

# CULTURAL IDENTITY AND COMMEMORATIVE PRODUCT DESIGN OF DOUMEN ANCIENT STREET FROM THE PERSPECTIVE OF USER EXPERIENCE AND PRODUCT SEMIOTICS

Xiaopeng YUAN<sup>1</sup>, Rosjana CHANDHASA<sup>2</sup>, and Pisit PUNTIEN<sup>2</sup>

<sup>1</sup> Doctoral Student of Philosophy Program in Visual Arts and Design, Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University, Thailand;  
s64584948036@ssru.ac.th

<sup>2</sup> Visual Arts and Design, Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University, Thailand; rosjana.ch@ssru.ac.th (R. C.); pisit.pu@ssru.ac.th (P. P.)

## ARTICLE HISTORY

Received: 22 November 2024 Revised: 1 December 2024 Published: 15 December 2024

## ABSTRACT

Guangfu culture and Tanka culture in Doumen District of Zhuhai City are rich, and it is a famous hometown of overseas Chinese in China. However, at present, the utilization and development mode of intangible cultural resources in Doumen area is relatively backward, especially the relevant characteristic folk culture of Doumen Ancient Street has not been well developed and integrated. This research aims to analyze the cultural identity of the ancient street architecture of Doumen, Guangdong Province, China through the user experience and product symbols, and integrate it into the design of tourism souvenir products. In this research, a combination of qualitative and descriptive analysis was used to study the application of cultural environment in souvenir product design by means of literature review, product observation and analysis, and interviews with inheritors and experts. The research results show that the current development of intangible cultural heritage products has problems such as single user experience mode, insufficient influence and insufficient depth of cultural experience. In response to this phenomenon, this study puts forward a new idea of integrating cultural symbols of Doumen Ancient Street into modern digital virtual product design. It provides the corresponding guidance and reference for the research on the development mode of the intangible culture of the ancient street of Doumen Town based on user experience.

**Keywords:** Doumen Ancient Street Culture, Intangible Cultural Heritage, Commemorative Product Design

**CITATION INFORMATION:** Yuan, X., Chandhasa, R., & Puntien, P. (2024). Cultural Identity and Commemorative Product Design of Doumen Ancient Street from the Perspective of User Experience and Product Semiotics. *Procedia of Multidisciplinary Research*, 2(12), 9.

## INTRODUCTION

Doumen Ancient Street, located in Doumen District, Zhuhai, is a microcosm of Zhuhai's marine culture, spanning thousands of years of history and showcasing the treasures of Lingnan culture and architectural art. Its architecture blends Lingnan arcade with Western elements, preserves cultural relics from the Song Dynasty to modern times, and witnesses the changes in Zhuhai. The ancient street also contains rich intangible cultural heritage projects, such as water weddings, which are unique and charming. Faced with the challenges of modernization, Doumen Ancient Street is exploring ways to balance protection and development. Through innovative design and cultural inheritance, it strives to become a bridge connecting regional culture with the world, attracting global tourists and cultural enthusiasts.

### Research Objectives

This research aims to analyze the cultural identity of the ancient street architecture of Doumen, Guangdong Province, China through the user experience and product symbols, and integrate it into the design of tourism souvenir products.

## LITERATURE REVIEWS

### Related Studies in the country

In recent years, China has attached increasing importance to the protection and inheritance of intangible cultural heritage (referred to as "intangible cultural heritage"). The "Intangible Cultural Heritage Law of the People's Republic of China" (2011) not only reflects policy support, but also deep integration in local economic development strategies. As an important component of traditional Chinese culture, intangible cultural heritage has been widely recognized for its economic potential and market prospects. Multiple studies have shown that the integration of intangible cultural heritage and modern industries can effectively promote the sustainable development of local economies (2021).

