

Exploration and Research on the Product Design Method of YangJiaBu New Year Woodcut Prints from the Perspective of Social Innovation

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ABSTRACT

This theme comes from YangJiaBu new year woodcut prints, one of China's intangible cultural heritages. Currently, cultural innovation is attracting attention in the development of the global cultural industry and also occupies an important position in China's cultural strategy, bringing new opportunities for the revival of traditional culture. However, this folk culture is facing complex status and development problems, and its development needs to be actively promoted by all forces. This study aims to better promote the cultural innovation of YangJiaBu new year woodcut prints and explore the design method and process of integrating it into daily use innovation. The research adopts fieldwork, interviews, literature research and case study methods, and thematic analyses. In conclusion, these studies will help to identify key themes from current cultural developments, sort out design methods and processes, and provide insights that will make the daily-use innovation of YangJiaBu new year woodcut prints more product-identifiable and innovative, add sources of inspiration for modern design and social innovation, and continue to maintain an important position and influence in the future for the inheritance and development of China's traditional culture.

Keywords: *YangJiaBu new year woodcut prints, Daily product design, Thematic analysis, Social innovation*

INTRODUCTION

Currently, the innovative application of traditional culture is receiving increasing attention in the development of the global cultural industry, bringing new opportunities for the revival of traditional Chinese culture. Successful design directions in the future will focus on committing to the sustainable development of culture while providing better social development and economic value (Zhong & Su, 2023). Intangible cultural heritage (ICH) is an important part of China's culture, and its innovation and sustainability are increasingly emphasised in national cultural strategies, as it is an important foundation for connecting national emotions and maintaining national unity (Xinhua News Agency, 2021). In fact, the term "ICH" was introduced as early as 1972 with the adoption of the UNESCO Convention for the Protection of the World Cultural and Natural Heritage (Gruber, 1972), and in 2003, the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage explicitly defined intangible cultural heritage: "'ICH' refers to the practices, expressions, manifestations, knowledge, skills, as well as the instruments, objects, artefacts, and cultural spaces associated therewith, which communities, groups, and, in some cases, individuals recognize as constituting their cultural heritage." (United Nations Educational, 2003). In 2004, China became the sixth country to accede to the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage; In 2005, the General Office of the State Council issued the Opinions on Strengthening the Safeguarding of Intangible Cultural Heritage in China and the Opinions on Strengthening the Protection of Cultural Heritage in China (China Government Network, 2007). The introduction and development of the definition of "ICH" has profoundly demonstrated the cultural significance and importance of ICH in the world, and at the same time, the decision-making of the Chinese government has also demonstrated the importance that the country attaches to ICH and the direction in which it is developing.

As the folk art carrier of Chinese culture, YangJiaBu new year woodcut prints are the first batch of intangible cultural heritages and treasures in China, which reflect the living environment, cultural beliefs and aesthetic interests of the common people in Chinese folklore, and they are the indispensable symbols of folk culture and cultural life in China. Thus, the protection and research of YangJiaBu new year woodcut prints is an inevitable social requirement to promote the development of folk culture and economic prosperity; the research on the cultural innovation of YangJiaBu new year woodcut prints is of great significance to the orderly inheritance and innovative development of Chinese folk culture. At present, YangJiaBu new year woodcut prints are facing the complex cultural status and new problems of development: cultural stagnation and conceptual repetition. This is not only a problem of the stage of cultural development, but also a problem of the relationship between people's mode of production and lifestyle at a deep level. These problems and the complex development process together constitute the main reason why YangJiaBu new year woodcut prints have gradually fallen out of favour in the current development. Moreover, although China has ushered in the national tide and national cultural confidence in recent years, many younger generations are still unaware of and uninterested in it, and the development of traditional culture still needs time to accumulate and active promotion. At present, the cultural innovation of YangJiaBu new year woodcut prints focuses on two main aspects: artistic innovation and practical innovation (Zhang, 2007). However, artistic innovation requires the cultivation of a large number of professionals with higher artistic qualities, and it is impossible to save the situation in the short term, whether in terms of manpower, financial resources or time; therefore, gradually restoring the commodity form of culture, promoting cultural innovation, and realising the horizontal development of multiple categories of cultural products are the current requirements of the times and innovation in cultural development. Enhancing the cultural protection awareness and cultural inheritance responsibility of the state and the public is an important development strategy and direction of the current Chinese cultural strategy. The development of culture will take on a new era and relevance in the context of meeting the strategic background of culture and national policies. In order to meet the requirements of the current era and diversified needs of life, focusing on the daily innovation of YangJiaBu new year woodcut

prints to better achieve the sustainable development of traditional culture provides a gap and opportunity for this study.

