

Research on the Design of Cultural and Creative Products of Badu Hemp Embroidery from the Perspective of Semiotics

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ABSTRACT

This paper takes the inheritance and innovation of Badu hemp embroidery culture as the design theme. Based on the theory of semiotics, it explores the design and dissemination methods of Badu hemp embroidery cultural and creative products from the perspective of semiotics, and inherits the folk wisdom and aesthetic ideas in the intangible cultural heritage. Combining theory with practice, this paper deeply analyzes the cultural connotation of Badu hemp embroidery, and constructs identifiable cultural elements through the sorting, extraction and construction of Badu hemp embroidery cultural symbols. According to the market-oriented principle, the combination of culture and timeliness, and the combination of practicality and aesthetics, creative product design is carried out for Badu hemp embroidery cultural symbols. The semiotic signifier and signified provide the transformation of cultural significance for the design practice of Badu hemp embroidery cultural and creative products, promote the communication of cultural concepts, and realize the creative development of culture itself.

Keywords: *Semiotics, Badu hemp embroidery, Cultural creative products, Innovative design.*

1. INTRODUCTION

Badu hemp embroidery culture has a long history and profound cultural heritage. As an intangible cultural heritage, it embodies the wisdom and imagination of the Shanyue people, contains rich and unique aesthetic connotations, and is a treasure of human civilization. This paper starts from semiotics, investigates and sorts out the historical status, craftsmanship, and graphic characteristics of Badu hemp embroidery, screens and extracts its cultural symbols, and integrates the patterns of Badu hemp embroidery through structural and reorganization design methods. Integrating the cultural symbols of Badu hemp embroidery into the design of modern cultural and creative products can give cultural and creative products a certain cultural connotation, broaden the breadth of hemp embroidery culture dissemination, and allow Badu hemp embroidery to be better inherited and developed in the new era.

2. SEMIOTICS AND CULTURAL AND CREATIVE PRODUCTS

2.1 *Semiotics Related Theories*

Symbols are a kind of spiritual mapping and a carrier of material existence. Only with the existence of spiritual meaning can information be transmitted and circulated in time and space [1]. The semiotics theory proposed by Saussure includes two parts: "signifier" and "signified". The signifier mainly extracts symbolic elements from the form, color, material and other aspects of the object, and then combines them to form a visual image. It is the expression layer of the symbol; the signified is based on the representation relationship of each object in human consciousness, that is, the image of the cultural connotation behind the symbol. It is the inner layer of the symbol. Only when the signifier and the signified are combined to express a certain meaning, a symbol will be generated. The two are a corresponding whole and inseparable. Using signifiers and signifieds to interpret cultural symbols helps to explore the

relationship between the expression layer and the inner layer of the product. By extracting relevant cultural symbols such as object shape, color, pattern, etc., according to the corresponding relationship between signifiers and signifieds, the cultural connotation in a specific context is analyzed, providing a basis for later product design [2].

2.2 Semiotics and Cultural and Creative Products

Cultural and creative products are based on national cultural resources. Through people's ingenuity and inspiration, cultural content is transformed into design symbols, and combined with crafts, science and technology, and industrialized production methods, modern design expression methods and thinking patterns are used to find a new form for cultural content that conforms to the lifestyle of modern people, meet people's spiritual needs, and meet the aesthetic requirements of modern people. Symbols convey cultural connotations from different angles such as patterns, functions, shapes, and colors, showing the uniqueness of the product itself. The concise expression of symbols allows cultural exchanges to break through the barriers of language and distance, and elevates people from limited and passive organisms to intelligent and creative behavioral subjects.

