

Bamboo Handicraft Creative Product Design: Yibin, China

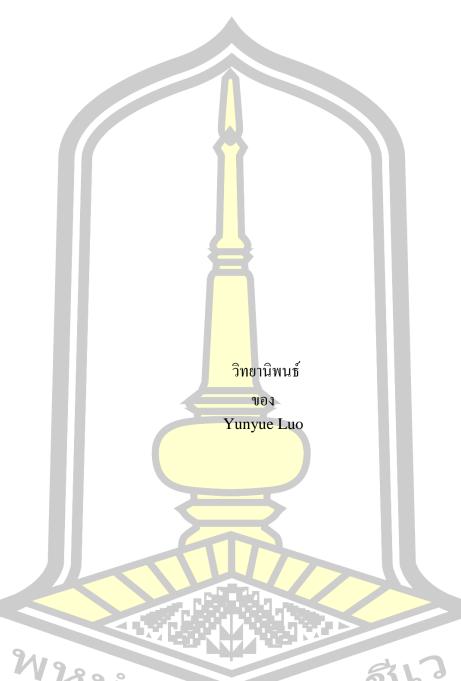


A Thesis Submitted in Partial Fulfillment of Requirements for degree of Master of Arts in Fine and Applied Arts Research and Creation

December 2023

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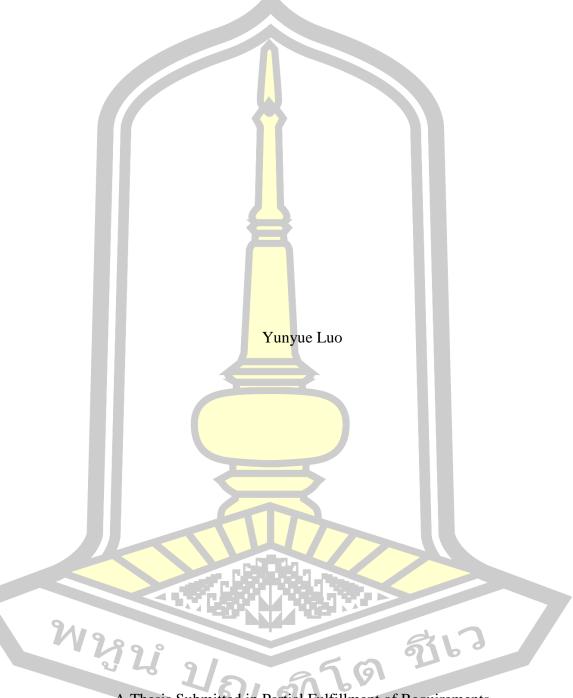
การออกแบบผลิตภัณฑ์สร้างสรรค์หัตถกรรมไม้ไผ่:เมืองอื้ปิน ประเทศจีน



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Bamboo Handicraft Creative Product Design: Yibin, China



A Thesis Submitted in Partial Fulfillment of Requirements for Master of Arts (Fine and Applied Arts Research and Creation)

December 2023

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The examining committee has unanimously approved this Thesis, submitted by Ms. Yunyue Luo , as a partial fulfillment of the requirements for the Master of Arts Fine and Applied Arts Research and Creation at Mahasarakham University

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#### **ABSTRACT**

The title of this article is Bamboo handicraft creative product design: This research is a research and development with three research Yibin, China. objectives as follows: 1) To study the current status and problems of bamboo craft cultural and creative products in Yibin City. 2) To analysis of Yibin bamboo craft types to find the process and type suitable for cultural and creative products. 3) To design creative products a case study of Yibin bamboo handicrafts, China. This research is research and development. The part of data collection and analysis for design is qualitative research. The author has studied a large number of books on bamboo crafts in Yibin City. By summarizing, summarizing and analyzing the existing bamboo crafts and bamboo craft cultural and creative products in Yibin City, and through field research, the population is the people of Yibin City. The sample is Gaoqiao Village, Lizhuang Town, Yibin City to conduct investigations and visits and collect pictures to study the market status of bamboo crafts and the popularity of bamboo crafts, using SWOT analysis method understand and analyze the types of bamboo crafts. The researchers conducted a questionnaire survey on bamboo craft cultural and creative products among Chinese teenagers aged 14-25. There were a total of 30 people. The main questions asked were the requirements for choosing bamboo craft cultural and creative products and the products they would buy, type etc. In the end, it was concluded that people pay more attention to product practicability with 28 votes, aesthetics with 26 votes and craftsmanship with 10 votes. Among bamboo cultural and creative products, water cups received 22 votes, decorative items received 18 votes, tissue boxes received 16 votes, and key chains received 12 votes. Finally, the researcher makes a design drawing according to his own design, provided materials and sizes related to the design, and explored the added value behind traditional bamboo crafts from a design perspective, realize the reuse of bamboo resources, and design bamboo craft cultural and creative products that are popular with the public, highly innovative, highly practical, more aesthetic, and closer to life.

The author has learned about the history, cultural technology and current situation of Yibin bamboo crafts in a large number of literature reviews. According to the data analysis, among the common cultural and creative products on the market in Yibin City, there are few designs combining bamboo crafts and electrical equipment, among which practical and beautiful bamboo craft daily necessities such as cups,

tissue boxes, and wind chimes are more popular. In Yibin bamboo crafts, the combination of bamboo weaving craft and cultural and creative products is more suitable, and we chose to use bamboo weaving craft to design the products. In the product design development stage, 12 products were researched and designed. Under the guidance of three experts, the final expert evaluation result was that 5 products were selected for design, and finally a product design combination was obtained. The rankings were: bamboo woven kettle jacket, bamboo woven cup, and bamboo woven door curtain tied for first place and all won 3 votes, bamboo tissue box and bamboo wind chimes all got 2 votes. After the five product design drawings came out, 30 young people were invited to choose the three products with the highest satisfaction. Results using SPSS data analysis method: The data of the first water cup is 27.33, the data of the second curtain is 25.33, the data of the third kettle is 25, the data of the tissue box is 18.67, and the data of the wind chime is 15. And three Chinese experts selected 3 products with the degree of preference for the design combination, results using SPSS data analysis method: and the evaluation results were that the first place was the door curtain with the data of 9, the second place was the kettle jacket with the data of 6, and the third place was the data of 3 water glasses.

Keyword: Bamboo crafts, creative products, design, Yibin City



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Yunyue Luo

Yunyue Luo

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#### **CHAPTER 1**

#### INTRODUCTION

This chapter will introduce in detail the nine titles of research background, research purpose, research questions, research scope, research methodology, research plan, research theory and research conceptual framework, and research benefits.

#### 1.1 Background of Research

One of the six industries in Yibin City, which plays a very important role in the growth of Yibin City, is the Yibin Bamboo Craft industry. Yibin is considered to be one of the areas in China where the art of long bamboo crafting was first developed. It is home to "the largest natural bamboo forest park in China." Establish Yibin as the "Chinese Bamboo Capital," advance bamboo culture, disseminate Yibin's bamboo culture throughout the nation and the world, encourage commerce and economic expansion, as well as the expansion of Yibin's tourism industry; these are all goals you should strive to achieve. In the context of carving, painting, and other forms of artistic expression, the term "bamboo handicraft" refers to the use of bamboo as a raw material. Crafting with bamboo is distinct from normal wood crafting because bamboo crafts, after being cooked and dried, have a service life that is significantly longer than that of wooden items. Because of its tenacity, bamboo has been valued by literati since ancient times; consequently, bamboo crafts are more popular than wood crafts, and more people adore bamboo crafts than wood crafts.

Yibin, which can be found in the southern part of the Sichuan Basin, serves as a junction for the provinces of Sichuan, Yunnan, and Guizhou. The low hills and valleys have the climate characteristics of the southern tropics, and the climate in this region is classified as subtropical humid monsoon. It has a temperate climate, abundant heat, copious rainfall, adequate light, an extended amount of time without frost, a warm winter and early spring, and distinct four seasons. The environment, including the temperature, light, soil, and water, as well as the climate, is conducive to the growth of a variety of master subtypes. Yibin City is the main city in the planning and implementation of the southern Sichuan bamboo Industry Economic belt. This city is located in Sichuan Province. The Yangtze River functions as the primary vein of the river system in Yibin, which is an outflow system. There are a great number of rivers,

in addition to a dense population and an abundance of water. Yibin's lengthy history has resulted in the development of distinct cultures pertaining to wine, tea, bamboo, and the local minority groups. The "Southern Sichuan bamboo Industry Economic Belt" is being planned and implemented in Yibin, which is the important city in Sichuan Province. In Yibin, there are 58 different species of natural bamboo, categorized into 13 different genera. In the past ten years, the main bamboo, yellow bamboo, bamboo, bitter bamboo, and other types of bamboo have been cultivated, and this has led to the introduction of a large number of fine hybrid bamboo species. By the end of the year 2008, the total area of the city's bamboo forests had grown to 140,000 hectare meters squared. When looking at the distribution of bamboo forests across the region, Changning County and Jiang'an County have the most extensive areas of bamboo forest. A national scenic area known as the Bamboo Sea South of Shu, which can be found in the counties of Changning and Jiang'an, has been given a place among the top 40 tourist sites in all of China. In China, Changning County is regarded as the "Hometown of Bamboo" and is recognized as one of the top 10 most beautiful Scenic spots in the country. It is also one of the 21 locations that have been approved as Global Green Scenic spots. (Licheng Wang, Mingdong Lian and Xianyong Luo, 2010: 38)

"Since the formulation and implementation of the Tenth Five-Year Plan, the Municipal Committee and government of Yibin, which is located in Sichuan Province, have taken the bamboo forest as the "pillar industry" for the development of agricultural and rural economy; The Opinions on Accelerating the Development of Bamboo Industry was formulated in 2002, and the Opinions on Accelerating the Industrialization of Forestry was formulated and issued in 2006, both of which took bamboo industry as the primary industry for the development of the bamboo forest; Views on Accelerated the Development of Southern Sichuan Bamboo Industry Economic Belt were formulated at the beginning of 2008, and the Construction Plan of Yibin Bamboo Forest Base was created at the same time. Both of these projects took place in Yibin. It is clearly required to build the bamboo industry into the third rural advantageous industry after the wine industry and the tea industry with the most characteristic of Yibin, and to become a strong bamboo economic city in Sichua. Yibin City government proposed to

grasp the bamboo industry with the idea of grasping the industry, to develop the bamboo industry with the concept of modern market economy, and to take the road of flourishing bamboo with science and technology ". (Licheng Wang, Mingdong Lian and Xianyong Luo, 2010:38)

Since 2018, Yibin has successively issued the Opinions on the Development of the Bamboo Industry, formulated the Overall Plan for the Development of the Bamboo Industry, and developed the Three-year Action Plan for the Development of the Bamboo Industry. By doing so, Yibin has clarified the overall requirements, objectives, tasks, policies, and measures for the development of the bamboo industry, and has begun to build the development pattern of "One sea, one area, three districts, and five parks." The opening ceremony of the first China (Yibin) International Bamboo Industry Development Summit and Bamboo Products Expo took place in Yibin on the 13th of June, 2019. Almost seven hundred visitors from both inside China and beyond the country converged on Yibin to take in the sights and sounds of "China's bamboo capital, the most beautiful bamboo Sea." In Yibin on the 1st of December, 2020, there was a meeting regarding the Provincial Bamboo Landscape Line and Forestry Park Building Site. In order to jointly support the high-quality growth of the bamboo industry and the creation of a bamboo landscape line that conforms to high standards, all cities and prefectures in China convened in Yibin. The 11th China Bamboo Cultural Festival will be held in Sanjiang New District of Yibin City from the 19th to the 21st of October 2021. The festival's theme will be "Bamboo Blessing Gorgeous China, Supporting Rural Regeneration," and it will take place in 2021. Yibin is the only city in China that has succeeded in hosting the Bamboo Culture Festival on two separate occasions. At the 11th China Bamboo Culture Festival and the Second China (Yibin) International Bamboo Industry Development Summit (Bamboo Products Fair), a total of 35 projects with a combined investment of 15.916 billion yuan were officially inked. (Interview conducted by the Yibin Forestry and Bamboo Industry Bureau, 2021: online)

The springtime bamboo craft that is most proud of itself is the bamboo craft. The Jiang'an bamboo spring craft is a local traditional bamboo carving skill that is practiced in the province of Sichuan in China. It is the generic name of the bamboo craft that is

done in Jiang'an, and it is a prominent symbol of the bamboo culture that is practiced in Yibin City and even Sichuan Province. During the Ming Zhengde dynasty, bamboo springs were in their prime. Bamboo spring technology developed by Jiang'an possesses a one-of-a-kind raw, straightforward, and refined creative quality. Its form is used for hundreds of handmade products in seven different categories, including bamboo springs, bamboo chopsticks, bamboo tubes, bamboo root carving, bamboo weaving, and bamboo decorations. At the 1915 Panama World Fair, he was awarded the gold medal for his work. In 2007, the Jiang'an bamboo spring technique was recognized as worthy of inclusion in the "first batch of National Intangible Cultural Heritage Protection List." This honor was bestowed upon it in the year 2007. The Jiang'an Bamboo Spring was included on the list of national intangible cultural heritage representative projects that are undergoing protection in the month of November 2019. (Introduce of Banboo spring in Baidu,online)

In recent years, Yibin has made considerable strides in the integrated development of bamboo culture and tourism, both of which have proven to be successful. There are 17 bamboo ecotourism scenic locations that have been built in addition to the well-known bamboo-themed scenic spots such as South Bamboo Sea, Bo Wang Mountain, Qidonggou, and West Bamboo Forest. New tourist destinations for citizens include the Bamboo Island of Jiang'an Yangtze River, Longtou Mangobamboo Culture Park in Yibin Sanjiang New Area, and Gaoqiao Bamboo Village in Lizhuang Town, Cuiping District. In 2019, Lizhuang Gaoqiao Bamboo Village, with the bamboo industry as the selling point, built a tourist resort integrating bamboo viewing, bamboo appreciation, and bamboo tasting. It quickly became the Internet celebrity in the suburbs of Yibin tourism, receiving more than 90,000 tourists a year (web site: News from Tencent,online). In addition to the bamboo industry, the selling point for this resort was.

Under the umbrella of bamboo culture tourism, Yibin has developed a wide variety of cultural and artistic items relating to bamboo. There are quite a few bamboo crafts that represent Yibin's characteristic city, despite the fact that there are many products on the market that are made from bamboo. There are some items of culture and creativity that are difficult to store and transport. The researcher will design bamboo craft cultural and creative products that are more suitable for Yibin City, have more types of bamboo

weave, are easy to carry, and are more popular based on my understanding of the current situation and types of bamboo craft. This will help to increase the popularity of Yibin city in terms of both its cultural offerings and its tourism offerings.

#### 1.2 Purpose of Research

- 1.2.1 To study history, bamboo culture and current situation of bamboo crafts in Yibin
- 1.2.2 To analysis of Yibin bamboo craft types to find the process and type suitable for cultural and creative products.
- 1.2.3 To design creative products a case study of Yibin bamboo handicrafts, China

## 1.3 Research question

- 1.3.1 What is the history of Yibin bamboo crafts? What are the bamboo cultures? What is the current state of the market?
- 1.3.2 What are the bamboo arts in Yibin? What materials are needed for bamboo craft cultural and creative products? What are the techniques, techniques and materials of bamboo weaving?
- 1.3.3 What is the source of inspiration? design process? What are the designs of the sketches? What is the final product design?

#### 1.4 Scope of Research

1.4.1 Research area

Gaoqiao Village, Lizhuang Town, Yibin City, Sichuan Province, China.

1.4.2 Time

In this research The researcher spends time during 2021, 7.—2023, 2.

## 1.5 Research Methods (Summary)

This research is research and development. The part of data collection and analysis for design is qualitative research.

## 1.5.1 Population and Sample

Population: Resident of Gaoqiao Village, Lizhuang, Yibin City

Sample: interviewed villagers, tourists in Yibin bamboo scenic spots, village head of Gaoqiao Village in Lizhuang, bamboo weaving lovers, tourist center management staff, Bamboo craftsman.Which is derived from a purposive sampling.

Villagers and village heads are people who have lived in villages for a long time, so they can directly feel the changes in the development of village tourism and the profit status after development. The management of the visitor center can understand the development pattern and supporting policies of the village, the number of tourists and the purchase amount of cultural and creative products every day, which bamboo woven cultural and creative products are more popular and whether the prices are reasonable. Tourists in the scenic spot can directly feel whether the village's play projects meet the needs of the public. Tourists can offer suggestions on the existing places in the village that can be improved, whether they will buy bamboo craft cultural products, what kind of bamboo weaving cultural products they like, and many suggestions conducive to the design of bamboo craft cultural products. Bamboo braiding artisans and bamboo braiding enthusiasts can experience whether there is technical difficulty in the current market of bamboo braiding, what kind of bamboo braiding is more popular, and whether bamboo braiding is liked and purchased by tourists.

## 1.5.2 Instrumentation

- 1 .Questionnaire Survey
- 2 .Interviews and interviews
- 3 .Observation Records
- 4 .Discussion

#### 1.5.3 Data Collection

For the villagers and village heads, The researcher went to Gaoqiao Village in Lizhuang Town in January 2023 for interviews and interviews. For the visitor center management staff, The researcher went to the field to interview, interview, discuss and

exchange data in January. For tourists, online questionnaire survey, field interviews and observation records in January were used to obtain data. For bamboo weaving artisans and editors, The researcher went to the field in January to obtain data through observation and interview records.

## 1.5.4 Data Analysis

- 1) For the history and development status of Yibin bamboo craft, find the differences between the previous and current market bamboo craft, and then increase innovation in the existing bamboo craft, refer to the paper and the official website of Yibin city. What bamboo craft cultural and creative products on the market at present field investigation and online inquiry to do category classification to do table.
- 2) What are Yibin bamboo craft to view books, field trips and online inquiries? Separate and classify to do table preservation (including bamboo product types). What materials are needed for bamboo craft cultural and creative products, as well as anticorrosion technology and dyeing technology of bamboo weaving will be tested by myself or experienced artisans will be interviewed
- 3) Before designing cultural and creative products, market survey and online questionnaire survey were conducted on the aesthetics, practicability and price of cultural and creative products in different age groups. After the design renderings come out, more contacts with Yibin cultural tourism villages will be better communication and development of cultural and creative products.

### 1.5.5 Research presentation

Full text of the study: It is presented by descriptive analysis combined with design drawings and charts.

Research article: Published in international journals, scopus or ISI level.

## 1.6 Concept, Theory and Conceptual framework

## 1.6.1 Concept, Theory

According to the souvenirs related to bamboo in the market of Yibin as a reference, the design drawing of bamboo craft cultural creative products with aesthetic, practical and connotation is designed to improve the utilization value of

bamboo and transform local plants into economic income for villagers or the public to learn and use.

#### 1.6.2 Conceptual framework

The purpose of this study is to study, analyze and design bamboo craft cultural products designed from the aspect of bamboo craft. The research framework is shown as follows.

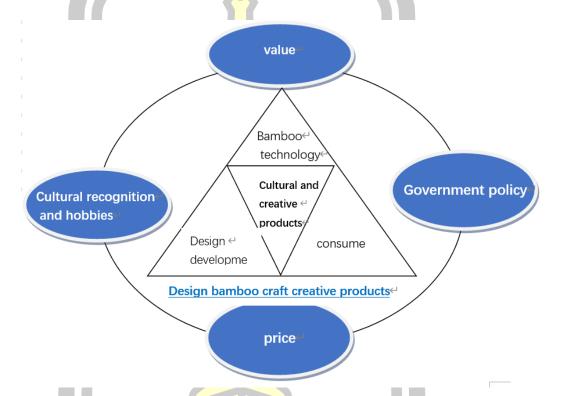


Figure 1 Conceptual Framework

Through innovative research and design of bamboo craft, bamboo craft cultural and creative product design is developed. The final effect is the format of design drawing, which will refer to the price, value, existing products and policies on the market and combine with consumers' suggestions to design bamboo craft cultural and creative products with aesthetic, practical, innovative and connotation. Finally, it can be used by the public to make a real sale and play its value.

# 1.7. Research plan

 Table 1: Research plan

|     |   | Period  |      |      |             |      |
|-----|---|---------|------|------|-------------|------|
| No. | plans/activities  | Nov. 65 | Dec. | Jan. | Feb.        | Mar. |
|     |   |         | 65   | 66   | 66          | 66   |
| 1.  | TS2 Research Proposal   |         |      |      |             |      |
| 2.  | Chapter 2 Literature Review   |         |      |      |             |      |
| 3.  | Chapter 3Data analysis for design   |         |      | ,    | <b>&gt;</b> |      |
|     | Chapter 4 Creative Product Design  4.1 Product design and development concepts  4.2 Conceptual Design |         |      |      | <b></b>     |      |
|     | 4.3 Idea Sketch  4.4 Sketch design  4.5 Product design portfolio                                      |         |      |      | >           | >    |
|     | Chapter 5 Conclusions discussion and recommendations  |         |      |      |             | >    |

#### 1.8 Benefit of Research

- 1) After learning the history and development status of Yibin bamboo craft, it can help people better understand and understand bamboo craft cultural and creative products
- 2) Knowing the types, materials, dyeing, crude storage, processing and other technologies of bamboo craft is conducive to the production and dissemination of new bamboo craft cultural and creative products.
- 3) The design of new bamboo craft cultural and creative products improves the utilization rate of bamboo resources. If tourist villages like Lizhuang Ancient Town start to produce and sell in large quantities, the income of villagers will be promoted and the types of bamboo craft cultural and creative products will be increased.

## 1.9 Definition of Terms / Concise / More Compact

**Bamboo craft creative products** means Bamboo is used as raw materials to make a cultural and creative product for appreciation or use through baking, dyeing, drying, weaving and other processes. It is a product formed by the creative design of the researchers.

Yibin Bamboo Crafts means Traditional bamboo handicraft products in Yibin City, Sichuan Province, China, is the general name of bamboo crafts in Yibin City.

**Bamboo craft** means bamboo as raw materials for carving, painting and other arts and crafts. Bamboo crafts through cooking and drying, the service life is much longer than wooden products, bamboo craft including bamboo slips, bamboo painting, bamboo weaving and other crafts.

Bamboo weaving means Bamboo strips are the traditional Chinese handicraft.

**Jiang 'an Bamboo Spring** means one of the bamboo carving techniques. The southern bamboo was sawed into bamboo tubes, and after boiling and drying, various figures, flowers and birds were carved on them. In November 2019, Jiang 'an Bamboo Spring was listed in the list of national intangible cultural heritage representative projects under protection.

**Rural revitalization** means With the support of the government, tourism and economic growth will be promoted through the complementary development of bamboo culture, bamboo craft and local wisdom in Gaoqiao Village of Lizhuang.



#### **CHAPTER 2**

#### LITERATURE REVIEW

In this article, The researcher will study some literature from four aspects: the history of Yibin bamboo craft, the culture of Yibin bamboo craft, and the product design principles of Yibin bamboo craft, and obtain first-hand knowledge that researcher cannot get from the literature. First of all, we start with the history of bamboo crafts in Yibin City, so that we can know what changes and developments the bamboo weaving crafts in Yibin City had before. The second step is to start with the culture of bamboo crafts. Only by understanding the connotation of bamboo culture and various cultures can my thesis be enhanced with more value connotations. The third step is to start with the technology of bamboo crafts. After some in-depth understanding of the types and techniques of bamboo crafts, and some in-depth study of reference documents, it will be of great help to my design itself. The fourth step is the design principles of bamboo craft cultural and creative products, from which researcher learn the principles that researcher must abide by, and thus generate my principles. The last step is to learn about the current market conditions of bamboo crafts in Yibin through the literature, which is of great help to my product design direction and type. In short, the researcher will learn about history, culture, technology, market and other relevant information that the researcher cannot find on the Internet and books from the learning and summarizing experience of my predecessors. The researcher will extract the dozens of articles researcher have learned and understood The acquired knowledge is distributed and summarized. Referenced articles include journals, the Internet, and master's theses.