In order to better promote and strengthen the cultural development and daily-use innovation of YangJiaBu new year woodcut prints, the purpose of this study is to discuss the current product design methods and processes from the perspective of modern daily-use product design, comprehensively analyse its cultural characteristics and cultural levels, and then determine the design methods and processes for the incorporation of YangJiaBu new year woodcut prints into modern daily-use products. As research methods, this study will employ the field survey method, the interview method, literature research, and case study, and data will be meticulously summarised and analysed. The aims of this study are to examine the cultural background and traditional practises of YangJiaBu new year woodcut prints, as well as to investigate the innovative development of traditional culture from the perspective of the design field, based on previous research in folklore, history, sociology, anthropology, art and other multidisciplinary backgrounds. And secondly, to examine the contemporary product design process and methodology. Finally, combined with case studies and summaries, following the principles of cultural design, it provides insights into the design methodology of YangJiaBu new year woodcut prints combined with modern daily-use products, in order to add creative inspirations and sources for traditional cultural design and social innovation development in the future. This study has innovative significance to the cultural development and application practice of YangJiaBu new year woodcut prints, and this kind of research combining folk art from the perspective of daily use design is a thorough examination of people's demand for product design and self-lifestyle at the present stage, as well as the inheritance and preservation of historical and cultural heritage. It is conducive to the marketisation of products of traditional culture, and has the significance of inspiration and reference for the development of contemporary cultural innovation. At the same time, this human-centred thinking and cultural awareness attempts to interpret and shape a new character of daily use and the spirit of contemporary design, making the relationship between products and people clearer in the context of daily life. This symbiotic interaction and harmonious relationship is an important guarantee for the development and continuation of folk culture, as well as an impetus for reflection and innovation on the development of human civilisation and society, and allows the relationship between people and products to gradually return to a state of harmony and order, which is conducive to the healthy development and orderly inheritance of traditional culture.

LITERATURE REVIEW

YangJiaBu new year woodcut prints

In the history of Chinese folk art, Nianhua is a distinct form of painting that originated in China during the Han Dynasty. In 1984, Li Guangting began using the term "Nianhua" in his book "Xiangyan xieyi" to define it precisely. YangJiaBu new year woodcut prints originated in China during the early Ming Dynasty and flourished during the Qing (Tan et al., 1993). YangJiaBu new year woodcut prints have undergone a lengthy and complex cultural development process, incorporating numerous historical factors, national cultural factors, and social development factors, and have become China's "ICH" at the close of the 20th century. YangJiaBu new year woodcut prints are rooted in daily life of the common people, representing the cultural beliefs and aesthetic preferences of folk art, emulating the natural way of life, and depicting the common people's simple and gorgeous perspective on life. It is evident that social changes, changes in labour practises, and changes in lifestyle have had a significant impact on the evolution and development of traditional folk culture. Reviewing and organising the cultural background and traditional customs of YangJiaBu new year woodcut prints helps to comprehend and study this folk culture in the context of multidisciplinary fields such as folklore, history, sociology, and art, and to fully

comprehend its cultural evolution, artistic characteristics, and developmental laws, to realise the integration of design resources, and to contribute to the derivation of innovative design and exploratory research, which is both necessary and important in the early stages of design.

