

**STUDY THE IDENTITIES OF SONG DYNASTY CERAMIC FOR
DESIGN OF CONTEMPORARY INCENSE BURNERS**



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Title	STUDY THE IDENTITIES OF SONG DYNASTY CERAMIC FOR DESIGN OF CONTEMPORARY INCENSE BURNERS
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ABSTRACT

This study aimed to study the identity of the Song Dynasty ceramic incense kiln, which is characterized by its elegant simplicity and its contemporary product design identity, through integrated object analysis, experimental creation, and user evaluation. Through a museum survey and 3D photography of 56 archaeological specimens, field interviews with scholars, craftsmen, and collectors, and a simulation of a kiln fired at 1,250–1,280 °C, the research adopted the design concept of “simple but profound”, which consists of a single-color glaze, a balanced tripod or ring-shaped form, and an openwork pattern inspired by lotus petals. These principles led to the creation of a modular porcelain prototype that blended Jingdezhen clay with 15% rice husk ash, increasing heat resistance by 94%, and equipped with a magnetic cover. Evaluations from three university ceramic professors confirmed its historical consistency, while a national questionnaire (n = 534) and a control experiment with 217 design students showed that 82% favored the product’s contemporary shape and 73% rated it as comfortable to the user’s hand. The results indicate that integrating heritage stories, ergonomic details, and adapting sustainable materials Able to connect cultural continuity with contemporary lifestyles, and offer an innovative framework that can be extended for ceramic product design based on cultural heritage, which can be developed to be contemporary and be liked by the new generation of teenagers.

Keywords: Song Dynasty, ceramic incense burner, creation thought, incense burner design

บทคัดย่อ

งานวิจัยนี้มุ่งศึกษาอัตลักษณ์ของเตาเผารูปเซรามิกสมัยราชวงศ์ซ่ง ที่มีความเรียบง่ายอันสง่างาม และมีอัตลักษณ์ โดยผู้วิจัยได้ทำการออกแบบผลิตภัณฑ์ร่วมสมัย โดยดำเนินการผ่านการวิเคราะห์วัสดุ การสร้างสรรค์เชิงทดลอง และการประเมินผู้ใช้แบบบูรณาการ จากการสำรวจพิพิธภัณฑสถานและการถ่ายภาพสามมิติของตัวอย่างโบราณคดี 56 ชิ้น การสัมภาษณ์ภาคสนามกับนักวิชาการ ช่างฝีมือ และนักสะสม ตลอดจนการจำลองเตาเผาที่อุณหภูมิ 1,250–1,280 °C งานวิจัยได้ใช้แนวคิดการออกแบบ “เรียบแต่ลึกซึ้ง” ซึ่งประกอบด้วยเคลือบสีเดียว รูปทรงสามขาหรือขาแหวนที่สมดุล และลายโปร่ง แรงบันดาลใจจากกลีบดอกบัว หลักการเหล่านี้นำไปสู่การสร้างต้นแบบพอร์ซเลนแบบโมดูลาร์ที่ผสมดินจิ้งเต๋อเข้ากับเถ้าเคลือบขาว 15 % เพิ่มความต้านทานต่อความร้อนได้ 94 % พร้อมฝาปิดแม่เหล็ก การประเมินจากอาจารย์มหาวิทยาลัยด้านเซรามิก 3 ท่านยืนยันความสอดคล้องทางประวัติศาสตร์ ขณะที่แบบสอบถามระดับประเทศ (n = 534) และการทดลองควบคุมกับนักศึกษาด้านออกแบบ 217 คน แสดงให้เห็นว่า 82 % ชื่นชอบรูปทรงที่มีความร่วมสมัยของผลิตภัณฑ์ และ 73 % ให้คะแนนมีความเหมาะสมกับสรีระมือของผู้ใช้ ผลลัพธ์ชี้ให้เห็นว่า การบูรณาการเรื่องราวมรดก รายละเอียดตามหลักศาสตร์ และการปรับวัสดุอย่างยั่งยืน สามารถเชื่อมโยงความต่อเนื่องทางวัฒนธรรมกับวิถีชีวิตร่วมสมัย พร้อมเสนอกรอบการนวัตกรรมการที่ต่อยอดได้สำหรับการออกแบบผลิตภัณฑ์เซรามิกบนพื้นฐานมรดกวัฒนธรรมสามารถนำมาพัฒนาให้เกิดความร่วมมือและได้รับความพึงพอใจจากกลุ่มวัยรุ่นซึ่งเป็นคนรุ่นใหม่

คำสำคัญ: ราชวงศ์ซ่ง, เตาเผารูปเซรามิก, แนวคิดการสร้างสรรค์, การออกแบบเตาเผา, การออกแบบผลิตภัณฑ์ทางวัฒนธรรม

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CHAPTER 1

INTRODUCTION

1.1 Background and Significance of the Problem

Incense has been an important element in Chinese traditional culture since ancient times, and it began to be widely used as early as the Spring and Autumn period (Zhou et al., 2017). By the time of the Southern and Northern Song dynasties, incense culture reached a new peak, with the burning of incense becoming an important ritual in the lives of scholars and literati (Yan, 2014). During this period, scholars considered the burning of incense, brewing tea, arranging flowers, and hanging paintings as the four arts of daily life, among which the incense burner, as an essential item for burning incense, reflected the aesthetic interests and spiritual pursuits of scholars.

The ceramic incense burner is not only a material manifestation of incense culture but also a significant component of ancient creation design. It carries profound cultural connotations, reflecting the aesthetic concepts and craftsmanship of ancient society. The introduction and development of Buddhist culture had a profound impact on the design of incense burners, especially in the Tang Dynasty, when large incense burners were used for Buddhist ritual sacrifices, highlighting the importance of incense burners in religious culture.

The thriving ceramic industry of the Song Dynasty promoted the popularization and diversification of ceramic incense burners. The unique craft techniques of official and folk kilns contributed a rich variety of styles and skills to the development of ceramic incense burners. The design of ceramic incense burners during this period was considered the golden age, with works that not only reached a high level of technical proficiency but also exhibited unique cultural charm.

The Song Dynasty was a period of remarkable economic and cultural prosperity, which played a crucial role in shaping the design and production of ceramic incense burners. The late Professor Li Yue-se, a foreign member of the Chinese Academy of Sciences, once stated that China's science and technology reached their zenith during the Song Dynasty, far surpassing the level of England and Europe in the mid-18th century (Zhou, 2017). French historian Jacques Gernet also praised the degree of modernization achieved by China during the Song era, which astounded the world.

This period saw a booming commercial economy, a flourishing handicraft industry, and the emergence of numerous ceramic workshops. The expansion of foreign trade brought about the large-scale export of ceramic products, including incense burners, making ceramics an important source of revenue for the Song Dynasty's treasury. With the growing demand for incense in daily life, religious practices, and international trade, the craftsmanship of ceramic incense burners evolved, incorporating a wide range of artistic elements and technical innovations.

The artistic characteristics of Song Dynasty ceramic incense burners, it is necessary to examine the broader socio-economic environment of the time. Books and paintings from that era provide important references. Works such as Deng Guangming (2017)'s *Ten Lectures on Song History*, Yu Yun Guo (2019)'s *Continuation of the History of Li Dongfang: A Detailed Account of the Song Dynasty*, and Wu Gou (2015)'s *Song Dynasty: A Civilization Revealed in Art* offer in-depth insights into the daily

habits, social civilization, and religious beliefs of the Song people, which influenced the design of ceramic censers at the time.

Scholarly research on Song Dynasty ceramic incense burners has been carried out from multiple perspectives, including archaeology, art history, and material culture. Zhang Dao Yi (1989)'s *On the Art of Creating Things* discusses theoretical issues in the field of crafts and design, systematically introducing the materialist philosophy of artifact creation. Hang Jian (2021)'s *History of Chinese Aesthetics and Arts* provides a detailed account of ancient Chinese design ideas and proposes six viewpoints: "self-assertion and object-subjugation," "utility and benefit for others," "critical analysis of situations," "ingenious use of natural laws," "skill as a means to convey truth," and "refined and elegant." Shi Chong et al. (2020)'s *Wisdom of Material and Art of Creation* analyzes and discusses the concept of "creation" and its connotations in different eras, narrating from the definition of creation, the origin and development of creation ideas, and contemporary innovations in creation.

In contrast, there are relatively few foreign works that discuss Song Dynasty ceramic censers. The research traces the discussions by overseas experts and scholars, including descriptions of Song Dynasty history or specific censers. For instance, the book *Introduction to the Study of Chinese History* edited by Japanese scholar Yoshio Yamagata (2000) covers the history of ancient China from the Pre-Qin era to the contemporary period, with the Song and Yuan dynasties written by Song history expert Yaneda Setsuko. Overall, the discourse is objective and rational. However, the existing foreign literature mostly revolves around the historical background of the Song Dynasty and does not systematically expand the analysis of the future development direction of ceramic censer design from a design perspective.

This study aims to fill this research gap by integrating contemporary design innovation principles with traditional artistic elements, further supplementing the theoretical information on the artifact design of Song Dynasty ceramic incense burners. By analyzing historical sources, pictorial records, and material evidence, this study seeks to uncover the artistic essence of these artifacts and explore their relevance in modern ceramic design.

Through the study of the design of Song Dynasty ceramic incense burners, we can gain a deeper understanding of the principles of ancient creation design and provide historical and cultural references for modern ceramic incense burner design. The burning of incense not only helps to regulate physiological functions and relax emotions but is also a method for modern people to alleviate life stress.

Furthermore, integrating the artistic characteristics of Song Dynasty ceramic incense burners into contemporary product design contributes to both cultural heritage preservation and design innovation. Traditional craftsmanship and aesthetics provide a foundation for developing modern ceramic products that maintain a connection to historical traditions while aligning with modern lifestyles.

This study will explore the intersection of traditional aesthetics and modern technology, considering how elements such as shape, material, and decorative techniques can be adapted for contemporary usage. By drawing inspiration from Song Dynasty ceramic incense burners, designers can create new forms that embody both historical elegance and modern functionality, achieving a harmonious blend of past and present.

1.2 Research Objective

1.2.1 Study the identities of song dynasty ceramic incense burners

1.2.2 Design of Contemporary incense burners

1.2.3 Evaluate satisfaction of the teenagers towards the prototype design of the Contemporary incense burner

This study examines the design philosophy of Song Dynasty ceramic censers, addressing the narrow focus of existing research, which mainly analyzes their form and structure within historical contexts. By centering on creation design, it explores design principles through historical analysis, pictorial references, and field research, assessing their influence on modern censer design.