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The contents of this literature review are as follows:

- 1) Yibin Bamboo Art History
- 2) Yibin Bamboo Art Culture
- 3) Information about Yibin bamboo technology
- 4) Design principles
- 5) Yibin bamboo art market

Which has details and interesting information as follows:

## 2.1 Yibin Bamboo Art History

From the information it was discovered thanks to the research conducted by Lian Dongming on the growth of the bamboo weaving business in Yibin City, Sichuan Province, that the bamboo weaving industry in Yibin City, Sichuan Province has a long history and that the bamboo weaving goods are exquisite and long-lasting. There are hundreds of years of traditional pentagonal bamboo fans, bamboo thousand rattan, bamboo weaving boat canopy, and bamboo mats. These products have been sold successfully on both sides of the middle and lower reaches of the Yangtze River for generations, and they have a reputation that has endured for a very long time. After the founding of the People's Republic of China, there were two mass productions: one was the shell of the bamboo braided thermos bottle produced in Jiang'an in the 1950s and the thermos bottle produced in Chengdu, Chongqing, and became a best-selling brandname product inside and outside the province; Bamboo weaving technicians from Tongjiang An Bamboo Craft Factory trained bamboo weaving production personnel in Liantian Mountain, Jiangan, and developed more than 5 different types of bamboo weaving The trauma industry supported trade shows, which resulted in the sale of hundreds of product sets. Yibin has been exporting bamboo weaving daily-use handicrafts to a variety of nations and regions for more than 10 years now. These countries and regions include the United States of America, Canada, France, the United Kingdom, and Japan. (Lian Dongming, Huang Jinquan, Zhang Nan, and Wang Yong) In the brief discussion that Peng Juan gave on the topic of the development of Yibin tourist souvenirs, The researcher learned that Yibin has formed wine culture, tea culture, and bamboo culture with ancient ethnic characteristics in the region during the long historical process, and that bamboo culture has played a very important role in the history of Yibin. The researcher also learned that Yibin has formed wine culture, tea culture, and bamboo culture with ancient ethnic characteristics in the region. Important position.

The researcher found that bamboo is humble, does not fear wind, frost, or blood pressure, and is safe anywhere from Liu Longquan's talk on the tourism development of "Bamboo Culture" in Shunan Bamboo Sea. Bamboo is also not frightened of blood pressure. It is in line with the aesthetic taste, ethics, and conscience of traditional

Chinese culture, and it has evolved into a symbol of quality as well as the spirit of our nation. Su Dongpo was a poet who created an entire society based on bamboo through the many poems he composed about the plant. Towards the middle of the Tang Dynasty, bamboo evolved into its own distinct genre of painting. The skill of painting bamboo has managed to keep up its consistent forward motion. During the Jin Dynasty, bamboo was an important component in the construction of musical instruments, in addition to being utilized as a musical instrument itself. Moreover, bamboo is a significant part of traditional culture and has a significant impact on the beliefs of various religious groups. In Wang Licheng's current situation and development strategies of the bamboo industry in Yibin City, Sichuan Province, he discovered that bamboo is closely related to the history and culture of Yibin City, particularly the booming tertiary industry based on eco-tourism, and the city has advantages and potential Sunrise enterprises. The city's existing Shunan Bamboo Sea, Xingwen, Bowang Mountain, Jiang'anren and Baizhuhai, Changning Meidong Bamboo.

Researcher learn about the history of traditional bamboo crafts by reading the article on the inheritance and development of traditional bamboo crafts in Jin Jinjin, and mention that the areas of my country that are used for bamboo production are spread out in many different places. It is not only an easy material to process, but it also has a structure that is hollow and does not let air in. characteristics of the physical engineering. Because of its low weight and high strength, bamboo can easily satisfy a wide variety of processing needs. The primary bamboo-growing regions in my country all produce handicraft products, and each one of those things clearly exhibits regional characteristics. Ancient techniques for making handicrafts out of bamboo are widely practiced in several parts of the Shu and Sichuan provinces. Crafts made from bamboo that are abundant in resources have made their way into every facet of the lives of the local people. There is furniture made of bamboo, as well as houses with bamboo serving as the primary structural element, etc. Articles; there are works of art that nourish the spiritual lives of the masses, such as bamboo silk porcelain body, Qingshen bamboo weaving and painting. Examples of these types of works include: Bamboo is used in the creation of a variety of cultural artworks, including paper umbrellas and

lake pens, in the provinces of Jiangsu, Zhejiang, and Hunan, among other places. The fact that these bamboo handicraft goods are well-known both within the country and outside is a perfect illustration of the regional qualities that distinguish its bamboo handicraft. Several bamboo goods have been supplanted by plastic and other materials as a direct result of the rapid development of science and technology as well as the impact of the industrialization of manufacturing. Crafts made from bamboo have increasingly moved away from their original utilitarian focus and into the realm of art and culture. Therefore, in order to inherit and develop bamboo handicraft products, it is necessary to interpret the historical and cultural content of the region, reflecting different cultures, ways of thinking, craftsmanship, and aesthetic methods. This is required so that the products can be inherited and developed.

In the research that Chu Ruigi conducted on the application of bamboo cultural elements in product design, The researcher found that in ancient times, decorative bamboo products were less common than functional bamboo products, and the practicality of the functional bamboo products was significantly higher than the aesthetic value of the decorative bamboo products. The manufacture of domestic goods and the production of agricultural goods were the first two areas in which bamboo was utilized. The most typical pieces of furniture made from bamboo include things like tables and chairs, beds, cupboards, screens, lights, and so on. Agriculture was the primary economic activity in early human societies, which led to the development of a wide variety of bamboo-based instruments for agricultural output. These tools included bamboo presses, waterwheels, tanners, baffles, pans, fish baskets, baskets, dustpans, and so on. In addition, because traveling in ancient times was so difficult, bamboo was also utilized extensively in the field of transportation. Among of the most common applications of bamboo in this sector include bamboo rafts, sliding poles, bamboo carts, and bamboo bridges. Slips made of bamboo, writing brushes made of bamboo, and a variety of musical instruments made of bamboo are the representatives of culture and entertainment, respectively. People primarily employ bamboo creatively in the production of a variety of bamboo items based on its physical qualities. The most common applications of bamboo include furniture, agriculture, transportation, and entertainment. Certain bamboo items take advantage of the knotted and hollow

qualities of bamboo, and use them as containers after simple processing. Examples of these kinds of products include bamboo cups, bamboo rafts, and holders for chimneys and wine glasses made of bamboo. Also, it is utilized for the production of support structures, such as handles for umbrellas, walking sticks, poles, bamboo hoops, bamboo nails, and other similar items, due to the toughness of the material. It has been discovered by mankind that bamboo has a good elasticity, and this elasticity is used to manufacture things such as fishing rods, shoulder poles, bows, and crossbows. The characteristics of ancient bamboo products, in the design, bamboo products are mostly based on practical functions, and the primary consideration in the design and manufacture of bamboo products is how to make full use of the characteristics of bamboo to make them functional. In addition, bamboo products are primarily based on their aesthetic appeal. The exploitation of bamboo by ancient people was based not only on the natural form and structure of the plant, but also on the fact that it was mostly processed by hand, with bending, chopping, grinding, and weaving serving as the primary technical techniques. Alternately, you could maintain it in its natural state; alternatively, you could take its bamboo strips and crush them; alternatively, you could cut them directly into bamboo tubes; alternatively, you could peel off their skins and then weave them into various gadgets. In ancient China, there are many different kinds of bamboo products, but the application form of bamboo in products is relatively straightforward. This can be summarized as the product being composed of multiple (several to thousands) bamboo monomers with the same or similar shapes and specifications that are connected to each other. The problems associated with natural materials, such as bamboo mold cracking and cracking, cannot be solved for technical reasons, which limits the product types and structural forms available. The colors, for the most part, maintain the natural color of bamboo. The limitation of this period lies in the problems associated with natural materials. The product benefits from having a unique type of purity and simplicity thanks to the use of authentic materials and traditional methods of crafting. This gives the product an edge. Which is information from Application Research of Bamboo Cultural Elements in Product Design. (Chu Ruiqi, 2019)

In He Zhengjun's (2011: 64) article on the value and characteristics of bamboo spring crafts in Jiang'an, the researchers learned that according to the "Jiang'an County Chronicles", in the fifteenth year of Guangxu in the Qing Dynasty (1889), when Shen Bingkun, a native of Hunan, was appointed as the magistrate of Jiang'an County, he brought bamboo springs from his hometown. More than ten pieces of bamboo spring crafts were ordered to be simulated and trial-produced by local woodcarving artists, and the production of bamboo springs began. Jiang'an bamboo craft is also a very important part of Yibin bamboo craft. Bamboo spring craft has been continuously improved in response to people's development needs, and has gradually become a major local industry. During the period of the Republic of China, Jiang'an County was a city that passed through the Yangtze River Basin, and the transportation on the river was well developed. The transportation and distribution of bamboo spring and bamboo crafts relied on the transportation advantages of water transportation, and the frequent trade exports made local bamboo crafts exported to Southeast Asia. land. After 1949, local residents used abundant bamboo resources to make daily necessities such as bamboo steamers, bamboo chopsticks, bamboo boat canopies, and bamboo hats. In 1954, Jiang'an bamboo craftsmen joined the bamboo spring cooperatives and bamboo chopsticks production cooperatives one after another. Since then, Jiang'an bamboo springs and Jiang'an bamboo chopsticks have become famous. The "Concise Encyclopedia Britannica" published in the United Kingdom in 1973 records: "Bamboo springs, Chinese bamboo handicrafts. Famous places of origin include Zhejiang, Huangyan, Hunan Shaoyang and Sichuan Jiang'an". After the 1990s, affected by factors such as the emergence of new materials and new technologies, the process of marketization, and corporate restructuring, handicraft factories disintegrated one after another, and individual workshops lost the ability to invest large-scale capital, upgrade equipment, and update products. The manufacture of daily necessities produced on a large scale has developed into the manufacture of local characteristic handicrafts produced by hand in small batches. The labor cost, time cost, output, and market share of artificial production are difficult to support the industry's economy and development, and Jiang'an bamboo industry gradually loses its competitive advantage in the daily necessities market. (Lv Jing, Yang Jiantao, 2021: 33)

The "Bamboo God" in Jiang'an County has a construction history of more than 500 years. The stone statue was built in 1519 AD. Bamboo Lord blesses them so that they can display better handicrafts. It represents people's belief, admiration and respect for bamboo. The god statues strongly proved the maturity of the bamboo craft era at that time. This idol was an ancestral stone statue donated by a villager in Jiang'an County to the government at that time.



Figure 2 The statue of the Bamboo God

Source: derived from the Bamboo Sea World in the Shunan Kingdom, Wang Xuan, 2021: 31

#### 2.2 Yibin Bamboo Art Culture

From the information it was found that discovered in the research article that Yibin's bamboo culture industry has a long history of development in accordance with Xu Chajin's countermeasures of vigorously cultivating and developing the main cultural industry in Yibin in southern Sichuan. These countermeasures involve vigorously cultivating and developing the main cultural industry in Yibin. The concept of developing the bamboo culture industry can be summed up as follows: aiming at improving the comprehensive economic benefits of bamboo, taking the bamboo industry as the support, taking the bamboo culture as the guarantee, coordinating the "three industries," and cooperating with cities and counties to jointly create bamboo culture in the western China Industrial core area. Study on preventative methods for vigorously cultivating and promoting the bamboo culture sector in Yibin, South Sichuan (Xu Chajin (2015: 55). Academic Journal of Karamay) In light of this, one

could say that the culture surrounding bamboo holds a significant amount of weight in Yibin City. The researcher learnt that the bamboo spirit in bamboo culture has the high character and integrity of bamboo, as well as the spirit of literati who would rather fold than bend. This information was provided by Lan Xiaoguang in his three ideas on constructing Yibin, Sichuan as "China's Bamboo Capital." In years past, it enjoyed a great deal of favor among the educated classes. Yibin Over the process of cultivating bamboo, the people who live in the bamboo village have developed their own distinct culture and art related to bamboo, as well as their own landscape and customs. They also come equipped with the appropriate living implements and producing materials. It has been shaped into a soul that is courageous and unvielding, devoted to selfimprovement, and strong as a result of outside influence. The researcher even discovered that some individuals hold bamboo in high regard. People in the ancient country of Yelang adopted bamboo as their family name and utilized it as a totem, leading scholars to extrapolate the existence of numerous bamboo cultures. There were depictions of bamboo in the portraits of the Eastern Han Dynasty in the suburbs of Nanxi, Yibin, and on the rock walls of Changning County, there were also depictions of fishing gear, lanterns, and bamboo weaponry created of bamboo by the painter. Jiang'an has also been circulating the statue of the Lord of the Ming Dynasty, and the first batch of intangible cultural assets known as "Jiang'an Bamboo Springs" that has persisted to this day; these three things all demonstrate the profundity and historical origin of bamboo culture.

In Liu Longquan's discussion on the development of "bamboo culture" tourism in the Shunan Bamboo Sea, The researcher learned that the Shunan Bamboo Sea can not only enjoy the elegant demeanor of many bamboos, but also feel the strong customs such as riding on bamboo sliders, bamboo chairs, and sleeping on bamboo beds. In addition, the Shunan Bamboo Sea can enjoy the beautiful appearance of many bamboos. In addition to the establishment of the South Bamboo Sea Chinese Bamboo Culture Research Association and the construction of a museum in the scenic area, the South Bamboo Sea has also established the Shunan Bamboo Sea Chinese Bamboo Culture Research Association. The museum features four exhibition halls that are dedicated to bamboo resources, bamboo and culture, bamboo handicrafts, and the gentleman

building. There are over a thousand collections, some of which include fossilized bamboo in addition to statues and totems that are associated with bamboo. The development of bamboo culture not only inherits and develops the priceless heritage of bamboo culture in my country, but it also provides a source of creation for scholars of aesthetics, literature, painting, music, etc., and it plays a role in cultivating sentiment and increasing knowledge for tourists and lovers. In other words, it is a win-win.

The cultural and creative product design of bamboo weaving crafts by Wang Yaming and Wu Ping taught us that cultural and creative products are cultural and creative products, which play the role of cultural media and regional cultural messengers. This was something that we learned from the perspective of the bamboo weaving crafts that they designed. Traditional craftsmanship is defined as having a history of more than one hundred years and including a comprehensive handicraft process. The majority of the raw materials used in traditional craftsmanship are natural materials such as paper, cloth, bamboo, wood, stone, leather, metal, surface, mud, ceramics, grass, willow, rattan, bamboo, lacquer, and so on. Crafts that are considered traditional include those that are used to make tools and instruments, those that are used in the traditional preparation of foods, those that are used in the traditional construction of buildings, those that are used in the creation of sculptures, those that are used in weaving and dying, those that are used in weaving and binding, those that are used in the production of metal smelting and forging, those that are used in painting, those that are used A diverse selection of handicrafts, including printing and engraving, amongst others. The process is related to a number of aspects including the qualities of the material, the shape of the material, the material itself, as well as handicraft technology, the process, the form, and the function of handicrafts. Whether or whether a handcraft exudes a sense of beauty is directly proportional to the degree to which its constituent parts are in harmony with one another. Classic examples of the coordination of the aforementioned variables may be found in handicrafts from the past; these are considered to be applied arts. The traditional craft is a mature craft that has been triggered by history. It is a comprehensive set of technology and procedure that supports the integration of science, technology, art, and aesthetics. History has played a role in the development of the traditional craft. Traditional crafts and handicrafts

embody the accumulated knowledge of craftsmen over generations. They also contain the working people's straightforward conception of creation together with their philosophies, aesthetic preferences, and feelings. These creation wisdom, creation concepts, and creation thoughts that are contained in traditional crafts and traditional handicrafts are what constitute the underlying logic of the national creation culture. They also determine the fundamental characteristics of the national creation culture, and they are the foundation of the national creation culture. They are cultural ontology that should be passed down and shared because they provide enlightenment that is unchanging, value that guides the formation of all mankind, and are deserving of both. Hence, traditional handicrafts are the carriers of material forms that contain the aforementioned cultural meanings. These connotations can be found in the shape of the object itself. These cultural connotations are carried and disseminated through traditional crafts, which are also essential components of the intangible cultural heritage of my country. Traditional crafts are the carriers of intangible forms that transport and disseminate these cultural connotations. Because the cultural ontology of creation is a non-material and intangible existence, its existence needs to be attached to the carrier or medium, and its inheritance actually needs to rely on its corresponding cultural carrier in order to spread and develop the inheritance of craftsmanship for the inheritance of traditional creation culture that carries a great deal of significance and value. Wang Yaming and Wu Ping (2020: 24) From the point of view of cultural inheritance, bamboo weaving craft is both culturally significant and creatively innovative product design. It is clear that the design page of cultural and creative products is beneficial to the process of appreciating the value of inherited cultural practices and ancient methods of production.

The researcher learned the application transformation of traditional bamboo culture in modern product design from the point of view of cultural connotation, modernization needs, aesthetic characteristics, and cultural elements from the research that Chu Ruiqi did on the application of bamboo cultural elements in product design. His study focused on bamboo's application in product design. The application of bamboo cultural elements in product design, with the background of the national strategy of the Belt and Road Initiative as a backdrop, is the embodiment of the spirit of the new silk road

and the promotion of good character. This is achieved through the promotion of good character. Exploring new forms of expression in the modern era and unearthing the cultural connotations of bamboo are two activities that will help China's economy and culture flourish in the coming centuries. Increase the rate at which traditional cultural resources are being converted into cultural "soft power," and focus on culture.

In the bionic beauty and bamboo culture connotation of Lu Wengin's "Gaozhu" pot, The researcher discovered that there is a kind of purple sand pot whose shape is designed with reference to the shape of Gaozhu, and as a result, the bionic purple sand pot is called the "Gaozhu pot." The researcher was taught that the maintenance of a culture that possessed a mysterious and potent power could be accomplished by combining two natural plants, namely bamboo and purple sand. In Wang Xiaofei's ethnic tourism landscape design, which was based on shaping the connotation of ethnic culture, he discovered that ethnic culture ought to be deeply integrated into the main modern tourist landscape. This allowed him to not only see new tourism landscape design products, but also to see cultural characteristics, in addition to seeing new tourism landscape design products. In addition to developing a bamboo culture theme park, it is essential to provide visitors with the opportunity to experience the connotation of bamboo culture in this bamboo landscape, foster a sense of identity and belonging, improve the compatibility of bamboo and water, make the landscape more beautiful, and improve the relationship between bamboo and animals and plants. As a result, the artistic value and the practical value of the design of tourism landscape space can both be enhanced, as can the awareness of environmental protection and artistic effects. The combination of bamboo can improve the agility of the landscape, make the bamboo material fully and reasonably used in the design of bamboo tourism landscape, let the bamboo culture and bamboo spirit be carried forward, and make it possible for the bamboo culture and bamboo spirit to be carried forward. Please teach me how to develop cultural and creative products using bamboo, which can then be expanded into bamboo tourism landscape design. Tourists will be drawn to an area that has stunning natural scenery. The researcher article was associated with bamboo landscape design, and it was then that researcher became aware of the significant role that bamboo culture plays in the design of bamboo landscapes that are intended to attract tourists.

In the article written by Lin Jun on the spiritual connotation of Chinese bamboo culture tradition, the folk tales and legendary history as well as all of the culturally-related stories are presented for the very first time. The unexpected allure of cultural practices. The researcher have gained an understanding of the significant combination of folk worship and the traditions associated with bamboo culture, which will have an effect on how other individuals worship and believe in bamboo culture. The researcher also gained an invaluable understanding of the connection between classical literature and the role that cultural inheritance plays, in addition to gaining an understanding of the entire ethnic culture, beginning in ancient times and continuing into the present day. traces left on a culture that evolves and persists over time. The researcher also realized from the gentleman style of classical painting that there is a profound connection between the tenacity of spirit and the art of painting. This was another thing that The researcher discovered. Therefore, it is possible to bring painting, a humanistic spirit, classical literature, and a sense of worship of product concepts into the design of bamboo products. These can all be incorporated into the design of bamboo products. when developing new products.

From the aesthetic connotation of Lin Jun's interpretation of the traditional cultural form of Chinese culture. As the article progresses, we learn that bamboo possesses many different kinds of beauty, which can be broken down into two categories: exterior beauty and interior beauty. He went into great detail about the process of weaving with bamboo. In 2013, for instance, he witnessed a bamboo carving stunt that was on the verge of being abandoned. The beauty that was produced by combining bamboo with other products, from which researcher also learned that in June 1993, the Post and Telecommunications Bureau issued a set of special bamboo stamps. However, only the purple bamboo, Chaxuan bamboo, Buddha belly bamboo, and golden incense bamboo were selected from the different types of bamboo. These four different kinds of bamboo are more than enough to fill us with the allure of natural bamboo and to give us an appreciation for the exquisite beauty of craftsmanship and modeling in natural bamboo products. It did a very careful and graceful job of describing the beauty of the shape, as if the object were appearing in front of my eyes as it was being described. The article highlights the stunning variety of colors that can be found in

bamboo. Bamboo can be found in a wide variety of hues, including yellow, purple, green, and even more colors besides. The connotation is woven into his charismatic persona.

The researcher learned about the main culture's role in promoting the construction of ecological civilization from Shen Ying's postgraduate thesis on the research value of ecological aesthetics of Chinese ethnic culture. This role, which was not mentioned in the previous articles, described the reduction of lake area due to soil erosion, among other things. The reason for this is that the preservation of biological diversity is an essential step toward preserving the integrity of an ecosystem, and since my nation is home to a sizable bamboo resource, the author chose to base his discussion of how to encourage the expansion of asparagus bamboo on the knowledge he gained from the articles he read. More importantly, this article emphasized the interdependence and mutual promotion of man and the natural environment, as well as the fact that the spread of ethnic culture is conducive to the spread of the concept of ecological civilization. Additionally, the article stated that the spread of ethnic culture is conducive to the spread of the concept of ecological civilization. The researcher had no idea the ecological value of cultivating bamboo until recently. The researcher learned about the bamboo weaving traditions of Sichuan, Zhejiang, Anhui, Fujian, Quanzhou, and Yongchun county as well as the bamboo weaving traditions of Hunan and Guangdong from Zhao Mei's book, China's Bamboo Culture and Its Market Value. In addition, The researcher learned about other bamboo weaving crafts, techniques, and characteristics. This article has made a comparison of bamboo weaving in various regions, and from it, The researcher can see that we have made bamboo weaving in Changning, Sichuan. However, in the article, The researcher did not see a comparison of the bamboo weaving techniques and advantages of other regions in China. A bamboo silk mosquito net is amazing. The visibility through this type of mosquito net is comparable to that of water, and it is woven with patterns of flowers and birds made from natural colors. It is clear from this that the weaving technology we use in Changning County, which is located within Yibin City, is of an exceptionally high caliber. This incredible technology is one that we ought to inherit, continue developing, and share with others.