In Guangdong Province, especially in Doumen District of Zhuhai City, the protection and utilization of intangible cultural heritage has become an important strategy to promote local cultural revitalization. As a cultural landmark of Doumen District, Doumen Ancient Street carries rich historical and cultural heritage as well as folk customs. However, the current utilization and development model of Doumen's intangible cultural heritage resources is relatively lagging behind, and its potential value has not been fully realized. Therefore, how to integrate the cultural characteristics of Doumen Ancient Street into souvenirs through innovative design and enhance user experience has become an urgent problem to be solved.

The importance of user experience in product design is increasingly prominent. Lucas Daniel (2000) believes that excellent product design should not only meet basic functional requirements, but also focus on improving user experience. In the design of intangible cultural heritage products, how to convey cultural connotations through design elements, enhance users' cultural identity and emotional experience, has become a research hotspot.

Domestic scholars have explored user experience research on intangible cultural heritage products from different perspectives. On the one hand, through on-site research and questionnaire surveys, collect feedback from users on existing intangible cultural heritage products, analyze user needs and pain points; On the other hand, based on user experience design theory, improvement plans are proposed to incorporate more cultural elements and interactive experiences into product design.

Product semiotics is a discipline that studies how products convey meaning and information through symbols. Semiotics plays an important role in the design of intangible cultural heritage products. As a special cultural carrier, the design of intangible cultural heritage products should not only consider aesthetic factors, but also pay attention to the selection and expression of symbols.

Domestic scholars have made significant achievements in the semiotic research of intangible cultural heritage products. They proposed specific methods for integrating cultural symbols into product design through in-depth exploration and organization of intangible cultural heritage symbols (2017). For example, in the design of souvenirs for Doumen Ancient Street, representative cultural symbols such as ancient architectural elements, traditional handicraft patterns, etc. can be selected and cleverly integrated into the product through design techniques, so that the product not only meets practical functions but also carries rich cultural connotations. There have been many successful cases in the development of intangible cultural heritage products in China. For example, Yuexiu District in Guangzhou has adopted an innovative integration model of "traditional intangible cultural heritage+modern culture" to bring Xinghua Street and Quyi rap art to the stage, which not only enhances the dissemination of intangible cultural heritage, but also drives the development of related industries (2015). Similarly, in the design of souvenirs for Doumen Ancient Street, this model can also be borrowed. Through cross-border cooperation and creative design, the cultural elements of Doumen Ancient Street can be combined with modern design concepts to create unique and charming souvenirs.

Domestic scholars have also explored specific paths for the development of intangible cultural heritage products through empirical research. They summarized the successful experiences and shortcomings in the development process of intangible cultural heritage products through field research and case analysis, providing useful references for future research and practice.



**Figure 1** Buildings on Doumen Ancient Street

### Related research abroad

The protection and inheritance of intangible cultural heritage are also widely concerned worldwide. Foreign scholars pay more attention to examining the value and significance of intangible cultural heritage from a global perspective in their research. They believe that intangible cultural heritage is not only the cultural heritage of specific ethnic groups and regions, but also the common spiritual wealth of all mankind. Therefore, in the protection and inheritance of intangible cultural heritage, attention should be paid to international exchanges and cooperation to jointly promote the inheritance and development of intangible cultural heritage (2004).

In terms of user experience design, foreign scholars have proposed many mature theories and methods. For example, classic works such as Donald Norman's "Design Psychology" (2003) provide valuable theoretical support for how to enhance user experience in product design. These theories also have important application value in the design of intangible cultural heritage products. Foreign scholars have explored through empirical research how to apply user experience design theory to the design of intangible cultural heritage products, in order to enhance product attractiveness and user satisfaction.

In terms of product design, foreign scholars also pay attention to the integration of cultural identity (2013). They believe that products are not only carriers of material goods, but also disseminators of culture. In the design of intangible cultural heritage products, the cultural background and cognitive characteristics of the target users should be fully considered, and unique cultural values and identity should be conveyed through design elements. Foreign scholars have explored cultural identity issues in product design under different cultural backgrounds through cross-cultural research and comparative analysis, providing useful insights for the design of intangible cultural heritage products.