Field investigations at Shanghai Museum, Hubei and Hunan Provincial Museums, and the "Ru Luo Liu Xiang" Exhibition in Jingdezhen provided first-hand visual materials for detailed analysis. A comparative approach contextualizes censer design by examining its political, economic, and cultural influences and its evolution across historical periods, categorizing forms, glazes, and decorations for a deeper understanding.

This research highlights the cultural and practical significance of Song Dynasty censer design, revealing its craftsmanship, aesthetics, and philosophical depth. It supports cultural preservation while inspiring contemporary design innovation, offering principles that integrate tradition with modern aesthetics. Beyond historical appreciation, it fosters a design dialogue between past and present, enriching design theory and advancing the evolution of traditional culture in modern society.

1.3 Conceptual Framework

1.3.1 Research Methods

1.3.1.1 Historical Research Method

Historical Research Method refers to the theory of inductive analysis of relevant historical documents and materials of the research object. Before the research is carried out, a large amount of literature on "ceramic incense burners" is collected and organized, summarized, screened, and combined with on-site visits to museums, incense burner exhibitions, and physical stores. This is done systematically and purposefully to collect literature on Song Dynasty ceramic incense burners and conduct comprehensive scientific research. It integrates knowledge from ancient books, poetry, calligraphy, and painting to gain a deep understanding. The design of artifacts is based on social civilization and is a tangible manifestation of the times.

1.3.1.2 Iconographic Research Method

Iconography is a common approach in the study of ceramic art and design history. American scientist and academician Erwin Panofsky once said that iconography is mainly divided into three stages: pre-iconographic description, iconographic analysis, and iconological study. For this research, it refers to the process of studying ceramic censers in the Song Dynasty. First, we make a preliminary understanding of the Song Dynasty ceramic censers based on the images, intuitively perceiving the theme of the works. Then, we classify and compare the images, interpreting and exploring the deeper meanings. Finally, we integrate the Song Dynasty ceramic censers into the era's context, investigating the relationship between the

creation of censers and individual factors, social background, and cultural origins. That is, in the early stage, we provide abundant image resources to form initial judgments, and then, through rational classification, we grasp the changes in the shape, decoration, and craftsmanship of ceramic censers scientifically and rigorously, distilling relevant design rules and conclusions, and promoting the development of contemporary ceramic censer design.

1.3.1.3 Design Research Method

Design Research Method is a research approach that integrates disciplines such as psychology, sociology, and artistic aesthetics. This study takes the historical development of "Song Dynasty culture," "ceramic censers," and "artifact thought" as the point of convergence, analyzing the design principles of Song Dynasty ceramic censers, explaining the reasons for their formation, sources of their shapes, and decorative patterns. By analyzing the overall cultural trends of the Song Dynasty and combining typological analysis, common design principles are concluded. The research is based on existing design theory, considering the current situation of Chinese contemporary design, and integrating examples of modern ceramic censer design. It dissects the inspiration that Song Dynasty artifact thought offers to contemporary censer design, rationally summarizing the theory of Song Dynasty ceramic censer artifact design. This provides contemporary designers with new design ideas and enriches the theoretical knowledge of ceramic censer design.

1.3.2 Innovative Points

1.3.2.1 Topic Content

The study of artifacts cannot be separated from the analysis of the philosophy of artifact creation; however, there is relatively little research from a design perspective on the "artifact design philosophy" of Song Dynasty ceramic censers, and even less discussion on the future development of ceramic censer design. Incense burners are ceramic daily necessities with special significance, and the Song Dynasty is an unparalleled peak in the history of ceramic censer development. "Viewing the present through the past," exploring the intrinsic essence of artifact creation, mastering the internal factors influencing the development of censers from the social background of the Song Dynasty, extracting the philosophy of Song Dynasty artifact design, and combining it with contemporary design cases to design current ceramic censers, the topic selection has certain theoretical and practical significance.

1.3.2.2 Research Methodology

By understanding the content of specialized books on incense burners, journal papers, and historical illustrations, this study has grasped the generalities of Song Dynasty ceramic incense burners. However, there are still uncertainties about the details of specific incense burner cases. Based on existing theoretical resources, the study visited the Hunan Provincial Museum, Shanghai Museum, Hubei Provincial Museum, and other locations to compare the subtle differences between incense burners and reflect on the creative concepts of the artifact creators. The study obtained firsthand materials from the exhibition "Aroma of the Ruyi—Song and Yuan White Porcelain Incense Burner Specimens." In addition, a series of interviews were conducted with archaeologists to ensure the meticulousness and authenticity of the research.

1.3.3 The conceptual framework used to evaluate satisfaction of the teenagers towards the prototype design of the Contemporary incense burner

This framework evaluates user satisfaction with the Song Dynasty-inspired ceramic censer prototype, focusing on aesthetic value, functionality, design principles, and cultural heritage to ensure a balance between tradition and modern needs.

1.3.3.1 Aesthetic and Cultural Value

The censer should reflect Song Dynasty elegance, simplicity, and subtlety while adapting to modern design sensibilities. This study explores form, glaze, and decorative techniques to integrate traditional aesthetics into contemporary design.

1.3.3.2 Functionality and Practicality

As a daily-use object, the censer must ensure ease of use, durability, and incense-burning efficiency. This study assesses ergonomic design, structural integrity, and maintenance feasibility for modern users.

1.3.3.3 Design Principles and Innovation

By combining Song Dynasty craftsmanship philosophy with modern design theory, the study refines form, materials, and techniques to create a censer that respects tradition while embracing innovation and contemporary needs.

1.3.3.4 Cultural Inheritance and Contemporary Value

Beyond function, the censer carries spiritual and cultural significance. This study explores how to reinterpret traditional aesthetics to make them relevant today, ensuring continuity and evolution of traditional craftsmanship.

This framework provides a structured methodology to integrate historical design logic with modern practicality, guiding future ceramic censer innovation.

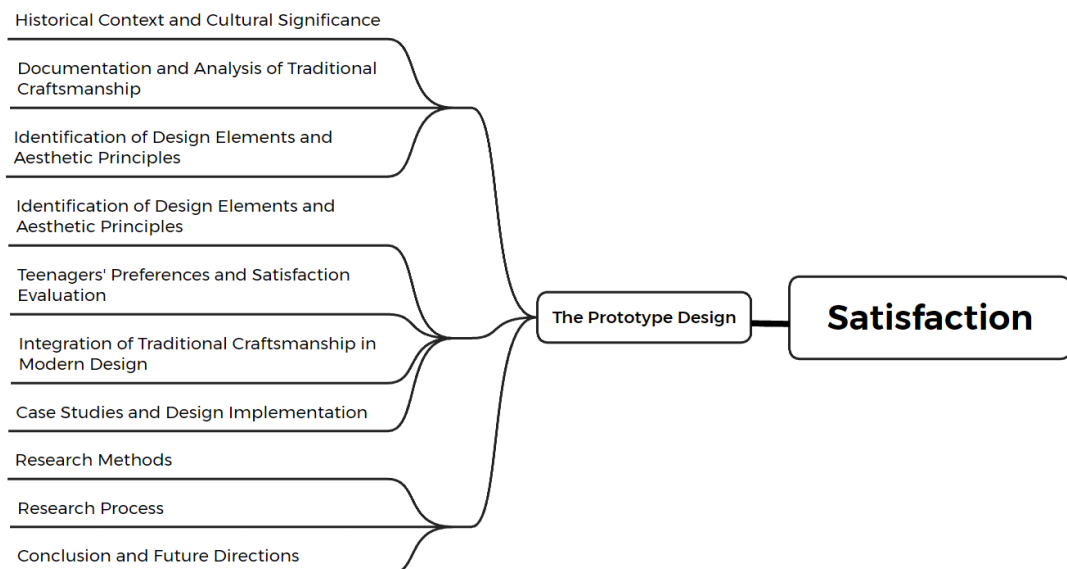


Figure 2.1 Research Framework

(Picture source: by the author)

1.4 Scope of the Research

1.4.1 Scope of the Contents

In the initial phase of data collection, the research focused on three main areas: Song Dynasty ceramic censers, the philosophy of artifact design, and international research on censer design. The study interpreted the ceramic censers of the Song era from a design perspective, examining interdisciplinary content including iconography, archaeology, Buddhism, and Chinese language and literature. It analyzed the design philosophy of the Song Dynasty ceramic censers and compared them with contemporary designs. The research was enriched by content from academic journals and theses, as well as by museum collections both domestically and abroad. By visiting physical exhibitions, markets, and online platforms, the researchers aimed to gain a comprehensive understanding of the current state of ceramic censer development. This approach sought to systematize, comprehensively, and meticulously carry out the research, enriching the design theory of ceramic censers and providing valuable references for innovative design in the future.

1.4.2 Scope of the Area

This study selects Qingyang County, Chizhou City, Anhui Province, based on the following considerations:

1.4.2.1 Historical and Cultural Background

As a significant Buddhist cultural center, Qingyang has a long-standing incense tradition. Ceramic censers are prominent in its heritage, supporting this research.

1.4.2.2 Ceramic Craftsmanship

Adjacent to Jingdezhen, Qingyang has a history of ceramic production and retains traditional pottery techniques, providing a practical foundation.

1.4.2.3 Market and Application Value

As a major cultural tourism destination, Qingyang attracts visitors with a strong demand for cultural products, facilitating the promotion of research findings.

1.4.2.4 Resources and Feasibility

The region has abundant natural resources and an existing ceramic industry, ensuring practical implementation of the study.

These factors make Qingyang County an ideal research site, balancing historical significance, market potential, and production feasibility.

1.4.3 Scope of the Population and sampling

The research subjects of this study are mainly limited to the following four groups to ensure the professionalism, practicality, and pertinence of the research, providing valuable theoretical and practical references for the design and research of ceramic incense burners in the Song Dynasty.

1.4.3.1 Scope of the Population to study the identities of Song Dynasty Ceramic

(1) Scholars in Related Academic Fields (Purposive Sampling, 3 People)

To ensure the academic depth and relevance of this study, the research will involve scholars from leading Chinese universities, specializing in fields related to ceramic arts, cultural heritage, and design. These experts possess extensive knowledge in historical verification, craftsmanship analysis, and artistic interpretation, allowing for a comprehensive exploration of the characteristics and cultural significance of Song

Dynasty ceramic incense burners. Their insights will provide valuable theoretical foundations and perspectives for this study.