3. OVERVIEW OF BADU BAMBOO EMBROIDERY

3.1 The Origin and Current Status of Badu Bamboo Embroidery

Badu Bamboo Embroidery originated in the Spring and Autumn Period and the Warring States Period. It was developed by the Yue people who spun hemp in the mountains, wove cloth and cut clothes, and then gradually drew dragons and phoenixes on the linen. Therefore, it is also called "Shanyue Bamboo Embroidery". It is now mainly distributed in Baduyuan, Chun'an County, Hangzhou. Badu Bamboo Embroidery has a profound cultural heritage and historical value, but with the development of society, the cumbersome and time-consuming craftsmanship is on the verge of being lost. It was listed in the Intangible Cultural Heritage List in 2005 and in the Hangzhou Intangible Cultural Heritage Endangered Protection Project in 2011. Among the nearly 20,000 residents in Wangfu Township, Chun'an County, only more than 200 people master the skill of hemp

embroidery, and most of them are over 60 years old. Most young people work outside, and no one is willing to learn this precious craft. In addition to the lack of inheritors, limited raw materials, low product awareness, and traditional patterns and patterns are all obstacles to the further development of Badu Bamboo Embroidery.

3.2 Basic Characteristics of Badu Hemp Embroidery

3.2.1 "One Stitch to the End" in Terms of Technique, Exquisite on Both Sides

Before starting Badu hemp embroidery, the number of stitches, spacing and gaps of each part on the linen cloth will be calculated according to the determined pattern, and they will be placed strictly according to the warp and weft of the linen cloth, without any error. Then, the needle is started from the middle, from the inside to the outside, with the eyelets of the cloth as the stitches, using the "cross" needle method, moving the needle back and forth, using the "cross flower" to form various patterns, and finally returning to the middle to close the needle. From the first stitch to the last stitch, there is no interruption in the middle, no knot, and one stitch to the end. Therefore, Badu hemp embroidery also has the meaning of "continuous, nine nine return to one". In addition, in addition to the exquisite pattern on the front of Badu hemp embroidery, the pattern on the back is also continuous, with consistent depth and only one knot, which is clean and neat.

3.2.2 The Colors of Blue and White Complement Each Other

There are two main colors of linen in Badu hemp embroidery: one is the natural white color of linen, and the other is blue dyed with indigo. Generally, blue thread is embroidered on white cloth, and white thread is embroidered on blue cloth. The two colors complement each other and are fresh and simple.

3.2.3 The Patterns Are Abstract and Simple

The patterns of Badu hemp embroidery are unique and recognizable. They are mainly composed of continuous geometric patterns, supplemented by realistic auspicious patterns[3]. When depicting animals such as dragons, phoenixes, birds, and lions, they do not outline the details of

the animal shapes like other embroidery, but express the characteristics of the animals in a more general way. While maintaining recognition, they are very concise and have a sense of form. There are also various geometric patterns in the patterns. Straight lines, curves, rectangles, and circles are intertwined and varied. The simplest basic elements are used to evolve into a variety of decorative methods, enriching the visual effects of the picture. In terms of overall composition, linen embroidery mostly uses techniques such as symmetry, continuity, and intervals, which allow specific objects to be interspersed with varied geometric structures, forming a contrast between simplicity and complexity, with sizes arranged in a staggered manner. The overall pattern is stable and orderly without losing changes, forming a unique rhythmic beauty.

3.3 The Craftsmanship of Badu Hemp Embroidery

As an ancient folk art, Badu hemp embroidery shows distinct regional characteristics. Because it is located in the mountainous area, the natural conditions are harsh and it is difficult to grow cotton, so hemp is planted instead. Jute, as the main raw material for hemp embroidery, is rich in plant

fibers. The toughness of the fibers makes it more wear-resistant and less likely to deform when making hemp cloth and sacks. Although the formation of hemp embroidery requires multiple steps such as hemp planting, spinning, weaving, indigo dyeing, and embroidery, and the process is complicated, in the past difficult days, farmers lived in poverty and could not use cotton cloth, and hemp cloth brought everyone a good living guarantee. The partitions in the mountainous areas allow the villagers to remain self-sufficient while also allowing them to retain a more traditional aesthetic and charm in their artistic creation. The varied needlework makes hemp embroidery difficult to master. The unique skill of stitching not only tests the embroiderer's craftsmanship, but also tests the embroiderer's logical thinking ability. If one stitch is embroidered wrong, it must be returned and re-embroidered. During the thousands of years of development, the simple villagers of Badu have continuously innovated and improved the hemp embroidery craft based on their diligence and wisdom, making Badu hemp embroidery form a unique aesthetic style in terms of color, pattern and technique that is green, environmentally friendly, full of meaning, simple and elegant. After thousands of years of baptism, it still retains its charm and has a unique flavor. ("Figure 1")