There are also many successful cases in the development of intangible cultural heritage products abroad. For example, some countries and regions have attracted a large number of tourists and the public's attention and participation by organizing intangible cultural heritage festivals, exhibitions, and other activities (2017); At the same time, they also incorporated intangible cultural elements into daily necessities by designing exquisite intangible cultural heritage souvenirs and other means (2023), enhancing the dissemination and influence of intangible cultural heritage. These successful cases provide valuable experience and reference for the development of intangible cultural heritage products in Doumen Ancient Street.

## RESEARCH METHODOLOGY

Describe the analysis and research methods, and the research and analysis steps of the researchers are as follows, the purpose of this study is to systematically and deeply explore the cultural characteristics, cultural identity, and application paths of Doumen Ancient Street in souvenir design, using diversified research methods to ensure the comprehensiveness and scientificity of the research. The specific research and analysis steps are as follows:

**Step 1:** Research background and theoretical foundation, Doumen Ancient Street, located at (specific geographical location), is the core object of this study due to its unique geographical environment, rich historical relics, and profound cultural heritage. Through extensive collection of literature materials from libraries, archives, the Internet and other channels, including historical documents, academic papers, news reports, etc., a solid theoretical basis and background information are provided for the research. These materials not only reveal the historical origins, architectural styles, folk activities, and diversity of intangible cultural heritage of Doumen Ancient Street, but also reflect its importance as a symbol of local culture.

**Step 2:** Field investigation and data collection, Tool preparation: Carry cameras, recording pens, measuring tools, etc. to ensure comprehensive recording of the actual situation of historical buildings, cultural relics, and folk activities in the ancient street.

Key investigation: Select representative historical buildings, cultural sites, and folk activities for key investigation, record their names, ages, characteristics, and other information in detail, and take photos and record videos as first-hand materials.

Sample selection: Conduct a sampling survey targeting tourists, local residents, and cultural experts to ensure the breadth and representativeness of the data.

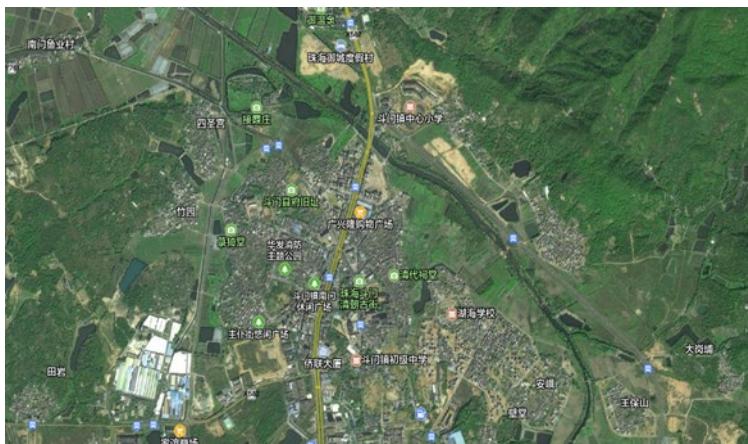
Content design: The questionnaire is designed around the cultural identity and souvenir design preferences of Doumen Ancient Street, in order to obtain the views and opinions of different groups.

**Step 3:** Data analysis: Use data analysis software such as SPSS and Excel to statistically analyze questionnaire data, revealing the patterns and trends behind the data.

Examine the understanding and feelings of consumers who have not yet consumed but may be potential consumers towards relevant designs and products.

