to attract more consumers to pay attention to and buy Xia Bu products.

The inheritance of the Xia Bu craft is also limited by the backwardness of the production process and the traditional way. The traditional production process of Xia Bu has the characteristics of high labor intensity and low production efficiency, which makes it difficult to adapt to the needs of modern production. Therefore, it is necessary to introduce advanced production technology and equipment to improve the efficiency and quality of Xia Bu production, to maintain the traditional characteristics of Xia Bu craft while better adapting to market demand.

The inheritance of Xia Bu craft also needs to face the balance between cultural heritage and innovation. The inheritance of traditional culture is the basis for maintaining the unique charm of the Xia Bu craft, but the inheritance also needs to constantly innovate, so that the Xia Bu craft advances with time, towards modernization. Therefore, it is necessary to pay attention to the combination of tradition and modernity in the inheritance process, excavate the cultural connotation of the Xia Bu craft, give it a new significance of the time, and promote the inheritance and development of the Xia Bu craft to achieve greater success. Although the current situation of Xia Bu craft inheritance is facing a lot of challenges, the combination of the two most popular modern communication media makes up for the shortcomings of Xia Bu being difficult to disseminate among people, hence allowing it to develop better.

3. Design of the Brigade website and applet

3.1. User communication page design

The user communication page provides a convenient communication and interaction platform for the Xia Bu-related groups, to promote the inheritance and innovation of Xia Bu culture. At the same time, taking into

account the needs and characteristics of different user groups, to ensure that the platform's function is perfect and the user experience is good. The design needs to take into account the needs of different groups such as Xia Bu inheritors, handicraft designers, Xia Bu enthusiasts, Xia Bu product merchants, and so on. For Xia Bu's inheritors, a special section can be set up for them to publish videos, pictures, and articles on the traditional crafts of Xia Bu to show the exquisite skills and traditional cultural connotation of Xia Bu's production. For craft designers, a platform can be provided for the display and exchange of design works, so that they can show the innovative design of Xia Bu and cultural and creative products. For Xia Bu enthusiasts, they can exchange their collection tips and experiences on the platform. For Xia Bu product merchants, they can publish product information and open online shops to promote the sales and promotion of Xia Bu products.

3.2. Design of online retail page

The design concept of the product online retail page is to combine the display of Xia Bu products with online trading to create a comprehensive platform that integrates product display, trading, and evaluation. The home page of the platform will present beautiful pictures and a detailed introduction to Xia Bu products to attract users' attention. At the same time, through the classification navigation and search function, users can quickly find the products they are interested in. In the product details page, in addition to displaying the product price, specifications, and other basic information, the website also provides the product production process, historical background, and other related content to help users understand the product more comprehensively. As an important functional module of the website + applet, the product online retail page carries the important mission of displaying and trading Xia Bu products. Through reasonable design concepts and functional module settings, it can provide users with a convenient, safe, and pleasant shopping experience, promote the sales and promotion of Xia Bu products, and promote the development and inheritance of the Xia Bu industry.

3.3. Training page design

The functional module design of the website + applet can also provide professional training resources and support for the inheritance and development of the Xia Bu industry. Through the training page, users can obtain training courses, teaching videos, online live broadcasts, and other content on the production techniques of the Xia Bu, to improve the technical level and professionalism of the Xia Bu industry practitioners and promote the innovation and development of the Xia Bu industry. The training page will provide professional training resources and support for the inheritance and development of the Xia Bu industry. The courses on Xia Bu production techniques, teaching videos, online live broadcasting, internship training, and other forms, will inject new vitality into the development of the Xia Bu industry and promote the Xia Bu industry to a broader path of development.

4. Future prospects

4.1. The driving force for the transformation of traditional crafts

The transformation and upgrading of traditional crafts is the key to the development of the Xia Bu industry. The "Cloth Tour" website + applet is an important carrier and promotional platform for the inheritance, development, and innovation of the intangible cultural heritage of the Xia Bu, which is of great significance in promoting the transformation and upgrading of the Xia Bu industry. The study will discuss the driving force of the "Cloth Tour" website + applet in the transformation of traditional crafts from three aspects: marketing, user experience, and industrial cooperation.

In terms of marketing, the "Cloth Tour" website + applet can expand the market share of Xia Bu products

with the help of digital marketing means. Through online promotion and advertising, Xia Bu products can be recommended to a wider audience, enhancing the popularity and reputation of Xia Bu. At the same time, data analysis and user feedback can be used to adjust the marketing strategy promptly to meet user needs and improve user stickiness and conversion rate. In addition, it can also make use of social media platforms, carry out cooperative promotion, and cooperate with opinion leaders and industry bloggers related to Xia Bu to expand the influence and exposure of the Xia Bu industry. Through precise positioning and differentiated marketing, it enhances the competitiveness of Xia Bu products in the market and promotes industrial transformation.

