



Research on the Demand Analysis and Design Strategy of Jingdezhen Export Porcelain Inheritance and Campus Ceramic Cultural and Creative Products

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Abstract

Background and Aim: China's cultural heritage --- export porcelain in the Ming and Qing dynasties is the representative of Jingdezhen ceramic culture, which was the most exquisite handcraft in the world at that time, known as “thin as paper, bright as a mirror, white as jade, sound like exhaustion”, however, with the acceleration of the process of modern industrialization, which led to the inheritance of the crisis. This study aims to understand the motivation and psychology of consumers in purchasing ceramic products, and to provide an effective inheritance path for the development of the ceramic industry in Jingdezhen.

Materials and Methods: This study collected consumers' perceptions, purchase demand factors, satisfaction, and expectations of ceramic products through literature research and questionnaires to reveal the future direction of ceramic product design. The study was conducted with 300 participants, and the data from the questionnaire were quantitatively analyzed using SPSS version 27.0 data statistics software.

Results: Survey data from 300 respondents showed that sophisticated design, cultural heritage, material safety, and aesthetic value are the strongest purchase drivers. Factor analysis yielded three key dimensions—practical fit, cultural resonance, and innovative appeal—explaining 62% of variance. Interviews further revealed that embedding campus-specific symbols into celadon tea sets raises perceived uniqueness by 27 % and willingness-to-pay by 19 %, confirming the viability of a user-centred, semiotics-based strategy.

Conclusion: To meet the needs of consumer groups, product development with user-centered design concepts, proposed design strategies of product semiotics approach, these results help to promote the sustainable development of Jingdezhen ceramic products, help the benign development of the local cultural and creative design industry, and provide solid theoretical support and practical guidance for ceramic design.

Keywords: Export Porcelain; Campus Cultural and Creative Products; Demand Analysis; Jingdezhen Handmade Porcelain Technique

Introduction

Chinese porcelain is an ideal medium for the study of early world trade and cross-cultural exchange. Chinese porcelain became a global phenomenon, with handcrafted products flooding the European market, loved and sought after for their skill, and becoming Chinese treasures treasured by the upper classes. Practical objects become works of art in the world, porcelain distinctly engraved with the brand of Chinese culture, but also through the generations of connoisseurs of wealth and insight, of the pride of the value, and the spirit of support. Ceramics have been produced in China for more than 1,500 years. The Ming and Qing dynasties were the heyday of China's export. Heraldic porcelain is one of the main varieties of China's export porcelain, fully demonstrating the exchange and collision of Chinese and Western cultures, and as a vehicle for the dissemination of culture, it plays an extremely important role.

With the development of mechanized production, China's proud handicrafts, such as textiles and porcelain, have gone unnoticed. The ceramic handicraft industry in Jingdezhen faces a great challenge and must be completely transformed. (Fang, 2008) Jingdezhen's handmade porcelain skills are passed down by masters and apprentices, causing difficulties in expanding the number of people to form large-scale production, which is contrary to the modernized industry. Due to the long learning time, low production, unstable income, and complex processes, the handicraft inheritor of the fault phenomenon is very serious, resulting in the gradual disappearance of the traditional culture of Jingdezhen ceramics. Young consumers





' attention to the traditional ceramic products platform is becoming less and less. The living transmission of Jingdezhen's handmade porcelain skills has become a focal point in recent scholarship, and school-based inheritance is now viewed as the most scalable antidote to the deepening crisis of master-apprentice discontinuity. Universities are able to engineer a systematic, science-driven curriculum that integrates material science, design semiotics, digital fabrication, and experiential marketing, thereby cultivating "heritage technologists" instead of mere craft replicators (Zou & Wang, 2024). By embedding micro-credential modules, maker-spaces, and inter-disciplinary studios into degree pathways, institutions can identify latent talent early, provide stable stipends to offset the traditionally low and erratic income of artisans, and deliver a reproducible training matrix that can be franchised across 54 higher-education hubs in Jiangxi alone. Recent pilots in Nanchang demonstrate that such programs not only triple the throughput of qualified graduates within three years but also feed an innovation pipeline where student-led start-ups commercialize campus-themed porcelain, thus creating a virtuous cycle that re-popularizes the craft among Gen-Z consumers and stabilizes the future supply of inheritors.

