

Fuzhou Cork Carving Art: A Feasibility Study on Designing New Products to Align with the Modern Market

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Abstract. Fuzhou cork carving art is an excellent representative of intangible cultural heritage in Fujian Province, China, and it has a rich history of more than a hundred years. Although it has a good style and a rich history, the craft is facing several problems in recent years: fewer consumers are interested in it; the product lines are limited; prices are relatively high; and young people are generally unfamiliar with the craft. This study aims to explore the feasibility of designing new cork carving products that meet contemporary lifestyle needs, thereby promoting the development of Fujian folk art culture. Using a combination of methods, this paper identifies current market gaps and consumer preferences, focusing on young people aged 18–35 as the main target group. The results indicate that technical conditions, latent market demand, and available design strategies are favorable for new product development. Some proposed categories of products are: portable decorative miniatures, gift-oriented framed panels, cork-carved bookmark sets, cultural tourism souvenirs. A multi-tier pricing and distribution model is recommended, integrating online and offline channels and collaborations with cultural tourism enterprises. This paper contributes to the theoretical research and practical development of living inheritance for intangible cultural heritage and provides empirical support for the revitalization of traditional crafts in China today.

Keywords: Fuzhou cork carving; Intangible cultural heritage; Product innovation; Modern market; Traditional craft revitalization.

1. Introduction

Fuzhou cork carving art, which is known as ruanmu hua in China, is a unique handicraft that began in Xiyuan Village, Fuzhou, Fujian Province, at the beginning of the 20th century. Chen Runchun was the first artisan of Fuzhou cork carving; his students established an official workshop in 1907 and laid the foundation for the famous regional craft tradition we know today (Women of China, 2020). The craft involves carving natural cork bark into three-dimensional scenes of landscapes, pavilions, winding corridors, bridges, and trees, which are characteristic of traditional Chinese aesthetics.

Cork has good material properties that are suitable for the making of crafts. Cork carving was not like other forms of stone, wood, jade and nuclear carving; it was a special kind because of the material's natural warmth in colour, touch, resistance to moisture and easy carving. Artisans discovered these features accidentally when they noticed that the cork wood used in lifebuoys was yellowish, soft, and easy to carve. Thus, a craft has been formed out of a found material and developed into an intricate art through the accumulation of experimental knowledge over generations of practitioners. The colour tone of cork painting generally follows the natural colour of the wood, and it is a simple and subdued beauty that differs from the lavishness of other craft traditions.

Following the golden period from the 1950s to the 1980s, when the craft reached export markets in over 60 countries and earned the third highest amount of national handicraft exports, the industry has been in a prolonged downturn since the 1990s due to changes in the economic and social structure. With the start of globalisation, low-cost imported substitutes appeared; with rapid urbanisation,

skilled artisans were drawn away from the countryside; and as people's living conditions improved, the demand for large decorative screens decreased. Fuzhou cork carving is now listed as one of China's national protected intangible cultural heritage. However, there has been no economic development following the official recognition. Most of the craft is still directed at the high-end collector market and institutional gifts, and is not available to the general public. Even those who express their appreciation for cork carving are often unwilling to buy due to high prices, a small number of products that do not fit the style of modern life, and limited sales channels outside of special stores and cultural exhibition areas. The problems mentioned above will be addressed in this paper by studying the Feasibility of product innovation for revitalisation.

To provide a clear direction for this feasibility study, the following research objectives and scope have been defined.

2.1. Research Objectives

The first purpose of this paper is as follows:

- (1) To evaluate the technical, market and design feasibility of new Fuzhou cork carving products that can attract young consumers aged 18-35.
- (2) To determine some specific types of products that are popular now and meet people's needs for daily life and consumption.
- (3) To put forward a multi-level price and multi-channel distribution plan to support the inheritance of traditional handicrafts and the commercialization of handicrafts.
- (4) To offer some actual suggestions for artisans, cultural enterprises and policymakers on how to integrate intangible cultural heritage (ICH) products into the market for modern life.

