

A Systematic Literature Review (SLR) on Yixing Zisha Teapot Design as Intangible Cultural Heritage

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Received Date: 25.03.2024; Accepted Date: 25.06.2024; Available Online: 01.07.2024

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ABSTRACT

Promoting traditional culture and intangible cultural heritage has always been a hot topic for the Chinese government, which has also formulated a series of policies to support the development of intangible cultural heritage. As the first batch of intangible cultural heritage recognized by the Chinese government, Yixing Zisha teapot-making techniques have gradually spread in design theory and practise with the promotion of the government and artisans. Therefore, this article systematically reviews the design of Yixing Zisha teapots from the perspective of intangible cultural heritage, emphasising design concepts and design thinking. Critical thinking of bibliometric analysis and literature review was conducted to achieve the research objectives. The results show preliminary design concepts and thinking that emerged in the Yixing Zisha teapot design. However, there needs to be a systematic design theory and framework to promote future design research, pointing out that the research gap can help promote the development of the Yixing Zisha teapot design.

Keywords: Intangible cultural heritage, Systematic literature review, Teapot design, Yixing Zisha

INTRODUCTION

Yixing Zisha teapots are a category of traditional Chinese design that are world-famous for more than just their unique clay structures. Historical documents show that the rise of Yixing Zisha teapots was also due to changes in how tea was consumed during the Ming Dynasty. As early as the late Ming Dynasty, Shi Dabin established the production paradigm, and Yixing Zisha teapot artisans already understood how to use homemade tools to make handmade Zisha pots. With the development of the times and technology, a series of moulds and machinery have emerged to assist the production of Yixing Zisha teapots, which is beneficial from the perspective of industrial product manufacturing. Based on the perspective of intangible cultural heritage (ICH), the design technology is also limited in the design practice. Using machinery to produce Yixing Zisha teapots with avant-garde shapes is impossible. The products need to conform to traditional Chinese aesthetics. To explore and find the design content of the Yixing Zisha teapot from the perspective of ICH, this article proposes a systematic literature review to elaborate on the fields involved in the development of the Yixing Zisha teapot. Therefore, the researcher proposes two research objectives in this article: To explore the status of the theory on Yixing Zisha teapot design and to find the gaps in Yixing Zisha teapot design.

LITERATURE REVIEW

Yixing Zisha Teapot Becomes Intangible Cultural Heritage

Yixing Zisha, as one of the intangible cultural heritages, shows simplicity, elegance, and vividness in its shape and craftsmanship. It is famous for its teapots and is highly praised by the world. As China vigorously develops its cultural industry, Yixing Zisha, as a typical representative, needs to innovate and provide direction for development from the perspective of intangible cultural heritage. Some researchers have systematically analysed the reasons for the development of Yixing Zisha technology from the perspective of the overall evolution of technology and society, starting from the unique geographical environment of Yixing Zisha, and sorted out the impact of social needs and traditional cultural values such as Confucianism, Buddhism, and Taoism on its development (Hu, 2012).

The central core of Yixing Zisha is the unique clay material. The Zisha teapot is a kind of unglazed pottery made mainly of brown clay and sandy raw materials. It is a typical product from Yixing, Jiangsu Province, made by hand and with special tools. Zisha is not a natural science material name but a title that combines the colour and texture of the material with a humanistic spirit. It should be purple as the colour and sand as the quality, vision, and touch. Combining two words, there are vivid features (Yang, 2018a). Several studies have found that Zisha teapots have a fine texture and high iron content and do not need to be glazed on the surface. It is russet, light yellow, or purple black.

Yixing Zisha craftsmanship has attained such a superb status because Zisha is famous for its technical process. The meanings of craftsmanship and technology are scientific, practical, and consistent with objective reality, forming a complete technical system. Gao (2021) pointed out that although the Yangxian Teapot Series has only more than a thousand words, it has established a new paradigm for studying handicrafts from the perspective of art form, styles, origins, and aesthetics into history Genealogy. Yangxian Famous Pottery Record follows and enriches the research paradigm of the Yangxian Teapot Series. Yang (2009) believes a relationship exists between the whole and the part in any creative design or craft production. In philosophy, whole and part are relative and constitute a pair of dialectical categories. The value of Yixing Zisha as an intangible cultural heritage lies in exploring clay and craft technology.

Design of Yixing Zisha teapot

Zisha teapots have mysterious material characteristics and a complete moulding and decoration process system. The intervention of literati groups and the promotion of functional utility have formed a unique teapot art form and aesthetic interest(Zhang, 2017). Yixing Zisha teapot design has a collection of classic shapes that have been developing for over 500 years.

As early as the Wanli period of the Ming Dynasty, teapot makers represented by Da Bin continued to explore and experiment, forming a complete, unique, and reasonable craftsmanship method. During the Kangxi and Qianlong years of the Qing Dynasty, famous pot-making artisans represented by Chen Mingyuan and Hui Mengchen integrated the ideas of literati and life interests, developed the artistic expression of Zisha teapots, increased the variety of shapes, and improved the production skills. During the Daoguang period, Chen Mansheng infiltrated literati's lifestyle and aesthetic consciousness into Zisha through pot-making masters represented by Yang Pengnian. They developed the tea-drinking culture advocated by literati in the Tang and Song Dynasties and pushed Zisha teapots to their peak. Zisha teapot making has been developed since the Ming and Qing Dynasties and patterns presented by exquisite and cultural attributes. Through the artistic form of utensil shapes and patterns presented by exquisite and delicate craftsmanship, people can appreciate the interest in life and spiritual enjoyment that Zisha brings to us.