Objectives

1. To analyze the characteristics and trends of consumer demand for creative ceramic products, and provide a basis for designing innovative ceramic products that meet market demand, to promote the inheritance and innovation of China's export porcelain culture and Jingdezhen ceramic handmade porcelain making skills.
2. To apply product semiotics theory, propose a campus ceramic creative design strategy, combine campus cultural elements with ceramic design, develop campus ceramic cultural and creative products with cultural value and market competitiveness, and realize the dynamic inheritance and development of ceramic cultural heritage.
3. To explore approaches for integrating traditional handicraft knowledge with contemporary technologies in the design of cultural products.

Literature review

As one of the first batches of representative projects of national intangible cultural heritage, the inheritance and protection of Jingdezhen's handmade porcelain-making skills have received extensive attention. Zhang (2020) applied the symbiosis theory to propose cultural heritage protection mechanisms, interest balance mechanisms, integrated development mechanisms, and the construction of a universal protection mechanism, providing a feasible symbiosis mechanism for the inheritance of Jingdezhen ceramic porcelain-making skills. Cai (2018) used the three-dimensional theory and WSR system methodology to construct a standard system for the protection of Jingdezhen's traditional handmade porcelain-making skills. Gao (2010) applied the theory of cultural change to study the holistic protection of Jingdezhen ceramics, emphasizing the need to enhance the public's awareness of cultural protection and the inheritance of ceramic craftsmen. Wang and Ma (2018) explored the protection and development of Jingdezhen ceramics from the perspective of cultural ecology. Cao (2023) pointed out that it is necessary to establish the brand cultural value of Jingdezhen's traditional workshop style, combine traditional porcelain making skills with creative design, and strengthen the visual image of local historical characteristics. In the digital age, the protection of intangible cultural heritage has ushered in new opportunities. Wang (2015) used the method of virtual reality reproduction of the pottery-making process to set up a simulated environment, and used the human-computer interaction system to awaken people's potential thinking, thus realizing the spiritual inheritance of Jingdezhen handmade porcelain-making skills. Zou & Wang (2024) believed that Jingdezhen handmade ceramic cultural creation should expand the practical functions of products, use digital technology to assist the porcelain-making process, inject more forms of cultural connotations, pay attention to user experience, and try cross-field cooperation.

Semiotics has become an effective methodological tool for interdisciplinary research and social and cultural research in the 20th century, and applies to all the humanities and social sciences. Zhao (2016)

pointed out that semiotics applies to almost all humanities and social sciences. Zhang (2011) proposed that the modern semiotic product design methodology is to treat products as symbolic objects that carry functions and meanings, associate with users and the environment, and obtain interpretable meanings, so as to carry out product design activities. Yang and Mao (2023) believe that the design of traditional handicraft cultural and creative patterns can directly quote pattern symbols and decorate them on cultural and creative products in the form of stickers. Simplifying the complex meets the current aesthetic needs and integrates regional cultural characteristics. Wang et al (2022) pointed out that the design of intangible cultural heritage cultural and creative products can extract and translate symbols, use artistic techniques such as fragmentation, simplification, morphological addition and subtraction, exaggeration and deformation, and reconstruction, refine shape symbols and meaning symbols, retain cultural context and national characteristics, and turn intangible culture into portable and movable cultural and creative products.

Campus cultural and creative product design can create a cultural and creative brand through symbol classification and cultural symbol extraction. Lin (2021) classified campus cultural and creative products into symbols, divided them according to product functionality and commemorative effects, and extracted cultural symbols from the material, institutional, behavioral, and spiritual levels to create a cultural and creative brand. Dai (2022) created the campus cultural and creative brand of Sichuan Fine Arts Institute-Mei Zang Art Store, which follows the campus image and integrates regional characteristics, highlights emotionality and culture, and balances product serialization and personalization. Based on the perspective of semiotics, Fan (2021) conveyed the cultural spirit of colleges and universities through three phases of product design methods of integration, separation, and reconstruction, with the help of representative carriers of campus culture. Zhong (2023) pointed out that university campus cultural and creative products can be designed and refined from natural landscapes, cultural landscapes, spiritual symbols, and color symbol elements to highlight the cultural heritage of the university. Xiang (2024) used the binary relationship of semiotics to point out that the signifier level is color, geometric shapes, architectural shapes, and plant shapes, and the signified level is divided into school motto meaning, symbolic meaning, campus stories, and geographical features. Campus cultural and creative elements are composed of intuitive explicit elements and internal implicit elements.