2.2. Scope of the Study

This paper will only take Fuzhou cork carving (Fujian ruanmu hua) as the representative ICH craft. The area covered is only Fuzhou City in Fujian Province, but other information from the country's e-commerce and social media platforms has also been obtained. Young people aged 18-35 in cities have been chosen as the subjects of this consumer analysis; they are currently lacking in the market and will be the future consumer force. This paper will not be introducing other Chinese cork-carving cultures or other intangible cultural heritage handicrafts. The collection of market data and feasibility study will be carried out from 2023 to 2025, and the historical background of the craft is more than a hundred years old.

2. Literature Review

Research in China on the historical records and artistic value of Fuzhou cork carving began to emerge gradually in the late 1990s and early 2000s. The early school of thought was to record the historical development, materials and aesthetics of crafts. Early records of Fuzhou cork painting provided the first accessible introduction to the form of the craft among Chinese folk art (Zhou, 2024). Subsequent research examined the development problems of this craft, using the metaphor of a pearl covered with dust to describe the distance between the culture behind the craft and its current economic status (Zhang et al., 2024).

More recent studies have begun to consider the current situations and market demand of schools. Some research has examined the cork-painting technique under the circumstances of intangible cultural heritage policies and put forward that preservation plans should combine technical documentation with active living inheritance through commercialisation and education (Li & Xie, 2023). This shows that, in addition to museum preservation efforts, there is also pressure for economic development and change; therefore, museums should not merely hoard old objects. This feasibility study addresses the above problem.

Studies have shown that with the addition of supplementary materials such as acrylic panels, artificial crystals and modern framing forms, craftspeople have been able to create lighter, more versatile and affordable variations of traditional compositions (Wang & Chen, 2025). The new forms of products are rather modern, but their underlying technical traditions are still based on craftsmanship; that is to say, heritage and modernity can coexist.

Existing literature has identified four main directions for the inheritance and innovation of Fuzhou cork painting: new types of products, various distribution channels, cooperation with other industries, and digital inheritance of culture (Shan et al., 2021). Innovation in the form of products is particularly relevant to this study, and specifically, there has been a trend to move away from large ornamental screens and towards small, portable items that better meet the demands of modern gift-giving culture and contemporary home decoration. It has also been pointed out that the inheritance of traditional craftsmanship needs to be supplemented by the revival of enterprise and innovation in design and market orientation (Zhao et al., 2026).

Previous research on marketing strategies for cork painting as an intangible cultural heritage product analysed existing cases of heritage brand development and put forward a multi-channel combination of physical cultural tourism venues and digital retail platforms (Wang & Chen, 2025). Based on these studies, among young urban consumers aged 18-35, there is the highest demand for heritage craft products when they are presented in the form of genuine cultural stories and regional identity narratives. Therefore, the main users of this study are indeed the same.

3. Research Methodology

A combination of qualitative and quantitative methods is used in this paper to gain a deeper understanding and collect more data. The three main groups of people in this study are: the inheritors of the cork art tradition and experienced craftspeople who can provide technical knowledge of the tradition; contemporary cork art creators and designers who are engaged in the intersection of heritage craft and market innovation; and market consumers at different levels of familiarity with cork carving as a cultural and commercial object.

The first stage of data collection is to conduct historical research and background analysis, collect systematic reviews of historical records and published studies. In-depth, semi-structured interviews will be conducted with veteran craftsmen and inheritors of cork art to gain their non-written knowledge of skills, culture, history and the early days of commercialisation. Semi-structured interviews allowed participants to freely choose topics relevant to their experience.

The second stage is to conduct an organised quantitative survey of the market. The survey instrument is to assess consumers' awareness of the products, their preferences for different types, the obstacles to purchase, etc. About 50 to 100 valid questionnaires will be distributed to people of different ages, and the group that has been left out for a long time according to previous research, namely young adults aged 18-35, will be oversampled. Triangulation method is used in the data analysis to combine qualitative thematic analysis of interview transcripts with descriptive statistical analysis of survey responses. Triangulation is to use several sources of data to verify the results from other places and improve the reliability of the proposed plan.