Tea culture is the foundation of Yixing Zisha teapot design. It is precisely the way of drinking tea that gives Yixing Zisha teapot design a broad space. Beginning in the 15th century, a new method became popular during the Ming Dynasty (1368-1644). After tea was brewed, a new container became particularly needed, and the teapot was born (Ströber, 2014). Zisha tea sets are specially used for tea drinking. Due to their particularly excellent storage and steeping functions and good plasticity, they are in harmony with tea culture (Luo, 2016).

Ströber (2014) believes that when using Yixing Zisha teapots, the texture of the teapot and the unglazed surface are beautiful. While studying the shape of Zisha teapots, she compared the Ming Dynasty and Qing Dynasty shapes. She found that the Zisha teapots of the Qing Dynasty tended to be more naturalistic, while the Zisha teapots of the Ming Dynasty were more elegant. It is not difficult to find that the design of Yixing Zisha teapots emerged because of tea culture. After meeting the needs of use, it integrated aesthetic consciousness and concepts from different social backgrounds, thus promoting the development of the shape and decoration of Yixing Zisha teapots.

RESEARCH METHODOLOGY

Systematic Literature Review (SLR) is a method of literature review that is different from narrative literature review, qualitative literature review, and comprehensive literature review. The focus of this method is to prove to researchers the usefulness of systematic literature review (O'Brien & Mc Guckin, 2016). Through a systematic literature review, this study aims to investigate and analyse the status and gaps of the Yixing Zisha teapot design from the perspective of intangible cultural heritage and find a potential framework for the design of the Yixing Zisha teapot.

To achieve the objectives, this study set up relevant steps according to the methodology, such as determining the central theme and research questions and establishing methodological procedures, including clear search strategies and inclusion and exclusion criteria, to quantify the literature results and content. Conduct a detailed analysis (Dresch et al., 2015). SLR cannot eliminate bias in this study because

selecting databases, formulating exclusion criteria, and analysing articles involve the researcher's subjectivity.

Methodological Procedures

The keywords were locked through the research topic, and three categories were determined: intangible cultural heritage, Yixing Zisha teapot, and Zisha teapot design. To clarify the search scope of publications, intangible cultural heritage, Yixing, Zisha teapot, and Design were initially used in the search engine to obtain more accurate documentation. According to the search results of three keywords, intangible cultural heritage can be expanded to cultural value, development path, protection measures, etc. Yixing Zisha teapot can be expanded to Zisha teapot ideas, Zisha teapot decoration, Zisha teapot export, tea culture, Mansheng Zisha teapots, process flow, Zisha clay, Zisha pot culture and Zisha pot shapes, Zisha pot design can be extended to ceramic Design, design paradigms, design principles, design methods, design aesthetics and product design, etc. There are four translations of Yixing Zisha Teapot during the search process, namely Yixing Zisha Teapot, Yixing Clay Teapot, Purple-Clay Teapot, and Purple Sand Teapot.



Figure 1. Keywords used in search engines

With the search and expansion of research topic keywords, the language of literature is locked into Chinese and English in the Web of Science, Scopus, Google Scholar, and China National Knowledge Infrastructure (CNKI).

The researcher imported references into Mendeley and conducted keyword searches, examining 664 documents, including journal papers, conference papers, and doctoral theses. During the screening process, 607 documents were found after excluding remarkably similar and worthless journals. Since the research topic of this paper needs to be combined with the three keywords of intangible cultural heritage, Yixing Zisha teapot, and design, by reading the abstract and the relevance of the research, after excluding the literature that is not related to the three major topics, there are 213 documents in total. After examining journals' impact, quality, and reliability factors and selecting high-quality documents such as CSSCI, 33 articles were left in the CNKI. After reading the documents, the researcher found that 23 journals were not published in high-quality journals. However, these documents still contributed valuable knowledge and were used as references for this study. In the end, the researcher determined that 78

documents met the standards. In the end, 78 documents met the standards. Figure 2 shows the process of the literature search, screening process, and results.

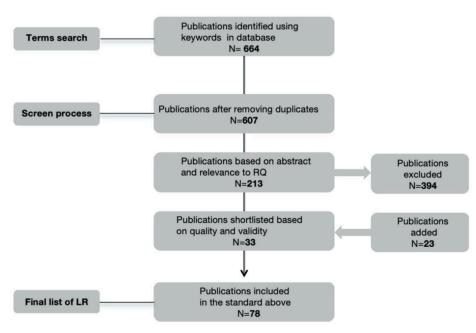


Figure 2. Number of publications found before and after exclusion criteria

Bibliometric Analysis

It is essential to display the literature digitally, which allows us to visualise the status of literature retrieval and research. Regarding the research on the design of Yixing Zisha teapots from the perspective of intangible cultural heritage, the researcher selected the literature range from 2013 to 2022. There are six documents in the Web of Science and five in Scopus, which are excluded from Google Scholar. There are 19 documents after the same articles as the above two searches and 49 documents in China National Knowledge Infrastructure (CNKI). According to the quantitative results of the search, we can intuitively see that the Yixing Zisha teapot design documents have high local and regional characteristics; 61% of the documents come from China National Knowledge Infrastructure (CNKI). The number of documents in the WOS and Scopus search tools is rare, and even the number in the Emerald Insight search is 0. Figure 3 counts the specific numbers under the four search tools quantitatively.