In terms of user experience, the website + applet should focus on user needs and experience, continuously optimize product functions and interface design, and enhance user satisfaction and loyalty. Increasing the interactive experience function of Xia Bu culture, such as Xia Bu DIY teaching video, online lectures interactive community, and so on attracts users to participate and interact, and enhances user retention. At the same time, virtual reality (VR) and augmented reality (AR) technology can be introduced to create an immersive experience, allowing users to gain a deeper understanding of the history, culture, and production process of Xia Bu, and enhancing their sense of participation and experience. Through personalized recommendations and customized services, it meets the needs and preferences of different users, enhances the user experience, and promotes user loyalty and word-of-mouth communication ^[4].

In terms of industrial cooperation, the “Cloth Tour” website + applet can cooperate with various links in the industry chain, such as Xia Bu production enterprises, designers, and inheritors, to jointly promote the transformation and upgrading of the Xia Bu industry. Co-operation with Xia Bu production enterprises can realize the deep integration of online and offline, jointly develop new Xia Bu products, expand sales channels, and enhance brand influence. Co-operation with designers can introduce new design concepts and elements to empower Xia Bu and enhance the added value of products and market competitiveness. Co-operation with inheritors can inherit the production process and cultural connotation of Xia Bu, and promote the inheritance and innovation of the non-heritage tradition of Xia Bu. Through cooperation and a win-win situation in the upstream and downstream of the industrial chain, it can achieve the comprehensive development and upgrade of the Xia Bu industry and promote the modernization and transformation of the Xia Bu craft.

Marketing, user experience, and industrial cooperation are important forces to promote the transformation of the traditional craft of Xia Bu. As a platform for spreading the culture of Xia Bu, the “Cloth Tour” website + applet should give full play to its role in promoting the development and innovation of the Xia Bu industry, realizing the inheritance and innovation of the craft of Xia Bu, and providing a new impetus and opportunity for the sustainable development of the Xia Bu industry.

4.2. Prospects for the development of the Xia Bu industry combined with modern science and technology

With the continuous development and application of science and technology, the Xia Bu industry has a broader development prospect in modern society. The integration of modern science and technology has injected new vitality and innovative power into the Xia Bu industry, providing more possibilities for the inheritance and development of Xia Bu.

In terms of production, the application of modern technology provides convenience and efficiency for the production of Xia Bu. The traditional Xia Bu production process is cumbersome and complicated, requiring a lot of manual operation and time cost, while the introduction of modern technology can achieve the automation and intelligence of Xia Bu production. For example, through intelligent equipment and robotics, the automatic

weaving and dyeing of Xia Bu can be realized, greatly improving production efficiency and product quality. At the same time, the use of big data and artificial intelligence technology can be used to monitor and analyze the data of the production process of Xia Bu, to achieve precise control and optimization of the production process, and to further improve the production efficiency and reduce costs^[5-6].

In terms of product design and promotion, the use of modern technology has brought more innovation and possibilities for the design and promotion of Xia Bu products. Through virtual reality (VR) and augmented reality (AR) technology, the virtual display and try-on experience of Xia Bu products can be realized, providing consumers with a more intuitive and vivid shopping experience. At the same time, combined with e-commerce platforms and social media marketing, online sales and promotion of Xia Bu products can be realized, expanding the sales channels and market coverage of the products. In addition, the use of blockchain technology ensures the quality traceability, and origin certification of Xia Bu products, enhancing the credibility of the products and the trust of consumers.

Furthermore, in terms of cultural inheritance and innovation, the use of modern technology has injected new vitality and momentum into the cultural inheritance and innovation of the Xia Bu industry. Through digital technology and Internet platforms, the digital display and dissemination of Xia Bu culture can be realized, so that more people can understand and pay attention to the historical origin and cultural connotation of Xia Bu. At the same time, combined with artificial intelligence and big data analysis, it can deeply excavate the characteristics and value of Xia Bu culture, inspire designers to create, and promote the cultural innovation and design upgrading of Xia Bu products.

Combining the application of modern technology is an important way and strategy to promote the development of the Xia Bu industry. Through the innovation and application of science and technology, it can realize the production upgrading, product innovation, and cultural inheritance of the Xia Bu industry, lay a solid foundation for the sustainable development of the Xia Bu industry, and open up a broader space for the future development of Xia Bu. With the continuous progress and development of science and technology, it is believed that the Xia Bu industry will usher in a better development prospect and opportunity in modern society.

5. Conclusion

As a traditional handicraft with a long history, Xia Bu still has important cultural significance and economic value in today's society. However, with the development of modern science and technology and the change of lifestyle, the Xia Bu industry is facing many challenges, such as a shrinking market and difficulties in passing on traditional crafts. To promote the development and promotion of the Xia Bu industry, this study puts forward the design scheme of the "Cloth Tour" website + applet, including the introduction of Xia Bu culture, Xia Bu product display, Xia Bu production process demonstration, Xia Bu industry information release, and other functions. Through these functional modules, users can get a comprehensive understanding of the historical origins of Xia Bu, its production process, product types, and other information, to increase their knowledge and understanding of Xia Bu. This will help to promote the development of the Xia Bu industry, promote the inheritance and innovation of Xia Bu culture, and provide new ideas and paths for the sustainable development of the Xia Bu industry. Hence everyone should work together in the inheritance and innovation so that the light of Xia Bu continues to shine.

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