YangJiaBu new year woodcut prints have profound cultural heritage, its artistic style and cultural concepts are closely related to the concept of the rich daily life of the people and the traditional history of the national culture, it is a macroscopic cultural ideas engraved into the specific scenes and details of the folk life; it contains excellent and diversified cultural elements and design inspirations, and at the same time strongly embodies the symbolic and decorative art. indicating the flourishing regional national culture at that time. It is an important national cultural asset that has been created and accumulated by ordinary people over a long period of time on the basis of their lives (Bamo, 2008). In terms of artistic development, YangJiaBu new year woodcut prints have undergone very significant changes in artistic expression during various periods of history. It was rooted in the social background, scientific and technological development and labour relations of the time, and technological advances also influenced its cultural content and the technique of the work. The literature review reveals that the artistic evolution of YangJiaBu new year woodcut prints has occurred in several historical phases (Feng et al., 2005): (1) During the earliest period of the Ming Dynasty, the primary subject matter is deity statues, the composition is solemn and rigorous, and the colours are vivid (figure 1). (2) The stage of development at the close of the Ming Dynasty in which images of gods and living and working were the primary subjects. (3) The stabilisation phase of the early Qing Dynasty. The theme of auspicious ideas was added to the subject matter, and in the artistic style there was a preference for the use of contrasting colours of high purity, and the figures were more plainly styled. (4) At the end of the Qing Dynasty, the theme of YangJiaBu new year woodcut prints was increased to include current affairs related to the political situation at that time, the artistic style was simple and generous, and the technique was more mature. (5) In the early stage of the Republic of China, when the society was in turmoil, the themes of YangJiaBu new year woodcut prints were mostly of the gods and goddesses, which soothed the traumas of the ordinary people at that time and provided them with spiritual solace. (6) After the founding of New China in 1949, YangJiaBu new year woodcut prints entered a stage of rest and recuperation, with realistic themes containing political significance as the mainstay, and the works are simple, with popular and generous images. The process of artistic development of woodcut prints in YangJiaBu provides a rich source of results and historical research for cultural innovation and discussion. The continuous and in-depth study of traditional culture reflects the increasing awareness of Chinese culture, and at the same time clarifies decisions and attitudes towards cultural development. However, despite the fact that the heat of research on traditional Chinese culture has continued to rise in recent years, and literature studies from both domestic and foreign countries have helped this study to understand the development of traditional new year woodcut prints from multiple disciplines and perspectives, the study of folk culture is still dominated by cultural preservation and protection. Among the data from China National Knowledge Infrastructure(CNKI) statistics, the fine arts profession occupies 45%, and the remaining main focuses are education 4%, culture 4%, tourism 3%, light industry 3%, cultural economy 2%, and industrial economy 1%. The research on YangJiaBu new year woodcut prints has expanded its channels and summed up its findings in accordance with the active research of multiple disciplines. Continual in-depth analysis and compilation of these studies can yield historical information and classified commentary on YangJiaBu new year woodcut prints. However, in the face of the current cultural strategy and stage of cultural development, YangJiaBu new year woodcut prints need to develop cultural innovations, especially practical innovations. Promoting its cultural innovation in the field of product design will play an important role, and there is still little literature that systematically develops the daily innovation and application of YangJiaBu new year woodcut prints by design method. Therefore, by combining the cultural development of YangJiaBu new year woodcut prints with regional cultural customs, conforming to the scientific theory of cultural evolution, and combining cultural hierarchy analysis (Leong & Clark, 2003), Cultural innovation and methodological exploration in the context of contemporary lifestyles can provide a theoretical basis and new design thinking for YangJiaBu new year woodcut prints.



Figure 1. Door gods, Qin Qiong and Jing De, Ming Dynasty.
(Source: Author's collection)

To sum up, in the long social and cultural progress and historical changes, the theme and elements of YangJiaBu new year woodcut prints have also changed continuously. YangJiaBu new year woodcut prints, as a folklore cultural product, contain a profound and systematic process of cultural development and characteristics of artistic evolution, both from the historical point of view and from the modern point of view; whether in the composition, theme, colour and image of the expression is very elaborate, and truly express the It truly expresses of people's customs and habits, thoughts and feelings, lifestyle, aesthetic point of view and other aspects of the needs. Therefore, the review of YangJiaBu folk culture, combined with the analysis and discussion of scientific theories, will be conducive to the contemporary cultural development and practical innovation of YangJiaBu new year woodcut prints, which will have theoretical significance for the increase of creative sources of culture and the expansion of folk culture research, and will have important inspirational significance for the innovative development of the society.

Intangible cultural heritage and design principles

The famous scholar Bernal has said that China has been one of the great centres of human civilisation and science for many centuries (Lin, 1984). China's intangible cultural heritage has diversified cultural identities and cultural values based on its history and culture, and has added commercial value and impact. Currently, under the policy of protection and development of ICH, China is vigorously promoting the integration of ICH into the cultural and creative industries. As defined by Culture UNESCO in 2003, the cultural industry consists of cultural products, cultural services and intellectual property. Integrating traditional culture into modern cultural innovation and product design to promote the development of cultural industries is also an important direction for China's cultural heritage and social innovation and development (Bao, 2019). Excellent traditional culture has accompanied China's transition from an agrarian civilisation to an industrial civilisation and a modern civilisation, and in the development of the modern market economy, it has gradually condensed and given economic connotations and functions.

In the study of cultural development and innovation of ICH, the principles of cultural design should be in line with the principles of aesthetics, inheritance and practicality (Zhang, 2021), and at present, in the process of the revival of traditional culture and the development of related industries, the principles of innovativeness, humanisation and sustainability in design are also gradually affecting the direction and development of cultural innovation (Mokhtar & Deng, 2014).

In this study, the cultural innovation of intangible cultural heritage focuses on daily-use innovation design, and the practical innovation research on YangJiaBu new year woodcut prints is necessary and in line with the development requirements of the times. Modern design translates traditional culture, combines folk cultural characteristics, humanistic values of handicrafts and aesthetic values, realises design empowerment of folk handicrafts, and makes them gradually adapt and integrate with contemporary lifestyles in daily-use product design with rich categories. Following the design principles of ICH and deepening the exploration and research of design methods and processes will provide systematic methodological guidance and theoretical basis for the orderly inheritance and innovative development of ICH.