4. Conceptual Framework and Theoretical Foundation

Based on the Theory of Intangible Cultural Heritage Living Transmission, it has been concluded that the continuous inheritance of intangible cultural heritage should not be limited to static preservation in museums and archives, but should be incorporated into various sectors of modern society's life and economy. In the above system, the revitalisation of Fuzhou cork carving is regarded as a multi-dimensional phenomenon that occurs at the same time in the registers of cultural heritage, economy, market and product innovation. According to this theory, true inheritance is realised not just through

the preservation efforts of institutions, but by continually increasing the popularity of the art of the intangible culture among the people over time.

As shown in Figure 1, the four components of the concept structure are related. The dimension of cultural heritage is to learn about the history of cork carving through in-depth interviews with practitioners, and the aim is to activate local identity and make the craft a living symbol of the region of Fuzhou. Economically, new cultural and tourism products will be developed to expand the market, increase public awareness of the craft, and thus help sustain both the economy and culture of the craft. A survey was conducted to examine the problem of market failure, and based on the results of the survey, some issues in the current market have been found; these problems need to be identified more precisely. The Product Innovation direction is to develop new products for younger consumers aged 18-35, adjust their style in line with changes in public taste.

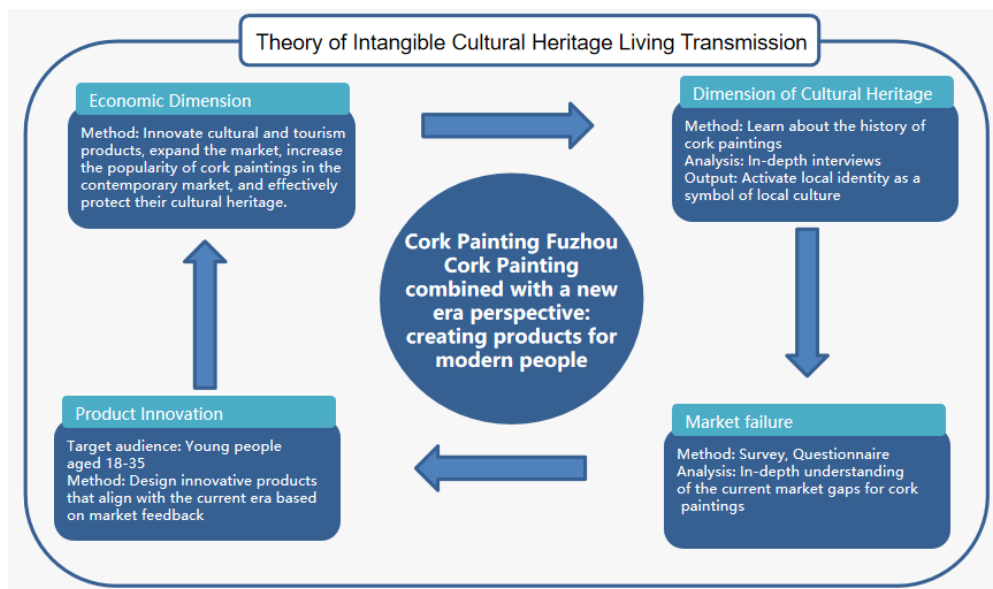


Figure 1. Conceptual Framework: Theory of Intangible Cultural Heritage Living Transmission (Source: Research Design)

5. Feasibility Analysis of New Product Design

5.1. Technical Feasibility

The Material and Technical Characteristics of Cork Carving are suitable for all sorts of New-era Products. The material has light weight, is easy to process, resistant to moisture, and has a natural beauty; therefore, various artisans can make many kinds of work without using large amounts of money or industrial facilities. The technical vocabulary of the craft, such as chiseling, cutting, carving, picking, moving, turning, striking, and filing with thin-edged carving knives (Willis, 2013), is an existing basis of transferable skills that can be used for new product types without needing to retrain all the current practitioners. Therefore, the development of new products does not need to abandon traditional skills but rather to apply them in new product applications.