(2) Student (in the fields of art design, ceramic craftsmanship, and cultural research) 30 people (purposive sampling)

The student group represents the main force of future design and cultural inheritance. Their understanding of traditional culture, modern aesthetics, and acceptance of innovative design are important references for studying the modern application of Song Dynasty incense burner design. This study aims to understand the cognition, interest, and expectations of student groups towards the design of Song Dynasty ceramic incense burners through survey questionnaires and interviews, providing reference for future innovation directions of ceramic incense burners. This study conducted in-depth research on museum experts, industry practitioners, collectors, and students to ensure that the research has both academic value and meets the design and application needs, providing strong support for the innovative development of Song Dynasty ceramic incense burners.

1.4.3.2 Scope of the Population to design of Contemporary incense burners

To determine the qualified persons used in the evaluation of ceramic design, the researcher used three university ceramics teachers. 3 people (purposive sampling)

1.4.3.3 Scope of To Assess the Satisfaction of the Teenagers Towards the Prototype Design of the Contemporary Incense Burner

Population and sample used to evaluate the satisfaction of teenagers towards the prototype design of the modern incense burner

Population: teenagers aged 20-24, residing in Qingyang County, Chizhou City, Anhui Province, China, totaling 18,686 people (according to the data from the 7th National Population Census, 2020).

Sample: teenagers aged 20-24, residing in Qingyang County, Chizhou City, Anhui Province, China, totaling 100 people (Yamane, 1973: 886).

1.5 Expected Benefits

1.5.1 Cultural inheritance and innovative development:

Studying the artistic characteristics of Song Dynasty ceramic incense burners helps preserve and promote traditional culture while inspiring innovative design concepts that blend historical aesthetics with modern applications.

1.5.2 Product design and market competitiveness:

Integrating traditional ceramic art enhances product aesthetics, adding uniqueness and cultural value while strengthening market differentiation and consumer appeal.

1.5.3 Environmental Protection and Sustainable Development:

Applying historical design elements to eco-friendly products supports sustainable practices, raising awareness of environmentally responsible consumption and production.

1.5.4 Social education and public cognition:

This study enriches public appreciation for art and design, fostering a stronger cultural identity and enhancing social engagement with traditional craftsmanship.

1.5.5 Academic research and knowledge accumulation:

Providing new insights into ceramic incense burner design, this research contributes to interdisciplinary studies, offering valuable academic references for future exploration.

Through these expected benefits, this study bridges tradition and innovation, making meaningful contributions to design, culture, sustainability, and academia.

1.6 Definition of Term

This study focuses on the artistic features and design philosophy of Song Dynasty ceramic censers, aiming to deeply analyze the design thinking of creation during that period from multiple perspectives such as social and cultural background, ideological consciousness, and economic development, in the hope of providing new insights and inspirations for modern ceramic censer design. The following are definitions of the key concepts used in this study:

1.6.1 Definition of Censer

“A censer” refers to a household item specifically used for burning incense, commonly found in religious rituals of Buddhism, Taoism, and others. The character “炉” (lu), meaning “furnace” or “censer,” was first recorded in the ancient Chinese official document *The Rites of Zhou*, which states:

“In matters of the bedroom, one is responsible for sweeping, holding candles, and providing furnace charcoal.” (Yu, 2012).

This indicates that initially, censers were used for heating in the imperial palace. Over time, their functions expanded to not only expelling evil spirits and repelling insects but also scenting clothing, gradually evolving into what we understand as censers today.

1.6.2 Definition of Creation in Handicraft and Design

The concept of “creation” originates from handicraft and is closely related to art and design. In modern times, it refers to the creative process from nothing to something, encompassing multiple meanings such as “making,” “exploring,” and “achieving.” (Zhao et al., 2016). Academia generally defines “creation” as the use of specific materials and techniques to produce objects that are both practical and aesthetically valuable. Therefore, this study primarily discusses the design philosophy of ceramic censers that emphasizes both aesthetics and practicality, rather than the art of ceramic censers alone.

1.6.3 Cultural and Technological Evolution of Song Dynasty Ceramic Censers

Ceramic censers of the Song Dynasty not only carry the social culture and ideological concepts of the time but also reflect the evolution of materials and technology in creation. To study the design philosophy of Song Dynasty ceramic censers, it is necessary to have a deep understanding of the social and cultural background, ideological culture, and creation technology of the Song Dynasty.

The Song Dynasty valued culture, and the status of scholars and literati significantly improved. The target audience of creation design also expanded from the aristocracy to the common people. During this period, the design style shifted from the luxury of the Tang Dynasty to the simplicity and practicality of the Song Dynasty, marking a significant change in the philosophy of creation.

1.6.4 Research Scope and Analytical Approach

This study will analyze the interaction between Song Dynasty ceramic censers and the social context of the time, summarize the characteristics of these objects, and explore the impact of creation design philosophy on the making of ceramic censers through visual materials. By refining the excellent design philosophies of the Song Dynasty and combining them with case analyses of modern ceramic censer design, the aim is to achieve a harmonious unity of theory and practice, as well as material and spiritual values.



CHAPTER 2

LITERATURE REVIEW

Song Dynasty ceramic censers, as an integral part of Chinese ceramic art, are renowned for their unique shapes, exquisite decorations, and profound cultural connotations. This literature review aims to organize the current state of research on the artistic features of Song Dynasty ceramic censers, as well as to explore related studies on how to apply these features to product design, providing a theoretical basis for the inheritance and innovation of the art of Song Dynasty ceramic censers.

- 2.1 The Origin of Incense Burners
- 2.2 The Development History of Ceramic Incense Burners
- 2.3 Analysis of the Social Causes of Ceramic Incense Burners in the Song Dynasty
 - 2.3.1 Import of spices from outside the region
 - 2.3.2 The prevalence of religious culture
 - 2.3.3 Daily life needs
- 2.4 Analysis of the Characteristics of Ceramic Incense Burners in the Song Dynasty
 - 2.4.1 Simple and plain antique style design
 - 2.4.2 Biomimetic design that condenses nature
- 2.5 Analysis of Decorative Features of Ceramic Incense Burners in the Song Dynasty
 - 2.5.1 Animal patterns with both form and spirit
 - 2.5.2 Low-key and elegant plant patterns
 - 2.5.3 Geometric patterns with auspicious meanings
- 2.6 Process technology characteristics
- 2.7 Related Research

2.1 The Origin of Incense Burners

The Song Dynasty's Ding Wei mentioned in "Tian Xiangzhuan" (Zhou et al, 2017) that "the use of fragrance dates back to ancient times," confirming that the initial origin of incense culture came from the time of the Yellow Emperor. At that time, the use of fragrant plants in daily life was simple. In the Eastern Han Dynasty, the litterateur Xu Shen wrote in "Shuo Wen Jie Zi" (Yan et al, 2014), "Fragrance is aromatic. From Shu (a type of grass), from Gansweet)." The radical of the character "fragrance" indicates the scent of grass, and the custom of fumigation has a history of thousands of years.

According to archaeological discoveries, the origin of incense burners can be

traced back to the tri-pedal incense burner from the late Spring and Autumn period.(Yu, 2012) This incense burner was unearthed from the Bai Shizi No.1 Chu Tomb in Gushi, Henan, with a perfect shape, unlike the early works of incense burners. However, no other artifacts have been unearthed to support this theory yet. Due to the skilled bronze technology during the Spring and Autumn period and the Warring States period, most incense-burning vessels were made of bronze vessels such as ding (tripod cauldron), jue (wine cup), and dou (bowl). It was not until the Han Dynasty that specially made incense burners appeared, known as the Bo Shan incense burner (Figure 2.1). In the "Dong Tian Qing Lu Ji: Gu Zhong Ding Dui Yi"(Zhao, 2016) by Zhao Xi in the Southern Song Dynasty, it is mentioned that the Bo Shan incense burner was commonly used in the prince. During the Han Dynasty, influenced by the concept of immortals, objects commonly featured themes such as immortal mountains, myths, and exotic beasts. The furnace body was shaped like a bean, and the lid resembled that of the Boshan Immortal Mountain; When burning incense, the spices are placed in the furnace and burned, and smoke rises slowly from the hollow holes, creating a sense of being in a fairyland. In the Han Dynasty, Liu Xiang wrote in his "Inscription on the Boshan Incense Burner"(Zhou et all, 2017): "This is a precious vessel, standing tall like a mountain, with the Taihua River running through it. It is supported by a copper plate and contains orchids, red fire, and green smoke." Recently, the academic community mostly believes that the origin of the Boshan Incense Burner is based on the bean shaped bronze ware from the Warring States period.



Figure 2.1 Eastern Han Dynasty green lead glazed red pottery Boshan furnace

(picture source: by the author), 2025

2.2 The Development History of Ceramic Incense Burners

From the Spring and Autumn period to the Han Dynasty, the development of incense burners was in its infancy. The design of incense burners during the Warring States period was influenced by various factors, which can be summarized into three main points: first, the restrictive influence of ritualistic thinking on the design of incense burners; second, the debate between the importance of form and substance; and third, the maturity of craft technology, which promoted the development of incense burner design.

Hubei, the birthplace of Chinese incense culture, was also a major producer of early incense burners. Many incense vessels have been unearthed from Warring States period tombs in Chu, mostly from Hubei, Hunan, Henan, and other areas. The southern region often experiences overcast and rainy days, and people frequently used incense burners to fumigate herbs for deodorization, sterilization, and mildew prevention. Due to the advanced bronze technology at the time, most incense vessels were made of bronze.

According to documentary sources, the earliest incense-burning utensils were discovered in the Zeng Hou Yi Tomb in Hubei Province (Yu, 2012). Two incense vessels were unearthed at the time. One was a bronze incense burner (Figure 2.2), shaped like a garlic bulb. This type of bronze incense burner was discovered for the first time during archaeological excavations, and it was identified as an incense burner based on the remains of herbal ashes found on the inner wall. The other was an openwork bronze incense cup-shaped utensil (Figures 2.3, 2.4), which was cylindrical and entirely openworked, decorated with intricate and delicate dragon patterns. The body of the cup featured cloud patterns, with a harmonious and unified layout that was smooth and dynamic. It was adorned with expensive malachite inlays, showcasing the rigorous and meticulous ritualistic thinking of the Spring and Autumn and Warring States periods. The fine workmanship reflected the attention to detail and the high level of craftsmanship during that era.



Figure 2.2 Copper fumigation furnace
(picture source: Shanghai Museum, China), 2025



Figure 2.3 Hollow copper smoking cup shaped device
(picture source: Shanghai Museum, China), 2025



Figure 2.4 Wire diagram of copper smoked cup-shaped device

(picture source: Shanghai Museum, China), 2025

During the Han Dynasty, the incense burners that appeared were primarily serving the noble emperors and had unique shapes and luxurious materials. At this time, the metallurgical industry was highly developed, and bronze vessels gradually showed signs of decline, a change that was also reflected in the creation of incense burners.