Daily Products and Product Design Methods

Daily product design is different from product design in the broad sense. Since ancient times, daily product design has been based on daily life, its design is fundamentally to serve the public, ease of use, and convenience are also its distinctive features, containing practical and simple functionalism and design wisdom (Luo, 2021). The Chinese "way of using things" is embodied in all aspects of daily-use products and lifestyles, fully demonstrating the harmonious thoughts of China since ancient times on the interaction among people, things, and the environment; "making the best use of things" is the philosophy of life for products handed down in China. It embodies the Chinese people's understanding of the proper use of products, including the natural unity of form and function.

As a category of products, daily-use products possess the fundamental characteristics of products. Moreover, it is the product category with which people have the most contact during their daily activities, and it emphasises the close relationship between people and objects when they interact, which is the essence of daily-use design. The primary manifestations of daily-use product design characteristics are the functional, erotic, and cultural characteristics of daily-use products. Along with the development of the cultural innovation industry and the continuous change of people's lifestyles, daily-use products closely related to people's lives are firstly integrated with new cultures and life values. Today, daily product design still has a significant change trend and room for improvement, China's daily product market updated very fast, including the update of the category and the update of creativity, and this mode of mass production necessitates the cultural precipitation of the product and people's reflection on life. Therefore, for the innovative development of daily use of YangJiaBu new year woodcut prints, it must be integrated into the people's lifestyle and the frequent use of daily necessities, and the design essence of the daily use innovation of this traditional culture is the process of constructing the mapping relationship from perceptual imagery to shape features (Lin, 2007). It will help to shift the local traditional culture towards product marketability and contribute significantly to social innovation and economic development; and it is crucial for cultural preservation and promotion, fostering practical innovation and sustaining the cultural development of woodcut prints in YangJiaBu.

As it has been incorporated into product design, culture has gone through stages of constant integration and development. Modern product design has accumulated numerous scientific design methods as it has matured. In 1962, the Imperial College of Science and Technology in London hosted the "Conference on Design Methods"(Langrish, 2016), which inaugurated the Design Methods research field in academia. The development and research of design methods have progressively become the academic tradition of design research through continuous enrichment and development (Gerriker et al., 2017). Research on product design methods for culture tends to discuss design theories at the humanistic level, based mainly on feedback and reflections made by design thinking. According to Jiang (2010) the different design thinking can be divided into several different methods: design method based on image thinking, design method based on logical thinking, system design method, intelligent design method. For the methodological system of cultural transformation, it is elaborated in four dimensions: constitutive

form, cultural level, cultural environment and cultural function (Zhu & Luo, 2013). Regarding the research on product design methods, a study has summarised and concluded 538 design methods, including 68 industrial design methods, based on the research on Universal Design Principles, Universal Methods of Design, and Delft Design Guide: Design Strategies and Methods (Hu & Mi, 2022). In addition to the study, there is a compilation of product design methods compiled by the researcher, totaling 69 methods (Zhang et al., 2020). The study of design methods revolves around the design process, which according to Best (2006) is "a specific series of events, actions or methods". Based on universal design, he delineated "standardised processes" and "customised processes" to match the specific requirements of a design task or design activity. Since then, the "Double Diamond Model" has emerged from analysing design methods based on design practices (Kochanowska & Gagliardi, 2022). In addition, a study summarised the general process of combining traditional culture and product design through more than 1,100 related documents (Cheng et al., 2022). In conclusion, the product design methods and processes rely primarily on brainstorming, questionnaires, or interviews to collect the characterization of the user's description of the cultural characteristics or the confirmation of the artistic generalisations, combined with the data collation or intelligent design to classify and organise the culture; at different stages of the design, different design methods are employed to avoid both too subjective methods and too mechanised methods.

Concurrently, research and compilation are conducted alongside several domestic and international application cases of culture and product design. Some of these studies isolate and design the development of traditional cultural elements by combining Kansei engineering with the semantic difference method (Boddy, 2016). There are studies on cultural multidimensional profiling by the morphological matrix method (Deng et al., 2018); there are also studies on factor coding by genetic algorithms to construct regional cultural maps and design them (Wu & Han, 2022). In addition, some researchers use a combination of several methods, such as there is a study based on F-AHP and entropy calculation to extract elements from images, and construct matrices for extrapolation and validation (Hu et al., 2021); there is a study that uses perceptual engineering combined with symbolic derivation to develop cultural product design (Kang et al., 2022), etc. Innovative explorations in design applications include research in the areas of visual, packaging, product, and apparel decoration (Lyu & Yang, 2015; Gao, 2016; Zhao, 2021; Liu & Yang, 2022).