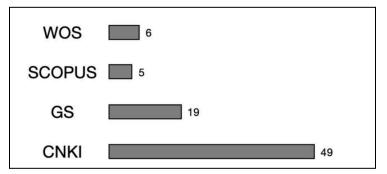


Figure 3. Number of publications found in databases

The design of the Yixing Zisha teapot was listed as one of the first batches of intangible cultural heritage in China in 2006. There was a Zisha crisis in 2010. The reason was that unscrupulous merchants mixed harmful chemicals into the Zisha clay mud during commercialization to achieve bright colours, smooth texture, and other effects. To eliminate crisis problems, the government has promoted a series of measures to develop Yixing Zisha teapots. One of them involves colleges and universities participating in the design, which is why more and more researchers are participating. According to the ten-year literature distribution, it can be found that in the seven years from 2013 to 2019, the number of documents fluctuated gently. In the three years from 2020 to 2022, the number of documents showed an apparent upward trend, showing that more and more researchers began to study the relationship, application, and theoretical research on intangible cultural heritage and Yixing Zisha teapot design.

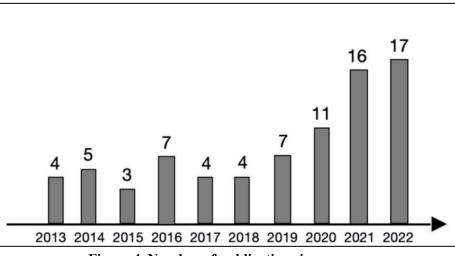


Figure 4. Number of publications in per year

The growing number of documents also reflects the research interest in Yixing Zisha teapot design. For example, the 47 journals listed in Table 1 all belong to the humanities and social sciences field. They are distributed in ceramic-related journals, including ceramic technology, Journals related to ceramic art, handicrafts, art and design, and some in interdisciplinary fields such as art education, culture, design science, etc. This provides a broader scope and direction for the literature exploration of Yixing Zisha teapot design.

Publication Title	Number
International Conference on Education, Language, Art and Intercultural Communication	1
Ceramics-Technical	1
Ceramics International	1
Journal of Modern Craft	1
Advances in Social Science Education and Humanities Research	1
Proceedings of The International Conference on Education, Language, Art and Intercultura	1
1 Communication	
Mobile Information Systems	1
International Journal of Sustainability in Economic, Social, and Cultural Context	1
Lecture Notes in Computer Science	1
E3S Web of Conferences	1
2018 4th International Conference on Education & Training, Management and Humanities	1
Science	

Anthropological Forum	1
Ceramics: Art and Perception	2
A Journal of Decorative Arts, Design History, and Material Culture	1
The University of Western Australia(Doctoral Thesis)	1
The Australian National University(Doctoral Thesis)	1
Journal of Graphics	1
Frontiers in Art Research	1
International Conference on Human-Computer Interaction	1
Innovative Computing	1
International Journal of Social Science and Education Research	1
Journal of the Science of Design	1
International Journal of Frontiers in Sociology	1
Asian Culture and History	1
A New Phase of Systematic Development of Scientific Theories in China	1
Chinese Semiotic Studies	1
Chinese Handicrafts	1
The History of Chinese Ceramics	1
Ceramic Studies	1
China Ceramics	12
Journal of Nanjing Arts Institute(Fine Arts & Design)	3
Packaging Engineering	3
ZHUANGSHI	2
Southeast Culture	1
Journal of Inner Mongolia Arts University	1
Fujian Tea	1
Art Panorama	1
Hundred Schools in Arts	2
Art science and technology	1
Agricultural Archaeology	1
Art Observation	1
Jiangnan University(Doctoral Thesis)	1
Journal of Ceramics	3
Jiangsu Ceramics	10
Ceramics	3
Art Education Research	1
Shandong Ceramics	1

During the search process, due to the limitation of "Chinese" and "English," 78 documents were distributed in Asia (China, Japan, Malaysia), Europe (UK), America (USA), and Oceania (Australia). Yixing Zisha, from the Perspective of intangible cultural heritage, is still mainly led by Chinese researchers. For Chinese researchers, it is more convenient to obtain primary resources. Moreover, Yixing has solid regional and traditional characteristics in local culture. It is difficult for users who are not in China to communicate with local artisans. Therefore, most researchers from other areas who designed Yixing Zisha teapots only studied the cultural connotation and aesthetic value of Yixing Zisha teapots. Most of them understand that the Zisha teapots in the region require fieldwork, which significantly increases the research difficulty.

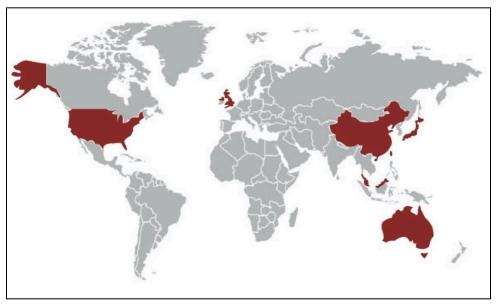


Figure 5. Publications by country of the author

FINDINGS

The cultural connotation and value of Yixing Zisha teapots

From the perspective of social development, traditional handicrafts, especially those that can be regenerated, are the cultural heritage of the whole society, and the production of handicrafts is full of passion and potential. When the river of life becomes more comprehensive, cultural heritage will move forward like the powerful still water, filling the river with energy. Currently, the historical and cultural district is a platform for value inheritance and a place to create conditions for new development (Wei, 2021). Yixing has become the hometown of Zisha Clay. On the one hand, it is due to its unique mineral resources and long history of pottery-making experience; on the other hand, the profound humanistic accumulation in the Jiangnan region is also why Zisha art emerged (Ming, 2017).