The incense burners unearthed from the Han Dynasty began to show a large number of silver and gold plating techniques, highlighting the superb craftsmanship of

making incense burners during the Western Han Dynasty. For example, the Western Han silver-gilt high-stemmed Bo Shan incense burner (Figure 2.5) unearthed in Xingping City, Shaanxi Province, was entirely silver-gilt, with a height of 58 cm and a mouth diameter of 9 cm. The base was decorated with two openwork dragons, with detailed and complex designs.

The feudal emperors of the Han Dynasty believed in the sayings of fangshi particularly popular among the aristocracy. For example, the Western Han gold-inlaid Bo Shan incense burner (Figure 2.6) and the Western Han silver-gilt figure riding beast Bo Shan incense burner (Figure 2.7) were entirely inlaid with gold or silver. The body of the burner was shaped like a bean, with a small mouth to ensure safety during use, while maintaining the integrity of the lid and the body. The lid was shaped like a fairy mountain, carved auspicious patterns such as immortals, divine beasts, and rare treasures. The lids were often accompanied by flat, dish-shaped bases. The overall workmanship was exquisite, and there began to be a small number of ceramic and white porcelain incense burners appearing.

The incense burners of the Han Dynasty were not only functional but also served as a form of artistic expression and a symbol of status. The use of gold and silver plating techniques not only demonstrated the mastery of the craftsmen but also added to the opulence and grandeur of the objects, which were highly valued by the aristocracy. The intricate designs, including depictions of immortals and mythical creatures, reflected the cultural and spiritual beliefs of the time, particularly the fascination with immortality and the afterlife.



Figure 2.5 Western Han Dynasty gilded gold and silver high handled Boshan furnace

(picture source: Shanghai Museum, China), 2025



Figure 2.6 Western Han Dynasty Cuojin Boshan Furnace

(picture source: Shanghai Museum, China), 2025



Figure 2.7 Boshan Furnace, a figure of gilded silver cavalry beasts from the Western Han Dynasty

(picture source: Shanghai Museum, China), 2025

During the Sui and Tang dynasties, incense burners entered a period of rapid development. The Tang Dynasty was the peak period for the production and use of gold and silver wares in ancient China, with the craft technology fully matured. There were fourteen recorded methods for gold processing alone, including "carved gold, beaten gold, gilded gold, woven gold, polished gold, applied gold, gold paste, pierced gold, twisted gold, inlaid gold, encircled gold, adhered gold, embedded gold, and wrapped gold"(Tian, 2010). Various expensive materials were used in the design of incense burners.

The shape of incense burners in the Sui and Tang dynasties still mainly imitated ancient bronze vessels, but began to abandon the previous heavy designs, trending towards lighter forms. The bronze Bo Shan incense burners of this period were mostly without trays, transitioning from the tri-pedal ding-style burners of the previous dynasty to four- or five-legged burners with higher feet. For example, the Five Dynasties Min Wang Yanhan bronze-gilt lion incense burner (Figure 2.8) stands 40.1 cm tall and has a diameter of 21 cm. The lid is shaped like a helmet, fitting snugly with the rim of the burner mouth, with a crouching lion knob symbolizing the power and authority of the ruler. The lion's mouth is connected to the inside of the burner, allowing the fragrance to escape. The body of the burner is straight-sided with a wide, flat edge that is shaped like five narcissus petals, and it has a straight belly and flat bottom. The entire piece is gilt with wide edges inscribed with regular script inscriptions, making it a unique piece with inscriptions from the Min state during the Five Dynasties period.

In addition to this, due to the luxurious tastes of the Tang emperors, the glaze colors of ceramic incense burners were mostly vibrant and colorful, with Tang tri-colored ceramic incense burners being common. For instance, the tri-colored appliqué incense burner (Figure 2.9) unearthed from the Huangye site in Gongyi, Zhengzhou City, Henan Province, has a flared mouth and short neck, a round bottom with a bulging belly, and three supports on the mouth edge. The shoulders are decorated with two shallow string patterns, and the lower part of the belly has three outward-flaring beast hooves. In terms of decorative technique, the shoulders and belly use appliqué technology, adorned with four lotus flower patterns. The upper part of the burner is coated with light yellow and blue glazes, while the lower part is covered with brown glaze. The appliqués are coated with colored glazes, with varying thicknesses and concentrations of glaze, creating a rich and full appearance with colors that are bright yet tasteful. It is one of the outstanding representatives among the Tang tri-colored three-legged incense burners.



Figure 2.8 The Five Dynasties Min King Yanhan Copper Gilded Lion Stove
(picture source: by the author), 2025



Figure 2.9 Tang Sancai Decal Furnace

(picture source: by the author), 2025

The Song Dynasty advocated a political strategy of "promoting culture and education, while suppressing military affairs." The founding emperor of the Song Dynasty announced the restoration of the imperial examination system, established many schools, expanded the quota for imperial examination candidates, and

emphasized Confucian rituals and scholars, which led to a political situation where "scholars governed the world." The social status of scholars was elevated, creating huge group of scholars, which profoundly influenced the creation concepts of craftsmen in the Song Dynasty and became the dominant force driving the development of arts and crafts at the time.

The Neo-Confucianism was greatly developed under the promotion of scholars and literati, and historical peaks were reached in poetry, painting, and creation design. In the popular culture of the time, the lifestyle of "burning incense in leisure" became popular, and ceramic incense burners became items in the daily life of scholars and literati. They were commonly placed in studies, living rooms, or courtyards, helping to create a peaceful atmosphere that facilitated contemplation and creation among scholars, reflecting their values and aesthetic pursuits.

Moreover, Song Dynasty scholars often held literary gatherings to discuss poems and songs, where burning incense and sipping tea were not only a means of communicating poetry but also an opportunity to exchange ideas about incense burner creation. Therefore, the ceramic incense burners of this period contained the aesthetic taste of the scholarly group, presenting a design style that was calm, elegant, simple, and reserved. This style was in harmony with the spirit of the Song Dynasty, which emphasized "not being in the world, but in the state of mind." Unlike the luxurious style of the Tang Dynasty, the Song Dynasty began to pursue simple and minimalist design, using Neo-Confucianism as the fundamental principle of the operation of all things, advocating the aesthetics of simplicity, and promoting the design concept of "fitting with nature, satisfying human intention." Decorative themes and techniques began to break away from conventions, emulate nature, and use simple and vivid images to represent the shape of incense burners, creating a design trend that was plain and natural.

The commodity economy and trade in the Song Dynasty flourished, navigation technology rapidly advanced, and overseas exchanges were frequent, making it one of the most prosperous periods in the history of China's foreign trade. It is estimated that merchants from more than fifty countries engaged in overseas trade with the Song Dynasty, including countries such as Sanfoqi and Dashiguo.

The former location of Sanfoqi is in present-day Sumatra, Indonesia, and it was the economic center of the Southeast Asian countries during the Song and Yuan dynasties. Zhao Rushi, a Song Dynasty scholar, described in "The Records of Foreign Regions" that "frankincense" (frankincense, also known as Xunlu Xiang), originated from the deep mountains and valleys of Dashiguo (Arabia)(Zhang, 2019). It was transported to Dashiguo on elephant caravans, and from there, it was traded by sea to Sanfoqi, hence the fragrance often gathered in Sanfoqi. It is said that Dashiguo (Arabia) frequently engaged in maritime trade in Sanfoqi, with most of the spices concentrated there.

Because the Lingya Gate in Sanfoqi was a major national hub for spice trade at the time (now Singapore), it was a necessary passage to India, Arabia, and Africa. Although Sanfoqi produced its own spices, the quality was not good, but it opened up the spice trade thanks to its favorable geographical position. Through Sanfoqi, Chinese porcelain, silk, tea, and other goods were exported, and at the same time, spice trade was conducted with various Southeast Asian countries and Dashiguo, including spices such as frankincense, ambergris, and agarwood. The influx of foreign spices swept across the Chinese market, creating a diverse Song society and boosting the

development of ceramic incense burners in the Song Dynasty.

Ceramics were a major commodity exported from Song China, and the economic and trade demands prompted unprecedented progress in porcelain-making techniques, leading to the zenith of ceramic industry development. Ceramics were used extensively in Song China, ranging from royal sacrifices to commoners' study rooms, and could be seen everywhere. Lu You's "Encountering a Light Rain while Transferring Flowers, joyfully composing Twenty Words" reflects the status of the incense-burning culture in the hearts of Song Dynasty literati: "Sitting alone with nothing to do, Burning incense and composing a short poem. Pity the light rain in the clear night, Just in time for planting flowers."

During this time, ceramic incense burners often featured materials considered beautiful by literati, such as the lion (a mythical beast) incense burner, duck-shaped burners, lotus-shaped burners, and other biological profiling burners. In terms of decorative techniques, they began to use carving, scratching, printing, pierced work, and appliqué. For instance, the blue and white glazed hollow flower pattern incense burner from Hutian Kiln (Figure 2.10) has a slightly spherical lid with pierced flower patterns, the body of the burner is engraved with chrysanthemum petal patterns, and it has a flat bottom with short legs. The overall shape is elegant, the workmanship exquisite, and the glaze lustrous and smooth like jade, making it a fine piece from Hutian Kiln and showcasing the elegance and refinement of Song Dynasty ceramic incense burners.





*Figure 2.10 Song Dynasty Hutian Kiln Blue and White Glazed Hollow Flower
Pattern Aromatherapy*

(picture source: Shanghai Museum, China), 2025

The Yuan Dynasty was a period of frequent warfare and rulers who valued strength and Displayed a taste for grandeur, leading to the popularity of large utensils and a pursuit of bright and gorgeous decorative styles. The nomadic lifestyle of the time resulted in a somewhat rough ceramic incense burner craft, overall presenting a style

that was rough, bold, and robust, leaving fewer exquisite pieces of ceramic incense burners. The Junyao Kiln incense burner from the Yuan Dynasty is one of the best-preserved ceramic incense burners to date (Figure 2.11). It stands 42.7 cm tall with a straight mouth, a drum-shaped belly, and double ears, and tripod legs. Its rough and bold design is characterized by an uneven distribution of the sky-blue glaze.

During the Xuande years of the Ming Dynasty, the rulers considered the styles of ritual vessels in the outer altar, the Temple of Heaven, and the inner court to be ugly. Therefore, they ordered the Ministry of Rites and the Ministry of Works to cast ritual vessels using bronze vessels or porcelain as models, and to cast them with fine metals such as wind-polished copper and gold and silver. These vessels, most of which were incense burners, were called "Xuande Incense Burners." The most common type was the "flaring ear and pendulous foot burner" (Figure 2.12), which was based on the "Ge Kiln twin-eared three-legged small burner" from Song Dynasty porcelain.