## 2.3 Information about Yibin bamboo technology

In Chu Ruiqi's (2019) research on the application of bamboo cultural elements in product design, The researcher learned that in the modernization process of bamboo cultural products, facing the conflict between modern technology and traditional craftsmanship, how to choose and balance is a more concerned issue in the field of product design. This was something that researcher learned from the research that Chu Ruigi conducted on the topic. The development of bamboo technology in my country is currently focused on a number of different aspects, including the synthesis of bamboo materials, the conversion of bamboo material forms, surface treatment (pattern decoration, dyeing, polishing), protection (protective layer), maintenance of bamboo materials, and connection of bamboo materials, etc. For instance, bamboo can be processed into composite boards and plywood; through ultrasonic and mechanical means, the form of bamboo can be developed into bamboo chips, bamboo threads, and bamboo fibers; and so on, for the purpose of pattern decoration. Bamboo can also be used for pattern decoration. In terms of dyeing, in addition to dyeing agents and paints, some natural plant juices are also used for dyeing; the application of bamboo anticorrosion, anti-moth, and anti-cracking technology prolongs the use, life, and use effect of bamboo; and the drilling and extension of bamboo are both used to make bamboo longer and more durable. There is no denying that advances in science and technology have led to a significant increase in the rate at which bamboo materials are put to use. These advances have also played a constructive role in increasing the scope of applications for bamboo materials and the size of markets for bamboo products. Even while the form of some traditional bamboo items might not be suited to the requirements of modern living, the traditional craft nevertheless has its importance as a point of reference in the current era. Traditional workmanship possesses an allure all its own, and it is, of course, also a form of cultural component associated with bamboo. Creating bamboo reliefs, round carvings, and root carvings are all abilities that can be passed down from generation to generation; the resulting goods frequently have a distinct allure and a high level of humanistic and creative qualities. On a technological level, it further overcomes the design restrictions of bamboo materials such as mildew, cracking, and unformed materials. This is accomplished through the use of a new technique. The development of technology has led to a greater variety of forms and

expressions becoming available for consumer goods. As a result of the processing and utilization of natural bamboo, it has gradually developed into various forms of bamboo as the basic material structure, such as bamboo strips, bamboo slices, bamboo strips, bamboo silk, bamboo springs, bamboo boards, bamboo fibers, bamboo synthetic materials, and so on. In order to keep up with modern production methods, bamboo goods are almost exclusively manufactured by equipment in huge quantities, resulting in items that are more uniform and standardized. In terms of the general shape design, the processing, and the outside ornamentation, it is more refined. At the same time, the material is no longer a singular entity, and some design products will also deftly integrate multiple materials such as bamboo, glass, and steel to jointly achieve their purposes and contribute to their aesthetic values. The problem of contemporary bamboo product design is that the general positioning still follows the old thinking, and the overall market is low-end, while disregarding the developing high-end market that focuses on cultural added value. This is a major drawback of modern bamboo product design. Its advantage is that with the support of modern technology, the physical and ecological characteristics of bamboo materials can be brought into play to a significant extent. Additionally, the cultural background of bamboo causes bamboo products to bring people spiritual feelings that cannot be replaced by products made from other materials.

In Zhang Duoduo's article Broken Bamboo and Continued Bamboo: The Design and Innovation of Main Products in Contemporary China, The researcher was deeply inspired by the innovative content written about the rediscovery of bamboo materials and bamboo crafts. The researcher learned that the creativity of main products can be integrated Life aesthetics and public welfare culture, improve the quality of life, and make the society sustainable. After reading her article, there is a smile curve model, which includes technical patent manufacturing, brand services, etc. The conclusion drawn through this smile curve model is, To increase the profit of the enterprise, it is not only in the position of assembly and manufacturing, but also in the production of other raw materials to achieve the purpose of sustainable use. The main product design in the article is the combination of bamboo and bowls, and there are also bamboo and bicycles. Combination, there is also the combination of bamboo and

chairs, as well as the combination of bamboo and toys. The bamboo products inside are very exquisite, which makes me feel the charm of bamboo craft technology. One of the designs that shocked me deeply is the bamboo press board: it is Squeezing all the bamboo together, carving and designing on this basis, not only breaks the shape of the bamboo, but also subverts the design, the researcher like it very much.

The researcher discovered through the transfer and application of Wuyi bamboo weaving technology in Wei Pan's cultural and creative products that cultural and creative products can be presented through the design concept of "prototype-basic pattern translation-application." This was one of the most important things that we learned. The thing that really matters is found here. In this article, The researcher gained an in-depth understanding of the Wuyi bamboo weaving technique's inherent allure. It discussed the various types of bamboo weaving that are used in Wuyi, as well as the combination of bamboo weaving technology with cultural and creative products, as well as the extraction and translation of visual elements. The manner of weaving using bamboo is something that is very important to me here. Help! There are even more weaving methods like square hole weaving because these bamboo weaving methods are used not only in the Wuyi area but also in the Yibin area. The article makes a point of highlighting how significant it is. One of the points to consider is whether or not it is possible to combine the technology of bamboo weaving with artistic and cultural goods. There are parallels to be found in the cultural genes. All aspects of human beings, as well as cultural and creative products, are also high value-added products that are designed by utilizing modern technology to create cultural resources and cultural supplies. As a result, the two concepts are integrated. In addition, it discusses the parallels that can be drawn between the methods of weaving with bamboo and the shape and composition of products of cultural and creative production. It is said that cultural and creative products integrate the traditions found in the history of commodity art through the reorganization of cultural elements and the structure of fashion symbols. This is done in order to achieve this integration. The Wuyi bamboo weaving technology is based on creativity, searching for a form that is more in line with the aesthetic needs of modern society, and realizing the transformation of bamboo weaving products from practical appliances to

cultural and creative products. Creative thinking is a driving force behind consumers' desire to travel to regional destinations and their passion for local cultures. Both emphasize cultural and creative expressions in terms of form and structure, and both are market-oriented to achieve the fundamental purpose of disseminating contemporary culture, so combining the two is something that is very much within reach. In addition to this, it discusses the process of extracting and translating bamboo modeling elements as well as bamboo structural elements. Wei Pan also presented an example of culturally sensitive and creatively designed product. In order for me to appreciate the "beauty" of this bamboo weaving pattern, he extracted and translated information from the weaving technique. Due to the fact that Mr. Wei Pan's article and mine are very similar to one another, both of our articles combine bamboo weaving products with cultural and creative goods. The key difference is that he is able to separate and free himself from the components of it. Nevertheless, The researcher have gained a significant amount of knowledge regarding design cases from Mr. Pan's articles. The researcher have witnessed a wide variety of exquisite patterns and designs, and researcher have experienced the allure of bamboo weaving patterns derived from their extraction and transfer.

According to the current scenario and design strategy of bamboo products developed by Huang Jingjing, it is suggested that bamboo products should enter the market for cultural and creative products as well as gift packaging. This is referred to as the diversified development of bamboo products. The supply of bamboo-based cultural and creative products on the market is in relatively short supply. There is a lot of room for expansion in the tourism industry when it comes to cultural and creative products, business gifts, tea peripheral products, and toy production, among other areas. Provide us with an illustration of a three-wheeled children's toy made from bamboo in Vietnam. As we can see, bamboo is not only composed of bamboo, but it can also be shaped into a product by being cut and spliced together. Because of this article, our designers are now communicating more with the manufacturers. To have a comprehensive understanding of the characteristics of products in the cultural and creative field, to combine the characteristics of bamboo products themselves, to

design and produce outstanding works in the field of cultural and creative products, and to broaden the application field for cultural and creative bamboo products.

In Deng Fuping's exploration of bamboo processing and utilization technology, The researcher learned that bamboo, a bamboo material, has the advantages of corrosion resistance, weather resistance and stability in mechanical properties, and can replace structural materials in wood structures and steel-wood hybrid structures. The moso bamboo used in this study is 5 years old, with a diameter at breast height of 70-100 mm and a thickness of bamboo wall of 6.0-11.0 mm. The adhesive is a modified phenolic resin glue with a solid content of 50% and a pH value of 9.0. When used, it is diluted with water to a solid content of 25%. The species of brown rot fungus is Glycophyllum dense, and the culture medium is river sand, sawdust-nutrient solution medium. According to (GB/T13942.1-2009), the brown rot resistance test was carried out with Populus tomentosa sapwood as the control. The process method is based on the principle and requirements of recombined bamboo preparation. The production process of natural color and carbonized recombined bamboo is divided into bamboo cutting  $\rightarrow$  removal of bamboo green and bamboo yellow  $\rightarrow$  dissection  $\rightarrow$ decompression  $\rightarrow$  carbonization or boiling  $\rightarrow$  primary drying  $\rightarrow$  impregnation of phenolic resin  $\rightarrow$  secondary drying  $\rightarrow$  Pavement (blank assembly)  $\rightarrow$  hot pressing  $\rightarrow$ sawing the test piece → testing and other processes to complete. The final effect is high hardness, good stability, corrosion resistance, high resistance to termites and other common outdoor materials. It is one of the main application directions of bamboo bamboo (Deng Fuping, 2019: 174). This involves the use of bamboo as the main material of my cultural and creative products in the future, and even the production can refer to the craftsmanship of Mr. Deng Fuping.

In Hao Ruimin's article on bamboo sheet bending processing technology, you can learn the three process stages of bamboo sheet bending process: softening, grinding and bending, and drying and setting, and get the relationship and law of influencing factors and bending effects in each process. In order to provide technical reference for production, and provide a new way to improve the utilization rate of bamboo and product added value, in my article, it can provide conceptual technical guidance for

my subsequent product design or can systematically learn how to change from a bamboo to a bamboo. the entire process of the product.

In the article that Baiyue wrote about the innovative application of traditional bamboo weaving technology in modern packaging product design from the perspective of nongenetic formation, The researcher learned that he began his analysis of the application in modern packaging product design by analyzing the technical characteristics and cultural connotation of traditional bamboo weaving. This was done in order to come up with innovative solutions for modern packaging product design. Traditional bamboo crafts were used as an example in the aesthetics, characteristics, and innovative principles of packaging finished products and line design. This allowed me to learn that bamboo weaving can also be combined with bags made of different materials to form products. The researcher also gained knowledge about the Cizhu material, which is relatively pliable, has a high texture and a good gloss, and is capable of being seamlessly incorporated into the bag. Permit me to ponder the possibility of combining the bamboo weaving design the researcher created with other types of materials.

In the article "Inheritance and Development of Traditional Handicrafts - Taking Bamboo Weaving Handicrafts as an Example," written by Zhu Lin, we can learn that the author approaches the topic of the development of traditional handicrafts from the perspective of nostalgic culture against the backdrop of rural revitalization. He then uses Xikou bamboo weaving handicrafts as an example to investigate the evolution of handicrafts and uses them as a point of departure for his investigation. The researcher experience working at Yibin Bamboo Crafts has given me a unique perspective on the path, and it appears to be consistent with that experience. After reading this article, the researcher now know that when making bamboo handicrafts, you can carve the characteristics of the village onto the bamboo leaves or bamboo shoots on the bamboo handicrafts, or you can make bamboo products in the shape of a 1:1 bamboo shoot, and you can also make them locally. Handcrafted items made from bamboo weaving are displayed in the cultural space dedicated to bamboo weaving. The fact that all of the furniture in the area is woven from bamboo means that it can be used by tourists as a point of reference and as an experience, and it can also help tourists gain a better

understanding of the craftsmanship involved in bamboo weaving. The researcher was able to learn about the bamboo weaving products researcher designed thanks to it, and the researcher was also able to carve onto the bamboo the characteristics of Gaoqiao Village, which is located in Lizhuang Town, which sparked my other design thinking. In the future, The researcher might also be able to establish a bamboo weaving workshop in Gaoqiao Village. A tourist cultural space.

According to the findings of researcher Qu Ruidan's study on the design of Daoming bamboo weaving cultural creative products based on the culture of Bashu. It has been discovered that he conducted a cultural extraction using a particular cultural point of view. He extracted cultural ideas from Bashu Culture, such as the Sanxingdui Ruins, the Jinsha Ruins, Sichuan Opera Masks, Pandas, and Han Dynasty Sculptures. The products that he designed include the lighting design for Panda, as well as the design of the seasoning jar for Facebook. This article has a wonderful guide for the direction that my design should take.

As a result of both the design and the innovation that went into the bamboo weaving craft products that Li Hao created, we now know that the design of bamboo weaving crafts ought to be segmented according to the different groups of people. The second step is to divide people up according to the jobs that they do. In the case of middleclass white-collar workers and high-income groups, some functional design considerations ought to also be taken into account for the process of selecting members of these demographics. In addition to this, it was recommended that we do everything in our power to combine bamboo with contemporary materials such as metal, plastic, glass, and ceramics. Crafts that are made by weaving bamboo will, as a result of using a variety of materials, have a more layered beauty and a more contemporary aesthetic. The idea of combining bamboo weaving and glass to make water cups in my later design works very well with this concept, which fits very well with the idea. We have all given some thought to the possibility of incorporating some contemporary materials into the weaving process. He also suggested that when we are designing products, we can do a series of complete sets of designs. However, since researcher only do products related to culture and creativity, The researcher do not do a series of designs that are comparable to furniture as he suggested.

# 2.4 Design principles

The following are the points that are guarded by my design principles:

About the design principles for this research The researcher has considered the Factors to be considered in the design of bamboo weaving 4 things as follows: 1) Respect for nature: Although bamboo is a natural material, its inherent texture, color, and texture must be respected during the design process. In addition, bamboo weaving should avoid excessive processing and the interference of humans. 2) Exceptional qualities include: Weaving with bamboo is a time-honored craft that carries with it a rich cultural history and significant historical accumulation. Throughout the design phase, it is essential to keep the traditional aspects of the work while also incorporating current aspects into the work in order to give it a more original and cutting-edge appearance. 3) Focus on functionality: The design of bamboo weaving items should not only focus on aesthetics, but should also take into consideration practicality and usefulness in order to satisfy the needs of users and allow consumers to use the products in a manner that is more convenient and comfortable for them. 4)Pursuit of Simplicity: The design of bamboo weaving items should follow a basic and natural style, and attempts should be made to avoid too sophisticated and cumbersome designs. This will allow the works to have a more condensed and straightforward sense of aesthetic value. 5)Take into account the environment: In order to take use of bamboo's eco-friendliness as a material, woven bamboo products need to be developed with consideration given to how long they will last and how little impact they will have on the To have as little of an effect as possible on the surrounding ecosystem and to advance the idea of environmentally friendly production, it is important to make extensive use of materials that can be renewed or recycled. The design of bamboo weaving products should place a strong emphasis on humanization by beginning with the perspective of the end user. This involves taking into account aspects such as human body structure, habits, psychological needs, and other similar aspects in order to bring products closer to end users and enhance the overall quality of the user experience.

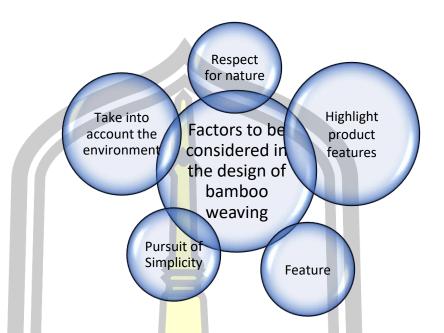


Figure 3 Factors to be considered in the design of bamboo weaving Source: Researcher, March, 15, 2023.

The art of weaving with bamboo is one that has been practiced for generations and is considered a form of intangible cultural heritage. When developing products that are associated with intangible cultural heritage, it is necessary to promote the culture of bamboo weaving and inherit the craftsmanship of bamboo weaving. When it comes to design, we need to have a complete understanding of the culture of bamboo weaving. The techniques of bamboo weaving and the production process of bamboo weaving should highlight the one-of-a-kind qualities, collectability, and quality craftsmanship of bamboo weaving. This will allow customers to experience the culture and allure of bamboo weaving when they buy cultural and creative products made from bamboo weaving.

The principle of regional culture identification: Integrating the local culture of the region where the bamboo weaving skills are located, refining the elements of the local cultural landscape, and carrying out innovation and design are all things that need to be done in order to pass on the culture of bamboo weaving, create cultural and creative products with the characteristics of bamboo weaving skills, and inherit the culture of bamboo weaving. Take, for instance, the bamboo that can be found in Gaoqiao Village; it can be designed. One Yibin, you are more than welcome to include a logo in the

design of each product, which will allow the products that we design to stand out from others in their respective regions.

The principle of innovation in bamboo weaving culture states that the principles of design and innovation must be adhered to when developing ideas for cultural and creative products that involve bamboo weaving. The cultural inheritance, the avoidance of directly copying regional cultural elements such as traditional patterns into products, and the application of traditional copywriting techniques into products in the same way, both of which contribute to the lack of originality in the products. In order to more accurately express the cultural elements that have been extracted from bamboo and to make cultural and creative products made from bamboo more contemporary, it is necessary to remove recognizable cultural logos.

In this research The researcher studied the handicraft design process of Sakchai Sikka (2009: Abstract) Used to do research on Wood-Carving Art in Mekong Basin Region, Conversation and Application in Design. the researcher recommends guidelines for application to contemporary product design by inventing the design process suitable to taking art as inspiration in creating design. There are 6 steps in the process:

- 1) Analysis of consumer needs: It is the first step in the design process. Where the designer conducts a survey of information about market needs and onsumer needs first. However, the information may come from the study of documentary and field surveys.
- 2) Creating the inspiration of design: The designer must know how to use it as a concept for creating beauty. Functional Creativity and the creation of novelty for the product
- 3) Market positioning: It determines the strength or selling point of the product so that the newly designed product can compete in the market.
- 4) Creating distinctive characteristics: New products must clearly reflect their characteristics. Effects can occur on multiple issues or on just one issue. For example, an Exotic shape, Suitable size that catches the eye, Form of use looks good and classy,

Easy to store, can be used in many ways, Innovation in Manufacturing Materials, New Patterns that have been adapted from inspiration.

- 5) **Design:** In this step It shows the design process that will lead to the production of prototypes. Consists of design drafting, design evaluation revision prototype production and final assessment before production for sale.
- 6) Publishing or Exhibiting works: Once the prototype has been produced, it is the process of presenting the work to those involved. The nature of the presentation may take many forms such as exhibitions. Dissemination through online media. Dissemination through print media.

In addition, Sakchai Sikka. (2012: 50) ever written in a book The process of creating a local designer that Designing new products into the market It consists of several important steps such as studying market information, customer needs study, collection of relevant information, tudy of related conditions, Understanding problems or problems in design, data analysis and synthesis, Initial Concept Search, summarizing concepts, Specifying product design requirements, Drawing and detailing for production, prototype production, Assessment master product, revision release of new products into the market, However, in practice it can be difficult for designers to specialize in all aspects. Therefore, at some stages, it is necessary to rely on specialists to support. Help perform duties in evaluating or giving advice. This will make the new product design work more confident in bringing the product to the market.

Based on the information and ideas about the design principles mentioned above. The researcher will be applied in the design of bamboo weaving work in this research.

#### 2.5 Yibin bamboo art market

The research about how the inhabitants of Shunan Bamboo Sea diligently cut bamboo pockets into birthday stars, eighteen arhats, and other creatures from Liu Longquan's talk on the tourism development of "Bamboo Culture" in Shunan Bamboo Sea. They are very well known among tourists, and they are frequently lauded for their ability to transform deterioration into magic. In the market, it has a significant presence overall. There are 27 enterprises that produce hollow health care bamboo mats, tatami mats, and other bamboo items that are used in the tourism industry. Some of these bamboo

products include bamboo sofas, bamboo tea tables, and bamboo pen holders. There are also some lovely mementos available, such as flower baskets, purses made of bamboo, and rocking boats made of bamboo. The researcher learnt that many scenic locations in Changning and Yibin City need to be developed from Liu Jiahong's Yibin Changning Bamboo Culture Tourism Development Plans. These scenic spots include the national 3A-level and above leading European scenic spots with subsidy methods. The next phase is to establish a modern developing tourist county in Yibin City, with the goal of creating a national all-for-one tourism demonstration zone. Given this, it would appear that there is a pretty big demand for bamboo handicraft souvenirs.

The researcher found out at the 11th China Bamboo Culture Festival that was held in Yibin City that the leader of China stated in his speech that bamboo grows quickly, has high economic value and strong driving ability, and contributes to the sustainable development of economy, environment, and society in bamboo production areas. This information was provided by Zou Xuwen. made a significant contribution to the cause. The China Bamboo Culture Festival has developed into an important platform for showcasing the achievements of the bamboo industry's development, exchanging the successful experiences of those working in the bamboo industry, discussing the hot spots and trends of the bamboo industry, and promoting international cooperation and exchanges. It has been instrumental in the growth of the bamboo industry, the revitalization of the bamboo economy, and the promotion of bamboo culture. An awards ceremony for the "Chengdu Bamboo Industry Collaboration Innovation Center," a launching ceremony for the Bamboo Products Online Trade Expo, and a handover ceremony for the China Bamboo Cultural Festival were all held in conjunction with the opening event. The inaugural ceremony was attended by Lu Wenming, the deputy director-general of INBAR, Mujisha Fred, the deputy head of the Ugandan embassy in China, as well as other diplomats stationed in China from various INBAR member nations, and almost 300 visitors from all around China. Activities such as the unveiling of the bamboo garden, the planting of bamboo, a meeting to promote investment in the bamboo industry, and a summit forum were held on the day when the event opened to the public. At the Bamboo Culture Festival, the delegates and guests participated in a variety of activities, including visiting online and offline

displays of bamboo items, as well as experiencing the culture of bamboo itself. The China Bamboo Culture Festival has grown to become the most important brand event in China's bamboo sector. It also boasts the highest standards and the most attendees. It is not only an essential window to show the development level of the bamboo industry, but it is also a vital platform to encourage exchanges and cooperation among all parties. This makes it a very important window. (Zou Xuwen and Yin Chenglongwen both have Figures available, 2021:38). Yibin played host to the 11th China Bamboo Cultural Festival this past weekend. It is clear from this that the growth of Yibin bamboo is highly appreciated by leaders in the bamboo crafts industry and receives substantial assistance from the government. This support comes from all aspects of the bamboo industry.

We learned that my country places a large amount of value on the passing down of traditional crafts by reading the article that was written about the inheritance of traditional bamboo crafts and their subsequent development in gold. The government did a lot of publicity for and hosted an event called "Bamboo Expo," where they invited traditional artisans to teach and support the arts. The expo displayed bamboo craft products of a variety of sorts and crafts, which resulted in a significant number of consumers and craft masters from both the United States and other countries to attend. The fact that there was such a significant number of customers who came to buy bamboo craft items demonstrates that people are still interested in purchasing them. The bamboo handcraft objects that are for sale, on the other hand, are out of date and do not evoke a sense of renewal. As a result, bamboo handcraft items face not only the challenge of inheritance but also the requirement of innovation. The expression of my nation's art and culture is currently the primary focus of my country's bamboo handicraft items. Unfortunately, the primary method of manufacturing is handmade, which causes the price of bamboo handicraft products to stay high. This is something that consumers find difficult to accept, therefore the industry has struggled. After losing their utilitarian performance, bamboo handicraft products are further priced out of the reach of the average person's purchasing power because of the higher price threshold. At the same time, in this modern era where mechanical automation production is more frequent, the low price impact, as well as the simple and easy-touse characteristics of practical products that replace bamboo, also have a huge impact on hand-made bamboo craft products. This is due to the fact that mechanical automation production is more frequent in this modern era. According to the findings of the survey, even though many bamboo handicraft products in my country have been listed as "intangible cultural heritage" projects by the country, have a good reputation, and have been well inherited by folk artists, they are still facing a declining trend and require people to improve them. This is despite the fact that they have been well inherited by folk artists. Alter the traditional methods used to make bamboo craft products through innovation. (Huang Jinjin, 2021: 51)

In Li Mengtong's master's degree thesis on the research on the contemporary development trend of bamboo art exhibits, we can know that there are many bamboo product research and development institutions and organizations in the current market in my country. For example, the Ministry of Forestry has set up a bamboo industry management office. The China Forestry Association has established the China Bamboo Industry Association and various local and regional bamboo industry associations. Through this, we can also know which units can assist in the production of bamboo products in the future.