As the first batch of China's intangible cultural heritage, Yixing Zisha Teapots, researchers have focused more on the cultural value of Yixing Zisha to conduct in-depth research on the promotion and significance of Zisha culture. Due to the strong local characteristics, the locality carries unique customs, local character, and imagination; it contains three levels of meaning. The first level of meaning is the natural conditions. The geographical environment of Yixing's mountains and water is suitable for building dragon kilns on the mountains, which facilitates water and land transportation. The second level of meaning is the historical accumulation, the process of the Zisha craft factory cultivating artisans, resulting in a group of Zisha artists in the local area. The third level of meaning is the social culture, the cultural atmosphere of Yixing, the pottery capital, the local geography and culture, Beliefs, and legends, etc., have more cultural connotations than the first two local material carriers (Qian & Hong, 2011). Regarding the understanding of cultural connotation, Geoffrey Gowlland, an anthropologist at the London School of Economics and Political Science in the United Kingdom, focused on analysing the personal style, technology, and tradition of Zisha production and explored why style is so important to artists in the modern context.

Some researchers believe that the emphasis on the origin of Zisha production only in Dingshu Town strengthens the connection between materials and space and highlights the sacred status of the Huanglong mountain Zisha mine and the product mineral materials in the industry. As a result, local elements and raw materials are attached to the products, and the geo-cultural advantages further strengthen consumers' recognition and loyalty to the brand (Qian & Hong, 2011; Zhi, 2017) emphasised in sociological interactionism that branding is a process of constructing sign values. Allen J also recognized that it relates to the embedded values in products. Symbols are closely linked. From the perspective of commodity science, greater efforts should be made to improve and popularise consumers' commodity knowledge and identification abilities. As Zisha cultural communication institutions and scholars, we should vigorously promote and research. Specifically, the following measures can be taken: 1.Actively implement the inheritance of national intangible cultural heritage, 2.Strengthen research on the industrialization of Zisha pottery and the protection and innovation of artistic works, 3.Build a pottery cultural tourism product system and highlight the brand influence of the World Pottery Capital, 4.Based on inheriting traditional craftsmanship, increase the artistic innovation of purple clay teapots (Hu, 2011).

Some researchers believe that as an intangible cultural heritage, its essence and characteristics need to be clarified, including Inheritance, Intangible, Oral, Plasticity, and Popular character (Yi, 2017). In the process of inheritance, we have encountered the Impact of the living environment, Heritage loss, Overexploitation, Underinvestment, Lack of unified planning, imperfect Laws and regulations, and other crises. Some researchers have proposed relevant solution models from other theoretical perspectives. This research holds significant theoretical implications. Firstly, it asserts that the transmission of Intangible Cultural Heritage (ICH) constitutes an economic activity governed by corresponding economic principles, making it amenable to examination through the lens of game theory. Secondly, it addresses a lacuna in the existing literature by investigating the factors influencing ICH knowledge transfer, the game model dynamics between mentors and apprentices, and the incentive mechanisms and strategic choices involved in the transmission and development of ICH. Thirdly, it constructs a theoretical framework grounded in game theory to elucidate the transmission of ICH, scrutinising participants' incentive mechanisms and strategic choices in diverse situations. Lastly, data simulation elucidates how key factors impact the likelihood of successfully transmitting ICH while maintaining the original meaning (Sun et al., 2021). Jingdezhen ceramic crafts artists in ceramic culture in the process of inheritance, we pass on the skills through the traditional master-apprentice system, cooperate with ceramic companies to develop new projects, make full use of ceramic materials to engage in horizontal scientific research projects, set up ceramic skills training classes, and go to ceramic tourist attractions to demonstrate traditional ceramic skills and promote ceramic culture (Wu, 2012).

Over the past decade, there has been a notable surge in interest in cultural designs (Irwin, 2015). Conversely, the inexorable forces of modernization and globalisation have relegated design practices imbued with culturally significant elements, such as traditional crafts, to the peripheries across the globe (Twigger Holroyd et al., 2017).

Yang (2009) emphasised that cultural heritage constitutes a multifaceted, intricate, and dynamic value system integral to humanity and historical legacy, representing a global repository of traditional cultures. However, the advent of high-tech factory equipment driven by the rapid strides in modern industrialization has supplanted numerous skills associated with ICH (Xue et al., 2019). Robbins & Christopher highlighted the digital technology framework for ICH, primarily involving using existing information technology to digitally preserve and present ICH through various mediums such as pictures, audio, videos, and interactive displays. Lindgren et al. and other researchers underscored the growing significance of digital communication technologies in communicating and safeguarding ICH. These technologies encompass database technology, digital imaging technology, 3D imaging technology, Virtual

reality (VR) technology, and Augmented Reality (AR) technology, all of which have seen increased applications in this context.

Concept analysis in the design of Yixing Zisha teapot

Based on in-depth research on keywords and topics in the literature, the design of the Yixing Zisha teapot includes a series of design concepts, including social culture, process flow, design elements, design principles, methods and ideas, design aesthetics, etc. Through the pie chart data, researchers can intuitively understand the research fields of Zisha teapots that have been involved in the past ten years.