The trend of Xuande Incense Burners reached its peak in the Ming Dynasty and continued into the Qing Dynasty. The Qing court's records often mention the production of "Xuande Incense Burners" (Figure 2.13), making them one of the cultural symbols of the Ming and Qing periods. The design of incense burners during the Yuan and Qing periods began to enter a period of prosperity, focusing on technological innovation and no longer exploring single glaze forms. They started to imitate the styles of Song Dynasty ceramic incense burners and expand the techniques of incense burner craft (Figure 2.14).



Figure 2.11 Jun Kiln Xiao Song Self made Incense Burner

(picture source: by the author), 2025



Figure 2.12 Copper punching ear milk foot furnace
(picture source: the Palace Museum, China), 2025



Figure 2.13 Xuande style copper incense burner
(picture source: the Palace Museum, China), 2025



Figure 2.14 Eggplant skin purple glazed animal ear incense burner

(picture source: by the author), 2025

2.3 Analysis of the Social Causes of Ceramic Incense Burners in the Song Dynasty

During the Song Dynasty, the trend of incense-burning was widespread, and to meet the social demand, the government increased overseas trade, importing a large amount of spices through the Silk Road. At the same time, foreign religious cultures entered China and began to influence the design of incense burners indirectly. Incense culture in the Song Dynasty had already permeated all aspects of the lives of the people, with an extremely large consumption volume. Compared to the intricate and luxurious bronze incense burners of the Han and Tang periods, ceramic incense burners were more suitable for the daily use of literati and the common people.

2.3.1 Import of spices from outside the region

The Song Dynasty's shipping and shipbuilding industries achieved great success, leading to a flourishing overseas trade and a sharp increase in the volume of goods in circulation (Su, 2015). The spice trade became one of the nation's primary sources of taxation, accounting for a quarter of the national import and export revenue. In order to facilitate this, the government established a specialized fleet of ships for transporting spices, known as the "Spice Fleet," and set up the "Excise Yard" to handle the spice trade. This developed into a maritime "Spice and Medicine Road" linking to the Western Regions, also known as the Maritime Silk Road. To accommodate the diverse spices from regions such as Southeast Asia and Arabia, the design of incense burners began to evolve, marking the start of a new era in incense burner design.

The primary sources of rare spices were two distinct areas (Xi Mi. Xiang, 2013): the first was the Western Regions, where the majority of spices were sourced from the Middle East. Spice trading was a principal business for the Hui community in the

Central Plains. The second source was the South Seas, where the abundant importation of spices fueled the prosperity of cities along the southern coastline, with Guangzhou standing out as a key center for the spice trade. Archaeological findings indicate that out of the more than 400 Han dynasty tombs examined in the Guangzhou area (Zhou, 2022), 112 contained incense burners, while in the Liaoyang Shaogou area, where over 220 Han dynasty tombs were investigated, only three incense burners were discovered, highlighting the vibrancy of the spice trade in Guangzhou at that time. In the Southern Song Dynasty, revenue from spice taxes was the third largest after those from tea and salt. Hangzhou, the capital, had an annual consumption of imported pepper reaching 1,500 tons, which was much higher than that of major European cities of the period. Additionally, the import of aromatic medicines constituted over one-third of the total volume of imported goods from overseas.

In his verse "Echoing the Bamboo Stove", the recluse Wu Zeli from Beihu Lake penned (Chen, 2019): "The allure of a fine incense burner isn't my desire; I instead have a fondness for the ancient bronze tripod. The single petal I hold is far from trivial, and its message startles the conventional norms. Light the DounuXiang and set it on the bed; its scent lingers long on the pillow. It's as if the horse steward truly hasn't grasped its value, failing to call forth the gentle fragrance for enjoyment."

The Dou nu Xiang referred to was brought into China from the Chenla kingdom (present-day Cambodia). At its zenith, a single ounce of DounuXiang could be worth as much as 200,000 coins. Mr. Lu You extolled that with a Dou Luo blanket and DounuXiang, one could "sleep through three yards of day without feeling the frost at dawn," showing his fondness for the fragrance.

In the Xuanhe period, a variety of exotic aromatics from overseas flooded the Chinese market, enriching the selection of spices. A fragrant paste known as SuheXiang became fashionable, also called "Emperor's Paste," hailing from the great 食 nation. Its scent resembles that of DounuXiang. The highest grade of SuheXiang, free from impurities, is deemed the best quality and is commonly used in medical applications, for personal anointing, or as a base for creating perfumes. Emperor Huizong was partial to using SuheXiang smoke as ink for writing. During his reign, an ounce of SuheXiang smoke ink was equivalent jin of gold.

In the Song Dynasty, there were many types of foreign incense, and different forms of incense burners were created to adapt to the various kinds of incense. Among the imported incense in the Song Dynasty, incense sticks, seal incense, and tower incense appeared, which did not require a lid for burning. Therefore, a large number of ceramic incense burners without lids began to appear in the Song Dynasty, such as the Dian-style burner and the Tower-style burner. These incense burners were well-proportioned and not complicated in design, and their decorations were simple yet not ordinary, which was a typical feature of the Song Dynasty ceramic incense burners.

For example, multi-piece blue and white porcelain inner insertion tube three legged bowl furnace were found in the Jingdezhen kiln of the Song Dynasty (Figures 2.15 and 2.16). Their shapes could be tubular or with outwardly slanting small three legs, with a flat internal bottom, a standing column inside, and a hole in the column, which was infer as used in conjunction with string incense (whether this type of inner insertion tube three-legged Dian-style burner shaped vessel is a specialized utensil for use with "string incense" is yet to be determined by academia). It was previously widely believed that string incense was first produced in the Yuan Dynasty. In "Consolation for

Zhang Zhubu" from the "Si'an Collection" Volume Twenty-nine, Li Cundao wrote: "With great respect, a stick of string incense and some coarse snacks are offered as a dedication to the spirit table of Madam." (Wang, 2023) This is the earliest written record of "string incense," and research uses this text as evidence to support the theory that the introduction of foreign incense led to a transformation in Song Dynasty ceramic incense burners.



Figure 2.15 Jingdezhen kiln blue and white porcelain from the Song Dynasty
(picture source: by the author), 2025



Figure 2.16 Jingdezhen kiln blue and white porcelain from the Song Dynasty

(picture source: by the author), 2025

In the Song Dynasty, incense burners were made of diverse materials. In the early period, they mainly followed the styles of the Han and Tang dynasties, using bronze incense burners. However, in the middle and later periods, it was common to find incense burners made of porcelain. One of the reasons for the rise of ceramic incense burners was the large-scale import of foreign spices. The plasticity of porcelain clay made it easy to create various shapes, and even allowed for the use of techniques such as carving (Figure 2.17), piercing, and appliqué to enrich the design of incense burners. This made them suitable for burning various shapes of incense, such as stick incense, tower incense, and coiled incense. Additionally, ceramic incense burners could mimic the styles and colors of traditional bronze implements (Figure 2.18). Compared to expensive materials such as gold, silver, bronze, and jade, ceramic incense burners had lower production costs and higher efficiency, making them the preferred choice to replace bronze incense burners.



Figure 2.17 Longquan Kiln Blue Glazed Carving Belt shaped Convex Chord Pattern Three Ruyi Beast Foot Box style Porcelain Furnace
(picture source: Shanghai Porcelain Museum, China)



Figure 2.18 Longquan kiln blue glazed dragon ear shaped porcelain furnace
(picture source: Shanghai Porcelain Museum, China)

2.3.2 The prevalence of religious culture

I. The Application of Incense Burners in Buddhist Activities

The Song Dynasty society promoted culture and education, with rulers implementing a political system that favored literature over martial arts, valuing Neo-

Confucianism, and utilizing religious and cultural ideas. Since the transmission of Buddhism to China in the late Han Dynasty, it began to absorb the nutrients of Wei-Jin metaphysics, rooted in the theories of Huang and Laozi, gradually achieving "Sinification," and permeating into the civilization of the Song Dynasty society. Incense culture held a significant place in the hearts of Buddhist followers, being indispensable in activities such as missionary work, spiritual practice, and rituals, which promoted the flourishing development of ceramic incense burner design.

Buddhist followers generally believe that burning incense can help practitioners achieve a pure heart and a desire for simplicity, and concentrate their minds. Incense burners in the shape of lion, the fifth of the "Nine Children of the Dragon," are often used for missionary work and offerings. Lion, who has a lion-like body and prefers stillness over movement, is particularly fond of the smell of smoke, often breathing in and out smoke, and is therefore commonly used in the design of incense burners. It is often decorated on the main lotus seat of the incense burner or seen on the base of the incense burner. The "Vimalakirti Preaching" scroll, attributed to Li Gongling of the Northern Song Dynasty (Figure 2.19), depicts the ritual of missionary activities in Buddhism. In the painting, Vimalakirti sits on a brocade couch teaching Mahayana teachings, and an incense burner stands on the altar beside him (Figure 2.20), with smoke wafting out from the mouth of the lion. In the "Xuanhe Fengshi Gaoli Tujing" by Xu Jing of the Northern Song Dynasty, it is described, "The incense burner with lion also emits a color like phoenix feather, with a crouching beast on top and a reversed lotus to support it, among all the utensils, this one is the most exquisite." (Xu, 1985) This is used to praise the exquisite and superb craftsmanship of such lion incense burners.



Figure 2.19 Biography of Li Gonglin's Weimo Performance Teaching Picture

Volume (Partial)

(picture source: the Palace Museum, China), 2025



Figure 2.20 Biography of Li Gonglin's Weimo Performance Teaching Picture Volume (Partial)

(picture source: the Palace Museum, China), 2025

Lotus patterns and scroll patterns are two common plant decorative patterns in Buddhism. The lotus holds a sacred meaning in Buddhist culture, representing a pure land. It is said that Sakyamuni was born on a lotus seat, so the lotus also signifies the completion of cultivation and is often depicted in incense burners. For example, the Song Dynasty Jingdezhen kiln celadon incense burner with lotus petal carvings in the shape of a pagoda (Figure 2.21) is shaped like a bean, or has a lotus-like mouth, or is decorated with lotus carvings. The design is elegant and simple, and the workmanship is exquisite and detailed. Unlike the luxurious and noble style of the Tang Dynasty, the Song Dynasty incense burners have a unique charm in terms of aesthetic consciousness, influenced by the Buddhist concept of "Buddha's law is natural," presenting a restrained and implicit, natural and innate aesthetic charm.