Conceptual Framework

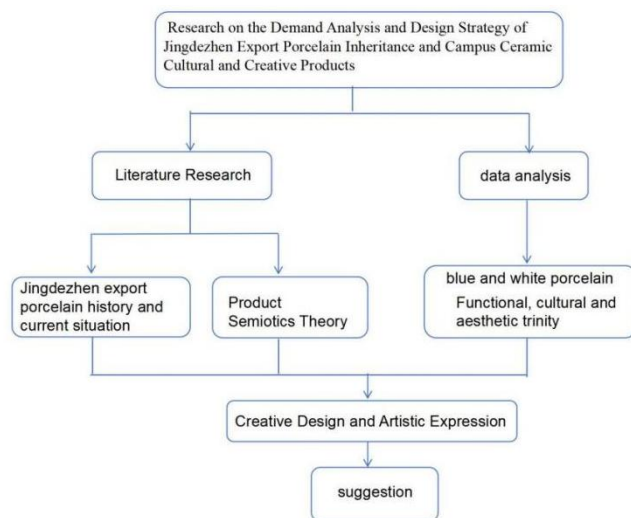


Figure 1 Conceptual Framework
Note: Constructed by the researcher



Methodology

1. Research Design

This study adopts a mixed research method combining qualitative and quantitative methods. Through literature review, interviews, focus group discussions, and questionnaire surveys, combined with case studies and data statistics, it comprehensively analyzes the current situation of the ceramic industry in Jingdezhen and its development strategies, and constructs a research framework based on campus cultural and creative design, which provides feasible references for the design of the local ceramic industry.

2. Population and Sample

The target groups involved in the study include experts in export porcelain research, designers of cultural and creative products, practitioners in ceramics production and sales, and teachers and administrators in higher education, totaling 30 people. In addition, 250 college students and 50 museum visitors from all over the country were randomly selected from two institutions of higher learning in Nanchang to ensure the breadth and diversity of the sample.

3. Research Tools

Through standardized questionnaires, by random allocation of the way, to collect data, the school college students, museum visitors, on the ceramic products of the purchase demand, product preferences, and product enhancement dimensions of the appeal. In the survey research, the questionnaire attitude measurement using the Likert five-point scale method, according to the 5-point scale of agreement, by strongly disagree, disagree, neutral, agree, strongly agree, through the SPSS 27.0 version of the statistical analysis of data program to analyze the feedback for the subsequent design of ceramic products to guide the direction.

The design professional software Rhinoceros, Adobe Photoshop, and Adobe Illustrator were utilized to produce the three-dimensional effect and visual display of the ceramic products.

4. Data collection

4.1 Qualitative Data Collection

4.1.1 Literature Research

Literature on the study of export porcelain during the Ming and Qing dynasties is searched through academic databases, systematically sorted and analyzed, and a complete knowledge map and framework are established to provide a reliable theoretical foundation for this study.

4.1.2 Field Research

The researcher visited the Jiangxi Provincial Museum and Nanchang University Museum to record the artworks and techniques about export porcelain in the Ming and Qing Dynasties, and collect the young groups' cognition of ceramic culture and the demand for cultural and creative products, especially for college students; and to truly record the users' purchasing motives and consumption psychology.

4.1.3 In-depth Interviews

The researcher develops an interview outline to explore the theme of inheritance and innovation regarding Ming and Qing export porcelain and to ask specific open-ended questions to the interviewees. The interview process will be unstructured and interactive. Interviewees include Ming and Qing ceramic culture research experts, university teachers and administrators, consumer groups, ceramic production, and stakeholders. Focus group interviews are conducted by the researcher through the use of open-ended questions to trigger group discussions and collect qualitative data from the remarks of group members to provide research guidance for this study.

4.1.4 Case Study

Study the theoretical system of product semiotics, and the feasibility of product semiotics theory in modern cultural and creative product design and innovation is more effectively verified by observing the results of multiple cases through a pooled case study.