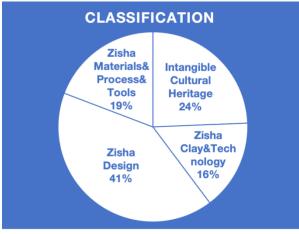


Figure 6. Percentage of fields of the study

Due to the rising trend of tea drinking, literati in the Ming and Qing Dynasties began to combine artistic creations with Zisha teapots. Among arts and crafts, the Zisha teapot has more cultural value due to the participation of the literati (Zhu, 2022). Some researchers usually analyse the works of Zisha teapots to reflect the principles and ideas embodied in the design. Some researchers analysed the Jiajing persimmon pattern and high-handle Zisha teapot in the Ming Dynasty. In addition to its functions, this pot has also evolved with the development of society, especially the participation of literati and officials in the Ming Dynasty, forming a social culture closely related to tea ceremony culture (Liang, 2012). Zisha teapots have practical functions and five aesthetic characteristics: material, shape, craftsmanship, decoration, and artistic conception (Wu, 2012).

At first, the Zisha teapot was just a daily necessity for folk. Later, under the influence of drinking tea and playing by literati, they participated in the production and design, wrote poems and paintings, and gradually rose to handicrafts (Shen & Sun, 2011). For the design and creation of Zisha teapot makers, the melding process is completing a standard artwork and a creative activity that reflects the design intention. Therefore, they are both producers and artists involved in artistic expression. In completing the production, it is necessary to comprehensively grasp the quality of craftsmanship and art (Yang, 2009). The process of craftsmanship also determines the paradigm of Zisha teapot production. What Zhou Gaoqi calls "making" refers to the craftsmanship of Zisha teapots, including shape, principles, artistic style, etc. Zhou Gaoqi believes that "making" is the reason and merit of the rise of Zisha teapots in the Ming Dynasty and is the key to studying Zisha pots (Gao, 2021). Buyers of Zisha teapots often need help to see their actual value. To promote the traditional craftsmanship methods, Gowlland (2009) explored the relationship between the vision and value of Zisha teapots, thereby deepening the connotation and meaning of the craftsmanship.

Design elements are diverse in Yixing Zisha teapot design. They can not only show in colour but also show the design effect through the expression of texture. Yixing Zisha has unique properties. The most memorable thing about Zisha clay is not its mineral content but the "sand" in the mud. The performance of Zisha clay lies entirely in the sand. A good Zisha teapot is a work of art. The most intuitive feeling is that the Zisha clay's colour, the clay's feel, and the natural, earthy fragrance should all be high quality (Luo, 2016). The texture of Zisha is uniform but only partially flat. Subtle changes in texture are one of the essential characteristics of Zisha materials. The colour control of the Zisha material needs to be adjusted. You can see the changes in colour and their subtlety from the existing twisted tire works (Yang, 2018). People usually evaluate a Zisha teapot from several aspects such as clay, shape, workmanship, and style. This shows the importance of Zisha material (Zhang & Li, 2022).

Analysing the form of the traditional Zisha teapot and integrating the literati's aesthetic ideas into the form, often the literati and artisans reached a consensus on the shape, structure, decorative form, material, and colour in making the teapot and finally achieved a consensus on the shape, interest, and concept of the teapot - a reasonable balance between performance and practical functions. Sometimes, to achieve the spirituality of the allegorical meaning without sacrificing the function and structure, the surface of the teapot body would be decorated with text to express the spiritual aspirations of the literati. Regarding decoration, the literati's ideas and aesthetics are directly expressed on the Zisha teapot through calligraphy and paintings. This kind of craftsmanship, which presents images on the surface of objects and performs calligraphy, seal cutting, and drawing in the form of carving and dyeing, has become the decorative pattern of Zisha carving and is also a direct and convenient way for literati to participate in. The cooperation between Zisha artisans and famous literati in the pot making pioneered since the late Ming Dynasty has jointly pushed the Zisha art to the peak of culture and art. Combining the literati's aesthetic taste and exquisite craftsmanship gives the Zisha teapot rich artistic connotations and forms a unique style, such as the theme and shape that symbolises the literati's character (Xiao, 2022).

Some researchers have proposed design principles to study the shape of Zisha teapots, which all follow universal aesthetic principles. Usually, the aesthetic principles involved mainly include symmetry and balance, proportion and scale, contrast, and harmony (Zhao & Liu, 2016). In addition, some researchers have sorted out and analysed the characteristics and trends of the shape evolution of Zisha teapots at various stages of development from the Ming Dynasty to modern times and preliminarily summarised the characteristics of the shape evolution and innovation of Zisha teapots. Fifty-nine samples of Zisha teapots from the Ming Dynasty, Qing Dynasty, the Republic of China, and modern times were selected to evaluate and collect data on seven quantitative and qualitative attributes related to their modelling innovation. Finally, the SPSS software factor analysis method was used to analyse the data and summarise the Zisha teapots in each period. Characteristics and trends of evolution and innovation in pot shape (Wang et al., 2017). Other researchers also found through the Qing Dynasty Puhe's "Seventy-Three Pots" manuscript that 13 models were derived from flower and fruit themes, accounting for nearly 1/5 of the classic pot types at that time, using the bionic design of flowers, melons, and fruits has become one of the three creative themes of Zisha teapots (Zhu & Yang, 2021). The methods and ideas for the design of Zisha teapots will also come from other craft categories, such as ancient bronzes, wood carvings and bamboo carvings, clothing, folk patterns, etc., which are all fertile ground for the creation of modern Zisha artists. Inheriting tradition and exploring innovation are also the creative models of modern Zisha artists (Yong, 2014). Traditional Chinese philosophy significantly influences the design of Zisha teapots(Liu & Gu, 2019). From the clay materials, colours, shapes, and decorations of Zisha in the Ming Dynasty, as well as the artistic quality and design concepts of Zisha craftsmen Starting from six aspects, combined with Taoist simple aesthetics, it is demonstrated that the creations of Zisha craftsmen in the Ming Dynasty were based on a "Wuwei" mentality and used natural techniques to express a simple beauty.