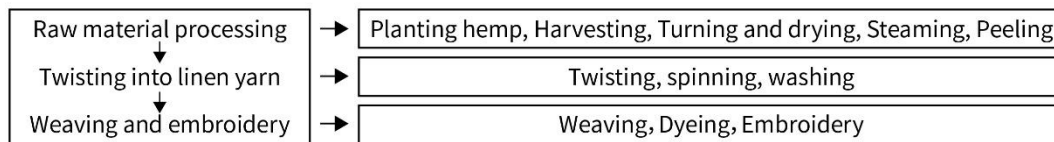


Figure 1 Badu hemp embroidery production process.

a Image source: self-made by the author.

4. EXPLORATION OF CULTURAL SYMBOLS OF BADU HEMP EMBROIDERY

The pattern modeling and production techniques of Badu hemp embroidery contain extremely high ornamental and artistic value, which embodies the historical and cultural development of the Shanyue people and their beautiful yearning and hope for life. In the local area, the hemp cloth is not only more beautiful after being embroidered, but also thicker and more durable. Both men and women regard hemp embroidery as an important clothing accessory in their lives. The patterns of hemp embroidery have been passed down from ancient times to the present day, with little change. They have important historical reference value and are

the crystallization of people's wisdom and aesthetics.

4.1 Combing and Extracting Cultural Symbols of Badu Hemp Embroidery


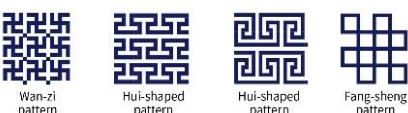

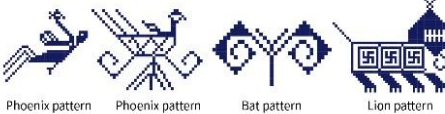






Graphics carry a variety of information such as social customs, religious requirements, artistic aesthetics, political and economic development, and are extremely condensed and culturally capable symbolic forms. Its existence is based on social activities, and the extraction of information content makes implicit and abstract meanings concrete and vivid. In the construction of Badu hemp embroidery pattern symbols, deep symbolic meanings have been precipitated, and the Shanyue villagers' vision of auspicious and smooth life is entrusted. Through

metaphors, analogies, puns and other techniques, the pattern is combined with auspicious meanings, things in natural life are simplified and refined, and the graphics are abstracted and summarized, which fully demonstrates the functions and characteristics of the signifier and signified of the symbol, which is not only highly decorative but also highly representative.

Based on different functional classification methods, Badu hemp embroidery patterns are mainly divided into four categories. The first category is geometric patterns, including the circular pattern, swastika pattern, cloud pattern, etc. derived from basic graphic elements such as straight lines, curves, and broken lines; the second category is auspicious bird and beast patterns, such

as dragons and phoenixes that symbolize good luck and fortune, magpies that represent happiness and good luck, lions that are wise and brave, and bats that bring blessings and fortune; the third category is plant patterns, such as pomegranates that symbolize many children and blessings, longevity peaches that represent health and longevity, and gourds that sound like fortune and luck, as well as peach blossoms, lotus flowers, chrysanthemums, osmanthus flowers, plum blossoms, etc. that represent the four seasons; the fourth category is graphic patterns, such as copper coins and ingots that represent wealth and fortune, and the eight trigrams that suppress demons and ward off evil spirits; the fifth category is text patterns, mainly the Chinese characters "Fu", "Lu", "Shou", "Xi", etc. ("Table 1")