For the selection of methods at different stages, it can be seen that an increasing number of researchers will combine data classification or hierarchical analyses with engineering-type or combinatorial design methods, which are typically combined with intelligent design methods. Regarding the outcomes, these methods will quickly generate a large number of alternatives, but further screening and adjustment are required for the matching and integration of effects and aesthetics, and the design expression and presentation cannot be discussed and arrived at by relying solely on quantitative algorithms, and the design creativity stage is crucial for realising cultural extraction and design translation, and the design process. The design process and expression are ultimately driven by emotion and intuition (Toyong et al., 2021). Relying on the designer's expertise and experience, and combining it with a subjective level of understanding and cognitive gaps in cultural identity, the final design translation and design outcome is realised. The subjective creative ability and professional skills of designers play a significant role in the entire design process, which has a positive impact on an innovative significance for the combination of traditional culture and product design; at the same time, it requires designers to continuously improve their level of cultural understanding and innovation and to combine the characteristics and connotations of traditional culture with the design process. Generally speaking, the starting point and expectation of this study is to combine the cultural characteristics of YangJiaBu new year woodcut prints with the complexity of people's lifestyles from the perspective of modern daily-use product design, to summarise the suitable cultural dimensions and design points, to provide insights into the method of integrating YangJiaBu new year woodcut prints into the modern daily-use product design, to help and promote the cultural innovations of YangJiaBu new year woodcut prints, and to "reacquaint"

the public with modern daily use development of YangJiaBu new year woodcut prints. Make the daily innovation of YangJiaBu new year woodcut prints more product identification and national culture innovation, in order for the future of Chinese traditional culture inheritance and development to continue to maintain an important position and influence, as a means of ushering in new development and opportunities.

METHODOLOGY

The overarching concept of this research is founded upon the artistic components and traditional practices of the region. It aims to reflect the artistic development and conscious expression of cultural subjects, as well as to disseminate culture through artistic experience, cultural accomplishments, and cultural thoughts, so that local folk art may be better comprehended and developed through the implementation of cultural innovation and design practice. This study analyses and collects data via qualitative research methods, including fieldwork, documentary research, interviews, and case studies. Then, thematic codes can be identified and obtained via thematic analysis, and hierarchical induction and summarization can be performed to categorise the design processes and methods of commonplace products. In conclusion, this paper offers a comprehensive analysis of the design challenges encountered by YangJiaBu new year woodcut prints during the present phase of cultural evolution. Furthermore, it explores novel approaches and design methodologies that can be implemented to incorporate these images into daily-use products. The overall research procedure for this research is depicted in figure 2 below (Figure 2).

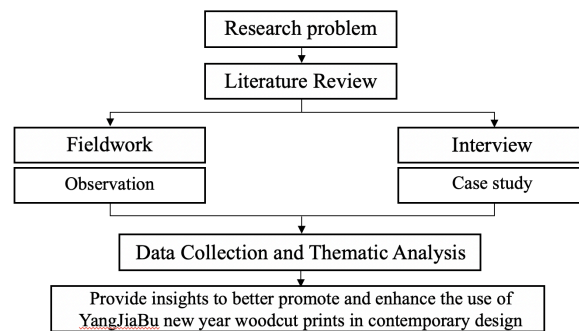


Figure 2. Research Progress

Fieldwork

Conducting a comprehensive examination of YangJiaBu Village, the YangJiaBu Museum, and Folklore Garden to gain insights into the industry customs and cultural landscape of YangJiaBu new year woodcut prints; integrating historical analysis to compile and synthesise artistic expressions and cultural practices that are unique to the region; and utilising observation and interviews to synthesise the present cultural challenges and state of affairs in Yangjiabu. This research process contributes to the comprehension of the regional culture's present trajectory of innovation and development, investigates and selects design methods under cultural attributes and principles, and is inherently motivating and pertinent for forthcoming inventive implementations and design methodologies involving modern everyday commodities.

In-depth interview

In-depth interviews were conducted with 10 daily-use designers to obtain valid data on current design in business activities, especially design processes and methods in modern design production, to advance the better integration of YangJiaBu new year woodcut prints into modern daily-use design and innovative applications. The interview population for this study will be sampled in quotas based on level of expertise and design experience. To increase the realisability of the innovative applications of this study, the interviewees were asked to be already experienced designers. The designers were categorised into different tiers based on their professional experience, which were junior designers, senior designers, and high-end designers. Moreover, designers at the senior level and above are usually also corporate managers or design directors, which will be conducive to examining the design process and methodology from a holistic perspective of new product development and enhancing the business perception and multidimensional thinking of this study.

RESULTS AND DISCUSSION

Fieldwork on YangJiaBu new year woodcut prints

Using historical analysis and fieldwork, this study aims to augment comprehension of the cultural attributes inherent in YangJiaBu new year woodcut print, fortify the internal cultural link with daily design, bolster the capacity for cultural transformation, and broaden the scope of knowledge regarding YangJiaBu new year woodcut print. The systematic comprehension of intangible cultural heritage is enhanced, thereby bolstering the daily influence and perception of traditional folk culture in the port and providing more comprehensive information and guidance for the application and combination of contemporary daily design(Figure 3).