The exploration of the morphological art of Zisha teapots has continued. Hong (2018) combined with the method of Kansei Engineering, starting from the correlation between the morphological elements and visual images of traditional Zisha teapots, using the factor analysis method to extract the morphological image vocabulary suitable for traditional Zisha teapots, and then summarising five types of visual images of Zisha teapots that users have.

Knowledge gaps of Yixing Zisha Teapot

The goal of this study is to explore the current status of Yixing Zisha teapot design from the perspective of intangible cultural heritage, including the current status of design theory and design practice, and try to find the gap in Yixing Zisha teapot design, thereby providing beneficial design guidance for Yixing Zisha teapot practitioners. Although the findings in the literature point out existing problems in the research, integrating concepts from the Yixing Zisha teapot design through a systematic literature review can promote the establishment of a design framework.

The design of the Yixing Zisha teapot from the perspective of intangible cultural heritage can be concluded from the classification of literature; 1. The development path of Yixing Zisha from the perspective of intangible cultural heritage or the value of Yixing Zisha teapot, 2. The concept of the Yixing Zisha teapot, including clay materials and craftsmanship, and 3. The principles, ideas, elements, and aesthetics of Yixing Zisha teapot design

The topics of intangible cultural heritage and Yixing Zisha do not all come from the fields of art and design but more from history, sociology, and humanities. Some researchers have focused on the value and method of inheritance. In response to the problem of the weakening of traditional culture, they have proposed new designs for intangible cultural heritage that align with modern Chinese society's development (Liu, 2019). In recent years, the Chinese government has proposed the "rural revitalization" strategy, which has a good role in promoting the inheritance and development of traditional culture. Lu (2017), Zhu (2020) and Wang (2023) all pointed out that there are problems in the protection and inheritance of Yixing Zisha, and a series of solutions have been proposed, including calling on the government to propose a better protection bill, suggesting that the industry associations establish better protection mechanisms, and establishing a Zisha art inheritance base. Other studies also rely on the intangible cultural heritage of the region to propose the main characteristics of the intangible cultural heritage, strengthen the principal value of the intangible cultural heritage, and propose a series of protection measures and new methods of inheritance.

The literature review on the concept and design of Yixing Zisha teapots is relatively scattered. Few literatures directly study how to design Yixing Zisha teapots from the perspective of intangible cultural heritage. This has also become a significant research gap and a challenging area of research to explore. The literature is mainly concentrated in China, a limitation caused by the regional issue of the Yixing Zisha teapot. The content of most of the literature reflects the elements, methods, ideas, etc., used in a Zisha teapot work. This category has the problem of being too subjective and not universal. It is a summary and outlook of a type of design work. Researchers such as Xu (2013) and Yong (2014) all draw design-related conclusions through a category or a work. Other researchers started from the Zisha teapot itself, the clay material, and craftsmanship and pointed out that the clay material can be mixed with colours to create different visual experiences. It can also be pointed out through the process flow that Zisha teapots need functional principles, and form depends on function (Yang, 2009; Zhang, 2017). Other researchers pointed out that traditional Chinese philosophical ideas are applied in the design of Zisha teapots (Gu, 2013), including Taoist simplicity, square and round concepts, and other traditional Chinese ideas. These studies can better discover the profound meanings in the design of Zisha teapots, open a

broad space for theoretical research on Zisha teapot design, and provide more convincing explanations for some shapes.

During the SLR research process, it was discovered that the main themes of some documents were ceramic art, product design, industrial design, and traditional Chinese design. However, the Zisha teapot was selected as the research carrier. For example, Kansei Engineering is used to explore the aesthetic feelings of Zisha teapots (Hong, 2018), and shape grammar methods are used to deal with the shape and decoration of ceramics (Benros et al., 2015; Costa & Duarte, 2015), which provides research on other ceramic products. Some researchers have also analysed the application and significance of semiotics in ceramic works and Zisha teapots based on semiotic theory (Xiao et al.,2005; Zhang et al.,2012). It is a standard method for researchers to study practical paths through design theory. Although these literature reviews did not directly mention the specific design methods and guiding principles of Yixing Zisha teapots, they provide the possibility of expanding the practice of Zisha teapot design.

Through this SLR, the researchers found the following knowledge gaps in Yixing Zisha teapot design from the perspective of intangible heritage. Firstly, Yixing Zisha teapot, as an intangible cultural heritage, needs relevant literature to explain the concepts emphasised in the design. Secondly, Yixing Zisha teapot's design from the perspective of intangible heritage has no relevant theories and knowledge to explain the main design principles that have been retained. The main design principles are shape characteristics, methods, form, and aesthetics. Thirdly, from the point of view of design thinking, there needs to be a relevant theory and knowledge to explain the design process of the Yixing Zisha teapot.