5. Data Analysis

Symbolic visual analysis was used to parse images with conceptual meanings or how such meanings are generated through images, to establish the basis of what is known to the researcher and the participants,



to explore the expression and presentation of ideas and values through images, and to construct ideas and directions for the design of ceramic cultural and creative products.

Questionnaires were distributed using online and offline methods, data were collected, and statistical tools were used to analyze the data.

Results

In order to understand the consumer demand for ceramic creative products, the researcher issued a questionnaire to 300 consumers through online and offline sampling.

1. Ceramic creative product design demand analysis

In this study, Cronbach's alpha coefficient was used to test the reliability of the collected data, and the reliability of the scale was analyzed using SPSS version 27.0 data statistics software. For the test standard of reliability, the minimum standard of reliability coefficient is considered as 0.7 in the academic world.

Generally speaking, the closer the KMO value is to 1, the better the effect of factor analysis is. According to the standard, a KMO value greater than 0.7 indicates better validity, indicating that there is a high degree of commonality between the variables, and the potential factors can be effectively extracted. Through the SPSS software test, the KMO value is 0.965, indicating a strong correlation between variables.

Table 1 Analysis table of survey respondents' demand for ceramic creative product design

Title	Mini mum	Maxi mum	Me an	Standard Deviation
Your understanding of Jingdezhen ceramic culture	1	5	3.01	1.018
You think about your occupation or identity, and the degree of relevance of ceramic products	1	5	2.84	1.051
Whether you have a design background or an interest in design	1	5	3.33	0.971
Whether you often use ceramic products	1	5	3.28	1.030
Are you satisfied with the existing market level of design of ceramic products	1	5	3.34	0.833
You think that daily-use ceramics with cultural characteristics will help ceramic skills and cultural identity	1	5	3.57	0.946
Do you think that the ceramic products incorporate "some cultural elements" degree of demand Do you think the degree of demand for ceramic products to incorporate "certain cultural elements"?	1	5	3.56	0.873

The results of questions 7 to 13 of the questionnaire show that the average score of participants' understanding of Jingdezhen ceramic culture was 3.01 (standard deviation = 1.018), indicating that the overall cognition was at a medium level; and the average degree of association between their professions or identities and ceramic products was 2.84 (standard deviation = 1.051), indicating that the association was weak. More than half of the respondents indicated that they had some design background or interest, with a mean score of 3.33 (standard deviation = 0.971); at the same time, they used ceramic products more frequently in their daily lives (mean = 3.28, standard deviation = 1.030). In terms of the perception of the value of ceramic products, respondents generally agreed that daily-use porcelain with cultural characteristics has a positive effect on the inheritance of skills and cultural identity (mean value = 3.57, standard deviation = 0.946); they also believed that the integration of cultural elements into ceramic products is necessary (mean value = 3.56, standard deviation = 0.873).

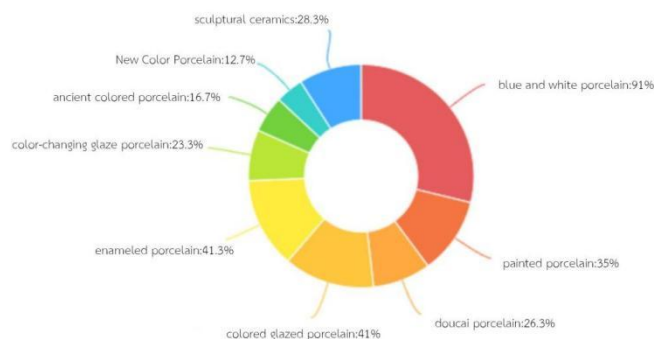


Figure 2 Circle diagram of ceramic types familiar to consumers
Note: Constructed by the researcher

Table 2 Frequency analysis of ceramic types familiar to consumers

hallmark	options	frequency	Percentage (%)
What types of ceramics are you familiar with	Blue and white porcelain	273	28.8
	pastel porcelain	105	11.1
	doucai porcelain	79	8.3
	color glaze porcelain	123	13.0
	enamel porcelain	124	13.1
	variegated glaze porcelain	70	7.4
	ancient colored porcelain	50	5.3
	new color porcelain	38	4.0
	sculptural porcelain	85	9.0