Figure 3. The author discusses the woodcut design process with Yang Futao (left)The author learned woodcut printing from Yang Chunmei(right)

(Source: Author's collection)

This field survey provides some guidance and direction for the development of cultural innovation in YangJiaBu new year woodcut print. First of all, the cultural development of YangJiaBu new year woodcut print can work together and make efforts from both artistic innovation and practical innovation. Besides the cultivation of cultural skills in artistic innovation, the development of practical innovation is imperative to obtain the diversified and sustainable development of culture and to realise natural and

orderly cultural articulation and innovation. At the same time, at the current stage of cultural development, even though cultural innovation has taken off, there is still the dilemma of the descendants of cultural inheritors not wishing to continue in the relevant professions.

Furthermore, within the context of YangJiaBu's present economic progress, the cultural sector possesses the capacity to effectively steer regional industries towards advancements in cultural innovation. YangJiaBu new year woodcut print is an annual cultural event that takes place from the onset of spring to the conclusion of each year. This coincides with the village's traditional practice and the collective awareness of the New Year print industry. Chinese folk culture and traditional practices have consistently been shaped by the ethical order and harmonious perspectives on people, things, and the natural environment that originated in YangJiaBu Village. YangJiaBu Village's social and humanistic order has been shaped and standardised by these traditional practices, which have also had a profound effect on the cultural attributes of the village's literary and artistic creations. The continuous optimization, adaptation, and cultural sensitivity that permeate the market effectively direct the commercial development, adjustment, and maturation of the regional economic structure. Economic value has been elevated to the forefront of cultural value in the current new form of cultural consumption, which has become an integral component of economic development. For instance: the correlation between design development, economic progress, and cultural sustainable development; the association between traditional craftsmanship and business operations and more volatile economic models and cycles of cultural value; challenges associated with the management and profitability of small cultural enterprises; the enhancement of individual competencies and the expansion of an engaged consciousness regarding the exploration of cultural worth. An investigation into the cultural attributes of New Year woodcut prints from YangJiaBu will contribute to the growth of the cultural innovation sector.

Finally, for the protection of intangible cultural heritage and the promotion of industry and culture, design development is a very effective means of inheritance and innovation that can effectively promote and realise the sustainable development of culture and guide the direction of subsequent cultural innovation. This survey summarises six groups of terms related to the cultural development of YangJiaBu new year woodcut prints under the current stage (see Table 1), which helps to makes this study essentially intervene in the cultural innovation of YangJiaBu new year woodcut prints, and provides pre-cultural resources and data support for the integration of traditional culture into the design process and methodology of new product development.

Table 1. Related topics

Practical innovation	Cultural heritage	Craftsman skills	Cultural consumption	Lifestyle	Business model
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Design processes and methods of daily products

Sato has pointed out that generic theories and methodologies resulting from general design research are not directly applicable to design practice, but they provide frameworks and models for further research to develop domain-specific knowledge and methodologies that apply to actual design projects (Poggenpohl & Sato, 2009). Conducting a comprehensive review on product design and development will facilitate a more methodical examination of the design process and methodologies employed in this research. Nevertheless, product development and the emphasis on particular cultural resources must be grounded in tangible cultural phenomena and regional attributes. Conduct evaluations and assessments regarding the present phase and objectives of the design, rather than being constrained by the development process in isolation. By adopting universal standards, the implementation of new product development for traditional culture can be enhanced in terms of effectiveness and precision. Moreover, this approach facilitates the future realisation of sustainable cultural development and innovative design.

This study conducts in-depth interviews with ten daily product designers and is predicated on the innovative transformation and product application of regional traditional culture, as well as on current actual business activities and product project development. The interview primarily centres around the most recent advancements in everyday products. Methods and processes of actual design are described, along with a synopsis of key points.

By identifying the data gathered from the interviews via thematic analysis, the present state of design processes and methods utilised in the daily development of products was validated. In the end, the information pertained to several design relationship aspects, design development types, design processes and methods, and product characteristics. To begin with, the data indicates that the design relationship affects not only the design purpose but also project ownership, risk proposition, and design concerns in contemporary business activities and design practices. Furthermore, it is intrinsically linked to the ultimate design trajectory, feasibility evaluation, and resultant design projects. Secondly, the current design and development of everyday-use products focuses primarily on three distinct types: retrofit design, product line development, and new design. Once again, in the current new product development of daily-use products, there are different definitions, design processes, and methods. Although different designers have different understandings and practical experiences, the design process of daily-use product development is relatively fixed in the overall view. Meanwhile, the interview data show that designers have the habit of applying design methods, research methods, and modelling methods in an integrated way and generally have a state of design method backwardness. In addition, the use of AI has gradually become a common design tool. Finally, the design process is based on the characteristics of daily-use products, and the overall style of the product is predetermined. The data indicates that natural, functional, and entertaining forms are emphasised. Additionally, light luxury style and cartoon style have emerged as significant fashion trends in the daily-use products market in recent times. Simultaneously, the product-centric focus of the CMF has been relocated to experience preparation and pre-design elements. Positiveness, proximity, and usability are corresponding general characteristics. Furthermore, the design cycle holds significance in the development and design of daily-use products, given that the frequency of product replacements is a defining characteristic of such items(see Table 2).