From Zhou Zhi's article on the design application and business model exploration of bamboo silk inlay and bamboo craftsmanship, we can know that it analyzes and demonstrates the business model related to contemporary handicrafts, taking brand cities, handicraft workshops and crowdfunding as examples Taking the marketing method under the modern background as an example, the cultural value and experience demand of handicrafts, the trend of customization of high-end products, the network platform combined with modern life and related business models are drawn. According to the analysis results, the design direction of craft derivatives is summarized, such as craft refinement, customization, and module experience, and on this basis, an experience model is proposed for the development of bamboo crafts, which specifically includes craft experience, cultural experience, There is also the combination of modern auxiliary design to realize the personal customization of the pattern, such as the live broadcast course of the webcast platform on the WeChat public account crowdfunding platform, and the cultural dissemination and online sales of traditional crafts, with the

help of various new media to carry out online Business models such as communication and interaction.

In Lian Mingquan's article on the status quo and existing problems of bamboo weaving products in Yibin City, Sichuan, it is said that bamboo weaving products in Yibin City, Sichuan Province now occupy a certain position in the local market, and there are also a group of people who have mastered intermediate bamboo weaving technology, but the bamboo weaving technology in Yibin City The strength and production capacity are far from meeting the market demand of the society for bamboo weaving craft products. The existing problems of bamboo weaving products in Yibin City: First, the guidance and support of governments at all levels are not enough, and there is a lack of effective organization and development planning; second, there is no design innovation of bamboo weaving products that meet the needs of the local market, and there is a lack of research and development of new bamboo weaving products with independent intellectual property rights. The third is that the intermediate technology of bamboo weaving has not yet been popularized, and the only technical force is scattered and cannot form a production scale; the fourth is that some grassroots leaders lack sufficient understanding of the development of bamboo weaving, eager for quick success, eager for quick success, and lack of long-term plans And the understanding of the market development of the bamboo weaving industry, and the role of the development of the bamboo weaving industry in promoting the local economy and increasing the income of bamboo farmers. (Lian Dongming, Huang Jinquan, Zhang Nan & Wang Yong, 2011: 26)

The current situation of the Yibin souvenir market is broken down and discussed in Peng Juan's condensed take on the history of the development of tourist mementos in Yibin. To begin, the conditions for the growth of tourist souvenirs in Yibin are superior because Yibin has strong ethnic customs, and the minority areas in Yibin have their own production methods, lifestyles, and tourist clothing. In addition, Yibin has a rich history, and these factors combine to make Yibin an ideal location for the growth of tourist souvenirs. In addition, the local characteristics of Yibin City are very clear. Yibin City is distinguished by its one-of-a-kind geographical composition and Xingwen karst landform. The city of Yibin has a rich heritage that dates back many

years. Throughout the course of its lengthy historical development, Yibin has given rise to a number of distinct cultures, including the Bo culture, the wine culture, the bamboo culture, the tea culture, the anti-Japanese culture, the Nezha culture, and one of a kind southern Sichuan folk customs that reflect the ancient ethnic culture of the region, charismatic allure and persuasive power. The second thing worth noting is that Yibin offers a diverse selection of items that can be purchased as mementos of the trip. Based on the findings of the author's field research, it has been determined that the majority of the tourist mementos sold in Yibin are local characteristic handicrafts, souvenirs of ethnic minorities, tourist prints and publications, etc., such as bamboo craft culture and stone. craft culture. The third thing that needs to be covered is the current challenges and the factors behind them in the Yibin souvenir market. Yibin has a limited selection of tourist mementos, the majority of which are of low quality, and the city does not attract many visitors. It has been found through research conducted with tourists as well as visits to major tourist souvenir malls in Yibin that the currently available tourist souvenir products are lacking in unique characteristics. Poor variety, weak selection, improper management by the mayor, chaotic order, weak concept, insufficient leadership attention, insufficient government publicity, insufficient popularity, poor packaging, and insufficient satisfaction. Poor variety, weak selection, improper management by the mayor, chaotic order, and weak concept. These aspects that were broken down by the author provide excellent direction and a theoretical foundation for my design.

From Wang Yanmin's research on the application of traditional bamboo craftsmanship in modern product design, she found through investigation that although there are many kinds of bamboo products on the market, most of them are of low design level. Traditional bamboo products are single in material, outdated in style, lack of innovation in product function and form. The innovative design of bamboo products is an important link in the development and utilization of bamboo resources. The traditional bamboo product technology needs to be driven by good design to realize the optimal utilization of resources. Compared with the design of foreign bamboo products, the development and utilization of bamboo resources in China is still in the extensive stage, the processing and manufacturing technology is backward, the added

value of products is low, and it is difficult to see modern products with a sense of design. Traditional bamboo handicrafts have failed to achieve docking with modern design, and are incompatible with modern home environment, so they can only become nostalgic decorations. Modern design has not played a role in inheriting traditional bamboo crafts, which are becoming more and more marginalized. The innovative design required by bamboo products applies the essence of traditional bamboo crafts to the design of modern bamboo products, improves the cultural quality of bamboo products, and allows users to feel the culture of traditional bamboo crafts in the process of using modern products sense, which requires in-depth design research on bamboo products. Finding new development and utilization models of bamboo resources has become an urgent task facing the modern bamboo product industry. (Wang Yanmin & Teng Shuisheng, 2015:98)

The researcher learned from the exploration of cultural and creative product design and marketing strategy that the current marketing strategy is based on inheriting the family culture, combined with elements of national fashion, and focusing on young users who were born in the 1980s or even the 1990s. This was gleaned from Zhang Junfeng's perspective on intangible cultural heritage, which we gained from the exploration of cultural and creative product design and marketing strategy. The group's primary focus is on the production of bamboo cultural products that are notable for their impressive appearance, excellent quality, and innovative creativity. The author emphasizes that it is necessary to strengthen the experience of tourists, create an interactive experience integrating intangible cultural heritage and bamboo public welfare, and also deeply cultivate the memory of intangible cultural heritage in order to impress people. All of these things are necessary in order to strengthen the experience of tourists. The history of the brand not only forms intellectual property, but also explains and passes on the spiritual symbols that make up intangible cultural heritage. Because of this, the researcher have learned that in order to interpret and inherit the bamboo craftsmanship that goes into my bamboo cultural products, the researcher need to have a set of intellectual property shaping, and that is, Yibin welcomes you.

He learned that it is necessary to conduct an analysis based on the requirements of the user's experience from Li Penghui and Liu Lingling's bamboo weaving cultural and

creative product design based on the user experience of tourists. This was something that he gained from their work. He selected people between the ages of 18 and 55 and collected data from them using questionnaires and interviews in the field. A significant aspect of the survey object is the age group. There were a total of 150 questionnaires handed out at various tourist attractions, and a total of 126 valid questionnaires were collected from visitors, with 34 questionnaires coming from domestic tourists and 92 from international tourists. According to the findings of the questionnaires, relevant expert groups were invited to carry out screening analyses and integrate the results. As a result, we obtained the following indicators of the demand for bamboo weaving cultural and creative products, and we discovered that the requirements that tourists have for cultural and creative bamboo weaving products are that they be regional, useful, interesting, convenient, artistic, concerned with public welfare, contemporary, and one-of-a-kind. The author designed a humidifier with bamboo weaving as the outer packaging, taking into consideration the properties discussed above. This was a very important source of inspiration for the design of a bamboo weaving detachable jacket that was going to be attached to the hot water bottle. Mastery of the data and analysis pertaining to product visitor market research.

This chapter understands the historical and cultural background of traditional crafts: By studying the historical and cultural background of Yibin bamboo crafts, researchers can understand the origin, development and evolution of traditional crafts, so as to better understand the value and significance of this craft. Learning the principles and techniques of traditional crafts: By studying the skills and principles of previous Yibin bamboo craft learners, researchers can learn the production methods, techniques and principles of traditional crafts, so as to better master and inherit this craft. Understand the current situation and prospects of the market: Studying the current situation and prospects of the market demand and trends, help them better understand the current situation and development direction of the market, and provide guidance for the development of traditional crafts. guidance and support. Explore the integration of traditional crafts and modern design: Through the research on traditional crafts, researchers can explore the fusion of traditional crafts and modern

design, find the application and development direction of traditional crafts in modern design, so as to provide the innovation and development of traditional crafts New ideas and methods. Studying the history, culture, principles, and market status of Yibin bamboo craft learners in the past is of great significance to current researchers. It can help researchers better understand and inherit traditional crafts, and provide useful guidance and support for the development of traditional crafts.



#### **CHAPTER 3**

### DATA ANALYSIS FOR DESIGN

In this article, The researcher will start from the current status of Yibin bamboo craft cultural and creative products, the classification of Yibin bamboo crafts, the types and characteristics of bamboo craft cultural and creative products currently on the market, the policy support for the development of Yibin bamboo crafts, and an in-depth analysis of consumption. The researcher analyze the types of bamboo weaving products and SWOT analysis, analyze the value and cultural connotation, etc., and analyze the Yibin bamboo crafts and types suitable for the bamboo weaving cultural and creative products researcher designed. In short, in this section, The researcher will conduct a detailed analysis of the types, policies, products, and markets of bamboo craft cultural and creative products in the market, and finally integrate them with my cultural and creative product design.

## 3.1 Analytical research and analysis of Yibin bamboo craft

## 3.1.1 Research and analysis of Yibin bamboo technology

Handicrafts that are referred to as bamboo handicrafts are those that make use of bamboo as a raw material in the process of creative production, such as carving, painting, separating, or re-creation. Crafts made from bamboo are distinct from those made from regular wood. Crafts made of bamboo have a service life that is significantly longer than that of products made of wood once they have been cooked and dried. Because bamboo is so resilient, it has been lauded by literati and intellectuals since ancient times. As a result, bamboo handicrafts are more popular than hardwood handicrafts, and people adore them more. There are many different types of bamboo handicrafts, such as bamboo slips, bamboo weaving, bamboo plaques, bamboo hanging paintings, bamboo slip calligraphy and paintings, bamboo carving pen holders, bamboo carvings with green armrests, and bamboo root carvings.

In the current market in Yibin City, via the use of the network search, statistics on the different varieties of bamboo craft bamboo goods, search and "bamboo products", in the existing 48 key categories, search out 153 different kinds of bamboo products, information on bamboo craft products, Retrieved from sources such as Google, Baidu,

the Chinese Bamboo Products Network, the China Bamboo Network, Tmall, Taobao, Jingdong, and more.(Huang Jingjing, 2018:91)

One of the more well-known examples of traditional Chinese craftwork is the Yibin bamboo handcraft. It is mostly constructed out of bamboo, both as a raw material and after being treated. It is comprised of a large number of distinct categories, some of the primary ones being as follows:

Craft of bamboo weaving: Make a variety of useful or ornamental tools and handicrafts out of bamboo by weaving it into objects like baskets, boxes, chairs, screens, vases, and so on.

Crafts crafted from bamboo are known as "bamboo carving crafts," and include items like as pen holders, pipes, fans, wine glasses, and more. These bamboo carving crafts are characterized by the intricate patterns and characters that are carved into the bamboo.

Use the texture and color of bamboo leaves to make magnificent bamboo leaf paintings, such as landscapes, flowers and birds, figures, and so on, by cutting, mixing, and painting techniques. Bamboo leaf paintings can be of anything from landscapes to flowers and birds to figures.

Crafting with bamboo paper entails first transforming bamboo into paper and then employing printing, painting, and other methods to create books, calligraphy, and paintings that feature qualities associated with bamboo culture.

Musical instruments made from bamboo Make advantage of the specific material and acoustic capabilities of bamboo to generate musical instruments with distinctive timbres. Some examples of these instruments include the bamboo qin, the bamboo flute, and the bamboo flute.

In addition, there are a great many more categories of bamboo crafts, such as bamboo umbrellas, furniture made of bamboo strips, bamboo mats, and so on. These ancient Chinese handicrafts are an essential component of the Yibin bamboo culture and exemplify the one-of-a-kind allure of China's handicraft heritage.

The materials needed for bamboo weaving are bamboo strips are one of the primary materials used in the production of bamboo weaving and bamboo crafts. Bamboo strips are thin layers that are peeled off of bamboo and are known as "bamboo strips."The term "bamboo pole" refers to the main component of the bamboo plant, which is typically utilized in the manufacturing of various items such as bamboo tubes and bamboo sticks. Coatings: While making handicrafts out of bamboo, it is required to apply coatings for spraying, brushing, and other treatments in order to preserve the bamboo surface and improve the aesthetics of the handicrafts. Auxiliary materials: In order to create bamboo handicrafts, you will need a variety of auxiliary materials, such as ropes, needles and threads, metal parts, and so on.

At the same time, different functions and aesthetic values can be produced by combining bamboo with different materials such as wood, glass, plastic, metal, and ceramics. From this, The researcher analyzed that the bamboo craft cultural and creative products researcher will design will mainly use the craft of bamboo weaving as a design, and will also consider the combination of bamboo weaving and glass, plastic and other materials.

# 3.1.2 Research and Analysis of Yibin Bamboo Craft Cultural and Creative Products

There are as many as 153 different varieties of bamboo goods currently available in my nation, according to certain estimates of the market (Huang Jingjing, 2018: 90) The term "bamboo cultural and creative products" refers to items that have been created with cultural and creative features and have been manufactured using bamboo as the primary material. The following is a list of some common forms of cultural and creative objects made from bamboo:



Figure 4 Bamboo handicrafts of Gaoqiao Village, Lizhuang Town, Yibin City

Source: Luo Yunyue, 2022

Products woven from bamboo: Objects woven from bamboo are considered to be works of bamboo-based craft. Bamboo may be woven into a variety of goods due to the plant's adaptability; these include bamboo mats, bamboo baskets, bamboo cages, and bamboo baskets. There are many ways to weave bamboo.



Figure 5 Products woven from bamboo in Baidu Source: Baidu,online.

Furniture built of bamboo and wood is referred to as bamboo and wood furniture. Examples of bamboo furniture include bamboo chairs, bamboo stools, bamboo beds, and other bamboo furniture items. As a result of bamboo's inherent lightness and resilience, it is increasingly being utilized in the construction of a wide variety of furniture, including chairs, tables, beds, and many other items. Bamboo and wood craftsmanship: Choose bamboo and wood materials suitable for making furniture, such as moso bamboo and Ruo bamboo. The bamboo and wood materials are cut and processed according to the design requirements, usually using a chainsaw and hand tools such as planers and cutters. Sand the bamboo wood with a sander or hand tool to give it a smooth surface for subsequent painting or varnishing. Paint bamboo and wood furniture to improve its waterproof, moisture-proof, anti-corrosion and aesthetic effects. Assembling according to the design drawings usually requires the use of auxiliary tools such as screws and glue. Polish bamboo and wood furniture to increase its gloss and aesthetics. Check and adjust bamboo and wood furniture to make sure it is solid and perfect. For the production of cultural and creative products, researchers believe that this process is too complicated.



Figure 6 Bamboo furniture of Yibin City Source: Baidu, online.

Handicrafts made of bamboo include carvings made of bamboo. Handicrafts made of bamboo include carvings made of bamboo is a versatile material that can be carved into a wide variety of shapes to be used in handicrafts. Some examples of these handicrafts include bamboo statues, bamboo screens, bamboo ornaments, and so on. There are several methods in bamboo carving technology: 1) Hollow carving:

Hollow carving is to carve the object into a three-dimensional hollow effect. Some powerful craftsmen can hollow out up to 5 layers and keep the innermost bamboo wall. One can imagine how much the technique is. Exquisite. Most of the carvings are landscapes, figures, flying dragons, calligraphy, plum, orchid, bamboo and chrysanthemum, etc. 2) Leather carving: Leather carving refers to the carving of bamboo skin on the surface of bamboo. The process is derived from smoked smoke, the longer the time of smoking, the higher the temperature, the darker the color, conversely, the longer the time of smoking, the lower the temperature, the lighter the color. 3) Relief: Carve on the surface of bamboo, and carve the bamboo skin and bamboo together. The content of the carving is mostly ancient poems, landscape paintings, and literati. The thickness of the carving is deeper than that of leather carving. 4) Round carving: Round carving is mostly used to carve bamboo roots, also known as bamboo root carving. Bamboo root carving requires strict selection of bamboo materials. Bamboos must be older and the roots of the bamboo are strong and strong, so that the bamboo roots can be carved. The carving content of bamboo root carvings is mainly Buddha statues and animals. It should be used as the base of the Buddha statue, clothes, etc. It depends on how the stylist designs it. Buddha statues are mostly used for blessings and safety, and animals are mostly used for decoration.



Figure 7 Bamboo carving artifactof Yibin City Source: Baidu, online.

Decorations constructed of bamboo are known as bamboo decorations. Some examples of bamboo decorations include bamboo flower baskets, bamboo necklaces, bamboo wallets, and other similar items. The bamboo is cut and processed according to the design requirements, usually using hand tools, such as cutters, planes, scissors, etc.

The bamboo is sanded with hand tools to give a smooth surface for subsequent processing and painting. Carve and depict bamboo to increase its aesthetics and decorative effect. Coating bamboo to make it more beautiful and waterproof. Weaving bamboo into bags or other decorative items requires experienced craftsmen to make. Detail processing, detail processing of the finished bamboo decorations or bags, such as adding zippers, buttons, handles, etc.



Figure 8 Bamboo ornament Source: Baidu, online.

Paper made from bamboo is utilized in the production of goods such as books, photo albums, and post cards. Bamboo paper is created by extracting the bamboo fibers from the stalks of the plant. Products made of bamboo paper Bamboo paper products are any paper products created from bamboo, such as bamboo paper for calligraphy, bamboo painting paper, bamboo letter paper, and so on. Other bamboo paper products include bamboo letter paper.



Figure 9 Bamboo paper Source: Baidu, online.

Products made from bamboo charcoal: make advantage of the carbonization qualities of bamboo to manufacture a variety of products after carbonization, such as cleaning products, fragrant products, health food, and other similar items.



Figure 10 Bamboo charcoal products
Source: Baidu, online.

Seal carved from bamboo A seal carved from bamboo is a seal that is made of bamboo. It is possible to utilize it for seal culture as well as calligraphy practice by etching characters or patterns onto it.Bamboo carving techniques are divided into Yin carving and Yang carving. The content of Yin carving is mostly poetry, and the characters are carved deep into the bamboo. The content of Yang engravings is mostly poetry, and the characters are engraved on the surface of the bamboo.



Figure 11 Bamboo seal Source: Baidu, online.

Tableware made from bamboo: Take advantage of the naturally antibacterial properties of bamboo and its ability to safeguard the environment by turning bamboo into a variety of tableware items, such as bowls, plates, chopsticks, and so on.



Figure 12 Tableware made from bamboo Source: Baidu, online.

Toys made from bamboo can be made into a variety of different toys by taking advantage of the natural texture and shape of bamboo. Some examples of these toys are puzzles, construction blocks, and model cars.



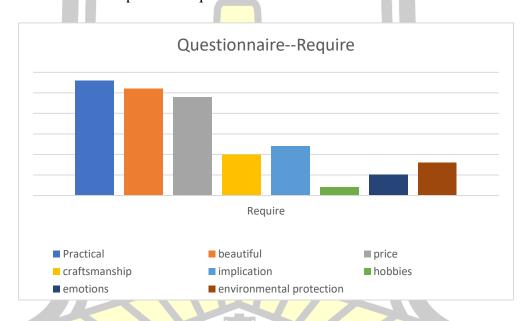
Figure 13 Bamboo toy Source: Baidu, online.



Figure 14 Bamboo handicrafts for sale at the Visitor Center of Gaoqiao Village, Lizhuang Town, Yibin City
Source: Luo Yunyue, 2022

From this it can be analyzed there is a wide variety of bamboo-based creative and cultural items, each of which is rich in variety and full of creative and cultural connotation. The types of cultural and creative products that are most commonly used in the industries of electronic equipment and electrical appliances are items such as bookmarks, keys, automobile accessories, decorations, mugs, and other day-to-day requirements. These items are rarely utilized in these other industries. Consumers are increasingly interested in purchasing cultural and creative goods that are of a smaller

size, are beautiful, and have practical use. There are many other types of bamboo craft cultural and creative products, and different product types have different market demands and application scenarios. The researchers conducted a questionnaire survey on bamboo craft cultural and creative products among Chinese teenagers aged 14-25. There were 30 people in total. The main questions asked were 1) Requirements for choosing bamboo craft cultural and creative products: practicality, aesthetics, price, craft type, beautiful meaning, collecting hobbies, psychological emotions, environmental protection; 2) Types of products that will be purchased: key chains, decorations, water cups, tableware, tissue boxes, bookmarks, vases; 3) More Will pay attention to product requirements: beautiful, practical, craft. 1 and 2 are multiple choice questions. 3 is a multiple choice question.





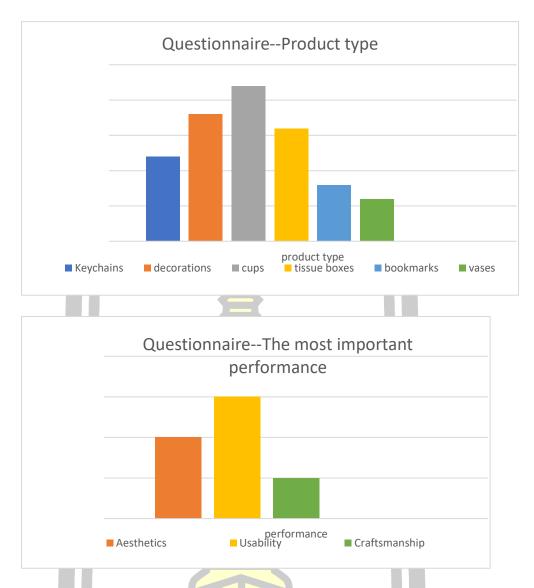


Figure 15 About the questionnaire survey of 30 young people Source: Luo Yunyue, 2022

In terms of requirements, there are 28 votes for practicality, 26 votes for aesthetics, 24 votes for price, 10 votes for craft type, 12 votes for beautiful meaning, 2 votes for collecting hobbies, 5 votes for psychological emotions, and 8 votes for environmental protection, from this data, it can be concluded that people care more about practicality, aesthetics and price. Among the types of purchased products, there are 12 votes for key chains, 18 votes for decorations, 22 votes for water glasses, 16 votes for tissue boxes, 8 votes for bookmarks, and 6 votes for vases. From this data, it can be seen that they care more about decorations Classes, water cups, tissue boxes and keychains, bookmarks and vases have fewer votes, and some people think that vases are not easy to carry. In

terms of paying more attention to product requirements, aesthetics is 10, practicality is 15, and technology is 5. It can be seen that practicality is the first. Although aesthetics is also very important, practicality is king.

## (1)Analyze the classification of bamboo craft cultural and creative products

Weaving with bamboo involves using strands of bamboo to create objects and works of art of varying dimensions and dimensions, such as bamboo baskets, bamboo mats, and bamboo baskets. To begin, the method of weaving with bamboo can be broken down into two distinct categories. The first method is called the weaving technique using fine-wire bamboo. The procedure of weaving bamboo with fine wire is often referred to as the process of weaving bamboo using porcelain-bodied bamboo. Sichuan is home to this one-of-a-kind style of handicraft, which is distinguished by its uniform thickness of bamboo thread, proximity to the porcelain surface, concealed but not concealed joints, and natural appearance. With the application of specialized processing, it also possesses the advantages of resistance to water, resistance to drying, resistance to deformation, and resistance to insects. Handcrafted items that are frequently made with bamboo weaving include things like bamboo weaving vases with porcelain bodies and bamboo weaving tea sets, among other things. The technique of weaving exquisite silk and bamboo is utilized in my design. The weaving of thick silk into bamboo is the second type of craft. The researcher country's southern region is home to a number of distinct styles of bamboo weaving using thick silk, including Dongyang bamboo weaving, Fujianxi bamboo weaving, and Sansui bamboo weaving, amongst others. The southern region is home to more than 200 distinct species of bamboo, including but not limited to light bamboo, cizhu, moso bamboo, and many others. Humans in a variety of geographic areas have developed a wide range of artistic weaving techniques. Only Dongyang Bamboo Weaving is responsible for more than 260 distinct types of weaving techniques. Bamboo mats, cool pillows, baskets, cradles, and other woven items are examples of the usual types of crafts that are created using thick silk and bamboo. They have a wide range of applications and are frequently utilized in a variety of essential roles throughout the day.