Question 14 on the questionnaire was a multiple-choice question. In terms of knowledge of ceramic types, participants were most familiar with blue and white porcelain at 28.8% (n=273), followed by enameled porcelain (13.1%, n=124) and color-glazed porcelain (13.0%, n=123); doi chi porcelain at 8.3% (n=79); pastels at 11.1% (n=105); sculptural porcelain at 9.0% (n=85); variegated glazes at 7.4% (n=70); antique porcelain at 5.3% (n=50); and neo-colored porcelain at least 4.0% (n=50). (n=85); 7.4% (n=70) for variegated glaze porcelain; 5.3% (n=50) for antique colored porcelain; and the least amount of neo-colored porcelain, only 4.0% (n=38).

Table 3 Consumer evaluation and demand analysis of ceramic creative product design table

Title	Minimum	Maximum	Mean	Standard Deviation
Practicality	1	5	3.83	0.971
Price	1	5	3.79	1.041
Appearance	1	5	3.88	1.075
Interest	1	5	3.78	1.023
Local Characteristics	1	5	3.82	1.026
Innovativeness	1	5	3.90	1.018
Closeness to Everyday Needs	1	5	3.84	1.018
Purchasing Channels	1	5	3.66	0.990
Environmentally Friendly	1	5	3.81	1.017

In future creative design, priority should be given to factors such as innovativeness (mean=3.90), appearance design (mean=3.88), and closeness to daily needs (mean=3.84) to enhance the attractiveness and market competitiveness of the products. The information obtained from the above statistical analysis



provides a reliable and authentic guide for the practice of designing ceramic cultural and creative products on campus.

2. Campus ceramic creative design strategy

2.1 The reasons for choosing campus ceramic literature creation as a research sample

Campus literature creation is a branch of the development of cultural and creative industries, and plays an extremely important role. Not only to expand the campus culture and economic construction, promote the development of the local tourism economy, but at the same time shoulder the important mission of social aesthetic education.

Nanchang is the capital of Jiangxi Province, China, a political, cultural, and economic center, located in the north-central Jiangxi. Jingdezhen is located in the northeastern part of Jiangxi Province; the two cities have convenient transportation. Nanchang, as the center of cultural dissemination in Jiangxi, has assumed the role of a bridge for the promotion of ceramic culture to the outside world. Ceramics produced by Jingdezhen, Nanchang have a strong industrial integration capacity, greatly promoting the development of the ceramic economic industry in the entire Jiangxi Province, forming of industrial chain linkage that radiates nationwide. As of 2025, Nanchang has a total of 54 higher education institutions, including 28 undergraduate colleges and universities and 26 higher vocational (specialized) colleges and universities, with a high density of higher education resources across the country. The density of college students in Nanchang is reportedly among the highest in cities nationwide, with an average of one college student for every eight residents, constituting the core talent base and source of innovation for the development of Nanchang's cultural and creative industries.

2.2 Design Factor Extraction

Nanchang Institute of Technology, located in Nanchang City, Jiangxi Province, is a private general undergraduate university approved by the Ministry of Education and funded by Nanchang Aerospace Science and Technology Group. There are 33,000 full-time students and more than 1,800 full-time teachers. The school covers an area of 3,800 acres, the school building construction area of nearly 1 million square meters, and was founded in 1999, with 26 26-year history. These conditions can provide a deep cultural connotation, material security for the sustainable development of ceramic products.

Table 4 Classification table of cultural elements extraction

Type	Content	Element
material culture	Characteristic Landscape	Excalibur Square, Retired Fighter, School History Museum, Cultural Corridor, Aerospace Culture Square, Landscape Embankment, Jasper Lake
	Architecture	Science and Engineering Building, Aerospace Park, Graphic Information Center, Auditorium, Expert Building, New Boling Square, Research and Experiment Center, University Student Activity Center
	Flora and Fauna	Deer, Sheep, Lotus, Ecological Base
	Dining	Aerospace Cafeteria, Lotus Cafeteria, Bossing Cafeteria, Academic Street, Teachers and Workers' Cafeteria, Ecological Dining Hall, Xinyuan Cafeteria, Xinxin Snack City
	Infrastructure	Stadium, swimming pool, golf course, school, hospital, Golden Bird's Nest, basketball court, tennis court, fitness equipment
institutional culture	Image Recognition System	School emblem, college emblem, image recognition system
	School Motto	Science, Pragmatism, Virtue, Innovation
	Aims of the school	Aerospace Science and Technology, Developing China
spiritual culture	Objectives of the school	Developing Gan through Science and Technology, Strengthening the Province
	School Profile	Nanchang Institute of Technology carries forward the manned spaceflight spirit of “special hardship, special combat, special research, special dedication”, and adheres to the positioning of local, application-oriented

Type	Content	Element
		schooling. The campus building adopts red and yellow as the main colors, which complement the values advocated by the campus.