Table 2. Analysis of coding sub-theme to the main theme

Description	Sub-theme	Theme
Designer	Awareness and Project orientation	Design relationship
Design director		
CEO		
Servicing company/serviced company	Aim of design	
TOP companies and small businesses		
Project risk and feasibility assessment		
New development (complete design)	Standard process	Type of design development
Product line innovation (expanded design)	Part of the process	
Reshaping (simple design)		
3/4/5 phases	Type of design phase	Design process
Design process and content	Relatively fixed design process	
Reliability of research data	Priority of importance	
Design positioning and dispersion	Intermediate phase	
Intervention in design methods		
Design Delivery	Relatively easy stage	

User profiling, association methods, brainstorming, etc.	Design methods	Integration of methods
Stacked, combined, bionic,	Modelling methods	
Geometric methods, modularity, parameterisation, etc.		
Appearance, material, finish (texturisation)	CMF of the product	
Interesting, functional, natural forms	Stylised trends	
Light luxury style, cartoon style, minimalist style		
AI technology-assisted	Modern design tools	
Lifestyle, proximity, and positivity	General characteristics	Product Features
Simplicity, ease of use	Lifestyle	
Closely related to life scenarios		
Fast product updates	Update Frequency	
Time period of design		

Discussion on the integration of YangJiaBu new year woodcut prints into daily product design

Despite the growing recognition of the significance of the product design development process in contemporary creative and cultural sectors and business operations, there remains a requirement for cultural resource-based feasibility framework studies and targeted design process analyses. Simultaneously, the design principles governing the everyday utilisation of intangible cultural heritage ought to be informed by the objectives of regional development and local cultural resources. At the current stage of development, the innovative application of integrating YangJiaBu new year woodcut prints into daily-use product design is the process of constructing a mapping relationship from the sensual imagery of Yangjiabu woodblock prints to cultural modelling features. At the same time, it is also an innovative exploration of a specific stage of social development and regional cultural characteristics. When promoting cultural innovation, it should be discussed in the context of product development processes and methods.

First of all, during the exploratory phase of product design, research is conducted on the cultural attributes of YangJiaBu new year woodcut prints, materials, craftsmanship emotions, and other relevant factors. An analysis of these elements is conducted about the target market, products, and requirements. This phase is predicated on data collection and research, and the integrity of the data will directly influence the design's positioning and trajectory.

Furthermore, during the phase of product design definition, the following steps were taken: establish a framework for cultural daily use design, construct regional cultural characteristics and a hierarchical analysis structure of Yangjiabu woodblock prints, extract, categorise, and summarise design elements, and progressively develop a framework for product positioning that reflects culture. Hierarchical analysis, factor analysis, cluster analysis, kano model, etc. can be borrowed as research methods to assist in the elaboration of culture from the three levels of visual form, cultural function, and cultural emotion, including explicit and implicit characteristics, with the help of methods such as the method of "patternology," the theory of composition, and the grammar of shapes. Meanwhile, the manifestation of cultural sentiments is frequently communicated to the user through design. While user demand is undeniably significant, it is equally imperative to regard output culture as the fundamental content. At this juncture, designers must not only comprehend the connotation of culture but also integrate it with techniques such as design narrative to elucidate design positioning and design language to progress the conceptualization and feasibility evaluation of cultural creativity.

Again, in the product design and development stage, the focus is on promoting the expression and realisation of the design, which includes the dispersion, confirmation, and prototyping of the design, as well as the prototyping and testing of the model. This stage focuses on combining the use of design methods, including the comprehensive use of research methods, design methods, modelling methods, etc., to promote the visual realisation of the design from the product style trends and CMF, for example: using modular design, parametric design, and other methods, combining interesting forms, natural or geometric forms, etc., and adopting a variety of modelling means such as combining and stacking, analogy and symbolism, deconstructing and reshaping, mutation and expansion, etc., and, at the same time, with the help of the details of the changes in the material, texture, decoration, etc. As the critical developmental phase of cultural design, this stage offers an assortment of concepts and techniques for the implementation of traditional culture in design. At this juncture, there remain certain challenges regarding the alignment and fusion of design expressions, which will subsequently require modification to correspond with contemporary aesthetic trends and lifestyles. Hence, during this phase, the design methods may be implemented alongside particular practices that are directed by a general methodology. Furthermore, the design methods may be combined to offer a more comprehensive guide and reference.