The scroll pattern originated from the endurance pattern of the Wei and Jin Dynasties and represents the eternal soul and the concept of reincarnation. This is reflected in the Song Dynasty Yue kiln celadon incense burner with carved scroll patterns (Figure 2.22), which is only 8 cm tall. The lid and base are made in the shape of an ellipsoid, connected by a child-mother mouth, with a large ring foot, and the base is slightly raised. The lid is carved with scroll patterns, the middle part is intricately carved with water wave patterns, and the base is decorated with double-layered lotus petal patterns. The technique is exquisite, full of playful and interesting charm, and has a deep meaning.



Figure 2.21 Song Dynasty Jingdezhen kiln blue and white porcelain lotus petal patterned tower furnace

(picture source: by the author), 2025



Figure 2.22 Northern Song Dynasty Yue Kiln Celadon Carving Flowers and Grass Pattern Hollow out Aromatherapy

(picture source: Shanghai Museum, China), 2025

In China, Chan (Zen) Buddhism culture originated during the Wei and Jin Dynasties and reached its peak during the Tang and Song Dynasties, having a profound impact on China. Chan culture advocates a teaching that does not rely on written texts, emphasizing the concept that "all establishments are empty; everything arises from the

mind's myriad techniques." It holds that one's way of life comes from their true nature, not from destiny or fortunetelling. The transmission of the Dharma (Path or Truth) is about intuitively understanding, that which cannot be spoken or written down, and can only be grasped through insight. It emphasizes the connection between all phenomena and the self, the heart, with everything originating from within and flowing naturally.

The core of Chan (Zen) Buddhism culture is the teaching that does not rely on written texts, but is transmitted outside of formal scriptures, directly pointing to the mind and achieving enlightenment. Unlike Taoism and Buddhism, it uses oral teachings to spread the teachings, does not confine the thoughts of practitioners with texts, and advocates for freedom. At this time, ceramic incense burners have a strong Chan Buddhist flavor, with flexible and natural lines, clean and natural glaze colors, and a focus on expressing emotion. Similar to the aesthetic sense of Song Dynasty landscape paintings by literati, it emphasizes conveying meaning and achieving a state of mind described as "seeing mountains not as mountains, seeing water not as water." Achieving this state requires fully emptying oneself, letting go of material desires, and immersing oneself in the work. According to Chan teachings, enlightenment requires wisdom.

The popularization of the Chan aesthetic in the Song Dynasty has many commonalities with today's pursuit of minimalism, which believes that a simple lifestyle can help people reach a state of ease. After literati and scholars practiced Chan Buddhism, they exhibited a calm attitude towards life, eliminating unnecessary external trappings, and practicing Chan in their daily activities. "Chan" and "life" are interconnected, and in terms of artistic aesthetics, there is a pursuit of the artistic charm of ethereal and naturalness. The Song Dynasty began to reevaluate the intricate life utensils of the Tang Dynasty, believing that it should simplify based on the artistic foundation of the Tang, feeling that the empty space created is more conducive to contemplation. Even though external form was simplified, more was added in terms of emotional charm and the state of mind. The making of incense burners highlights the careful efforts of Song craftsmen, using a single white glaze for decoration, with the glaze color luminous and transparent, possessing rich inner beauty and infinite charm, giving people more space for thought.



Figure 2.23 Song white glazed high footed furnace

(picture source: Shanghai District Museum, China)

II. The use of incense burners in Taoist rituals.

Taoism is the native religion of China, with Huang Laozi and Laozi's thoughts at its core, advocating for nature and popularizing the concept of achieving immortality through the Tao. Taoist culture places great importance on the use of incense, with monks often using spices, herbs, and other ingredients to create medicines that aid in the cultivation of the Tao and the pursuit of immortality. Southern Dynasty Taoist Tao Hongjing recorded various imported aromatic drugs in his "Mingyi Bielu," including sugarcane incense, sandalwood, chicken tongue incense, dragon's brain incense, and paste incense, among others.

During the Song Dynasty, a new type of antique-style incense burner appeared. Its body and decorations were copied from such ancient vessels as gui, zun, and dou. Ritual vessels are derivatives of the ritual music culture and are a material expression of the ritual music system. The creation of ancestral altar incense burners in the style of ritual vessels, such as ding-style, ge-style, and gui-style incense burners for offering fragrant smoke to the gods, was an innovative design by the Song people in response to the changes of the times, reflecting their determination to rejuvenate the ethical principles after the Three Dynasties. From the grand ceremony of the heavenly altar to the ancestral temples, and from the small family altar to the incense burner, the Song people followed the rituals of burning incense with sincere respect. With the help of the incense burner and its fragrance, people's hearts were connected to the heavens, the earth, and their ancestors. Emotions such as prayer, longing, and sorrow were mixed in the fragrance and dispersed everywhere. The dignified and atmospheric incense burner became a symbol of the solemn ritual.

The Song Dynasty rulers were very respectful of Taoism. During the

Zhengtong period, the policy of advocating Taoism reached a climax. Zhao Heng ordered the construction of large palace altars for the offering of "heavenly books," and established June 6th as the Tiankuang Festival, ordering Yanzhou and the other states to build Taoist temples. When performing religious rites, there were rituals of offering sacrifices to heaven and ancestors, setting up religious ceremonies, lighting incense and offering wine, reflecting the belief in the divine power of incense in Taoist culture. Before conducting rituals, it was necessary to light incense, evidence of the high status of the incense-burning culture within Taoist culture. The Taoist concept of immortality deepened the people's curiosity about the immortal realm, and craftsmen popularized the design of incense burners with mythical mountains, materializing the thought of the immortal realm to satisfy people's imagination of it. In the Han Dynasty, the first incense burner designed for burning incense was the Boshan incense burner (Figure 2.24), with its body shaped like an ancient bronze dou and its lid in the shape of Boshan, one of the Three Immortal Mountains, Penglai. When incense was burned, the smoke wrapped around the mountains, creating a misty atmosphere as if immortals were walking in the mist. At this time, the Boshan incense burner (Figure 2.25) was permeated with Taoist culture, emphasizing the cultivation of the heart and refinement of the nature, abandoning the luxurious materials and exquisite craftsmanship of the Tang Dynasty, and implementing the minimalist aesthetics of the Song Dynasty. It simplified its shape, using lines to outline the mountains, and the flying birds and animals on the Boshan incense burners of the Han Dynasty gradually disappeared.





Figure 2.24 Han Copper Boshan Furnace
(picture source: Shanghai History Museum, China)



*Figure 2.25 Northern Song Dynasty Lotus Petal Pattern Three Foot Boshan
Furnace*

(picture source: Shanghai Art Museum, China)

2.3.3 Daily life needs

I. Literary activities

During the Song Dynasty, a centralized system of government was implemented, with an emphasis on managing the world with literature and promoting civil service examinations, establishing schools, advocating for the study of Confucianism and Neo-Confucianism, and cultivating a tranquil and elegant lifestyle. Literati and gentlemen began to take center stage in history, and society displayed a simple and introverted life. At this time, scholars' love for incense affairs could be seen in poetry, writings, daily life, and other scenes.

In the poetry and songs of the Song Dynasty, one can feel the peaceful and comfortable atmosphere brought by appreciating poetry and burning incense. The Song Dynasty poet Shu Yuexiang wrote in his poem "Guiting": "Climbing the branches and playing with monkeys and cranes, nothing reaches the cinnamon grove. The fragrance of the world is this flower, and the most vulgar is sandalwood and musk," referring to sandalwood and musk, two famous fragrances of the Song Dynasty, commonly used in traditional Chinese medicine and incense therapy, and still in use today. There is also Deng Shu's poem "Rock Osmanthus": "After the rain, the west wind brings coolness, and the clouds of old green turn into new yellow. The pure fragrance comes to the heavenly court in a day, and the world's dragon's saliva dares not compare with it," and the poems "Guiting" and "Rock Osmanthus" both describe ancient osmanthus fragrance, using the precious fragrances "sandalwood," "musk," and "dragon's saliva" as comparisons, and believe that they are no less than "sandalwood" and "musk." This shows that the love and respect for incense affairs among Song Dynasty literati and gentlemen extended beyond the value of the fragrances, illustrating the extraordinary cultural characteristics of the Song Dynasty and reflecting the aesthetic spirit of the Song Dynasty literati, who were detached from worldly affairs. Mr. Li Zehou once said that compared to the prosperous Tang Dynasty, the spirit of the Song Dynasty no longer lies on the battlefield but in the study and in the boudoir; it is not in the world but in the heart.

During the Song Dynasty, thought was unprecedentedly active, and culture showed diversified development. Incense, which was originally exclusive to the kings, princes, and aristocrats of the Han and Tang dynasties, began to flow to common literati and citizens. Many literati and scholar-officials started to write books on the art of incense. In the original preface to "Chen's Incense Scroll," Mr. Chen Jing mentions, "Hong, Yan, Shen, and Ye, along with other eminent gentlemen of incense, all gather their works in this compilation, representing the culmination of their achievements"(Chen, 2019). Song Dynasty literati like Hong Chu, Yan Chiyue, Shen Li, and Ye Tinggui made significant contributions to the art of incense. Among them, Hong Chu, an official of the Northern Song Dynasty, who wrote "Hong's Incense Scroll," is known for being the earliest surviving scroll on incense. Yan Chiyue's "Fragrance History," Shen Li's "Shen's Incense Scroll," and Ye Tinggui's "Records of Famous Fragrances" are also important historical documents for the study of incense art in their time. Other notable works include Fan Chengda's "Record of Osmanthus and Fragrant Incense" and Ding Shi's "Tianxiang Chuan." In the writings of Song Dynasty literati, there are countless anecdotes of burning incense. In "Guitian Lu" by Ouyang Xiu(Ouyang, 2012), it is mentioned that during the Northern Song Dynasty, the official Mei Xun was very fond of burning incense. Every morning, he would burn

two incense burners before leaving for court, and he would hide the fragrance in his official robe's sleeves. Once seated, he would open his sleeves, filling the room with the aroma. This trend later spread to the common people, leading them to follow suit.

The use of incense in the Song Dynasty gradually expanded from a luxury item to a daily necessity. The influx of a large number of foreign fragrances led to their rapid devaluation. However, the government still used the official price to distribute them to officials as part of their salary, resulting in a decline in the level of official salaries and increasing hardship in their daily lives. Influenced by Neo-Confucian thought, Song Dynasty literati and gentlemen began to prioritize the enjoyment of the spiritual world, promoting an elegant lifestyle. This gave rise to a social fashion known as "entertaining at home by burning incense," with the incense burner becoming an indispensable ornament in the lives of Song literati. During the reign of Emperor Huizong Zhao Ji, he often invited scholar-officials to share poetry and burn incense with him, as depicted in the famous court painting "Listening to the Lute" (Figure 2.26) by Emperor Huizong, which shows the emperor and scholar-officials playing the lute and burning incense together. The fact that the emperor burned incense while discussing and playing the lute proves the status of incense culture in the Song Dynasty. Under Emperor Huizong's influence, this elegant lifestyle quickly spread among the literati, with connoisseurs of literature and scholars becoming addicted to fragrances, pushing this refined and elegant atmosphere to its zenith and gaining favor from literati, gentlemen, and even the common people. This is evidenced in the literary, calligraphic, and historical documents of the Song Dynasty.