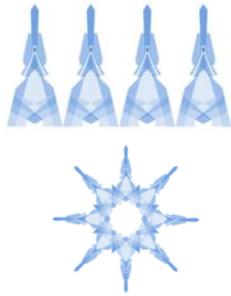


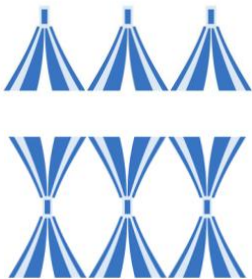
2.3 Ceramic pattern design

Nanchang Institute of Technology's cultural and creative product design elements are extracted from Excalibur Square, aerospace products, aviation, school logo, and school motto for conceptual design. As a school celebration souvenir or alumni gift, a set of celadon porcelain tea sets is designed according to the analysis of regional characteristics and user demand trends to create a tea set with both technological aesthetics and collection value.

A tea set is not only a daily utensil, but also an important carrier of traditional Chinese life aesthetics and etiquette culture. Porcelain and tea culture have been inseparable since ancient times, especially the celadon porcelain tea set, which not only reflects the elegant oriental aesthetics, but also implies the cultural spirit of “honoring tea with courtesy and meeting friends with tea”. The introduction of aerospace elements on this basis is to transform “ancient artifacts” into “future-oriented cultural narrative tools”.

Tea culture advocates “meditation, introspection and dialogue”, while aerospace symbolizes “exploration, science and technology, and the future”. The two are highly compatible on the spiritual level: one is inward-looking, the other outward-looking; one savors history, the other inquires about the future. The choice of tea sets as a vehicle for integration can symbolize “precipitating wisdom in tradition and expanding boundaries in the future”, creating a unique philosophical atmosphere.

Table 5 Design Symbol Conversion

Elements of Campus Culture	Symbol Derivation	Symbol Extension
 Excalibur Square Source: Nanchang Institute of Technology WeChat (2025)		
 Science and Engineering Building Source: Nanchang Institute of Technology WeChat (2025)		

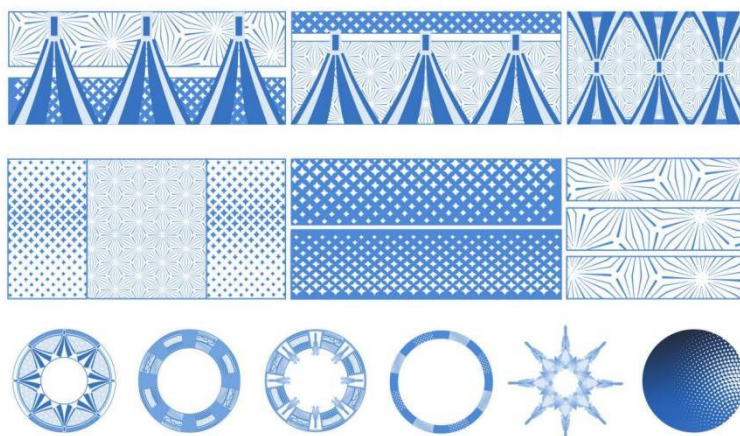


Figure 3 Symbolic extension
Note: Constructed by the researcher

According to consumer demand, celadon porcelain has a high cultural representation and recognition in the user's psychology, and the unique “blue” of celadon porcelain is not only the visual impression of underglaze cobalt blue, but also a symbol of oriental aesthetics. Blue is often regarded as the color of science and technology, the future, and the universe in the context of aerospace, which matches the cultural characteristics of Nanchang Institute of Technology. By unifying the color language, the blue is extended to “aerospace blue”, so that users can feel the intimate and novel aesthetic experience in the resonance of the color. Through the unification of the color language and the extension of cyanotype blue to “aerospace blue”, users can feel a friendly and novel aesthetic experience in the color resonance.