Finally, the delivery phase of the design focuses on product implementation, with an emphasis on product delivery and production readiness to track data, audit and collect feedback, optimise strategies, and make adjustments for improvement. Simultaneously, to regulate the amalgamation of conventional culture and design for everyday use, it is imperative to consider not only the harmonious relationship between culture and design but also the subsequent conception of sustainable cultural development. This entails developing a range of design applications and organising systematically the design of supplementary services, including educational activities, digital products, and more. By adopting this approach, it is possible to enhance the overall innovative development and cyclical process of culture and products, optimise the interaction between traditional culture and contemporary lifestyle, and achieve social innovation and cultural sustainability through the incorporation of Yangjiabu woodblock prints into the design of everyday products(see Figure 4) .

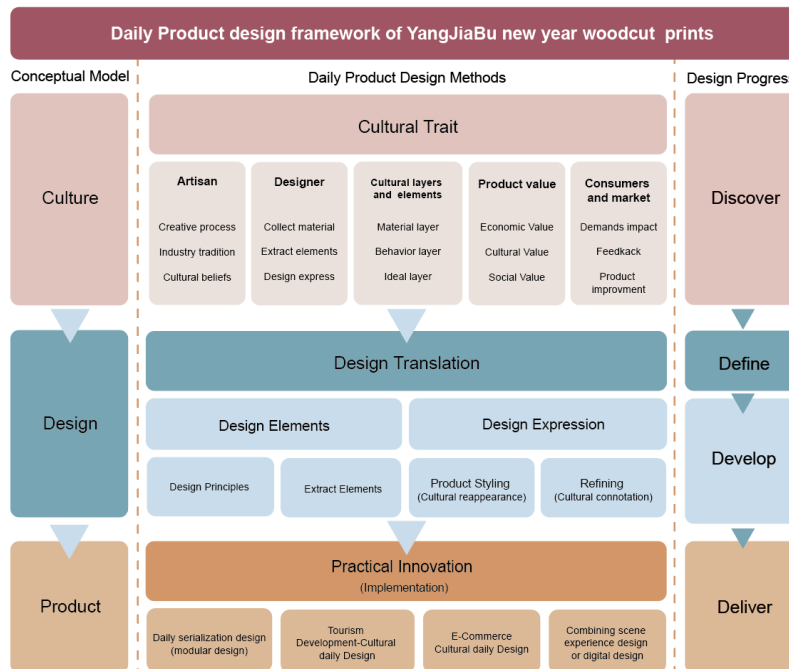


Figure 4: Daily product design framework of YangJiaBu new year woodcut prints.

CONCLUSIONS

In conclusion, Without appropriate and effective measures, the inheritance and cultural development of YangJiaBu new year woodcut prints will confront a complex situation and uncertain future. This study aims to establish a harmonious and benevolent interactive relationship between Chinese folk culture and daily-use product design, to form the sense of order in daily use that is the path and to preserve the aesthetic pleasure of design in life, and to make the design process and performance of folk cultural products more recognizable as cultural products and innovative in national culture. In this context, based on the contemporary lifestyle and the diversified needs of the public, the effective combination of cultural innovation and product design will play an important role. Cultural innovation is a very good method of protection, reflecting the continuous improvement of the people's spiritual and cultural level; the consumption and use of it also reflect the state of demand for innovation and product development in contemporary society, and it is a benign development and inheritance of traditional culture. As China's intangible cultural heritage, YangJiaBu new year woodcut prints convey the aesthetics and connotations of traditional culture to modern society, realizing the creative transformation of cultural values in contemporary daily-use design. The results of the research and thematic analysis of the cultural resources of YangJiaBu new year woodcut prints can help better reflect current regional cultural issues and development relationships; at the same time, it provides visual analysis and insights into design methods and processes for the integration of YangJiaBu new year woodcut prints into daily-use products, which is of significance in promoting the development of the innovation industry of traditional Chinese culture and promoting the structural adjustment and optimization of the cultural industry for social innovation; and it provides a design for the products Provides a source of inspiration, inspires multidisciplinary exploration and applied research on traditional folk culture, and helps to explore and enrich the modern cultural design. As for the recommendations, in order to reflect the advancement and innovation phase of the national cultural strategy, the regional innovation of traditional Chinese culture should be developed proactively in a manner to encourage the local community and stakeholders to respond actively to the innovative development of culture and to the industrial upgrading. For the time being, YangJiaBu new year woodcut prints exhibit two distinct trajectories toward cultural innovation; nevertheless, certain challenges persist in the realm of cultural development. Subsequent investigations may incorporate contemporary cultural issues and resources, employ methodical analysis techniques to extract cultural attributes and design components, and furnish scientific research and data to foster cultural innovation. Furthermore, expert testing and feasibility assessments are needed to supplement and summarise the innovative design framework for traditional culture in order to better meet the sustainable development of traditional cultural industries and innovations.

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