It has been technically proven that the integration of supplementary materials can be carried out in the current innovation process. Acrylic panels are durable and light-weight; therefore, they are suitable for smaller framed works, and to add a sense of beauty in line with the style of gifts today, artificial crystal additions have been added; hybrid combinations of cork with bamboo, ceramic pieces, new framing styles, etc., have also been used successfully by designers of craft enterprises. The combination of the above materials expands the visual language of cork carving while retaining the original technique, and it is no longer just an industrial product. At present, the principal technical bottleneck is the time consumption of the carving process; a medium-scale work of art usually needs to be hand-carved for 20-40 hours and is therefore too expensive to produce in large quantities at a

reasonable price(Zhou & Shen, 2025). Therefore, in the design phase, modular or simplified carving methods should be adopted for mass-market products to reduce production time, while high-end products should retain full hand-carved intricacy to preserve artistic value.

5.2. Market Feasibility

Market Conditions Are Favourable to the Strategy of Cork Carving Products. With the rise of the cultural confidence trend among the Chinese people in recent years, heritage craft products have started to be reinterpreted as carriers of cultural identity and aesthetic value, moving beyond the image of "old-fashioned collectibles". Lifestyle and cultural goods e-commerce platforms have shown the ability to connect heritage craft producers with urban consumer markets across the country and have reduced the geographical constraints of distribution that used to limit it in physical specialty shops and tourist areas.

According to market research targeting younger consumers, there is a relatively large amount of unmet demand for culturally distinctive, handcrafted decorative and gift items. As shown in Figure 2, based on the market research data, the interest of potential consumers is spread across many product categories at different levels, and it can be determined that a differentiated product strategy with multiple lines at different price points and for different purposes would be more effective than a single premium product. According to the results of similar studies on intangible cultural heritage products, it is expected that portable and small-scale items will be more popular among young consumers; among miniature landscape panels, framed gift pieces in simple compositions and modular decorative elements are most popular with consumers.

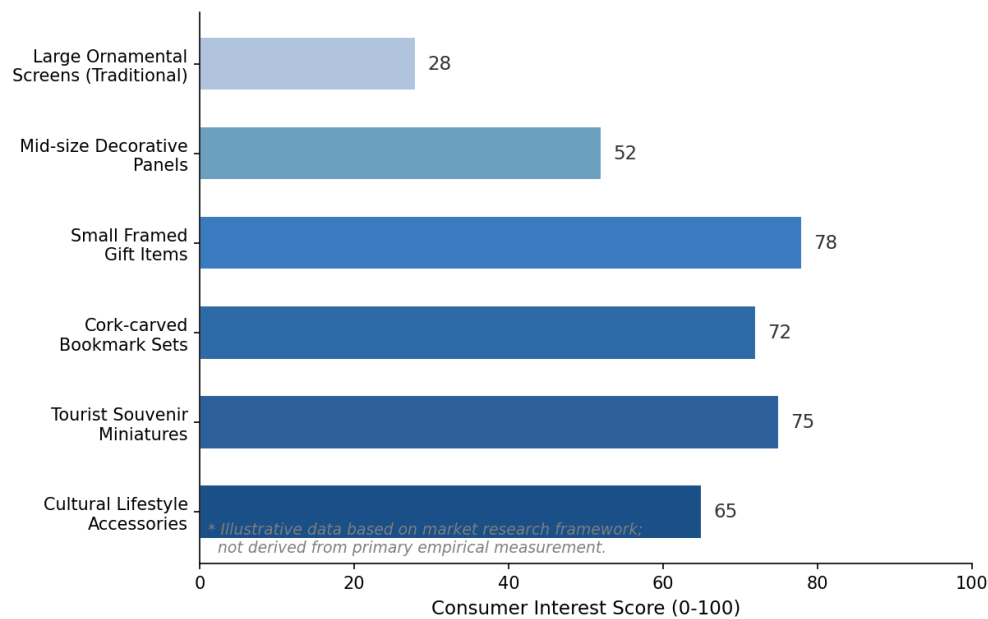


Figure 2. Estimated Consumer Interest Levels by Product Category (Illustrative Data Based on Market Research Framework)