Table 1. Combination and extraction of cultural symbols of Badu hemp embroidery

TYPE	GRAPHIC NAME	GRAPHIC SYMBOL FORM	SYMBOL ELEMENT EXTRACTION
GEOMETRIC PATTERNS	Hui-shaped pattern, Wan-zi pattern, Fang-sheng pattern		
AUSPICIOUS BIRD AND BEAST PATTERNS	Phoenix pattern, Bat pattern, Lion pattern		
PLANT PATTERNS	Pomegranate pattern, Longevity peach pattern, Gourd pattern		
GRAPHIC PATTERNS	Copper coin, Ruyi lock, Bagua		
TEXT PATTERNS	Good Fortune, Wealth, Longevity, Happiness		

a Image source: self-made by the author

4.2 Layout of Graphic Symbols in Badu Hemp Embroidery

The layout of Badu hemp embroidery patterns is neat and orderly. For a single pattern, its appearance is complete and its organizational structure is reasonable. A symmetrical method is often used to avoid loose and messy external structure. It is used as a single decoration in

embroidery, embroidered on small items such as mobile phone bags, and is also often used as a pattern for a single piece of ornamental work. For the entire work, the uniform style is mostly used. The designed single pattern is turned upside down, left and right, so that the pattern is symmetrically arranged based on the center point. The overall structure is rigorous, full, neat and regular. ("Figure 2")



Figure 2 Badu hemp embroidery works.

a Source: Internet.

5. DESIGN PRACTICE OF BADU HEMP EMBROIDERY CULTURAL AND CREATIVE PRODUCTS

5.1 *Design and Development Principles of Badu Hemp Embroidery Cultural and Creative Products*

5.1.1 *Focusing on Market-oriented Principles*

Badu hemp embroidery has its own important cultural value, but it has gradually disappeared in the historical heritage and become an endangered intangible cultural heritage. In addition to developing its own cultural characteristics, it should also focus on the market-oriented role in the trend of the times. Clarify the consumer target group of Badu hemp embroidery, and develop cultural derivatives in a targeted manner based on the consumer psychology, income level, value demand and other factors of the target group. While spreading cultural values, it promotes the feedback of cultural and economic values and gradually forms a good development trend. Based on the rich tourism resources of Qiandao Lake in Hangzhou, Badu hemp embroidery cultural and creative products should pay attention to the development of related tourism products, guided by market demand, design commemorative cultural products through symbol extraction.

5.1.2 *Combining Cultural and Contemporary Characteristics*

The inheritance and innovation of culture need to keep up with the times and constantly give culture new connotations and life in the flow of history. With the development of science and

technology, a large amount of visual information has flooded, and people's vision is overwhelmed. If cultural and creative products only pursue form when designing, and ignore the inheritance and innovation of the cultural connotation of the product itself, and lack their own personality, then cultural and creative products will inevitably be submerged in the vast ocean. Therefore, when designing cultural and creative products for Badu hemp embroidery culture, it is necessary not only to dig deep into the cultural connotation of Badu hemp embroidery and accurately interpret its symbolic language, but also to be based on the times, starting from the aesthetic needs and psychological demands of the audience, examine the value and potential of cultural symbols, get rid of the drawbacks of traditional symbols, and retain the content that can resonate with the current audience as a design carrier to spread traditional culture.

5.1.3 *Principle of Combining Practicality and Aesthetics*

The form and function of a product are its intrinsic attributes. Good cultural and creative products convey pleasing feelings through the combination of external forms of symbols. Appropriate symbol arrangement helps to bring symbols closer to consumers, so that consumers can feel the charm of culture and gain aesthetic pleasure when using products. Product functions are based on consumer needs. In a social environment, specific culture is integrated into specific things. Consumers feel culture during use, which is conducive to making culture more vigorous and dynamic and promoting cultural dissemination. The communication of Badu hemp embroidery patterns relies on visual perception, which is direct and fast. Therefore, the form and order arrangement of the

patterns need to conform to the visual impression and psychological feelings of consumers. The beauty of the pattern and the comfort of the carrier are also complementary. A better visual experience promotes a more comfortable use experience.