**Table 2:** Bamboo weaving type Figure

| Bamboo                   | Image   |   |
|--------------------------|---------|---|
| weaving name             | display | Features                                  |
| Flat weave               |         | The warp and weft strips of bamboo        |
|                          |         | weaving are pressed one by one, and the   |
|                          |         | top and bottom are interwoven, and the    |
|                          |         | weft is eliminated without leaving any    |
|                          |         | gaps. It is the most widely used weaving  |
|                          |         | method.                                   |
|                          |         | Start with three bamboo strips, the first |
|                          |         | at the bottom, the second at the center,  |
| Triangular hole<br>weave |         | and the third at the top, crossed and     |
|                          |         | spread out, and the angles are equal;     |
|                          |         | the second time, six bamboo strips are    |
|                          | A CAMPA | interspersed respectively, and then       |
|                          |         | gradually increase in sequence.           |
| Square hole weave        |         | The warp and weft strips are picked,      |
|                          |         | pressed, and up and down, and             |
|                          |         | arranged in parallel at equal distances,  |
|                          |         | leaving square holes.                     |
| Hex Hole weave           |         | Start with three bamboo strips, then      |
|                          |         | weave hexagonal holes with three          |
|                          |         | bamboo strips, and then gradually         |
|                          |         | increase with six strips.                 |
| 214                      | 9/      | The four bamboos form a unit, which       |
|                          |         | are overlapped and spread out in          |
| Round mouth              |         | sequence as shown in the figure, and      |
| bamboo weave             |         | then add four more, and pay attention     |
|                          |         | to how they are intertwined, and          |
|                          |         | gradually increase after sorting out the  |

|                                   |                              | reason. This is a more difficult weave. |
|-----------------------------------|------------------------------|---|
| Back type bamboo<br>weave         |                              | The square bottom weaving method is     |
|                                   |                              | based on the center, and the pattern of |
|                                   |                              | pressing three picks and three methods  |
|                                   |                              | is used to make up, down, left, and     |
|                                   |                              | right symmetry.                         |
| Twill bamboo weave                |                              | This weaving method is that when        |
|                                   |                              | weaving the second horizontal weft      |
|                                   |                              | material, we must space a straight one, |
|                                   |                              | weave two up and two down, and          |
|                                   |                              | weave the third one at intervals, in a  |
|                                   |                              | step-by-step arrangement on the weft    |
|                                   |                              | material. In addition to picking two    |
|                                   |                              | and pressing two, 3/3 and 4/4 weaving   |
|                                   |                              | methods can also be adopted.            |
|                                   |                              | The strips are cross-shaped and         |
| Rice-shaped bamboo weaving method |                              | overlapping or gradually unfolded       |
|                                   |                              | (such as fan-shaped), and two weft      |
|                                   |                              | strips are used to pick, press, and     |
|                                   |                              | gradually weave from the center to the  |
|                                   |                              | outer circle.                           |
|                                   | <b>海</b>                     | Creative weaving of different crafts    |
| Creative Bamboo                   | K & XX & X                   | and materials                           |
| Weave                             | <b>被被被</b>                   |   |
| 94                                | THE PERSON NAMED IN COLUMN 1 |   |

Figure 16 The Figures were taken in Yibin City, and the Figures of the creative bamboo weaving method, the back-shaped bamboo weaving method and the triangular hole bamboo weaving method ,online

Source: Luo Yunyue, 2022

Combining wood and bamboo: Combine wood and bamboo to manufacture a variety of domestic objects and cultural artworks, such as ornaments made of bamboo and wood, bookshelves, chairs, and so on.

Cosmetics: Use the components of bamboo to create cosmetics that have moisturizing, anti-oxidizing, and antibacterial properties. Some examples of these types of cosmetics include bamboo facial masks and facial cleansers.

Everyday necessities: Taking advantage of the qualities of bamboo, such as its ability to protect the environment, its durability, and its ease of cleaning, various manufacturers have created bamboo versions of everyday necessities such as toothbrushes, tableware, charcoal, and other products made from bamboo.

In the fifth category, "Cultural Creativity," participants are challenged to create a variety of cultural and creative items using bamboo as their inspiration. Some examples of these items are bamboo bookmarks and pen holders, as well as "four jewels of the study."

From the perspective of cultural and creative products, the researchers compared bamboo weaving technology with bamboo carving technology in terms of technical selection. The production process of bamboo weaving technology is simple, and bamboo weaving cultural and creative products are made by weaving bamboo pieces. Short, suitable for mass production. Bamboo carving requires the master carver to use knives for fine carving processing, and the production cycle is longer.

There are various patterns of bamboo weaving, and the patterns of bamboo weaving cultural and creative products can be expressed in various forms, and can be woven into various shapes and patterns according to needs. The pattern of bamboo carving mainly depends on the skill level of the carving master, which has certain limitations. Bamboo weaving products are light and easy to carry. Because bamboo weaving cultural and creative products are light and portable, and have various shapes, they are suitable for various purposes such as life and decoration. Bamboo carvings are usually bulky and inconvenient to carry and move. The cost of bamboo weaving products is relatively low, and the materials and production tools of bamboo weaving cultural and creative products are relatively simple, so the cost is relatively low, while bamboo carving requires superb skills and complex tools, and the production cost is relatively high. Therefore, compared with bamboo carving, the weaving pattern of bamboo weaving cultural and creative products has the advantages of simple

production process, various patterns, lightness and portability, and relatively low cost. The researchers will use the bamboo weaving technology of Yibin bamboo crafts in the next design, it can be seen from Table 3.1 that the first flat-edge weaving method has a lower density and is more beautiful, and the technology is simple. Researchers will use it for my products, followed by twill weaving, which is beautiful and has a thicker pattern density.

- (2) Analyze the characteristics of cultural and creative products of bamboo crafts
- 1) Ecological and environmental protection: Bamboo is a fast-growing, regenerable plant with high ecological value and environmental protection significance. The bamboo materials used in bamboo handicrafts are all natural and environmentally friendly materials, which meet the needs of modern people in pursuit of environmental protection and sustainable development.
- 2) An Abundance of Raw Materials: Raw materials are abundant in bamboo, particularly in the southern region of mainland China. This is where numerous types of bamboo can be acquired, and bamboo may also be utilized in conjunction with other types of materials.
- 3) Lightweight and strong: Bamboo is characterized by its light weight, firmness, and good elasticity. These features make it an excellent building material. It also has a long life in service and may be formed into products of a wide variety of shapes.
- 4) A wealth of cultural implications Given that bamboo plays a significant part in the tradition of Chinese culture, the design of bamboo-based cultural and creative products places a strong emphasis on the transmission and dissemination of Chinese heritage.
- 5) Bamboo products have a strong emphasis on beauty and artistry in their design. Bamboo has good visual impacts and texture, and this is reflected in the design of bamboo-based cultural and creative items.
- 6) Uniqueness: As a unique natural material, bamboo has the characteristics of clear texture, toughness and durability, lightness and beauty, so the cultural and creative products made of bamboo crafts are unique, artistic and ornamental.

- 7) Inheritance of traditional culture: Bamboo handicrafts are an important part of Chinese traditional culture, with a long history and cultural connotation. The production process of bamboo craft cultural and creative products combines traditional handicrafts and modern design concepts, which not only inherits traditional culture, but also demonstrates the innovative ideas of modern art.
- 8) Practicality: Bamboo cultural and creative products are not only artistic and ornamental, but also have certain practicality, which can be used for decoration, storage, tableware and other purposes in daily life. This way of combining traditional craftsmanship with modern lifestyle not only promotes traditional culture, but also meets the actual needs of modern people.

To sum up, compared with ordinary cultural and creative products, bamboo craft cultural and creative products have the characteristics and significance of uniqueness, ecological environmental protection, rich cultural connotation, strong aesthetics, traditional cultural inheritance and practicality. It can not only meet people's aesthetic needs, but also help to inherit and promote traditional culture, and promote the innovation and development of traditional crafts. As a result, the researchers became more determined in the design of bamboo craft cultural and creative products.

(3)Anti-corrosion technology, dyeing technology and glazing and polishing technology of bamboo products

#### a. Anti-corrosion technology

Natural drying: Place the bamboo in a sunny location for one to two weeks so that it can dry out.

Soaking the bamboo in lime water Lime water contains a large number of microorganisms, many of which have the ability to successfully prevent bamboo from decaying.

Soaking in a chemical concoction: Soak for one full day in a solution of carbendazim.

Smoke: After hanging the bamboo for the smoke, put a layer of wax to the surface.

The exterior of the product has a varnish coating, either an insulating varnish or a wood varnish, both of which have a waterproofing effect.

Bamboo has certain water absorption and air permeability. If it is not treated with anti-corrosion, it will be easily corroded by bacteria and mold in a humid environment, resulting in decay, deformation and damage of bamboo products. Therefore, the use of anti-corrosion technology in the production of bamboo handicrafts can effectively prolong the service life of bamboo products and improve the quality and value of products.

#### b. Dyeing technology

Drug coloring technique. Put the bamboo into a solution containing caustic soda or sodium sulfate and bring it to a boil for three to five minutes. After removing the bamboo from the solution, add basic dyes, also known as salt-based dyes, such as "block golden," "Malan red," "malachite green," etc. Boil for half an hour, and then it can be colored any you like after that.

The procedure of brushing with an acid solution After wiping the surface of the bamboo, add sulfuric acid that has been diluted in order to create a black finish. To achieve a reddish brown color, apply diluted nitric acid. If you immediately fire the item after coloring it, the color will remain unchanged forever.

A technique for spreading mud. Initially, the bamboo should be cleaned, and then it should be treated with diluted sulfuric acid or diluted nitric acid, after which it should be covered in mud and baked in a fire. When the mud has turned a yellow or reddish brown color, wash the dirt off of the bamboo with water. This will cause the bamboo to develop irregular "variegated patches." (Guo Jinwu, 1994: 13)

The coloring procedure using hot oil. If you put the dried bamboo into hot oil at a temperature of 200 degrees Celsius, the wood, when it is removed, will have a beautiful purple-red hue and perform well when processed.

A way of coloring with natural plant pigments For instance, turmeric and gardenia can be used to turn bamboo into a dark yellow color by soaking the strips of bamboo that have been separated from the skin of the bamboo in water containing turmeric and gardenia for approximately an hour. The color of the bamboo will then change. Flowers of the shiso plant, which is colored purple (tulips)

Animal fuel. You can get red bamboo strips by removing the bamboo skin from the strips of bamboo and soaking them for about half an hour in the juice of smashed cochineal insects.

c. polishing technology of bamboo products

Clean the surface: Before polishing, the surface of the bamboo handicraft needs to be cleaned to remove dust and stains, which can be wiped with a soft cloth or cleaned with a detergent.

Polished surface: Use sandpaper to polish the surface of bamboo handicrafts to make the surface smooth and delicate. The number of sandpaper can be selected according to the needs, usually ranging from No. 180 to No. 1200. The larger the number, the more delicate it is.

Primer: Use a primer to paint the surface of the bamboo handicraft once. The primer can improve the gloss of the surface of the bamboo handicraft, and at the same time protect the surface from moisture and pollution.

Polishing agent: Use glossing agent to brush on the surface of bamboo handicrafts. The glossing agent can increase the gloss and brightness of the surface of bamboo handicrafts. It can be painted by hand or by spraying.

Polishing: Polishing on the surface of bamboo crafts can be done manually or mechanically. Manual polishing needs to use soft cloth and waxing polish, while mechanical polishing can be polished with an electric polishing machine.

Wait for drying: After the surface of the bamboo handicraft is dry, check and polish it again to ensure that the surface is smooth and delicate.

The natural color of bamboo is fairly boring, but the products made from bamboo can be dyed to have a wide range of colors and patterns thanks to advancements in dyeing technology. This enhances the aesthetic value and artistic potential of the products. At the same time, the technology of dyeing can also improve the

performance characteristics of bamboo. For example, it can increase the hardness of bamboo, make it more resistant to wear, and lengthen the amount of time bamboo products can be used. Because bamboo contains a lot of water, the anti-corrosion technology used in bamboo products can prevent bamboo products from rotting and from being attacked by insects and ants. Additionally, this technology can protect the aesthetics and the life of paper products. The technology of glazing and polishing bamboo handicrafts requires craftsmen to have a certain amount of experience and skills. Additionally, it needs to be treated and painted differently according to the different types of bamboo handicrafts in order to ensure that the surface is glossy and beautiful. In the production and use of bamboo handicrafts, technologies such as anticorrosion technology, dyeing technology, and polishing technology of bamboo products are of utmost importance. These technologies can effectively improve the quality and value of bamboo products, enhance the aesthetics, artistry, and durability of products, and also help to improve the quality of bamboo products. The performance characteristics of bamboo can help increase the amount of time bamboo products can be used for their intended purpose. As a result of this, it is possible to draw the conclusion that the qualities of bamboo cultural and creative products include being environmentally friendly, in addition to being sturdy, abundant in cultural value, powerful in aesthetics and practicality, and possessing improved anti-corrosion and dyeing techniques. As a result, the craftsmanship of bamboo products that are used in cultural and creative endeavors is of a very high quality. In any case, there is the possibility of advertising it in the marketplace.



#### W O S Opportunities Strengths Weaknesses Threats The advantages is raw Development opportunities The disadvantage is The threat comes from materials cheap, light and lie in the tourist center, that the bamboo other advantages, Bamboo alternatives to wood tourist town can be sold, can craft products braiding products have the products and rattan be used in urban landscape themselves need to advantages of waterproof products, which may construction, park greening increase more be cheaper in cost or anticorrosion, bamboo and other aspects, the manual work and price. The quality and braiding process can be market is large, people's labor costs.Bamboo safety problems in the prepared in any shape, concept of environmental has a complicated beautiful and lightweight, production process protection and health preservative and the ecological bamboo inner spirit noble. pursuit, strong plasticity of treatment. cheap raw materials long damage of bamboo bamboo increase easy to growth cycle, conductive harvesting. innovate design, promote insulation, durable and not rural economic development. easy to damage, etc.

### 3.1.3 SWOT Analysis of Bamboo Craft Cultural and Creative Products

Figure 17 SWOT Analysis of Bamboo Craft Cultural and Creative Products Source: Luo Yunyue, 2022

The following are some of the benefits that come with purchasing bamboo crafts manufactured from bamboo: To begin, the surface of bamboo items is coated in a unique bamboo lacquer compound, which not only protects against corrosion but also keeps water out. Second, it has a high level of durability. The method used for weaving bamboo can create any shape. Finally, the majority of things made from bamboo weaving are very breathable and have a light weight to them overall. Fourth, goods made from bamboo are excellent at insulating against heat and also act as conductive insulators. Finally, the term "bamboo" has a significant cultural connotation that dates back to ancient times, and the phrase "no bamboo makes people vulgar" is associated with this term. The eloquent honesty and sentiment held by eminent intellectuals demonstrate the immense aspiration of the Chinese nation as well as its interest in apathy and nature. In terms of its outward appearance, bamboo is distinguished by its origin in nature and its comparatively rapid rate of growth. It can be fully developed in three to five years. It has excellent mechanical qualities and is a renewable source of green raw material. Weaving is one of the most significant use of bamboo. (Li Penghui, Li Lingling, 2022: 154) Bamboo is a resource that can be replenished, which is beneficial to the environment. Bamboo is a more environmentally friendly material

and has a smaller influence on the surrounding environment when compared to more typical materials such as wood and metal. Bamboo is easy to transport and use due to its small weight, making it ideal for use in the production of handicrafts, home items, and other similar products. High tensile strength: Because bamboo has a comparatively high hardness and strength, it may be utilized to build goods that require high tensile strength, such as bamboo rafts and bamboo ladders. Bamboo also has a relatively high hardness. Beautiful: The texture of bamboo is beautiful, the color is gentle, and the products created from bamboo are natural, simple, and elegant, which is in harmony with modern people's desire of environmental protection and nature as a lifestyle choice. Health: Both the physical and chemical components of bamboo are inert to the human body. As a result, any items created from bamboo are risk-free, do not contain any hazardous substances, and are healthier to use. Longevity: Bamboo has a good durability and long service life, and it may be used for an extended period of time as long as proper maintenance is performed. Bamboo has a high degree of plasticity, which enables it to be formed into products of a wide variety of shapes. These goods are appropriate for developing original designs and can satisfy the aesthetic requirements of a variety of people.

Because the moisture content of bamboo itself is relatively high, and the change of environmental humidity will affect the moisture content of bamboo, bamboo products need to be dried during the production process in order to control the moisture content. If this is not done, the quality and lifespan of the product will be negatively impacted. Strong brittleness: When compared to more conventional materials, such as metals and plastics, bamboo is more brittle and susceptible to damage when subjected to outside forces; as a result, greater caution is required while working with bamboo. The antiseptic treatment is more complicated because of the intricate fiber structure of bamboo, which makes it easy for germs and insects to breed on the material. As a result, the manufacturing process for bamboo items must include an antibacterial treatment. This procedure is more difficult, thus more time and effort will be needed to complete it. Because of the limitations placed on bamboo's growing environment and conditions, there are certain restrictions placed on the size and shape of bamboo. As a result, the number of different types of bamboo goods available and the specifications

for those products is rather limited. A relatively high cost of production can be attributed to the fact that bamboo has a relatively high raw material cost when compared to more conventional materials such as plastic. Additionally, bamboo products require multiple processes and anti-corrosion treatment during the production process, which contributes to the fact that bamboo goods have a relatively high cost of production.

Bamboo products have gradually become a new fashion, lifestyle, and consumption choice, and as a result, they are expected to gain a larger market share as a result of the trend of consumption upgrading. There are these opportunities in the process of bamboo products from production to consumption, and consumption upgrades: with people's pursuit of quality of life and health, the characteristics of bamboo products such as environmental protection and health are gradually valued by people. Inheritance in the form of culture: China is the country that gave birth to bamboo, and in Chinese culture, bamboo holds a significant role. As a result of the traditional cultural associations and historical roots that are associated with bamboo products, one would anticipate that they would receive more attention and favor within the context of cultural inheritance. Bamboo has the potential to be employed in the building of urban landscapes as well as the greening of parks due to its attractive appearance and its low impact on the surrounding environment. It is anticipated that bamboo products will play a more significant role in this sector as the level of urban greening and environmental protection awareness continues to rise. Rural Revitalization: Bamboo is an essential part of the rural economy in China and can be found growing in many of the country's rural areas. The cultivation of bamboo and the marketing of bamboo goods have the potential to propel the growth of the rural economy, and it is anticipated that this sector will acquire further opportunities as a result of the revival of rural areas. Bamboo, because to its high plasticity and strength, is an excellent material for the creation of unique designs. It is possible to make goods in a variety of shapes. It is anticipated that bamboo-based goods would have increased access to new prospects and markets in the design industry as a result of the consistent development and advancement of innovative design.

Bamboo is a natural resource, and as such, there are certain constraints on how it may be harvested and utilized. The unsustainable nature of bamboo resources is the source of the disadvantage associated with bamboo products. It is possible that if it is overused or used without cause, it may lead to a shortage of bamboo resources as well as environmental difficulties, both of which would have an impact on bamboo. Production of the product and availability of it on the market Competition on the market is becoming increasingly fierce as a result of the progressive expansion of the bamboo goods market, which has led to an increase in both the variety and quantity of bamboo products available for purchase, as well as the intensity of market competition. In recent years, the quality of bamboo products as well as their prices have emerged as significant issues in the market competitiveness. There is a low level of awareness and acceptance of bamboo products among consumers. The application range and performance of bamboo goods are still limited when compared to traditional materials like wood and plastic, and consumers' awareness and acceptance of bamboo products have not yet reached their full potential. It's possible that this will have an effect on how bamboo products are marketed and promoted. There is insufficient sophistication in both the technology and the craftsmanship: In order to make items out of bamboo, a certain level of technology and handicraft is required. This includes the selection of bamboo materials, the processing of those materials, and the prevention of corrosion. If the amount of technology and skill that goes into making bamboo items is not sufficiently high, then the products' quality and lifespan may not be adequate. Influence the consumers' trust in bamboo items and their recognition of them. Concerns regarding the safety of bamboo products: Products made from bamboo are susceptible to harm when exposed to outside pressures since bamboo is extremely brittle. If there are safety issues, such as damage to bamboo products while they are being used, it is possible that it could affect the personal safety of consumers, which will in turn affect the safety of bamboo products. Advertising and public relations.

#### 3.1.4 The value and cultural connotation of bamboo crafts

Bamboo crafts are any handicrafts or works of art that are created using bamboo as raw materials and are then processed either manually or mechanically. The following are some of the most important characteristics about the cultural significance and economic importance of bamboo craft:

Having a positive impact on the environment, bamboo is a natural plant that is both renewable and biodegradable. Crafting one's wares out of bamboo rather than other materials can help cut down on pollution and the misuse of resources.

The use of bamboo in Chinese culture is steeped in tradition and carries with it a wealth of cultural meaning. It is considered to be one of the "Four Famous Materials in China" and possesses importance on both the artistic and aesthetic fronts. In conventional Chinese culture, bamboo also has a profound metaphorical value. Some examples of this are the phrases "devotion to adversity, opulent wealth," and similar phrases.

Bamboo handicrafts have a distinct appearance, which draws people's attention, and are expertly crafted, giving them artistic value.

Handicrafts made from bamboo offer a number of useful qualities, including their light weight, durability, ability to retain heat, and insulation against heat. They offer a wide range of application values in household and day-to-day essentials, including things like bamboo tableware, furniture, baskets, pots, and fans, among other things.

Bamboo resources are plentiful, the cost of planting bamboo is inexpensive, and the production method is reasonably straightforward; as a result, bamboo handicrafts have a certain value and development potential in terms of the economics.

Traditional Chinese culture attributes a great deal of importance to bamboo crafts because of the spiritual connotations and values they embody. Bamboo crafts are an essential component of Chinese culture. It is not only an important manifestation of Chinese national culture and aesthetic traditions, but also one of the representatives of traditional Chinese handicrafts, making it one of the most important aspects of Chinese culture. Modeling with bamboo has an aesthetic connotation and artistic value that are unrivaled, and the personality and spirit that it reflects brings a great deal of significance to the learning and creation processes of individuals. At the same time, the bamboo handicrafts that have been carved out of bamboo have also brought a strong

influence to people in terms of their aesthetic preferences. Whether it be in the cultivation of personality and temperament, or in the production and creation of handicrafts, the aesthetic connotation in the form of Chinese traditional bamboo culture has extremely important enlightenment and reference functions, and is a rare wealth in Chinese traditional culture., In the complicated and difficult carving process of bamboo carving, the persistent spiritual quality of bamboo craftsmen is also realized, which has a pivotal artist role. In this modern era, which places a great deal of importance on the sublimation of culture and the enhancement of aesthetics, the bamboo cultural tradition of bamboo weaving is becoming increasingly popular among people and is gradually being applied to personal inner aesthetic practice. The spiritual and cultural connotations of bamboo weaving have had a profound impact on people's lives and the development of society. This is true in terms of the aesthetic connotations as well as the practical value of bamboo weaving. In a nutshell, bamboo handicrafts not only have economic and practical worth, but also have a rich cultural connotation and historical accumulation. This means that they can assist inherit and carry forth the traditional culture of China. In the same vein, as the focus of society shifts more toward sustainable development and environmental protection, bamboo handicrafts will also have a greater range of applications and market possibilities in the environmental protection sector.