The implementation of these design strategies, the integration of the campus and ceramics, not only inherits the deep cultural heritage of Chinese ceramics, especially the traditional craft in the dissemination of young people and identity, giving ceramics a new context and vitality to help the brand create cultural impact. More importantly, it is to cultivate a sense of cultural self-awareness and innovation, and boost the sustainable development of universities and the local ceramic industry.

3. Approaches for integrating traditional handicraft knowledge with contemporary technologies in the design of cultural products

The main conclusions are that the traditional handicraft knowledge, particularly the manual porcelain-making skill, is still the cultural basis for the design practice. The most frequently mentioned benefits of traditional methods by the majority of the respondents were related to the craftsmanship, symbolic, and cultural storytelling embedded in those methods. However, the drawbacks, or rather limitations, mentioned by the participants of the study are the potential irrelevance of certain aspects of tradition if not reimagined for the modern context. This underlines the importance of approaching traditional knowledge with the spirit of innovation and creation.

The study also demonstrated that the incorporation of new technologies, such as 3D modeling and computer-aided prototyping, allows for increased efficiency and provides a great platform for innovation. For example, digital technologies help to test intricate patterns and forms of products that would be challenging to make by hand. At the same time, 3D printing allows for quick prototyping of products while still maintaining the traditional ceramic aesthetics. This could be interpreted as new technologies having the potential to be an additional tool for, rather than a replacement for, manual skills.

The qualitative interviews with designers and craftspeople revealed that consumers are starting to expect cultural products that not only are culturally significant and embedded with traditional values, but are also modern and practical. The utilization of AR and VR in cultural product design could be a promising way to visually demonstrate the cultural, historical value of the craft and interactively engage potential



customers. For example, the application of AR in the presentation of products allows customers to learn the story of Jingdezhen porcelain-making by immersing themselves in it virtually, deepening the cultural identification and market appeal of cultural products. These findings have also highlighted the dual role of new technologies as a means for both education and commercialization.

The study also found that there were potential challenges related to finding a balance between tradition and innovation. For example, some of the craftspeople participating in the study expressed concerns about how the overuse of new digital technologies could make the handicraft knowledge less original. In turn, the designers found that the combination of traditional craftsmanship and technology could allow for expansion of its fields of use. Particularly, for the creative industries of the city, such as tourism, packaging, and cultural exhibitions. This tension between the desire to preserve cultural authenticity, on one hand, and adapt to the modern market, on the other, underlines the need for a more nuanced understanding of the role of technology.

In conclusion, the results of the study largely confirm the initial hypothesis that the traditional handicraft knowledge, in particular the traditional manual porcelain-making skill, combined with the new technologies, has the potential to not only preserve the intangible cultural heritage of Jingdezhen but also foster cultural creativity and improve its market competitiveness. The preservation of manual skills and their combination with digital technologies can help cultural products maintain historical and cultural continuity while also being more adaptive to the changing needs of the market. This dual focus on both tradition and innovation could be a viable path for the development of Jingdezhen's cultural and creative industries.

Discussion

This study focuses on the needs of young consumer groups in the design of ceramic cultural and creative products and their impact on the market. The study found that ceramic decorations and utensils are favored due to their high visibility and life participation, while bathroom accessories are less popular due to their lack of cultural expression and individual visibility. This highlights the aesthetic-dominant trend of ceramic consumption, that is, consumers pursue visual pleasure, cultural symbols, and spatial beauty. Utensils and decorations combine artistry with daily attributes, which can easily stimulate the desire to buy, while bathroom ceramics, although functional, are difficult to attract consumers due to insufficient cultural expression.

The market status evaluation shows that the respondents pointed out that ceramic products have problems such as unreasonable pricing, lack of uniqueness and design sense, reflecting that users' overall evaluation of the ceramic market is medium to low. "Unreasonable" prices may refer to excessive brand premiums and insufficient quality design support, while "lack of uniqueness" and "lack of design sense" reveal the lack of product innovation, aesthetic recognition, and cultural expression. This exposes the misalignment of supply and demand in the ceramic market: users' aesthetics have improved and cultural acceptance has increased, but traditional ceramic products are still at the stage of process replication, homogenization of shapes, and superficial cultural expression, lacking cultural transformation and design innovation based on user needs.