Figure 2.26 Song Huizong Zhao Ji Listening to the Qin (partial)

(picture source: Shanghai Museum, China), 2025

In addition, influenced by religious thought, literati and scholar-officials advocated a refined and elegant way of life that was detached from the mundane. As a result, the design of ceramic incense burners in this period overall exhibited a rational and simple design style, widely manifested in the daily life scenes of Song Dynasty literati gatherings, elegant assemblies, and furniture arrangements. In "Reading the 'Yi' by the Autumn Window" in the Liaoning Provincial Museum (Figure 2.27), the owner is seated at the side room desk, with a book on the table and an incense burner and an incense box placed beside it. The incense burner in the painting is a copy of an ancient ding-style incense burner, usually with three legs, one in front and two behind, a Buddhist correct placement, often used for burning sandalwood and pine branches in major ceremonies. The ding-style incense burner in the painting, in terms of function, is no longer a ritual vessel for offering sacrifices but a common ornament for the study. Its decoration is simple and elegant, its shape is rough and simple, reflecting the owner's refined aesthetic taste.



Figure 2.27 Liu Song's *Autumn Window Reading Easy Picture* (Partial)

(picture source: Shanghai Museum, China), 2025

In the Song Dynasty, the art of incense reached a peak of prosperity. The production scale, manufacturing techniques, and aesthetic level of ceramic incense burners developed rapidly, marking the zenith of ceramic incense burner creation in the Song Dynasty. Famous ceramic kilns blossomed everywhere, with a dazzling array of glaze colors. Unlike the bright and flashy Tangsancai (Tang Three-Colored Glazed Ware) or the simple and elegant Ming Xuande Furnace (Ming Dynasty), Song Dynasty ceramic incense burners tended towards a reserved and clear expression, pursuing a minimalist aesthetic. They rejected excessive ornamentation on the surface and explored the essence of practical function within, interpreting a true feeling of natural

life. The simplicity, plainness, dullness, elegance, and roughness of Song Dynasty aesthetics are etched into history, leaving a fragrant legacy that endures for centuries.

II. Pharmaceutical field.

Fragrant drugs usually refer to the combined use of spices and medicinal materials, also known as "imported drugs", which were large-scale commodities imported during the Song Dynasty and were widely used in the field of medicine, having a significant impact on traditional Chinese medicine. Medical works such as "Compendium of Materia Medica" by Li Shizhen, "Classic of Materia Medica" by Shen Nong, and "Classic of Sea Medicines" record various fragrance therapy methods.

Aromatherapy treatments often involve the use of medicinal baths, wearing incense bags, and burning medicinal packages, etc. These methods heat volatile substances in the herbs through smoking, burning, and steaming, allowing them to be adsorbed onto clothing or bedding. Once absorbed by the human skin and respiratory systems, they can help relax and calm both body and mind, exerting certain medical health benefits. This type of aromatherapy has been used until today. In "Compendium of Materia Medica" by Li Shizhen, there are records of various aromatherapy treatments. For example, during the spread of epidemics, burning fragrant drugs such as *Atractylodes*, *Angelica*, *Costus*, and *Clove* inside rooms can be used for disinfection and removal of bad odors. Burning frankincense with sandalwood, Siberian incense, camphor, and soap pods together can help prevent the spread of infectious diseases. Burning frankincense, galbanum, camphor wood together can treat fainting, and so on.

During the Song Dynasty, when composing incense recipes, people integrated theories from traditional Chinese medicine and began to use composite fragrances (i.e., fragrances composed of multiple medicinal materials). They uniformly mixed the fragrant drugs, and there were also theories stating that "making incense is like compounding medicine." The terms "he" (合) and "hé" (和) were commonly used in the study of incense, occasionally used together, but their meanings were subtle and different. "He" (合) and "hé" (和) refer to the process of making incense; "hehé" (合和) generally refers to a type of incense, meaning that multiple spices are blended into one. Making composite incense required each type of processed incense to be mixed according to the specified proportions in the incense formula, using honey refined through processing as the binder. The refined Song people would even apply gold or silver foil on the composite incense, and the finished incense products were usually placed in ceramic containers and stored for several months under wax seal. In addition, when making composite incense, it was necessary to follow the principles of pharmacology, including the proper selection of spices, the ratio of spices to herbs, and the methods and steps of blending. These aspects had to adhere to rules such as "sovereign, minister, assistant, and messenger," "seven emotions and harmony," and "ascending, descending, floating, and sinking."

Composite incense was mainly made in three forms: incense paste, incense pills (Figure 2.28), and incense cakes, with the first being a wet incense and the latter two suitable for both wet and dry incense. During the Song Dynasty, composite incense often used refined honey or white *atractylodes* as natural binders to blend incense powder. This type of naturally bonded composite incense was prone to break apart during incense burning or transportation, and the ash or sparks might fall during the burning process. Therefore, when considering the design of incense burners, not only the aesthetic appeal of the incense-burning ceremony but also the safety during the

burning process had to be taken into account. With the vigorous development of maritime trade in the Song Dynasty, foreign trade became frequent, and exported porcelain became increasingly prevalent. The plasticity and expressive power of ceramic materials attracted the attention of incense burner designers. High-temperature porcelain solved the safety risks associated with the burning of composite incense and also had the advantages of being firm and easy to clean. Therefore, ceramic incense burners became the most popular incense utensils during the Song Dynasty, highly favored by creators and consumers.

In the daily life of the Song people, fragrant drugs were commonly used to burn incense in the study to maintain smooth Qi and clear thoughts; and in the living quarters, incense was burned to promote sleep and refresh the mind. At this time, the design of the incense burners used for composite incense was made of ceramic material, with various shapes adapted to the properties of different composite incense. They were placed in appropriate settings.



Figure 2.28 Japanese Dainai Mountain Incense (Fragrant Pills)

(picture source: The book 'Fragrant Vehicle', China)

III. Folk banquet.

In the Song Dynasty, the booming commercial economy and flourishing culture led to a society that was inclusive and open. Incense culture, which had previously been confined to the imperial court, began to spread among the common people. It became an integral part of various scenes such as wedding ceremonies, tea parties, and interior decorations. Incense could be seen almost everywhere in the streets and alleys of that time.

Incense was an essential item at banquets among the general public during the Southern Song Dynasty. In the painting "The West Garden Gathering" by the artist

Ma Yuan (figure 2.29), the scene of people enjoying poetry while burning incense is depicted. It is said that the West Garden was the garden of Wang Chen, a Song Dynasty marquis, who often invited literati to gather, read poetry, and burn incense. In the painting, there is a tripod incense burner placed on the table with lush green trees and abundant flora, producing a misty fragrance. A group of literati is gathered around watching a painting, presenting an elegant and poetic scene.

During the reign of Emperor Huizong of Song, when hosting a banquet for ministers of the Chancellery, attendants held censers and burned "Duzhu" incense. At that time, one ounce of Duzhu incense could be worth up to 200,000 coins. In the 21st year of the Zhang Jiang era (1151), Zhang Jun hosted Emperor Gaozong and set out a row of gold-wrapped incense drugs, which included items like "brain flower," "liquorice flower," "cinnabar beans," "water dragon brain," "swallow beans," "contracted sand flower," and "white atractylodes and ginseng." The anecdotes of banquets among the nobility were enough to illustrate the prosperity of incense culture during the Song Dynasty.



*Figure 2.29 Southern Song Dynasty Ma Yuan's "Map of the Western Garden
Elegant Collection" (partial)*

(picture source: Shanghai Museum of Art, China)

The Northern Song Dynasty painter Zhang Zeduan depicted numerous scenes of market life in his painting "River View at Qingming," including a sign reading "Liu Family Superior Sandalwood and Incense Selection" (figure 2.30). This sign informed the neighborhood residents that Liu's Incense Shop offered high-quality

spices; the sign referred to "sandalwood," "sandalwood," and "frankincense." In the market, there were "incense women" in the taverns, and at nighttime street stalls, there were dishes enhanced with incense medications, such as fragrant pickled plums, scented sugar water (also known as "Buddha-washing water"), scented fruit candies, and fragrant papayas, among others. There were "incense customers" on the streets, and even the flower stalls on the main streets were surrounded by customers (figure 2.31), which was enough to prove the heyday of incense culture in the Song Dynasty.

The "Yangzhou Paeonia List" states, "No matter noble or humble, everyone likes to wear flowers, so at the Qingming Bridge, during the spring month, there is a flower market from dawn"(Wu, 2018). At this time, wearing flowers and enjoying incense was not lacking among the common people. Even in the gifts for wedding ceremonies among the common folk, there were incense medications.