#### 3.1.5 Existing problems

The use of bamboo craft cultural and creative products is relatively simple, and simple decoration or storage cannot meet people's requirements. According to incomplete statistics, the current crop of bamboo craft cultural and creative products on the market have the following problems: the use of bamboo craft cultural and creative products is problematic. The patterns that are used in traditional bamboo craft products that are currently available on the market are traditional, and they do not combine well with the rapidly developing modern aesthetics. There is a lack of originality and creativity in many of the product patterns. a failure to compete effectively in the market and to attract customers. At the same time, the functional design and usage scenarios of some products are not sufficiently diversified, which additionally restricts the application scope and size of the market for the products. The

technology of bamboo craft has been replaced by mechanical technology, which ignores the interaction between people and the products they use. Some of the handicrafts made from bamboo are difficult to transport and do not come in attractive packaging. Crafts traditionally made from bamboo that incorporate cultural and artistic elements. In point of fact, from the point of view of the function and purpose of cultural and creative products, it ought to play a more significant role in the inheritance of craftsmanship, with the intention of cultural communication, the guidance of people's needs, and the market as an export to bring vitality to the local tourism industry. Although there is a group of people in Yibin City, Sichuan Province who have mastered intermediate editorial skills, and although bamboo weaving products occupy a certain position in the local market, the technical strength and production capacity of bamboo weaving in Yibin City are far from meeting the market demand for bamboo weaving craft products in the society. There is no design innovation of bamboo weaving products that are suitable for the needs of the local market, and there is a lack of special funds for research and development of new bamboo weaving products with independent intellectual property rights. In addition, there is a lack of design innovation of bamboo weaving products that are suitable for the needs of the local market. The intermediate technology for weaving with bamboo has not yet achieved widespread adoption, and the sole remaining technical force is dispersed and unable to coalesce into a production scale. (Wang Licheng, Lian Dongming and Luo Xianyong ,2010: 38) The products have varying degrees of quality throughout. The uneven quality of bamboo craft cultural and creative products on the market is the result of the production of bamboo handicrafts requiring complex processing techniques and manual production. Because of this, the level of production process and the technical level of the production staff are very different, which results in the uneven quality of bamboo craft cultural and creative products. The problem of quality that is inconsistent. The price is not transparent. There is a lack of clarity regarding the prices of cultural and creative products made from bamboo craft on the market. There are situations where the price is inflated or the price is low and the quality is poor, resulting in the lack of clear reference standards for consumers when choosing products. a lack of influence as a brand. The bamboo handicraft industry as a whole lacks brand influence, is not well-known, and lacks a unified standard and

certification system, resulting in consumers' low trust in products and low willingness to buy.

As a solution to the issues described above, the research institute needs to take into account the fact that the cultural and creative products it designs need to be functional as well as aesthetically pleasing; it also needs to increase the amount of innovation in the ideas and concepts behind product design; and finally, it needs to improve the market competitiveness of products and other ordinary cultural and creative products. The bamboo craft technique that is utilized should not be overly complicated, and the finished products should be simple enough for vacationers to transport without difficulty. The prices of the products that are designed should not go up because of the high cost of labor, and both price and cost should be taken into consideration during the design process. When designing products, elements of bamboo weaving can be integrated with other materials such as glass, and a small amount of bamboo weaving elements can be added for fusion to achieve the desired effect. Enhance the appeal of the bamboo weaving trademark product design by making it more eye-catching and direct, thereby attracting the focus of customers.



## 3.2 Bamboo craft cultural and creative products market popular in today's society

3.2.1 Bamboo craft cultural and creative products market popular in today's society



Figure 18 Bamboo handicrafts for sale at the Visitor Center of Gaoqiao Village, Lizhuang Town, Yibin City

#### Source: Luo Yunyue, 2022

The term "bamboo cultural and creative products" refers to handicrafts and creative products with aesthetic value and practical uses that are manufactured with bamboo as the principal raw material after design, processing, and creative value-adding have been completed. The market for bamboo crafts, cultural goods, and creative products is growing in popularity in modern culture, mostly due to the following aspects:

Bamboo has been widely used in the production of cultural and creative goods, which have found widespread use in the field of home design. Products made of bamboo, such as ornaments, vases, candle holders, tableware, and other items, are not only functional but also serve a decorative and embellishment purpose, bringing a more natural beauty into the home. Bamboo is a renewable resource.

Products that are kind to the environment Bamboo is a natural resource that can be replenished. In this day and age, when people's awareness of the need to conserve the environment is progressively growing, cultural and creative items made from bamboo are garnering an increasing amount of attention and favor from consumers. For instance, bamboo water cups, dinnerware, chopsticks, and other products are not only kind to the environment but also healthful and beautiful. This is the kind of lifestyle that contemporary customers want to adopt.

Souvenirs for tourists Bamboo is utilized extensively in the production of a variety of cultural and creative goods, including those employed in the souvenir industry. Not only do items like pen holders, bookmarks, and small ornaments carved from bamboo have commemorative importance, but they also add to the value of tourist gifts and have the qualities of such items.

Accessories for the fashion industry Bamboo has also been used in the fashion industry to create things that are culturally significant and unique. Items made from bamboo, such as glasses, watches, and cases for mobile phones, are not only fashionable but also healthful and environmentally sustainable. These products are in line with the aesthetic preferences and values of modern consumers.

To summarize, the market possibility for bamboo handmade cultural and creative items is quite broad since people's demand for natural beauty, health, and protection of the environment is growing at a faster rate than it has in the past. The market for bamboo craft cultural and creative products is expected to continue growing and will eventually become an important part of the market for handicrafts and creative products.

Researcher will contrast the market for bamboo crafts and cultural and creative products made from bamboo with the market for souvenirs. The following is a breakdown of the souvenir market:

Souvenirs purchased by tourists are among the most popular types of mementos bought by individuals. These can take the form of postcards, refrigerator magnets, keychains, wine glasses, or any other object that is emblematic of the area's cultural landmarks or points of interest.







Figure 19 Bamboo handicrafts in Mr. Yang Jiantao's bamboo creative skills master studio in Gaoqiao Village, Lizhuang Town, Yibin City Source: Luo Yunyue, 2022

Memorabilia from the world of sport The market for memorabilia from the world of sport is likewise highly profitable. Visitors are able to purchase a variety of items, including jerseys signed by athletes, fan gear, team flags, and player memorabilia.

Souvenirs of Culture: There is also a very busy market for various types of cultural mementos. Visitors can shop for a variety of items, including works of art, handicrafts, publications on cultural topics, souvenir stamps, and more.

Tech memorabilia: Tech memorabilia is also a rising market. Consumers are able to purchase brand new devices such as smartphones, tablets, digital watches, and more.

In general, the market for mementos is quite diverse, and individual souvenir marketplaces cater to a wide variety of customer demographics as well as specific requirements.

The terms "cultural" and "creative" products refer to goods and services that make use of cultural components such as themes, content, forms, and other factors in their conception, design, production, operation, and promotion through the application of creative and inventive thinking. The following is a list of some of the more prevalent types of items that are the result of cultural and artistic expression:

Categories of design include things like apparel, accessories, home goods, toys, and packaging design, among other things.

The term "art" refers to a wide variety of creative endeavors, such as music, dance, theater, sculpting, and photography.

Literature includes works such as novels, essays, poems, periodicals, comics, and journals, among other forms of written expression.

Film and television category: includes films, television shows, documentaries, cartoons, and other forms of screen entertainment.

Original intellectual property includes things like video games, animated films, books, television shows, and movies.

Embroidery, wood carving, porcelain, copperware, and other handicrafts are examples of traditional crafts.

Souvenirs for tourists include things like postcards, key chains, snowballs, and refrigerator magnets, among other things.

The food category includes a wide variety of products, such as traditional delicacies, snack foods, and health products.

A variety of sporting items, concert tickets, e-sports tickets, and other types of tickets are included in the sports and entertainment category. Digital libraries, e-books, websites, mobile applications, and the like are all examples of cultural and creative items that fall under the category of "digital cultural and creative categories." Products of cultural and creative production will continue to give rise to new categories as a result of the progression of technology and the demands of the market.

Following an examination of the three in relation to one another, the following conclusions can be reached:

Weaving with bamboo is a time-honored craft that may be utilized to generate a wide range of culturally significant and artistically original products as well as mementos. It is capable of producing a wide range of cultural and creative goods thanks to the integration of contemporary design ideas and technologies. From the two points of view of souvenirs and cultural and creative products, in accordance with the various qualities of bamboo weaving cultural and creative products, it is possible to

derive the following from the two categories of souvenirs and cultural and creative products:

Items Made from Bamboo Weaving That Are Sold as Souvenirs Typically, these products Have a Theme That Is Meant to Honor a Certain Occasion, Event, or Location. For Example, a Map of Scenic Spots that Is Shown in Bamboo Weaving Art, Symbolic Buildings of a Particular City, etc. It is possible for the material and shape of such bamboo products to represent the cultural qualities and historical context of a particular event or location.

Products made of bamboo weaving that stress practicality and functionality, such as stationery, home items, dinnerware, accessories, and so on, are examples of the types of products that fall under this category. These items not only have a beautiful visual design, but they also have the distinctive texture and usage characteristics of bamboo weaving. As a result, customers will have an experience that is entirely their own when they purchase one of these goods.

Products derived from bamboo weaving that are artistic, cultural, and creative include things like artworks, sculptures, installations, and the like. More emphasis is placed on creativity and aesthetics with these kinds of products. The aesthetic expression is emphasized both in the design and production of these items, which can help to convey the special allure and importance of the art of bamboo weaving.

In conclusion, bamboo weaving cultural and creative products can be created and manufactured from two different points of view, namely those of souvenirs and cultural and creative products, in order to cater to the requirements of a variety of customers and the requirements of the market. Bamboo weaving cultural and creative products contain the features of traditional culture and handicrafts, blended with modern design and technological aspects. These items have broad market prospects and development potential, and they are woven from bamboo.

#### 3.2.2 Sales Model

1) Offline sales: Offline sales are traditional sales methods, mainly including retail store sales, exhibition sales, market sales, etc. This method of sales enables both the buyer and the seller to have direct face-to-face communication, to have a more

intuitive understanding and feeling of the product's quality and craftsmanship, and to have a real experience of seeing and touching the item being sold. Despite the limited scope of sales, there are still customers. Even if the product is not a must-buy item or is not included in the purchase plan, customers who have a strong sense of trust will still be attracted to the cultural concept, the practicality, or the aesthetics of the item, and they will buy it. Additionally, some customers will enjoy the fun of "bargaining" for the product.

- 2) Online sales: In this day and age of lightning-fast Internet development, the pace of people's purchases of goods needs to match the cadence of the Internet age. Online sales are a perfect example of this. Since the advent of e-commerce and the Internet, bamboo handicrafts are increasingly being sold through online channels, which has given rise to a new sales model. It is possible to achieve nationwide sales and publicity at a low cost through the use of self-operated online stores or third-party e-commerce platforms. Additionally, personalized customization and precise sales can be accomplished through these channels. It is possible for sales merchants to reduce their overall cost of sales. When people shop online, they often make more targeted purchases, which helps them save money on travel costs and increases the cost-effectiveness of the items they buy. They also have the opportunity to learn about products by going to buyers' shows.
- 3) Wholesale sales: Wholesale sales are a model of sales that are used by large retailers or wholesalers. Costs can be cut and efficiency can be increased by making bulk purchases and batch sales; however, supply chain management and risk control are both important considerations that must be taken into account.
- 4) Tailored sales: Tailored sales are a model of sales that are tailored to the requirements of a specific individual or group. To achieve differentiated and personalized sales, personalized design and production services are provided to customers after engaging in communication and gaining an understanding of their needs. This model of sales calls for a certain level of customization capabilities as well as an awareness of service.

To summarize, there is a relatively wide variety of market sales models for bamboo handicraft products, and one can choose the most appropriate sales model to use based on the various characteristics of the product and the demands of the market. At the same time, it is necessary to take into consideration issues like the cost, the risk, and the quality of the service.

#### 3.2.3 Market positioning

Market Segmentation: Bamboo crafts have a wide range of potential applications, including home furnishings, everyday necessities, decorations, and presents, to name a few. One method for segmenting the market is to divide it up into submarkets based on the characteristics of individual items.

Image of the brand: Bamboo crafts can highlight environmentally friendly practices, sustainable practices, traditional cultures, and other related topics. These qualities have the potential to become the fundamental principles that underpin the brand, thereby drawing in customers who share these principles.

The production method for bamboo crafts is often more involved, and the cost of raw material acquisition and processing can also be relatively high. As a result, these costs need to be taken into consideration when pricing, in addition to market acceptance and competitors' prices.

The selection of a channel: Bamboo crafts are able to be sold through a variety of online and offline channels, including e-commerce platforms, cultural and creative marketplaces, physical stores, and other similar venues. It is vital to select the proper channel in accordance with the particular products in question and the consumer demographics that will be served.

Market research: Finally, it is vital to do market research in order to understand the demands and preferences of consumers for bamboo craft products, as well as the market performance of competitors, in order to design market strategies that are more narrowly focused.

When all of these aspects are combined, a market positioning strategy that is appropriate for bamboo craft cultural and creative items can be developed. This

strategy can assist the products in better meeting the needs of consumers and improving their overall sales performance.

#### 3.2.4 Policy support for the development of bamboo crafts in Yibin

A long-term effective document titled "Opinions of the Yibin Municipal People's Government Office on Accelerating the Development of the Arts and Crafts Industry in our City" was published on the website of the Yibin Municipal People's Government in 2013. This document was released in 2013. Within this document, the development goal that was mentioned was to speed up the construction of the arts and crafts trading market. We plan to build a batch of moderately scaled and fully functional standardized arts and crafts exhibitions and sales markets in Shunan Zhuhai, Xingwen Shihai, Lizhuang Ancient Town, and other tourist concentration areas in order to capitalize on the city's abundant tourism and cultural resources. These exhibitions and markets will adhere to industry standards. In order to provide a platform for Yibin arts and crafts products to enter the market and expand sales channels, special counters or special sales areas for arts and crafts are set up in airport waiting halls and other places where people gather and distribute. These areas can be located anywhere that people congregate. Increase the level of publicity given to the arts and crafts business, and work to establish recognizable brands. Raise the bar for the quality of work produced by local artisans in the arts and crafts sector. Continue to strengthen the overall image of Yibin arts and crafts, continuously improve the image of the arts and crafts industry, and expand the arts and crafts industry in our city by making full use of the opportunity to participate in the National and Sichuan Arts and Crafts Exhibitions. Also, vigorously promote the arts and crafts works and masters of arts and crafts in our city. Influence. The following six points are discussed in the text that provides policy support: (1) The policy for input support. Help districts, counties, and businesses aggressively seek out arts and crafts sector development grants at the national and provincial levels, and guide and support them in their efforts. 2) Financial support policies. Encourage the city's financial institutions to give financial assistance for the city's premier arts and crafts firms in the form of syndicated loans. This type of support would be beneficial. The financial institutions in the city are strongly encouraged to investigate the possibility of providing joint loans and joint guarantees

as a means of providing monetary assistance to small and medium-sized arts and crafts businesses and studios that have a solid reputation and promising growth prospects. Actively promote new credit products that are suitable for the characteristics of the arts and crafts industry, such as microfinance, chattel mortgage, equity mortgage, trademark right pledge, and accounts receivable pledge, for small-scale arts and crafts enterprises and studios that do not have sufficient collateral. These products include microfinance, chattel mortgage, equity mortgage, and trademark right pledge. (3) Land support policies. The land that will be used for the growth of the arts and crafts business can be transferred through the processes of listing, bidding, or auction, and the land that will be used for public arts and crafts facilities that are not for profit can be allocated through the process of land allocation. (4) Talent support policies. Develop your most valuable skills in the city's thriving arts and crafts sector. (5) Incentive support policies. Cultural businesses who have successfully earned well-known trademarks, China famous brand products, Sichuan famous trademarks, and Sichuan famous brand items for the first time will be eligible for one-time prizes. Complete support policies. The municipal budget management requires that all agencies, public institutions, and social organizations included in the management of the municipal budget give purchasing arts and crafts products of the city's own brands the same level of priority as the government does when it makes arts and crafts product purchases. Encourage the city's most important arts and crafts businesses as well as its most renowned arts and crafts master studios to take part in renowned arts and crafts exhibitions both inside the country and overseas, and offer financial assistance to defray the costs associated with doing so.

In Liu Jiahong's Yibin Changning Bamboo Cultural Tourism Development Countermeasures, The researcher learned that due to the impact of the epidemic, tourist attractions rely on online and offline methods to enhance their popularity and influence. Loans are provided with financial discounts, lower loan interest rates, increased medium and long-term loans, and deferred loan repayment and other supporting policies; tax policies are adjusted to reduce and exempt statutory taxes and service fees related to small and medium-sized enterprises, such as value-added tax, corporate income tax, land use tax, vehicle and ship Use tax, resource tax and various

surcharges, etc.; the second is to introduce special government funds and special relief funds for the cultural tourism industry and small and medium-sized enterprises, including employment stabilization funds, epidemic prevention subsidies and other special subsidy funds, to increase capital income channels; establish a modern tourism management system to deal with public emergencies; the third is to use and improve big data, formulate more reasonable and legal network supervision and consumer behavior and supervision agencies, and at the same time, the network platform self-inspection, improve the quality of after-sales service, the principle of customer first, launched personalized services, and enhanced brand credibility. (Liu Jiahong (2020: 36) Countermeasures for the Development of Bamboo Culture Tourism in Changning, Yibin)

#### 3.3 Consumer Behavior

The following are some behavioral traits of people who purchase cultural and artistic things made from bamboo:

A heightened awareness of the need to safeguard the environment is one of the qualities that distinguish bamboo craft cultural and creative items. As a result, customers have a strong knowledge of the importance of protecting the environment. They have a propensity to purchase things that are better for the environment and are eager to participate in activities designed to safeguard the environment.

Consumers have a tendency to pay attention to product design, which may include look, material, craftsmanship, and other features of the product. Products made from bamboo that are culturally significant and creative typically have a design that is one of a kind.

Customers are increasingly interested in customizing their lives, and as a result, they are more likely to purchase one-of-a-kind cultural goods and imaginative bamboo craft items. This is done in order to express their individual style and character.

Customers place a large amount of significance on the quality and value of the bamboo craft cultural and creative products they purchase. This is because consumers view bamboo as a renewable resource. People desire to purchase items that are of great quality, can be purchased at a reasonable price, and have some sort of significance, either practical or nostalgic.

Originality is becoming more and more important to consumers, who would rather buy authentic goods than mere reproductions. Because of this, designers of bamboo craft culture and creative items need to place a strong emphasis on creativity and originality in order to grab the attention of a greater number of customers.

Purchase Options Consumers of bamboo craft, cultural, and creative products have a wide variety of options available to them when it comes to where and how they make their purchases. Consumers can purchase bamboo craft culture and creative products through a variety of outlets including traditional brick-and-mortar stores, as well as e-commerce platforms, social media, and art exhibitions in addition to the more commonplace option of online shopping.

#### 3.3.1 Target group: TG

The target groups for craft cultural and creative products are relatively broad. These target groups primarily include consumers who have a strong awareness of the environment, who place an emphasis on product design, who pursue individuality, who advocate for natural beauty, quality of life, and who love handicrafts:

Customers who have a heightened awareness of the environment: Consumers that have a strong environmental awareness are one of the primary target groups for bamboo craft cultural and creative products. This is due to the fact that one of the qualities of bamboo craft cultural and creative products is that they are environmentally friendly.

Customers who are aware of the importance of product design: Products made from bamboo that are intended for cultural or creative use typically include original designs. Thus, customers who pay attention to product design are one of the target groups for cultural and creative products made from bamboo craft.

Customers who are interested in individuality The rise in individual demand has led to an increase in the number of consumers who are interested in leading individualized lifestyles. As a result, products made from bamboo craft that emphasize culture and creativity are ideal for customers in this category.

Bamboo craft culture and creative products have a natural beauty and can let people experience the charm of nature. Customers who advocate for natural beauty should consider purchasing these products. Thus, customers who value natural beauty are also one of the target groups for cultural and creative products made from bamboo craft.

Customers who place a high priority on the quality of their lives: Bamboo craft cultural and creative items typically have a high quality and value, both of which can contribute to an improvement in consumers' quality of life. As a result, customers who are concerned about the quality of their lives are also one of the target groups for the cultural and creative products made from bamboo craft.

Bamboo cultural and creative products are typically handmade, which can exhibit the one-of-a-kind charm of handicrafts and appeal to customers who are fans of this type of product. As a result, customers who are interested in handicrafts make up another one of the target groups for cultural and creative products made from bamboo.

#### 3.3.2 Emotion

Emotions are short-lived, subjective experiences like happiness, anger, sadness, and other feelings; therefore, the aesthetic sense needs to be considered when designing products, and there needs to be a strong visual impact that makes people like it more when they see it, and generates the desire to buy; Emotion refers to the stable experience that has been related with societal demands for a significant amount of time. Examples of emotions include a feeling of reason, morality, beauty, and so on. Because of this, when developing products, it is necessary to take into consideration the cultural connotation that the product represents. Moreover, the product must be provided with significant value and commemorative significance. The consumer sentiment of bamboo weaving cultural and creative products is as follows:

1) Concern for the natural world and the environment: Bamboo, being a naturally occurring material that is both renewable and sustainable, can satisfy customers' desires to reduce their impact on the natural world and the environment. When consumers

purchase bamboo craft cultural and creative products, they frequently pay attention to the source of the raw materials and the production process of the products, and they have a tendency to choose products that are pollution-free, pollution-free, low-carbon, and environmentally friendly.

- 2) Sensibility and esthetic emotion: Bamboo craft cultural and creative products have a one-of-a-kind manual artistry and aesthetic characteristics, which can meet the needs of customers who are seeking beauty and who are looking for an emotional experience. When consumers purchase bamboo craft cultural and creative products, they frequently pay attention to the product's appearance design, craft details, and artistic performance. Furthermore, consumers have a tendency to select products that have a beautiful appearance, exquisite craftsmanship, and cultural connotation.
- 3) Emotions for life and practicality: Bamboo craft cultural and creative products are not only artistic and friendly to the environment, but they are also practical and functional, which can meet the needs of consumers for daily life and use. Bamboo craft is a form of creative and cultural expression. When consumers purchase bamboo craft cultural and creative products, they frequently pay attention to the product's use function, applicable scenarios, and practical performance. Furthermore, they have a tendency to select products that are convenient, practical, durable, and multifunctional in nature.
- 4) Cultural and traditional emotions: As a representative of traditional culture, the cultural and creative products of bamboo crafts have strong cultural connotations and historical heritage value, and they have the ability to meet the emotional needs of consumers who are interested in culture and tradition. When consumers purchase bamboo craft cultural and creative products, they frequently pay attention to the cultural background, historical origin, and cultural representative significance of the products. Additionally, consumers have a tendency to select products that have traditional cultural characteristics and historical significance.

To summarize, the consumer emotions elicited by culturally creative and traditionally rooted bamboo products cover topics such as nature and environmental protection, sensibility and aesthetics, life and practicality, culture and tradition, and other related

topics. When making purchases, customers will take into consideration a wide variety of needs in addition to their emotional experiences. The researchers are going to look into the feelings that customers have expressed above, and then they are going to design products that have strong aesthetics and strong practicability in order to attract customers.