## RESEARCH RESULTS

Doumen Town is a cultural ancient town located in Zhuhai City, with a history of more than a thousand years, possessing high historical value. The existing architectural ensemble reflects the life and state of people in the Lingnan region during the late Qing Dynasty and early Republic of China, representing the typical marine culture and art of Zhuhai, with significant research value. The architecture on Doumen's ancient street is the result of the integration of social economy, culture, and etiquette concepts of that time. It not only possesses its own unique characteristics but also integrates various elements to form the cultural characteristics of Doumen, with high historical and social cultural values. The ancient street of Doumen is a typical example of "Western" architectural style, where the foreign architectural culture introduced by overseas Chinese is fully reflected. The facades of the shops on the ancient street extensively adopt Western elements such as verandas and columns, deeply embodying the cultural characteristics of the fusion of Chinese and Western cultures. The local characteristic dwellings, ancestral halls, and other buildings with detailed carvings and beautiful murals, as well as the eclectic architecture with verandas, all exhibit certain artistic value. Traditional Doumen residential houses also incorporate some features of Western culture, with common applications of architectural symbols such as Western gables, columns, arches, and round-arched windows and doors. The ancient town of Doumen embodies the traditional village appearance of the late Qing Dynasty and early Republic of China, preserving the spatial network, street layout, architectural style, and natural environmental features of this period. It possesses high historical value, artistic value, scientific research value, historical record value, and social cultural value.



**Figure 2** Satellite map of Doumen Old Street in Doumen Town, Zhuhai, China



**Figure 3** Doumen Ancient Street, Doumen Town, Doumen District

## **Preservation and Inheritance of Doumen Ancient Street**

Historical and cultural origins: Doumen Ancient Street has a history of thousands of years and is a typical representative of Zhuhai's marine culture. Its historical buildings, cultural relics and historic sites, as well as cultural relics protection units and buildings from various periods, are

all of great historical significance and artistic value. It is necessary to systematically sort out and comprehensively summarize the cultural characteristics of Doumen Ancient Street, including geographical location, historical and cultural heritage, customs and traditions, etc.

### **Strengthen the protection and utilization of intangible cultural heritage**

Intangible Cultural Heritage Projects: Doumen area has 40 intangible cultural heritage projects, many of which are national and provincial level projects. We should strengthen protection and inheritance of these intangible cultural heritage projects, integrate intangible cultural heritage into contemporary social production and life practices through productive protection and utilization, and enhance the economic value and social influence of intangible cultural heritage.

Scientific utilization of intangible cultural heritage resources: Scientifically and reasonably utilize intangible cultural heritage resources in Doumen area, such as "Doumen Water Marriage Customs" and "Clay Fish Costume Customs", actively carry out external publicity, and enhance the international image and regional cultural research value of Doumen area in Zhuhai.