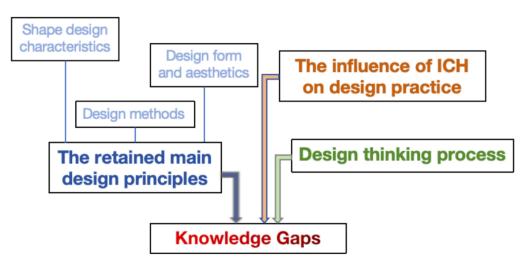


Figure 7. Flow chart of knowledge gaps in Yixing Zisha teapot

CONCLUSION

This Systematic Literature Review (SLR) enables an in-depth analysis of the design of Yixing Zisha teapots from the perspective of intangible cultural heritage, especially in design. Although there is no direct data on the design title, it summarises various Yixing Zisha teapot design knowledge and can clarify the Zisha teapot design system and concepts. It is worth noting that intangible cultural heritage is usually an essential local and representative culture that is intangible and needs to be passed on. Therefore, the scope of Yixing Zisha teapot design from the perspective of intangible cultural heritage lies

in using Yixing Zisha clay and unique craftsmanship. The research excludes the use of colour mud mixed from other regions and the production of Zisha teapots using moulds and machinery. Standards, the significance of this study will be lost.

The number and content of the articles analysed by this SLR demonstrate the need for research in this area. Researchers found that the shape design of Yixing Zisha teapots lacks written characteristics. They need to elaborate on the main retained design concepts within the Yixing Zisha teapot design system from the perspective of intangible cultural heritage. Future research can combine scattered Zisha teapot design concepts, verify their feasibility in practice, and establish an identity for the Zisha teapot shape and characteristics, thereby providing a framework and theory for future design.

ACKNOWLEDGMENT

This study is part of the literature review in Chapter 2 of the researcher's doctoral thesis. The author would like to thank his supervisors Rusmadiah Bin Anwar and Nor Nazida Binti Awang for their suggestions and guidance, as well as the researchers of Zisha teapot artists in China and abroad for their contributions to the theoretical construction, and the editor.

REFERENCES

- Benros, B., Eloy, S., & Duarte, J. (2015). Re-inventing ceramic tiles: Using shape grammars as a generative method and the impact on design methodology. In The next city - New technologies and the future of the built environment (Proceedings of the 16th International Conference CAAD Futures 2015, São Paulo, Brazil, July 8-10, 2015, pp. 467-480). São Paulo, Brazil: CAAD Futures. ISBN 978-85-85783-53-2.
- Costa, E. C. e., & Duarte, J. P. (2015). Generic shape grammars for mass customization of ceramic tableware. In J. S. Gero & S. Hanna (Eds.), *Design computing and cognition '14* (pp. 437–454). Springer International Publishing.
- Dresch, A., Lacerda, D. P., & Antunes Jr, J. A. V. (2015). *Design science research*. Springer International Publishing. https://doi.org/10.1007/978-3-319-07374-3
- Fuzhao, H. (2011). Current situation analysis and development research of purple sand teapot made in Yixing. *Jiangsu Commercial Forum*, 4(12), 88–90. https://doi.org/10.13395/j.cnki.issn.1009-0061.2011.12.004
- Gao, Y. (2021). "Making system": The construction of the research paradigm of traditional handicrafts focusing on "Yangxian Teapot System" and "Yangxian Famous Pottery Record." *Jiangsu Social Sciences*, 6, 206–211. https://doi.org/10.13858/j.cnki.cn32-1312/c.20211124.007
- Gowlland, G. (2009). Learning to see value: Exchange and the politics of vision in a Chinese craft. *Ethnos*, 74(2), 229–250.
- Hong, B. (2018). A study on visual image of traditional purple clay teapot. *Journal of Graphics*, *4*, 723–727. https://doi.org/CNKI:SUN:GCTX.0.2018-04-020.

- Hu, Y. (2012). *Yixing Zisha development history and living inheritance research* [Doctoral thesis, Nanjing Agricultural University].
- Irwin, T. (2015). Transition design: A proposal for a new area of design practice, study, and research. *Design and Culture*, 7(2), 229–246. https://doi.org/10.1080/17547075.2015.1051829
- Liang, S. (2012). Analysis of the traditional design of the Jiajing purple clay teapot with persimmon stem pattern in the Ming Dynasty. *Arts Criticism*, 3, 125–128. https://doi.org/10.16364/j.cnki.cn11-4907/j.2012.03.006
- Liu, C. (2019). Research on inheritance of traditional craftsmanship of intangible cultural heritage of Jiangsu Province [Master's thesis, Nanjing Agricultural University].
- Liu, Y., & Gu, P. (2019). Sculpture and carving, returning to the simplicity: On the Taoist simple aesthetics theory contained by the design of the red stoneware in the Ming Dynasty. *Hundred Schools in Arts, 4*, 184–189. https://doi.org/CNKI:SUN:YSBJ.0.2019-04-030.
- Luo, Y. (2016). Discussion on the clay features and traditional humanistic spirit of purple clay teapot. *China Ceramics*, *52*(4), 96–99.
- Ming, Z. (2017). Gu Jingzhou: The propulsive force of the industrial transformation of the red stoneware. *ZHUANGSHI*, 8(292), 38–41. https://doi.org/10.16272/j.cnki.cn11-1392/j.2017.08.008
- O'Brien, A. M., & Mc Guckin, C. (2016). *The systematic literature review method: Trials and tribulations of electronic database searching at doctoral level.* Sage London.
- Qian, Z., & Hong, Z. (2011). Circulation and the localness: Geographical brand of Yixing purple sand cultural change. *Scientia Geographica Sinica*, 10(31), 1166–1171. https://doi.org/10.13249/j.cnki.sgs.2011.10.002
- Shen, H., & Sun, D. (2011). Study on the tools of making Yixing clay teapot. *Packaging Engineering*, 32(6). https://doi.org/10.19554/j.cnki.1001-3563.2011.06.035
- Ströber, E. (2014). The Chinese taste for tea: Yixing teapots in the collection of the Princessehof Museum, Leeuwarden. *Aziatische Kunst*, 44(2), 13–23.
- Sun, C., Chen, H., & Liao, R. (2021). Research on incentive mechanism and strategy choice for passing on intangible cultural heritage from masters to apprentices. *Sustainability*, *13*(9), 5245.
- Twigger Holroyd, A., Cassidy, T., Evans, M., & Walker, S. (2017). Wrestling with Tradition: Revitalizing the Orkney Chair and Other Culturally Significant Crafts. *Design and Culture*, 9(3), 283–299. https://doi.org/10.1080/17547075.2017.1370310
- Wang, Q., Liu, J., & Liu, Y. (2017). Analysis of the evolution and innovation trend factors of purple clay teapot shapes from the Ming Dynasty to modern times. *Journal of Nanjing Arts Institute (Fine Arts & Design)*, 4, 132–136. https://doi.org/10.16649/j.cnki.njys.0.2017-04-027