5.2 Design Practice

In the design of Badu hemp embroidery cultural and creative products, on the premise of meeting the aesthetic and functional needs of contemporary people, the symbolic form that expresses the beautiful meaning of life and the cultural connotation contained in Badu hemp embroidery are used to build the connection between "form" and "meaning", and the cultural elements such as Badu hemp embroidery patterns and the overall production process are screened to extract representative cultural factors, which are used as the basic elements of cultural and creative product design. Extend its patterns, applications, weaving methods and other directions to the contemporary, enter more practical and broad scenes, and continuously explore its infinite possibilities.

5.2.1 Color Language

The traditional color matching of Badu hemp embroidery is extracted - natural white and indigo, which form a strong contrast and have unique artistic value. At the same time, during the dyeing process of linen, the linen will show different blue colors. The changes in blue are also incorporated into the design as a color language to enrich the visual effect.

5.2.2 Design Conversion

The cultural symbols of Badu hemp embroidery express the hidden meaning through the external form, and the "bat", "longevity peach", "swastika pattern" and "return pattern" in the cultural symbols of Badu hemp embroidery are extracted to design the "longevity and longevity" pattern. The "bat" in "bat" is homophonic with "blessing", which is a symbol of blessing; "longevity peach" means longevity, which is a good blessing for health and happiness; "swastika pattern" as an ancient spell is considered to be a symbol of fire and is used as a mark of amulet; "return pattern" as a traditional auspicious pattern has the meaning of "endless life and long history". Together, they form a pattern of longevity and longevity. ("Figure 3")

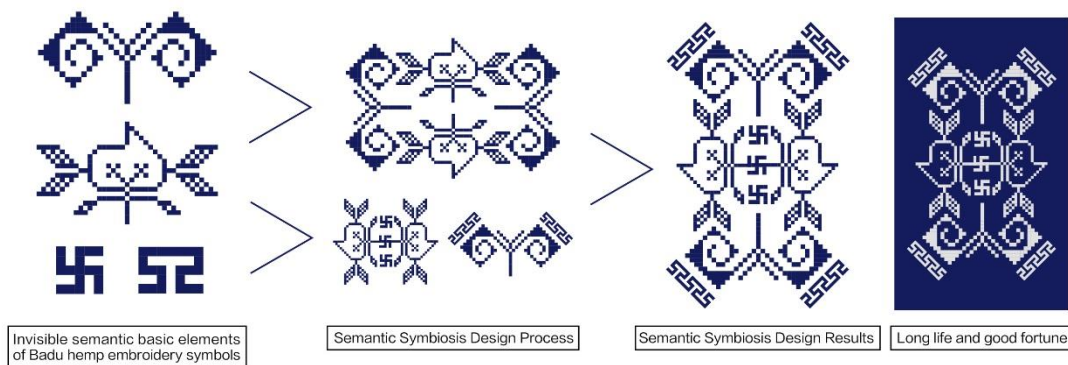


Figure 3 The creation process of the longevity and good fortune pattern.

a Image source: self-made by the author.

6. CONCLUSION

The ingenious craftsmanship of Badu hemp embroidery, the simple and clear color matching, and the abstract and generalized pattern modeling all have immeasurable cultural connotations. With the help of Saussure's semiotic theory and method, this paper summarizes and sorts out the classification of Badu hemp embroidery pattern symbols, explores the composition connotation and meaning of the pattern symbols of Badu hemp

embroidery cultural products, and fully reflects the pursuit and yearning of the simple Badu people for a perfect life. The creative communication of the cultural connotation of Badu hemp embroidery uses modern language to transform traditional symbols on the one hand, and on the other hand, through the semantic structure of semiotic signifier and signified, the element symbols are organically combined with modern design language and applied to the development of cultural and creative products. The inheritance and creation of culture

cannot be separated from the lives of the masses. Design research is conducted on specific consumer groups. Based on cultural needs and the inheritance of Badu hemp embroidery itself, design principles that focus on market orientation, the combination of culture and timeliness, and the combination of practicality and aesthetics are proposed, so that cultural and creative design can truly demonstrate cultural connotations. Design practice explores cultural elements based on semiotics and provides reference for the way to spread the culture of Badu hemp embroidery.

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