### **Developing tourism souvenirs and cultural and creative products**

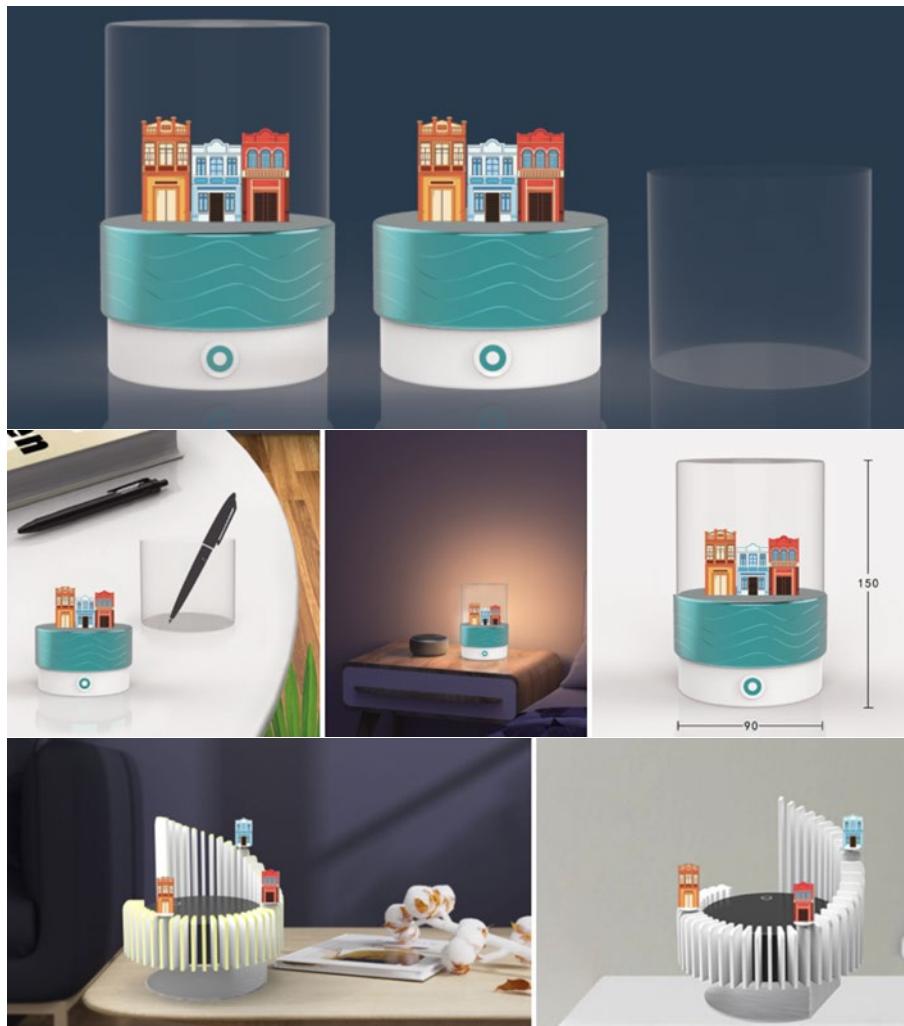
Design souvenirs: Based on the cultural characteristics and intangible cultural resources of Doumen Ancient Street, design tourism souvenirs with local characteristics. These souvenirs should be integrated into the cultural symbols of Doumen Ancient Street, reflecting the charm of Doumen Ancient Street culture.

Cultural and creative product development: Combining intangible cultural heritage elements with modern design to develop non heritage cultural and creative products. Through cultural dissemination, inheritance, and regeneration in the context of product design, enhance users' experience and identification with intangible cultural heritage.

The preservation and inheritance of Doumen Ancient Street require the joint participation and efforts of the government, society, enterprises, and residents. By deeply exploring and sorting out cultural characteristics, strengthening the protection and utilization of intangible cultural heritage, promoting the application of digital virtual technology, developing tourism souvenirs and cultural and creative products, strengthening protection and evaluation, and enhancing community participation and education, measures can effectively promote the preservation and inheritance of Doumen Ancient Street.



**Figure 4** Design of Cultural and Creative Graphic Patterns for Doumen Ancient Street



**Figure 5** Innovative Design of Cultural and Creative Derivatives in Doumen Ancient Street

## DISCUSSION & CONCLUSION

This study explores the cultural identity of Doumen Ancient Street in Guangdong Province, China and its application in commemorative product design, revealing the important potential of intangible cultural heritage in local cultural revitalization and economic development. As an important carrier of Zhuhai's historical and cultural heritage, Doumen Ancient Street has abundant intangible cultural heritage resources, such as the "Doumen Water Wedding Customs" and "Clay Fish Packing Customs". These cultural heritages are not only unique expressions of regional culture, but also valuable resources for local cultural revitalization and sustainable economic development.

During the research process, we realized the problems in the current development of intangible cultural heritage products, mainly reflected in the single user experience mode, insufficient influence, and insufficient depth of cultural experience. To address these issues, this study proposes a new approach of integrating the cultural symbols of Doumen Ancient Street into modern digital virtual product design. By systematically reviewing the history, culture, geographical location, and customs of Doumen Ancient Street, we have extracted representative cultural symbols and attempted to apply them in the design of user experience products. This attempt not only helps to enhance the cultural connotation and attractiveness of intangible cultural heritage products, but also provides a new path for the inheritance and protection of intangible culture.