# CHAPTER 4 CREATIVE PRODUCT DESIGN

Design and development of this product. The researcher has prepared a working plan

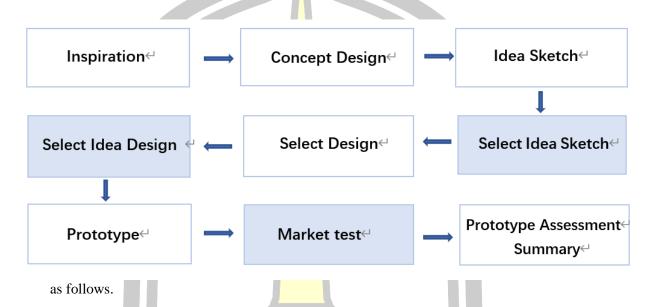


Figure 20 Design flow chart of bamboo craft cultural and creative products
Source: Luo Yunyue, 2022

#### 4.1 Product design and development concepts

One of the more common types of traditional Chinese handicrafts involves working with bamboo. Bamboo is an important component of cultural heritage because of its low weight, resilience, resistance to corrosion, and ease of processing. It can be used to manufacture a variety of utensils and handicrafts, and it is an integral part of this component. The art of crafting with bamboo is a significant part of traditional Chinese culture. The ancient bamboo weaving designs and techniques piqued my interest. Researcher gave some thought to the possibility of incorporating bamboo-based crafts into contemporary living, as well as the possibility of fusing conventional way of life with contemporary electronic goods and basic necessities. The combination results in the creation of unique bamboo artisan products. Bamboo crafts are being combined with modern aesthetics in order to produce cultural and creative goods that are both innovative and stylish. This is a result of the changing times having an effect on people's aesthetic notions, which in turn are changing all the time. In reliance on the

knowledge, abilities, and skills of creative people, and with the assistance of modern scientific and technological means to create and enhance cultural resources and cultural supplies, and through the development and application of intellectual property rights, high value-added products are produced. These products, which include tourist trinkets, office supplies, household daily necessities, technological daily-use modeling design, and handicrafts, among others, all fall under the category of cultural and creative industries. In addition, handcrafted products such as weaving, embroidery, soft pottery, sculpture, clay, cloth, pottery, and creative DIY crafts are considered to be examples of cultural and creative products. In addition to this, these are the primary manifestations of cultural and creative products. It is part of the appeal of cultural and creative items that they are distinct and one-of-a-kind due to the individual ingenuity of the producers.

Give full play to sustainable development, adhere to "people-oriented," study the historical and cultural background of bamboo weaving; bamboo weaving is an ancient handicraft with a rich culture history and background. The leading idea of my design is "protecting ecology, close to life, practical and beautiful." You can discover inspiration through researching the historical and cultural context of bamboo weaving, gaining an understanding of the creation and evolution of bamboo weaving in a variety of historical and cultural contexts, and studying the history of bamboo weaving. As researcher went about my day, Researcher came across a wide variety of bamboo weaving crafts, and this sparked my interest. As a result, researcher began to investigate the form and structure of bamboo weaving. Weaving with bamboo is a craft that can take on a variety of shapes and structures. On the internet, researcher came across a wide variety of objects that are used in daily life, such as baskets, dinnerware, lights, furniture, and so on. They served as a source of creativity for me in terms of design. Researcher included elements of daily life, such as glasses, into my design, which featured bamboo weaving. When it comes to the design of bamboo weaving, having a solid understanding of the materials and techniques involved in bamboo weaving is extremely crucial. In addition to this, gain an understanding of the various varieties of bamboo that are used in bamboo weaving, as well as the various processing processes and various weaving techniques. Furthermore, the smoked bamboo

technique that the instructor uses to dye bamboo can serve as a source of inspiration. Researcher also pay attention to the elements of sustainability and environmental protection that are incorporated into the design of bamboo weaving, and researcher are aware that bamboo weaving, both as a sustainable material and a handcraft, is receiving an increasing amount of attention. As a result, Researcher improved my design of bamboo weaving, and after that, researcher carefully observed the aesthetics and functions of bamboo weaving design. Researcher came to the conclusion that the most essential aspect of bamboo weaving design is that it should not only have aesthetic value, but also have functional value. Researcher learnt more about the history and future of the bamboo weaving culture and industry after reading a number of articles and papers pertaining to bamboo weaving in a variety of publications and papers. Since bamboo weaving both as a craft and an industry has significant potential for growth, Researcher decided to get started on my concept.

#### 4.2 Conceptual Design

Products made from bamboo's cultural and creative potential are used frequently in everyday life. Although they are simple, inexpensive, and lovely, people have not given these things the attention they deserve in their life. At the same time, as a result of their passion for bamboo arts and crafts, they wish to integrate bamboo weaving with a variety of different things, such as household appliances, day-to-day requirements, and so on. Many of these are integrated to design unique cultural and creative objects that are both functional and aesthetically pleasing. The ability of bamboo weaving to insulate heat is put to use in the connection with the kettle, which results in a greater level of safety performance. It is designed together with mugs, wind chimes, and bookmarks, and it is inexpensive and practical, and it is near to real life. The design takes advantage of the aesthetics and heat insulation of the bamboo weaving pattern. The permeability of bamboo weaving allows it to be connected to breathable materials such as mobile phone cases, storage baskets, and door curtains, all of which are light and elegant.

#### 4.3 Idea Sketch

From the researcher's repository in Gaoqiao Village, Lizhuang Town, the researcher interviewed local tourists. A female tourist told me that if she buys

souvenirs, she prefers lighter items such as wind chimes, bookmarks and mobile phone cases, which are easy to carry, so the design There are three products in the sketch. A bamboo weaving craftsman in Gaoqiao Village, Lizhuang Town told me that there will be a small number of tourists in this scenic spot to experience the fun of bamboo weaving. Most of the types of production are fruit plates and small ornaments with relatively simple production techniques. So there is a fruit plate design in the design sketch, researcher interviewed the manager of the tourist center in Gaoqiao Village and told me that the daily passenger flow is not fixed, and there will be a lot of fluctuations according to holidays, there are fewer foreign tourists, and the sales of souvenirs are low, so the logo of Yibin welcomes you is added to the design, Enhance publicity effect and influence. And combined with some questionnaires, the following 12 product sketches were designed.

Researcher came up with a total of twelve different sketches, the first of which is a bamboo kettle coat, the second of which is a tissue box, the third of which is a combination of two glasses and bamboo cups, the fourth of which is a bookmark, and the fifth of which is a combination of two glasses and bamboo cups. The first type is a mobile phone case, the sixth type is a clothes storage basket, the seventh type is a wind chime, the eighth type is a vase combined with bamboo weaving and glass, the ninth type is a fan, and the tenth type is two door curtains made of bamboo weaving, the eleventh type is a fruit plate designed to look like a boat, and the twelfth type is a wine vessel.



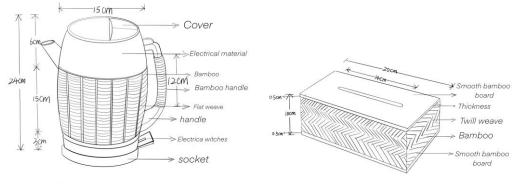
Creation of cultural and creative products:

Figure 21 Creation of cultural and creative products

Creation of cultural and creative products: Based on the existing bamboo culture in Yibin City, adhering to the concept of green and sustainable development, and centering on the dissemination of bamboo craft technology, researcher designed this cultural and creative product trademark with the Chinese word Yibin on it and the English word welcome, with a bamboo pattern next to it. The theme of the trademark is green, which symbolizes environmental protection and at the same time is a direct image of bamboo. The font design is mainly handwritten. The Chinese and English designs express welcome to friends from all over the country. The bamboo pattern represents the original image of bamboo. Bamboo It also has the meaning of rising steadily. Researcher will put this trademark on every product.

#### **Idea Sketch**:

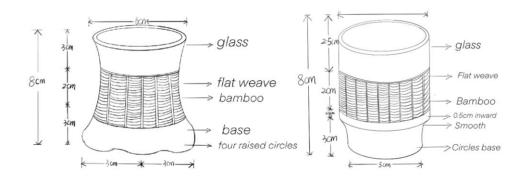




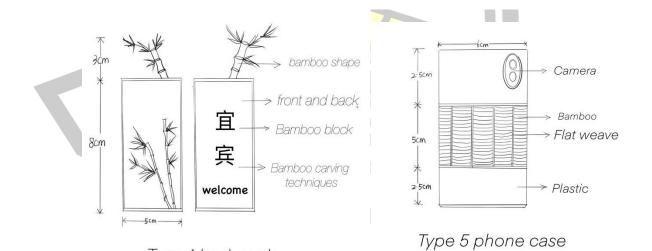
Type1 kettle jacket

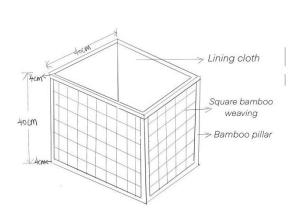
Type 4 book mark

Type 2 Tissue box

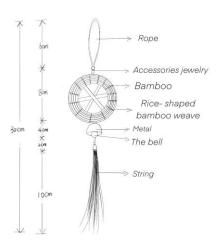


### Type3 Glass

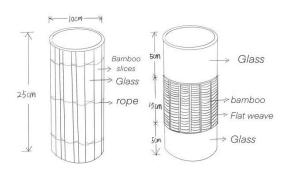




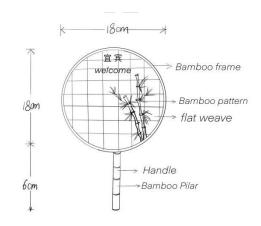
Type 6 Storage basket



Type 7 wind chime



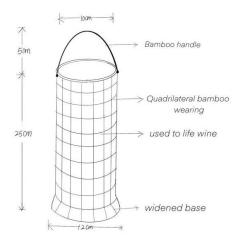
Type 8 vase



Type9 Fan Hook up Rope >bamboo Bamboo handle loom Bamboo pattern Parallelogram bamboo 8am Typell Fruit dish

1-9 cm





Type 12 wine basket

### Figure 22 Idea Sketch

The first design is the bamboo weaving water heater jacket. The detachable bamboo weaving is made according to the shape and size of the kettle and can be used on any water heater. The second design is a tissue box made of twill bamboo weaving. The third design is a combination of two bamboo weaving and glass cups. The fourth design is a bookmark made of carved bamboo boards, with a bamboo pattern on the front and a welcome to Yibin on the back. The fifth design is a mobile phone case, which is made of plastic and bamboo weaving. The sixth design is a clothes storage basket made of bamboo weaving and bamboo pillars. The seventh design is a wind chime made of bamboo with a rice-shaped bottom. The eighth design is two vases. The first vase is tied to the glass with green bamboo slices and ropes. The second vase is the middle area, which is combined with the glass by weaving flat edges. The ninth design is a fan made of bamboo weaving around the screen, with trademarks and patterns on it, and a bamboo pole as the handle below. The tenth design is a door curtain through which people can pass. The eleventh design is a fruit plate made of bamboo weaving like a boat. The twelfth design is a basket for wine made according to the normal size and dimensions of ordinary wine.

It is a tremendous privilege to meet three professionals; nevertheless, despite the direction and discussion provided by these three experts, Ms.Prathabjai Suwanthada, Mr. Preecha Noulnim, and Mr. Ke Yihan, no one was able to choose their top five products. Last but not least, everyone chooses their top five goods, and then researcher

brief the three specialists on the design concept, where each product got its inspiration, and the philosophy behind each product. In the end, these five goods were refined into ideal sketches with the assistance of three industry professionals. These five products are as follows: the first type is a bamboo water heater, the second type is a tissue box, and the third kind is two glasses and bamboo. The seventh type is wind chimes, while the tenth type is two door curtains made of bamboo weaving. Both of these types are combined with the sixth type, which are cups. In the next step researcher will carefully draw an ideal sketch. Thanks to Mrs·Prathabjai Suwanthada, Mr·Preecha Noulnim, Mr·Ke Yihan for their sketch design guidance.

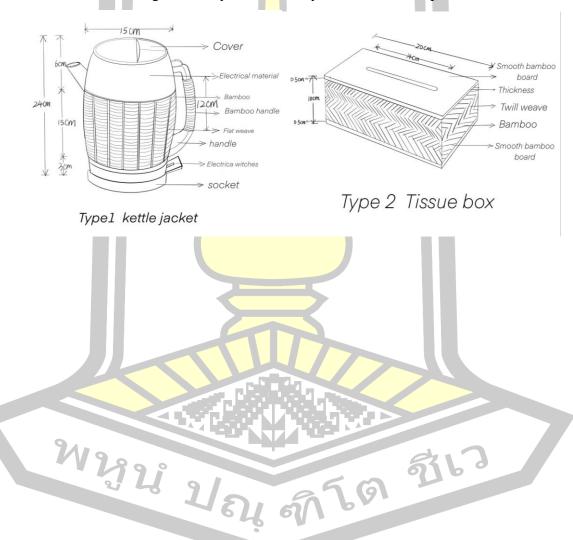
**Table 3:** Three experts review my sketch design guide for ideal sketch selection

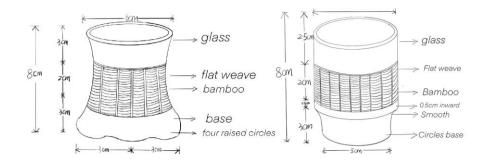
| Table 3. Time Caper | Mrs. Prath <mark>abjai</mark><br>Suwanth <mark>ada</mark> | Mr. Ke Yihan | Mr. Preecha<br>Noulnim |
|---------------------|---|--------------|------------------------|
| 1                   | V   | 1            | $\sqrt{}$              |
| 2                   | V   | √            |                        |
| 3                   | 7   | 1            | V                      |
| 4                   |   |              |                        |
| 5                   | TIW.  |              |                        |
| 6                   | V   |              |                        |
| 7                   |   |              | 1                      |
| 8 7 9               | 9/  | 569          | 160                    |
| 9                   | न्धी व  | V PA         |                        |
| 10                  | V   | V            | $\sqrt{}$              |
| 11                  |   |              |                        |
| 12                  |   |              | V                      |

# Information for evaluating the idea sketch is as follows:

Miss. Prathabjai Suwanthada is an Associate Professor at Mahasarakham University, Thailand. She is an expert and highly experienced in designing and developing bamboo products. Mr. Ke Yihan is a Ph.D. of Mahasarakham University in Thailand and a teacher. He is a knowledgeable expert on the souvenir market in China. Mr. Preecha Noulnim is a master of Mahasarakham University, Thailand. He's an expert in the visual arts.

The five designs finally selected by their three experts are as follows:





# Type3 Glass

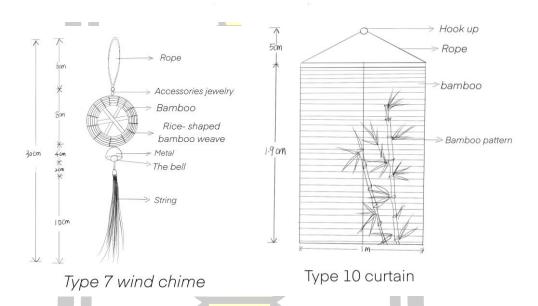


Figure 23 Five products selected by three experts as designs 4.4 Sketch design



Figure 24 Creation of cultural and creative products

The researcher will put this trademark on every product.

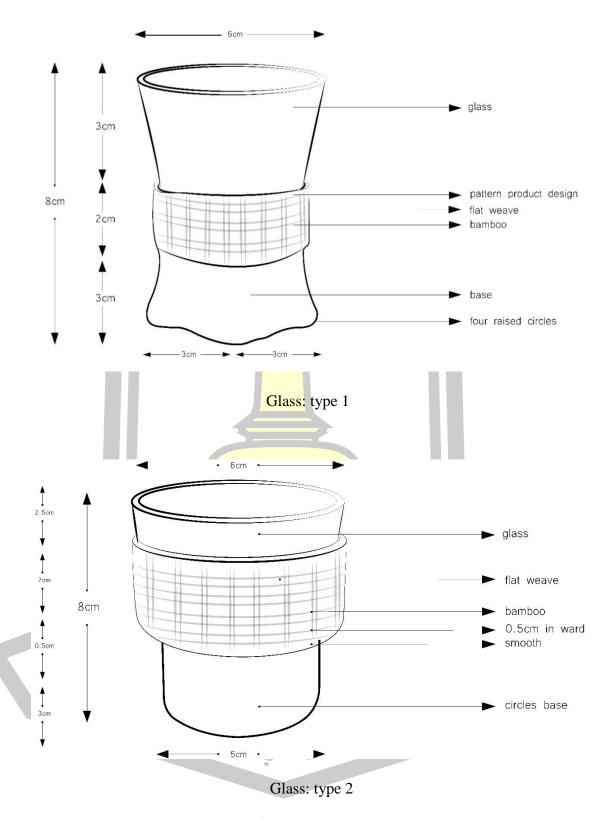


Figure 25 Sketch design type 1 glass

Conceptual design: This is the first type the researcher designed. It is a combination of bamboo weaving and glass. As can be seen from the Figure above, there are two cups in the Figure. The width of both cups is 6 cm, and the height is 8 cm. The glass cup on the left has a waist effect in the middle, so that the bamboo weaving is not easy to slip off the glass, and the four corners of the bottom have an outward protruding effect, which makes the glass more stable on the table. The diameter of the upper part of the glass on the right is wider than that of the lower part, and the design of the editor-in-chief on the upper part can be easily held. Both products use the heat insulation and anti-corrosion effects of bamboo weaving, and the bamboo weaving technique used is the plain weaving pattern of bamboo weaving, which enhances the aesthetics and practicality of the cultural biography products that combine cups and bamboo weaving.

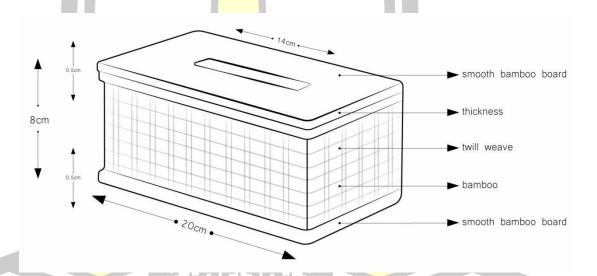


Figure 26 Sketch design type 2 tissue box

Conceptual design: This is the second type researcher designed, a bamboo tissue box, the width of the tissue is 20 cm, the height is 10 cm, researcher designed the size larger, so that it can hold all sizes of tissue. The bamboo weaving technique researcher use is twill weaving, which looks denser in appearance, and this weaving technique can also protect the paper towels inside from being wet. If there are packaged tissues inside, it can also cover the product pattern of the tissues placed inside. The pattern of this product is also more beautiful, waterproof and practical. A complete bamboo board

is used on the top, so that the cover can be removed directly when placing the paper towels, which is very convenient to operate.

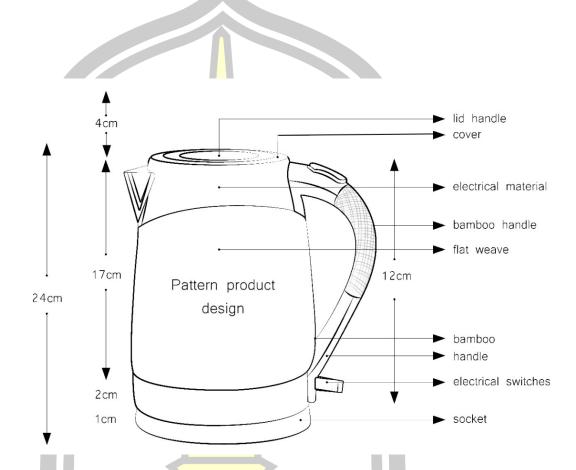


Figure 27 Sketch design type 3 kettle jacket

Conceptual design: This is the third type researcher designed, the bamboo jacket for the kettle. The height of the bamboo weaving jacket is 17 centimeters, and the width of the whole bamboo weaving jacket is about 30 centimeters according to the circumference of the kettle. The bamboo weaving jacket and the bamboo weaving handle researcher designed are detachable. Due to the principle of using the water heater, the temperature will often rise, so the made jacket is detachable. The method of disassembly is relatively simple. It is to sew Velcro on both sides of the bamboo weaving. The Velcro is divided into male and female sides. Stick together firmly. The heat insulation effect of bamboo weaving is used, which can protect people from being burned when using the water heater to boil water. It also uses bamboo weaving as a conductive insulator, so that people will not be electrocuted when using it. This

bamboo weaving jacket can be worn in any style The kettle can be disassembled for use.

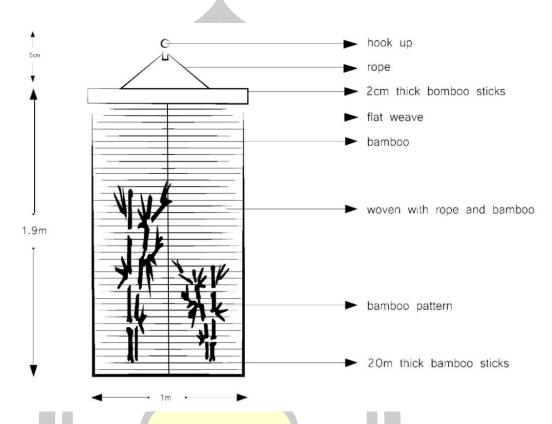


Figure 28 Sketch design type 4 curtain

Conceptual design: This is the fourth product researcher designed, bamboo door curtain. At the last stage where the prototype appears, researcher will print the trademark of the cultural and creative product and the pattern of bamboo on the product. The height of the door curtain is 1.9 meters, and the width is 1 meter. This size can be used on any room door, and there is a rope on it that can be hung on the wall above any door. The middle of the bamboo weaving is not connected, and people can enter from the middle. If the bamboo weaving and the door curtain are not practical, you can take off the whole piece directly. This bamboo weaving can block mosquitoes and also has a breathable effect. The bamboo surface of the bamboo weaving is relatively thin, so it is relatively light and thin when hanging on the door, and it is not easy to fall off.

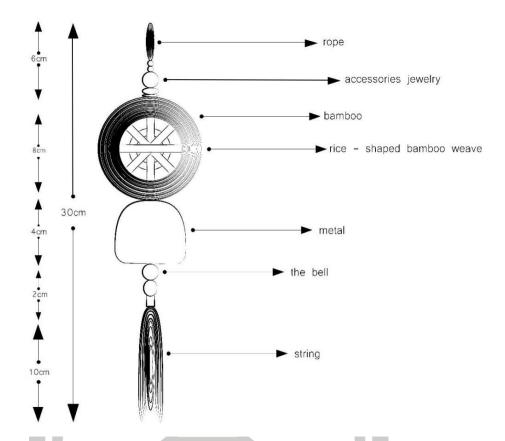


Figure 29 Sketch design type 5 wind chime

Conceptual design: This is the fifth product researcher designed, a wind chime made of bamboo. The wind chimes are mainly for decoration, the overall length is 30 cm, and the circular pattern in the middle is the weaving method of bamboo weaving in the shape of rice. This method is used for the base of the weaving frame, but because it is more beautiful, it is made into a wind chime alone. It has a diameter of 8 cm and is decorated with metal bells and a 10 cm long string. The wind chime will ring under the swaying of the wind, and the thin rope below will sway with the wind. The overall look is more beautiful and light. It can be hung on the door, in the car, or as a decoration at home.