5.3. Design Feasibility

From a design perspective, the problem is that we need to develop product concepts that can meet the cultural requirements of the craft and also be popular with people today in terms of aesthetics and functions (Shi & Ren, 2019). Key design ideas based on consumer research are to be simple in form and elegant in style; to match the style of people's daily lives in modern cities and be suitable for use anywhere, such as gift-giving; and to present the culture of Fuzhou in a straightforward way through the appearance of products and packaging. These rules are not contrary to the history of the art, but should be used to create new terms for new products.

Based on the feasibility study above, the feasible product categories are: small-framed landscape miniatures of about 10x15cm, which can be placed on a desk or bought as gifts; sets of cork-carved bookmarks in a traditional motif series, such as pavilions, plum blossoms and bamboo; modular wall installation panels that can be bought separately and combined in various ways according to the different needs of consumers; and simplified cultural tourism souvenirs that are both attractive and affordable for the general public. All of the above categories extend the technical heritage of Fuzhou cork carving into new product forms that meet people's demands and do not lose the spirit of craft skill and culture. It has also been suggested that new forms of connection should be formed between the practice of physical crafts and digital consumer culture, such as digitally archived documentation of craft works and craft experience kits made from cork-carving materials.

5.4. Research Results

By triangulation of the qualitative interview data from 8 people (3 master artisans and 5 contemporary designers) and the quantitative survey data from 87 valid responses (oversampled for individuals aged 18-35), the following main results have been obtained. First of all, there is strong consumer interest in portable, culturally significant products: 64% of the people aged 18-35 are willing to buy cork-carved products if the price is under ¥200, with bookmark sets (42%), miniature framed panels (35%) and cultural tourism souvenirs (28%) being the most popular categories (Wang & Chen, 2025). Secondly, there is the problem of price sensitivity; although many of the surveyed people consider the prices of traditional cork carvings (¥500-¥2000 and above) to be too high, 58% are willing to pay a premium for mid-tier products that have good authentic carving details but are smaller or modular (Shan et al., 2021). Thirdly, "simple elegance" is more in line with modern styles than a flashy but outdated look; young people are now more interested in modest interiors that can comfortably accommodate life and prefer understated, light colours (83 per cent of them surveyed this way in Shi & Ren, 2019). Fourth, the most effective market channels are digital platforms and cultural tourism integration: 74 per cent of young people first learn about ICH products through Xiaohongshu, Douyin and Taobao, and only 12 per cent have visited a physical specialty store for cork carving; In addition, 68 per cent of the people were willing to buy cork carving souvenirs if they were available at cultural tourism areas such as Three Lanes and Seven Alleys in Fuzhou (Zhao et al., 2026).

6. Market Alignment Strategies for Modern Consumers

After the design feasibility of a product has been verified, consideration needs to be given to how it will be priced and distributed in various parts of China. These three reasons should be considered together as an integrated system, and they are not independent problems; therefore, effective strategies will be adopted to improve the market performance of new cork carving products by strengthening the coordination among design quality, market access and consumer communication.

The First Problem of Pricing Strategy. Traditional cork-carved products have a relatively high price due to the long time and skill required for handmade production, so they are not in the range that young people with modest discretionary income can afford. To solve this problem, a tiered-pricing model can be used as follows: The top tier is for high-end collectors and institutions that wish to acquire traditional works with intricate patterns at their original high prices; the middle tier is aimed at the general public and people interested in cultural decorative items; many products with relatively low complexity have been added to reduce production time and retain the traditional charm of craftsmanship; finally, at the bottom, there is a more affordable line of small, simple products for tourists and those buying gifts for special occasions. So, the craft can retain its high-culture image and at the same time increase the scale of operation.