- Wei, C. (2021). Life is a river: Reflections on conservation of Gunanjie Street in Dingshu, Yixing in the past two decades. *Journal of Architecture and Civil Engineering*, 5(631), 31–35. https://doi.org/10.19819/j.cnki.ISSN0529-1399.202105009
- Wu, Y. (2012). An exploration of artistic beauty of Yixing Zisha teapot. *Hundred Schools in Arts, S1*, 49–54. https://doi.org/10.16649/j.cnki.ysbj.0.2012-S1-018
- Wu, X. (2012). Cultural path for the succession of porcelain. Journal of Nanjing Arts Institute (Fine Arts & Design), 6(144), 138–140.
- Xiao, Y. (2022). The decorative art of purple clay pots and the aesthetic taste of literati. *Art Education Research*, *5*, 58–59. https://doi.org/10.16649/j.cnki.msjy.0.2022-05-023
- Xu, Q. (2013). The cultural character in the red porcelain teapot. *China Ceramics*, 2, 50–52. https://doi.org/10.16521/j.cnki.issn.1001-9642.2013.02.004
- Xue, K., Li, Y., & Meng, X. (2019). An evaluation model to assess the communication effects of intangible cultural heritage. *Journal of Cultural Heritage*, 40, 124–132.
- Yang, F. (2009). Yixing Zisha craft coordinates the overall craft thought. *Journal of Nanjing Arts Institute* (*Fine Arts & Design*), 35(5), 133–137. https://doi.org/10.16649/j.cnki.njys.0.2009-05-035
- Yang, F. (2018a). On the color and quality of Yixing purple sand material. *Ceramic Studies, 33*(127), 28–33. https://doi.org/10.16649/j.cnki.36-1136/tq.2018.05.009
- Yang, F. (2018b). On the color and quality of Yixing purple sand material. *Ceramic Studies, 33*(127), 28–33. https://doi.org/10.16649/j.cnki.36-1136/tq.2018.05.009
- Yi, J. (2017). Research on inheritance of intangible cultural heritage. In 2017 2nd International Conference on Education, Sports, Arts and Management Engineering (ICESAME 2017) (pp. 1906–1910).
- Yong, S. (2014). Study on the design of dark-red enameled pottery teapot modeling—Analysis on the creation of "Woman Flowerpot." *China Ceramics*, *3*, 87–89. https://doi.org/10.16521/j.cnki.issn.1001-9642.2014.03.027
- Zhang, P., & Li, J. (2022). Study on the distribution and material characteristics of Yixing Zisha pottery ore. *China Ceramics*, *1*, 65–70. https://doi.org/10.16521/j.cnki.issn.1001-9642.2022.01.010
- Zhang, X. (2017). Syncretism of skill and morality: On the creation of red stoneware. *ZHUANGSHI*, 8, 32–37. https://doi.org/10.16272/j.cnki.cn11-1392/j.2017.08.007
- Zhao, D., & Liu, W. (2016). Analysis of the artistic form of teapot design. *Tea in Fujian*, *1*, 134–135. https://doi.org/10.16649/j.cnki.fjca.0.2016-01-086
- Zhi, Z. (2017). Find way in pottery capital, seek truth of red stoneware: Thinking about cultural inheritance and industrial development of red stoneware in Yixing. ZHUANGSHI, 292, 12–14. https://doi.org/10.16272/j.cnki.cn11-1392/j.2017.08.003

- Zhu, Y. (2022). Literary minds enter the pot, and the pot carries the Tao A brief analysis of the relationship between literati and purple clay pots. *Jiangsu Ceramics*, *1*, 74–75. https://doi.org/10.16860/j.cnki.32-1251/tq.2022.01.019
- Zhu, Y., & Yang, J. (2021). Research on bionic design of flowers and fruits in Yixing purple clay teapot. *Art Panorama*, *8*, 150–151. https://doi.org/10.16649/j.cnki.msdg.0.2021-08-026