# 4.5 Product design portfolio



Figure 30 Product design type 1

Type 1: Kettle coat







Figure 31 Product design type 2

Type 2: Glass





Figure 33 Product design type 4 Type 4: Wind chime



Figure 34 Product design type 5

Type 5: Tissue box

# 4.6 Market Research Form

descriptive statistics

N minimum value maximum value mean standard deviation

Cup 3 3 75 27.33 41.284

Door Curtain 3 2 54 25.33 26.407

Kettle 3 5 60 25.00 30.414

Tissue box 3 12 24 18.67 6.110

Wind Chimes 3 10 20 15.00 5.000

Number of valid cases (in columns) 3

**Table 4:** Market research form questionnaire results of SPSS

| Descriptive statistics |               |               |               |                    |  |  |
|------------------------|---------------|---------------|---------------|--------------------|--|--|
|                        | Minimum value | Maximum value | Average value | Standard deviation |  |  |
| Water cup              | 3             | 75            | 27.33         | 41.284             |  |  |
| Curtain                | 2             | 54            | 25.33         | 26.407             |  |  |
| Kettle                 | 5             | 60            | 25            | 30.414             |  |  |
| Tissue box             | 12            | 24            | 18.67         | 6.11               |  |  |
| Wind chime             | 10            | 20            | 15            | 5                  |  |  |

The above is the SPSS survey method, which is the market survey form of the product prototype. Researcher chose 30 young people to rate the degree of love for my 5 products. The score is 1-5 points. From the above average, we can see The data of the first water cup is 27.33, the data of the second curtain is 25.33, the data of the third kettle is 25, the data of the tissue box is 18.67, and the data of the wind chime is 15.

**Table 5:** Research is how three experts love it of SPSS

| Descriptive statistics |             |           |         |            |            |  |
|------------------------|-------------|-----------|---------|------------|------------|--|
| Favorite               | Kettle coat | Water cup | Curtain | Wind chime | Tissue box |  |
| level/product          |             |           |         |            |            |  |
| Very like              | 6           | 3         | 1.9     | 0          | 3          |  |
| Generally like         | 2           | 2         | 0       | 60         | 0          |  |
| Do not like            | 208         | (6)       | 690     | 3          | 2          |  |

The table above is the satisfaction degree of three experts selected by three experts after making five products: door curtain, water cup, kettle, tissue box, and wind chime. The three experts are Mr. Zhang Ting, Mr. Liu Guofu and Mr. Li Jian from Sichuan Film and Television Academy. Teacher Zhang Ting made a video call

for the interview, and Teacher Liu Guofu and Teacher Li Jian made the selection through WeChat chat. They all have screenshots and photos, and researcher will put them in the appendix. From the satisfaction survey results of three experts on five products, we can see from the column that researcher like it very much that the data of the kettle is 6, the data of the water cup is 3, the data of the door curtain is 9, the data of the tissue box is 3, and the data of the door curtain is the highest, but in Among the disliked options, the data of the tissue box is higher than the data of the water cup, so the three products with the highest satisfaction are the kettle, the water cup and the door curtain.

Since the product test and favorite results are obtained from young people aged 15-30, friends aged 18-30 in the questionnaire survey, the five designed products are aimed at groups of 15-30 aged crowd.

## Additional design: Bamboo carving design

Since bamboo carving is also an important part and characteristic of Yibin bamboo craft, researcher have added a set of bamboo carving designs, a total of 6 types.

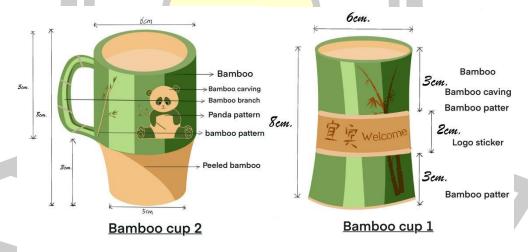


Figure 35 Type 1: bamboo cup

The first type of bamboo carving is the water cup. There are two types of water cups. This is the first water cup. It uses the material and size of bamboo itself. Carved with Chinese national treasure panda and bamboo motifs. The second type of water cup also directly uses the material and size of bamboo itself to carve a bamboo pattern

on the bamboo, and then wraps the bamboo tube with a circle of designed wrapping paper with Yibin welcomes you logo.

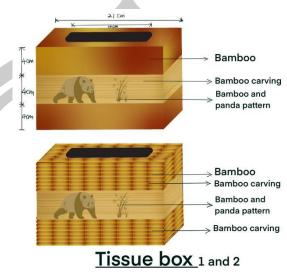


Figure 36 Type 2: Tissue box

The second type of bamboo carving is the tissue box. There are two types of tissue boxes. The first one is to carve panda and bamboo patterns in the middle of the bamboo. The following one is the whole product except the middle layer, which is carved with rows of bumps. Texture, the middle layer is carved with patterns of pandas and bamboo.

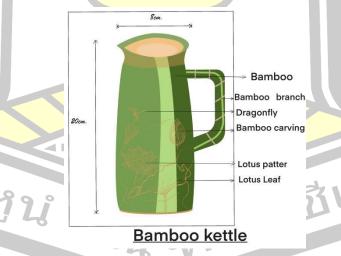


Figure 37 Type 3: Bamboo kettle

The third type of bamboo carving is the kettle, which is made of the material and size of the bamboo itself. The handle part is made of a bamboo branch to make it bend

and adhere to the bamboo tube. The bamboo tube is carved with a lotus pattern, because the lotus has the ability to produce mud and not dyed character.

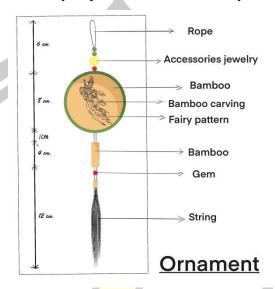


Figure 38 Type 4: Ornament

The fourth type of bamboo carving is a pendant decoration. The circular pattern is made of bamboo, and the pattern of Chang'e flying in Chinese mythology is carved on it. The combination of Chinese mythology and traditional handicrafts adds to this The story and aesthetics of the product.

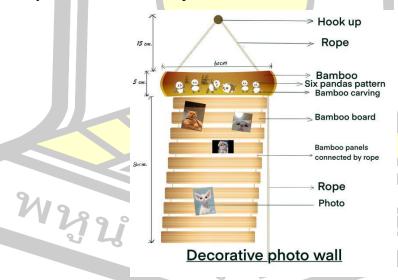


Figure 39 Type 5: Decorative photo wall

The fifth type of bamboo carving is the bamboo board photo decoration wall, which can be hung on the wall. The first bamboo board above is carved with 6 lovely giant pandas, and the lower bamboo board can be used to bind photos.

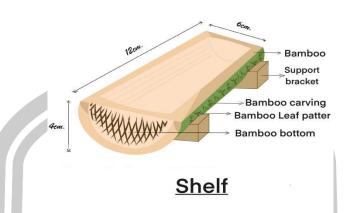


Figure 40 Type 6: Shelf

The sixth type of bamboo carving is a storage rack. Using the material and size of the bamboo itself, the bamboo is cut from the middle, laid flat, and four brackets are installed below to support and fix it. Many bamboo leaf shapes are carved on the outside of the bamboo tube. This storage rack is beautiful and practical, and can be used to place tableware, jewelry, food, etc.



### CHAPTER 5

## CONCLUSIONS, DISCUSSION AND RECOMMENDATIONS

#### 5.1 Conclusion

From the research on the current situation and problems of bamboo craft cultural and creative products in Yibin City: 1) the researchers conducted in-depth research on literature and literature from the aspects of history, culture, and bamboo craft technology, and learned that Yibin bamboo culture has continued since 1519 AD up to now and development process. I learned some differences in the production methods and techniques of bamboo in the past and the present. Knowing that the spirit of bamboo that has been passed down in today's society cannot be ignored, the spirit of bamboo, the connotation of bamboo, and the cultural charm brought by the quality of bamboo are of profound significance. Bamboo and wood, ceramics, ironware and other different products are combined together. Bamboo culture has learned about bamboo surface treatment methods, bamboo maintenance techniques, cutting techniques, carving techniques, dyeing techniques, and anti-corrosion techniques. 2) In terms of researcher design principles: the researcher respects nature, highlights the characteristics of bamboo, protects the environment, pays attention to functionality, and considers sustainability as the main principles, adding the principles of cultural inheritance, regional cultural identification, and innovation. Referring to Professor Sakechai Sikka's craft design process and its application in design in the study of woodcarving craft in the Mekong River Basin. Researchers apply the design process by inventing designs that use art as inspiration for creating designs. This process includes 6 steps: consumer needs analysis, creating design inspiration, market positioning, creating unique features, designing, publishing or displaying works. And ever creating a local designer to design a new product to enter the market includes several important steps, such as researching market information, customer demand research, collection of relevant information, stupidity of relevant conditions, understanding problem or problem design, data analysis and synthesis, initial Concept search, summarize concept, specify product design requirements, drawings and detailed production, prototype production, evaluate main product, new product revision release to market and other steps. 3) In terms of market status, bamboo

handicrafts include: bamboo slips, bamboo weaving, bamboo plaques, bamboo hanging paintings, bamboo slip calligraphy and paintings, bamboo carved bamboo pen holders, bamboo carved arm rests, bamboo root carvings and other categories. Among them, bamboo weaving is the most widely used in terms of product sales and uses, and is also the most popular among young people. The types of bamboo cultural and creative products include: bamboo woven products, bamboo wood furniture, bamboo carving handicrafts, bamboo woven decorations, bamboo paper products, bamboo charcoal products, bamboo carved seals, bamboo tableware, bamboo toys, etc. 4) In terms of problems in the market, the current bamboo craft cultural and creative products have the following problems: the use of bamboo craft cultural and creative products is relatively single, the patterns are traditional, lack of innovation, mechanical technology has replaced bamboo craft technology, and some bamboo crafts are not portable. Convenience, fewer technicians, uneven quality, opaque product prices and lack of brand influence.

After analyzing the types of bamboo crafts in Yibin and finding the crafts and types suitable for cultural and creative products, it is concluded: 1) the bamboo weaving craft is selected as the main method of product design in the bamboo crafts. From the perspective of cultural and creative products, The researchers compared the bamboo weaving process with the bamboo carving process in terms of technical selection, and finally concluded that the weaving pattern of bamboo weaving cultural and creative products has the advantages of simple production process, various patterns, light and easy to carry, and relatively low cost compared with bamboo carving. The specific weaving process of bamboo weaving is listed for comparison, and the flat edge weaving method and the twill weaving method are selected. 2) The researchers conducted a SWOT analysis on bamboo craft cultural and creative products, and concluded that the advantages of bamboo craft cultural and creative products are mainly light and beautiful, waterproof and durable, cheap raw materials, anti-corrosion and moisture-proof are conductive insulators, tough and not easy to be damaged, and disadvantages The main reason is that the bamboo handicraft products themselves need to increase more manual work and labor costs. The main opportunity is that the products can be used as tourist centers or tourist towns to sell complete sets of wholesale, etc. The main threat lies in wooden cultural and creative products, because wooden and bamboo products, Both raw materials are the same and the cost is cheap. 3) Based on the characteristics of bamboo weaving, it is analyzed that compared with ordinary cultural and creative products, bamboo craft cultural and creative products have the characteristics and significance of uniqueness, ecological protection, rich cultural connotation, strong aesthetics, traditional cultural inheritance and practicality. 4) The researchers conducted a questionnaire survey on bamboo craft cultural and creative products among Chinese teenagers aged 14-25. There were 30 people in total. The main questions asked were the requirements for choosing bamboo craft cultural and creative products, and whether they would buy product type, etc. In the end, it was concluded that people pay more attention to product practicability with 28 votes, aesthetics with 26 votes and craftsmanship with 10 votes. Among bamboo cultural and creative products, water cups received 22 votes, decorative items received 18 votes, tissue boxes received 16 votes, and key chains received 12 votes.

Taking creative products as an example to study the design of bamboo weaving of bamboo handicrafts in Yibin, China: 1) The leading idea of the researcher's design is to "protect the ecology, close to life, practical and beautiful", give full play to sustainable development, and combine bamboo weaving with life Electrical appliances and daily necessities are combined to design special, practical and beautiful cultural and creative products. The heat insulation function of bamboo weaving is used to connect with the kettle, which has higher safety performance. Using the aesthetics and heat insulation of the bamboo weaving pattern, it is designed together with cups, wind chimes, and bookmarks, which is cheap and practical close to life. The breathability of bamboo weaving is used to connect with mobile phone cases, storage baskets, and door curtains, which is light and beautiful. The researchers designed a cultural and creative product logo with the pattern of Yibin welcome and a bamboo pattern. The researchers wanted to integrate the existing bamboo culture in Yibin City, adhering to the concept of green and sustainable development, and centered on the dissemination of bamboo craft technology, designed this cultural and creative product trademark. The trademark takes green as the theme, which symbolizes environmental protection and directly The bamboo image, the font design is mainly handwriting, the Chinese and English designs express welcome to friends from all over the country, the bamboo pattern represents the original image of bamboo, and bamboo also has the meaning of rising steadily. The author will put this trademark on each product. 2) The researchers initially designed 12 products, namely: hot water bottle jacket, tissue box, water cup, bookmark, mobile phone case, storage basket, vase, wind chime, fan, door curtain, bamboo basket and wine bottle basket. After the guidance and selection of three experts, Ms.Prathabjai Suwanthada, Mr. Preecha Noulnim, and Mr. Ke Yihan, the final expert evaluation result is that 5 products were selected for design, and finally the product design portfolio was obtained. The rankings are as follows: Bamboo kettle jacket, bamboo cup, and bamboo door curtain tied for first place and all won 3 votes, bamboo tissue box and bamboo wind chime tied for second place and all got 2 votes, storage basket and wine bottle basket got 1 vote, and the remaining 0 ticket. 3) After the five product design drawings came out, 30 young people were invited to choose the three products with the highest satisfaction. The evaluation result was that after the five product design drawings were released, 30 young people were invited to choose the three products with the highest satisfaction. The result of using SPSS data analysis method: the data of the first cup is 27.33, the data of the second curtain is 25.33, the data of the third kettle is 25, the data of the tissue box is 18.67, and the data of the wind chime is 15. And three Chinese experts, Li Jian, Liu Guofu, and Zhang Ting, selected three products with the degree of preference for the design combination, and the evaluation results were that the first place was the curtain with a data of 9, and the second place was a door curtain with a data of 6. Water bottle jacket, the third place is the water cup with data 3.

#### 5.2 Discussion

From the design of bamboo craft cultural and creative products, research see the design innovations and products designed by other authors, as well as the design ideas and design concepts of the authors who are studying. It is very helpful in terms of audience, design inspiration, and bamboo weaving technology. For example, in the article of the authors Li Penghui and Liu Lingling (2022), they learned how to apply cultural elements to the design of cultural and creative products, and grasp the

connection between traditional culture and cultural and creative product design. Elements are applied to the design, and their colors, shapes, patterns, materials, etc. are reasonably applied to the cultural and creative design. Integrating modern design ideas and innovative concepts into the design can not only promote the inheritance and innovation of traditional bamboo crafts in Yibin City, but also bring new ideas to Chinese cultural and creative design and make it full of vitality. The author links bamboo cultural and creative products with daily necessities and electrical appliances, and uses the combination of different materials to improve the practicability of bamboo cultural and creative products, which are closer to people's lives, and they are not hot to use, and the heat insulation of bamboo Well utilized, beautiful and usable.

From the perspective of bamboo culture tourism in Yibin, it is possible to see that the Yibin government has a policy that supports bamboo craft products, the current situation of the bamboo craft market, and the government's views on bamboo craft cultural and creative products. With this information, The researcher will be able to adjust the innovation of my product design more effectively. For instance, by reading "the status quo and development countermeasures of the bamboo industry in Yibin, Sichuan Province by Wang Yuigue, Lian Dongming, and Luo Xianyong," one can gain knowledge regarding the most recent accomplishments and some data regarding the integrated development of bamboo culture and tourism in Yibin, which can also assist me in selecting better locations for field research.

In Xie Jingjing's (2020:54) bamboo weaving cultural and creative products based on user experience, the researchers imagined that the transformation from product sales to experience sales can be realized, so that traditional bamboo weaving can conform to modern aesthetics and change the old concepts of the public. Bamboo weaving can not only be used for crude agricultural implements, but also can be used in daily life. Bamboo weaving cultural and creative products allow traditional bamboo weaving crafts to realize living inheritance in modern life. The cultural connotation of bamboo weaving technology is far-reaching. Using modern design thinking to integrate it into daily life is an important means for the modernization of bamboo weaving technology. People can also experience the joy of bamboo weaving when they buy products, which can be realized in the Bamboo Weaving Experience Hall in Gaoqiao Village, Lizhuang

Town. However, if the author has the opportunity to sell the product offline in the future, he should include tourists' experience of bamboo weaving in the sales process.

The researchers learned from the article of Wang Yaming and Wu Ping (2020: 24) that the design and research of bamboo weaving cultural and creative products can be carried out based on the following points: (1) The lifestyle, cultural lifestyle and various needs of contemporary people; (2) Aesthetic preferences of contemporary people, and the balance between traditional aesthetics and contemporary aesthetics; (3) The progress of contemporary technology, and the combination of traditional skills and contemporary technology; (4) Cultural sense, sense of value, sense of quality, etc. influencing factors. Due to the rich cultural connotation of bamboo weaving technology and the green and natural attributes of bamboo, the design of bamboo weaving cultural and creative products has multiple positive meanings. In the design of bamboo weaving cultural and creative products, in addition to driving the design through research, designers also need to establish an effective cooperation mechanism with craftsmen and work closely together to jointly create bamboo weaving cultural and creative products that meet the needs and aesthetics of contemporary people. So the author put bamboo weaving into the market research and discovered the aesthetic preferences of contemporary people and the demand for cultural and creative products. He learned that practical, beautiful and affordable products such as wind chimes and tissue boxes are more popular with the public, so he designed them. Bamboo weaving itself has a strong sense of culture and value, and bamboo itself has a strong and unyielding spirit of self-improvement: bamboo gives people a sense of strength, tenacity and fortitude. Bamboo Lingshuang is proud of snow, not afraid of wind and rain. Bamboo has an upright and unyielding character. Since ancient times, bamboo has been known as a gentleman, and together with "plum, orchid and chrysanthemum", they are called the four gentlemen, which further establishes bamboo's personality quality of self-improvement. Bamboo is thus admired and learned by people in terms of ideology and morality. Bamboo craftsmen are not afraid of hardships, and have an attitude of excellence: we can see that every piece of bamboo spring work is very difficult, and requires craftsmen to carve day and night. The works are all carefully carved by craftsmen. Hand-carving procedures such as selecting bamboo, cutting,

coloring, drawing, carving, and polishing will also make tourists feel that bamboo is not afraid of hardships, goes forward bravely, and strives for excellence.

#### **5.3 Recommendations**

After you have finished writing this article and have finalized the design, the researcher recommendation is that you produce related papers on bamboo crafts and bamboo weaving in order to investigate the cultural and historical context of bamboo weaving: Weaving with bamboo is an old craft that has a significant cultural past and a long history overall. If you have an understanding of the cultural and historical context of bamboo weaving, you will have a better ability to comprehend and appreciate the designs of bamboo weaving. Investigate the process and skill involved in weaving with bamboo: Weaving with bamboo is a craft that relies heavily on technology and demands a high level of expertise in addition to years of practice. Learning the different methods and skills involved in weaving with bamboo can help you have a better understanding of the obstacles and complexities involved in the process. must have a complete understanding of the methods as well as the many varieties of bamboo crafts and bamboo weaving, as well as to conduct an analysis of the benefits, drawbacks, possibilities, and dangers. Emphasis on sustainable development: Weaving with bamboo is garnering more and more attention as a sustainable skill and material. Bamboo is a fast-growing resource. In the researcher paper, the researcher put an emphasis on how environmentally friendly and sustainable bamboo weaving design is. For instance, the detachable kettle was designed with detachability in mind so that it can be used in a more environmentally friendly manner. The combination of bamboo weaving with the usage of electrical gadgets in day-to-day living is not very significant, and more of both can be utilized. Experiment with goods that aren't even on the market yet. The aesthetic value of bamboo weaving design is not only represented in its form and structure, but also in its harmony with the natural environment. The emphasis here is on the aesthetic value of bamboo weaving design. Although there are instances when individuals do not require this goods, they will nonetheless purchase it due to its strong aesthetics and widespread popularity. So, the purpose of this essay is to illustrate the aesthetic value of bamboo weaving design in the hopes of stimulating the curiosity of readers and encouraging them to become enthusiastic about bamboo weaving. The combination of my design with electrical appliances, with everyday necessities such as glasses, vases, and bookmarks encountered in daily life, that are light and cheap, close to life, and very practical. Provide suggestions for designs that are practical: the combination of my design with these things. The researcher have high hopes that this article will aid readers in their The design of bamboo weaving strikes a healthy balance between aesthetically pleasing and practically useful aspects. In addition to that, you may include imaginative bamboo weaving. The researcher article is titled "Because the Consideration of Labor Costs and Costs," and as a result, in the design of bamboo weaving techniques, the researcher did not use multiple types of techniques to weave together. This is done so that readers can use a greater variety of techniques in their own papers in the future. merge together. Encourage the culture of weaving with bamboo and the industry: As a result of my research of the relevant literature, we can see that the government provides substantial support, and there are also certain policy supports; hence, the industry of bamboo weaving has a development possibility that is relatively broad. If the items that were designed can be manufactured in large quantities, it is important to remember to file for their own intellectual property rights and patents, as well as to locate the appropriate government agency to request additional financing support. Shunan Bamboo Sea, the inheritor of bamboo reed technology, and Chongzhou Daoming Bamboo Weaving are both home to a large number of bamboo weaving experts who are highly experienced in the various techniques involved in bamboo weaving. In-person experiences are the best way to learn about and enjoy the fun of bamboo weaving. You have the ability to select the subjects and information that are most relevant to you based on your previous interest. experiences and

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### a. Fieldwork and Informants

Place:Resident of Gaoqiao Village, Lizhuang, Yibin CInformants: interviewed villagers zang Lulu, Liu Gaochun, LuoHongshu, tourists in Yibin bamboo scenic spots Hu Yang, village head of Gaoqiao Village in Lizhuang, bamboo weaving lovers, tourist center management staff, Bamboo craftsmanYang Huatao. And the netizens and friends who answered the questionnaire for me.



Figure 41 Gaoqiao Village, Lizhuang Town, Yibin Bamboo Culture Ecological Park and field investigation

**Source**: LuoYunyue,2022

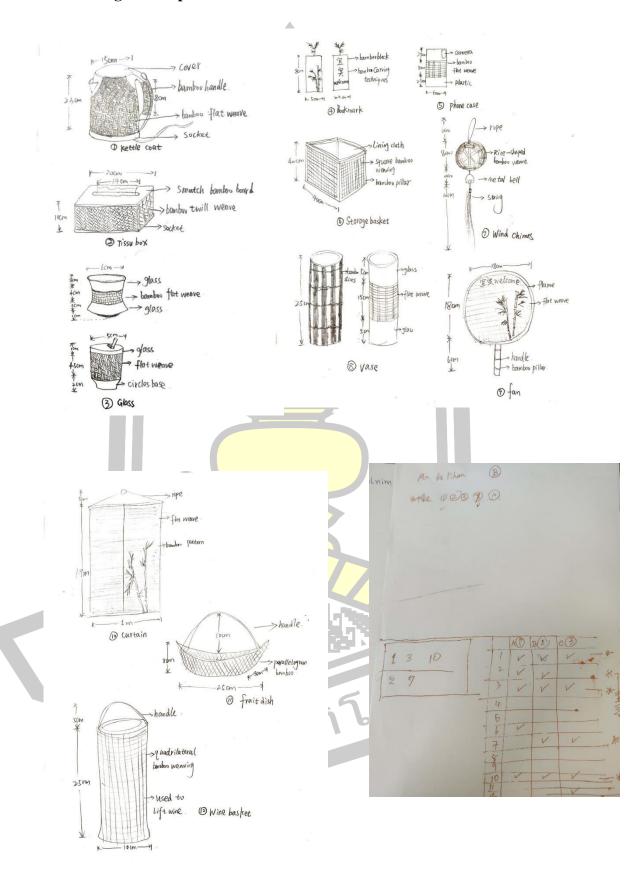
# b. Questionnaires used in the study



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# c. Design Concept Sketch



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