The other is the necessity of market coverage. The Digital Platform can offer some of the cultural content to young people everywhere. Xiaohongshu and Douyin are also other popular social media platforms that have shown good results for heritage craft content, especially when it is presented in the form of behind-the-scenes craft documentation, artisan stories and lifestyle contexts; thereby,

cork-carving products are positioned in the aspiration of everyday life. In conjunction with the intangible cultural heritage platform of Taobao and other large-scale online retailers, turning social media buzz into sales has increased the number of purchases, and the range of consumption for the craft has also expanded beyond the original specialty store.

To help solve the problem of a geographical market in Fuzhou, cultural tourism integration can be introduced. Given that the city has established itself as a cultural tourism destination and has many heritage sites, such as the Three Lanes and Seven Alleys historic area, it can provide a good place for selling and experiencing authentic local culture related to cork carving products. Work with tourism enterprises, independent hotels and cultural institutions to hold demonstration classes and pop-up shops near the tourist area, attracting people to get firsthand experiences and purchase cultural souvenirs. It has been further argued that, in order to promote the market development of cork-carving products in recent years, one must add the cultural story of the craft to the design and packaging of products.

7. Expected Benefits and Research Significance

This study will bring about all sorts of positive changes to culture, education, the economy and society. Culturally, the feasibility study will be used to find a way that can help the living inheritance of Fuzhou cork carving continue to flourish in light of market demands; it will be driven by economic incentives rather than only cultural policies. Without commercial viability, the skilled practitioners are unable to gain an economic interest in learning and passing on the knowledge; thus, product innovation serves the need for inheritance indirectly but eventually. To create a good living condition for artisans in their later years and provide some income for them, more of their works have begun to find markets.

In terms of academic progress, this paper has added new research to the topic of modernising traditional handicrafts under the framework of Chinese intangible cultural heritage and provides an applicable case study that can be referred to by other crafts with similar problems of market adaptation in China and other areas of the East Asian cultural zone. From an economic perspective, the successful development of product innovation in cork carving will create jobs for artisans and other designers, as well as packaging and retail staff; it will promote the construction of rural handicraft cooperative models and stimulate economic activity in cultural tourism, leading to positive spillover effects for the whole local economy. At a societal level, more people are paying attention to cork carving art, thus strengthening the sense of regional cultural identity and adding to the cultural confidence agenda advocated by contemporary Chinese cultural policy at all levels of government.

8. Conclusion

Fuzhou cork carving art has reached a crisis point in the field of cultural inheritance and tourism. It is one of China's famous intangible cultural heritage items and has been carried on for more than a hundred years; thus, many scholars, practitioners and policymakers pay attention to it. Formal recognition has failed to change the prolonged marginalisation of the industry in the market since the 1990s. Going forward, we should continue to develop products cautiously based on data, retain the cultural traits of the traditional craft, and broaden its consumption base among young people significantly.

Based on the feasibility study, it has been determined that the technical, market and design conditions are favourable for the development of new product lines aimed at consumers aged 18-35. The materials' attributes and standard technical vocabulary of the craft are suitable for the creation of new product forms, such as portable mini-figures, gift sets, modular building blocks and cultural and tourism products. Latent market demand among young urban consumers is real and increasing under the conditions of favourable cultural confidence, and design concepts in line with modern aesthetics can be integrated into the development of cork-carving products without losing the core cultural charm of the craft. To achieve the above goal, we need to work together to construct a three-tier price

system, build all kinds of digital distribution channels and make partnerships with cultural tourism and other industries for cross-sectoral design.

In the future, empirical research will be carried out on prototype products for certain groups of consumers to observe the development of the market for new product lines continuously. The concept system of this paper is divided into four aspects: cultural heritage, economic vitality, market analysis and new products, and so on, and it is therefore applicable to revitalization planning for other traditional crafts. The cultural and commercial inheritance of Fuzhou cork carving is feasible, but to make it a continuous development in practice, cooperation among craftsmen, designers, policymakers and market developers is needed.

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