In the design practice of commemorative products, we focus on combining the cultural characteristics of Doumen Ancient Street with modern design elements. Through the theoretical framework of semiotics and design semantics, we explore the regeneration and inheritance of intangible cultural heritage in modern product design. In the design process, we fully consider the diverse needs of users and the depth of cultural experience, striving to find a balance between the functionality and aesthetics of the product.

Through the evaluation of the design scheme, we found that incorporating the cultural identity of Doumen Ancient Street into the design of commemorative products can not only enhance the market competitiveness of the products, but also enhance users' sense of identification and belonging to local culture. This design pattern not only helps to promote the protection and inheritance of intangible cultural heritage in Doumen area, but also injects new vitality into local economic development.

In summary, this study provides useful reference and inspiration for the cultural identity and commemorative product design of Doumen Ancient Street. In the future, we will continue to deepen our research on intangible cultural heritage, explore more diversified product development models, and make greater contributions to local cultural revitalization and economic development.

## ACKNOWLEDGEMENT

Researcher would like to express his sincere to all lecturers: Assoc. Prof. Dr. Rosjana Chandhasa and Asst. Prof. Dr. Pisit Puntien for their invaluable help and constant encouragement throughout the course of this research. In addition, the researcher gratefully thanks to Miss Sasanant Rattanapornpisit, Mr. Chat Sukarin, Miss Kanyanee Phuanghua, Miss Visitha Chintaladdha, and others who give great supports.

Finally, the researcher would like to express her gratitude to the Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University for supporting in every aspect.

## REFERENCES

Colborne, G. (2010). *Simple and Usable Web, Mobile, and Interaction Design*. New Riders Publishing.

Cooper, A., Reimann, R., & Cronin, D. (2008). About Face 3: The Essentials of Interaction Design. *Technical Communication*, 55(2), 199-200.

Ehrenstrasser, L., & Moggridge, B. (2009). Designing Interactions. *Information Design Journal*, 17(1).

Harada, H. (2016). *UI Design Principles in the Multi-Device Era: Creating the Perfect User Interface Experience*. Translated by Fu, M. P. China Youth Press.

He, R. K., & Han, X. Y. (2015). Research on Enhancing Initial Trust in Websites through User Experience Design. *Packaging Engineering*, 36(22), 5-8.

Hu, J., Chen, M. L., Zhang, Y. Q., et al. (2017). A Study on the Spatial and Temporal Characteristics of Intangible Cultural Heritage in Hubei Province. *Economic Geography*, 37(10), 206-214.

Li, M., et al. (2022). Interaction Design of Ancient Village Tourism Apps from the Perspective of Flow Experience. *Hunan Packaging*, 2, 101-104.

Saffer, D. (2013). Designing the Details. *Net, Aug. TN*. 243, 43-44.

Shneiderman, B. (1997). *Designing the User Interface: Strategies for Effective Human-Computer Interaction*. Pearson Education India.

Simon, H. A. (1969). The Science of the Artificial. *Emotion Review*, 4(1), 266-268.

Wu, Q., Li, X. G., & Zhang, M. (2015). Spatial Distribution and Causes of Different Types of Intangible Cultural Heritage in China. *Economic Geography*, 35(6), 175-183.

Zhang, X. Y. (2016). Tourism Development Models and Optimization Strategies for Intangible Cultural Heritage. *People's Forum*, 11, 80-82.

Zhou, X., & Yuan, Y. L. (2021). *Digital Cultural and Creative Design Driving the Inheritance and Innovative Practice of Intangible Cultural Heritage: A Case Study of Zhuhai's Intangible Cultural Heritage*. Digital Cultural and Creative Design.

**Data Availability Statement:** The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

**Conflicts of Interest:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

**Publisher's Note:** All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.



**Copyright:** © 2024 by the authors. This is a fully open-access article distributed under the terms of the Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0).