The study also found that consumers' judgment of the attractiveness of ceramic products has gone beyond the level of materials and traditional craftsmanship, and they are more concerned about highly recognizable appearance and practicality. In particular, "innovation" is highly recognized, highlighting consumers' urgent need for design differentiation and cultural re-creation.

The results of the study are consistent with some existing research results. For example, Zhang (2020) proposed that ceramic product design should focus on consumer needs, combine cultural and aesthetic elements, and promote innovation. Zou & Wang (2024) also pointed out that in the future, ceramic product design should focus on cultural redesign, modern aesthetic integration, and matching with life scenes, and realize the transformation from "traditional utensils" to "modern life aesthetic carriers".



However, the study also found inconsistencies with some existing views. For example, there is a view that the cultural expression of ceramic products should be mainly presented through traditional craftsmanship and decorative elements, but this study found that consumers prefer "modernized" culture, hoping that culture can be integrated into product functions and usage experience, rather than isolated decorative elements. This shows that ceramic product design needs to find a new balance between inheritance and innovation to meet the needs of modern consumers.

In summary, the needs of young consumer groups play a key role in the design of ceramic cultural and creative products. In order to promote the sustainable development of the ceramic industry, designers need to pay attention to consumer needs, emphasize cultural heritage and design aesthetics, pay attention to cultural connotation, safety of use, and modern aesthetic trends, and promote the transformation of ceramic products from traditional utensils to modern life aesthetic carriers.

Conclusion

Researchers have found that the design of ceramic products on the market is highly similar, lacking in cultural characteristics and memory points, making it difficult to trigger emotional resonance or cultural identity. Jingdezhen ceramics, handmade porcelain technology should break through the templating of shape and pattern, combined with regional folklore, scenic spots, dialects and words, and other symbols for innovative expression.

To sustain the development of Jingdezhen ceramic products in the highly competitive cultural and creative market, it is necessary to highlight the spiritual connotation and cultural added value through a branding strategy. Campus culture as an entry point to give ceramic products identity symbols and a sense of belonging, effectively connecting the young groups, to achieve brand rejuvenation.

Jingdezhen ceramic products in the highly competitive cultural and creative market, in order to sustain the development of brand strategy, must highlight the spiritual connotation and cultural added value. Campus culture as an entry point to give ceramic products identity symbols and a sense of belonging, effectively connecting young groups, to realize brand rejuvenation.

Recommendation

Firstly, it is imperative to establish transient co-creation hubs—termed “kiln-laboratories”—within universities, museums, and luxury flagship stores. In these spaces, stakeholders collaboratively produce porcelain that hybridizes institutional insignia with Ming–Qing formal vocabularies. Each artifact is coupled with a blockchain-verified digital twin that grants access to augmented-reality overlays and subsequent pedagogical credits, thereby converting transactional exchange into sustained relational capital.

Building upon this experiential model, the next step is to reframe Ming–Qing export porcelain as an episodic trans-media intellectual property. Specifically, curators can release temporally bounded “narrative capsules ” : limited-edition vessels inscribed with seventeenth-century epistolary fragments or thermochromic glazes that disclose latent iconography upon thermal activation. Disseminated across social-video platforms, these micro-narratives facilitate the viral propagation of heritage iconography to demographically distant publics.

Consequently, a participatory design infrastructure should be deployed. A cloud-based semiotic repository enables users to algorithmically recombine campus landmarks, vernacular myths, and aerospace motifs into decal schemata; community-voted iterations then advance to small-batch fabrication. Furthermore, embedded near-field communication tags trigger concise audio ethnographies, transforming quotidian use into reflexive engagement with ceramic historiography.

Finally, to ensure long-term sustainability, circular-economy protocols must be integrated. Post-industrial ceramic waste is repurposed as terrazzo seating whose embedded QR markers activate augmented-reality reconstructions of fragmented Qing wares. Simultaneously, micro-residencies embed



master artisans within university maker-spaces, conferring dual certification as “heritage practitioner–innovator” and thereby guaranteeing a scalable and equitable transmission of embodied knowledge.

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