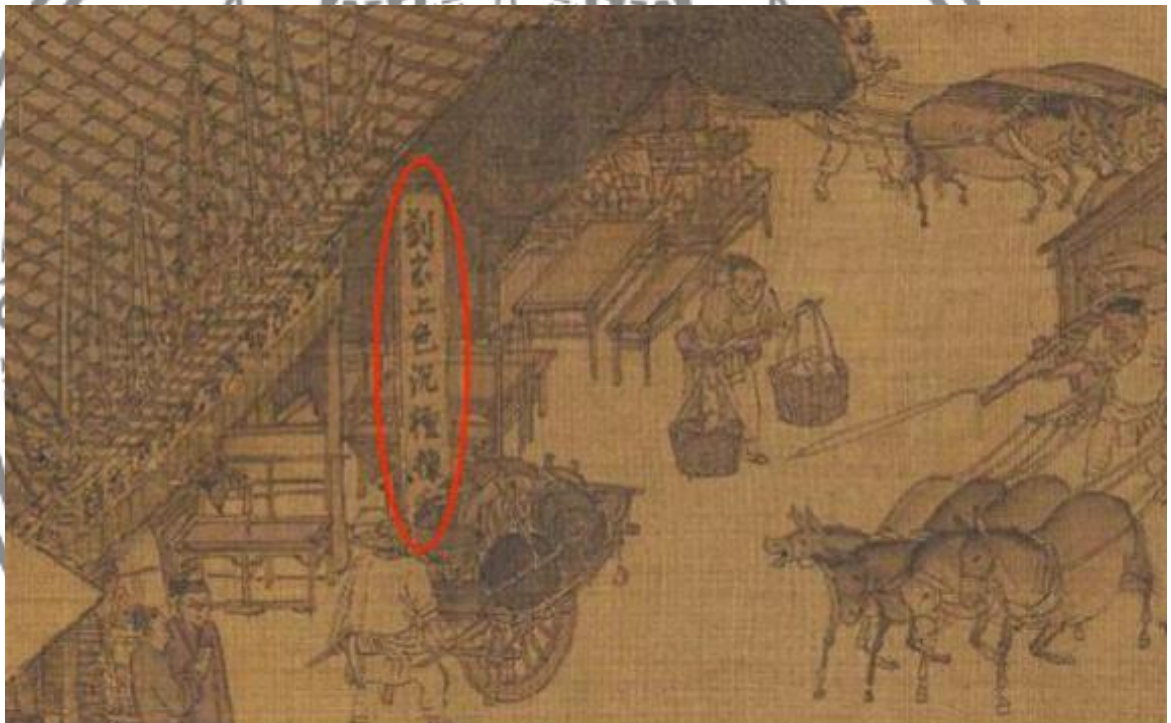


Figure 2.30 Part of Zhang Zeduan's "Along the River During Qingming Festival" from the Northern Song Dynasty

(picture source: the Palace Museum, China), 2025



Figure 2.31 Part of Zhang Zeduan's "Along the River During Qingming Festival" from the Northern Song Dynasty
(picture source: the Palace Museum, China), 2025

The Song people believed in the cultivation of both inner and outer qualities when "cultivating themselves." The inner aspect involved nurturing the heart and refining the character, while the outer aspect required maintaining a proper appearance. The custom of using incense to scent clothes among the nobility gradually spread to the common people. Chen Jing mentioned in his "Incense Manual" that "To scent clothes, a pot of hot water is placed beneath an incense burner, and the clothes are laid over it to allow the moisture to penetrate. After removing the hot water, the clothes are smoked with incense from a censer, then folded and placed in a bamboo chest. The remaining fragrance of the clothes can last for several days"(Chen, 2019). During the process of scenting clothes, a pot of hot water is placed under an incense burner, and the clothes are draped over the burner to allow the steam to moisten them. Once the hot water is removed, the clothes are smoked with incense from a censer, then folded and stored in a bamboo chest. The fragrance of the clothes can last for several days without fading.

Incense burners became an essential item in the lives of the Song people. The trend of burning incense in the privacy of one's home became popular. Apart from using incense burners for scenting clothes, they were also commonly placed in halls and bedrooms for daily use. The design of the incense burners had to conform to etiquette and be suitable for the atmosphere of the room. In the lives of the common people, incense burners were used in living rooms, folk celebrations, and examination halls. As the needs of the Song people changed, incense burner designs evolved to different shapes, with biological imitations being the most common. These burners were often made of ceramics, which effectively reduced the solemnity and majesty associated with the noble's plaything, fully expressing the relaxed and free atmosphere

of the common people's lives.

For example, the Song Dynasty celadon duck-shaped incense burner in the collection of the American Museum of Chicago (figure 2.32) stands 19.1 cm tall, with a diameter of 15.1 cm. The upper part features a reclining duck, lying on a double-layered lotus pedestal supporting a lotus pod. The lotus pedestal has air holes, and together with the open or hole in a utensil on the duck's mouth, they create a convection current. Incense burned inside the lotus pedestal produces smoke that drifts out from the duck's mouth. The lower part has a base plate for holding hot water. The interaction of the hot water's mist and the smoke results in long-lasting fragrance for the scented clothes. The method of scenting often involved steam with Steaming and smoking. However, using bronze incense burners for long periods to scent clothes could lead to corrosion and oxidation, which is unsuitable for long-term use.

Thanks to the "One Belt, One Road" maritime trade, the Maritime Silk Road became increasingly active with the advancement of navigation technology, and the export volume of porcelain increased, leading to the perfection of ceramic technology. Compared to bronze incense burners, ceramic burners have high production output, strong plasticity, and are affordable, making them very suitable for the needs of the consumer group of the time. Therefore, creators of the Song era started to mass-produce ceramic incense burners.





Figure 2.32 Song Dynasty Blue and White Porcelain Duck shaped Incense Burner

(picture source: Shanghai Museum, China), 2025

2.4 Analysis of the Characteristics of Ceramic Incense Burners in the Song Dynasty

In ancient China, spices were not only daily necessities, but also a cultural symbol. During the Song Dynasty, as the pinnacle of Chinese fragrance culture, the spice trade reached an unprecedented prosperity. This article will focus on the fragrance culture of the Song Dynasty, exploring the prosperity of spice trade, the participation of the literati class, and their influence on the design of incense burners. As described by Ding Wei in "Tianxiang Zhuan", the spice trade in the Song Dynasty was very prosperous. The government has set up a specialized trading house to manage this industry. This measure indirectly confirms the prosperous history of incense in the Song Dynasty. Spices became a symbol of social status and wealth at that time, attracting a large number of

merchants to participate in trade. In the Song Dynasty, burning incense was regarded as an elegant practice. The literati class not only enjoyed burning incense, but also began to participate in the design of incense making and incense burners. This phenomenon not only reflects their love for fragrance, but also promotes innovation in fragrance tools. New incense utensils not only meet the aesthetic needs of literati and scholars, but also become essential objects in their daily lives. There are three main types of ceramic incense burners in the Song Dynasty in terms of design: antique style, biomimetic style, and spherical style. The antique style design embodies the inheritance and development of traditional incense burners, while the biomimetic style design integrates natural things into incense burners, demonstrating the love of Song Dynasty literati for nature. The spherical design embodies the aesthetic concept of geometric aesthetics in the Song Dynasty. Overall, the fragrance culture of the Song Dynasty reached its peak, and the prosperity of spice trade and the participation of the literati class jointly promoted the innovation of fragrance utensils. The ceramic incense burners of the Song Dynasty exhibited diverse design features and became an indispensable part of the lives of literati at that time. By studying the incense culture and ceramic incense burners of the Song Dynasty, we can better understand the life attitudes and aesthetic concepts of ancient literati.

2.4.1 Simple and plain antique style design

In the Song Dynasty, the design concept of creation was characterized by "simplicity and plainness", which formed a sharp contrast with the magnificent style of the Tang Dynasty. The literati of the Song Dynasty pursued natural aesthetics in terms of aesthetic value, emphasizing the expression of their inner world. During this period, antique style design became the main style of ceramic incense burners in the Song Dynasty. They drew inspiration from the shapes of Shang and Zhou bronze ware, while also incorporating the aesthetic tastes of Song literati, promoting a simple and refined design.

The rulers of the Song Dynasty advocated the restoration of the Three Dynasties ritual system, which influenced the presentation of incense burners. In this context, ceramic utensils gradually replaced bronze ritual vessels and became an important component of the superstructure of society. The rise of Song Dynasty's Neo Confucianism led to the design of incense burners exhibiting the rigorous and implicit nature of Neo Confucianism and the simple and elegant style of Confucianism. The literati class became the main force driving the trend of antique style incense burners, with representative figures such as Li Qingzhao and his wife preferring the antique style Suanni incense burners. (Figure 2.33) The antique style ceramic incense burners of the Southern Song Dynasty were the most distinctive. Their outline is extremely simple, presenting an elegant and exquisite aesthetic texture. Overall, these incense burners exhibit a simple and elegant style, with pure and clean glaze colors, reflecting the aesthetic concepts and cultural characteristics of the Song Dynasty. During this period, incense burners were not only practical tools in daily life, but also symbols of cultural taste and aesthetic value. For example, the Southern Song Dynasty Longquan kiln blue glazed tripod furnace is a typical work. (Figure 2.34) It is 11.3 centimeters high, in the shape of an antique copper tripod, and uses glaze color to create a shimmering green plum blossom. The fusion of thin and thick glaze is just right, utilizing the changes in the accumulated thickness of the glaze layer during the firing process to create "veins" between the abdomen and feet, enhancing the beauty of the object's form, reflecting the

variations in the color of celadon glaze, and employing clever and subtle design techniques. The outline has become a minimalist curve without any unnecessary decorations, presenting an elegant and delicate aesthetic texture. The overall design is simple and elegant, with a pure and clean glaze color. In the Song Dynasty, the antique style design of ceramic incense burners was not only an aesthetic choice, but also a reflection of cultural confidence. The respect for tradition and passion for innovation among the literati class of the Song Dynasty were harmoniously integrated in this design. They pursued the ancient and pure artistic realm not only in form but also in spirit by imitating the bronze vessels of the Shang and Zhou dynasties. The manufacturing process of ceramic incense burners in the Song Dynasty also reflected the superb skills of that time. The works of Guan kiln and Longquan kiln, especially the Southern Song Ge kiln fish ear stove of Guan kiln, have become art treasures sought after by collectors with their exquisite craftsmanship and elegant shapes. The production process of these incense burners is strict, requiring extremely high standards from glaze color to substrate quality. The ceramic incense burners of official kilns usually retain some imperial characteristics, while the works of Longquan kiln are closer to the folk, with glaze colors mainly in powder green and plum green, showcasing a fresh and refined artistic style.

In addition, the design of ceramic incense burners in the Song Dynasty was also influenced by Neo Confucianism. Neo Confucianism emphasizes the cosmology and moral ethics of the unity of heaven and man, which is also reflected in the design of incense burners. Incense burners are no longer simple burning tools, but have been endowed with profound cultural significance and philosophical connotations. Their design and use became a way for Song Dynasty literati to express their understanding and pursuit of nature, morality, and the universe. In the cultural context of the Song Dynasty, ceramic incense burners were no longer luxury items, but a cultural commodity that was an indispensable part of the lives of Song literati. They are not only practical tools in daily life, but also symbols of the aesthetic taste and spiritual pursuit of the literati class in the Song Dynasty. Through the design and use of incense burners, Song Dynasty literati demonstrated their understanding of life and pursuit of beauty.

Overall, the ceramic incense burners of the Song Dynasty, especially their antique style designs, are a microcosm of Song culture. They are not only handicrafts, but also carriers of culture, philosophy, and aesthetic concepts. By studying the design of ceramic incense burners in the Song Dynasty, we can gain a deeper understanding of the cultural spirit of the Song Dynasty and the living conditions of the literati class.



Figure 2.33 Southern Song Dynasty official kiln double ear furnace
(picture source: by the author), 2025



Figure 2.34 Southern Song Dynasty Longquan Kiln Green Glazed Tripod
Furnace

(picture source: by the author), 2025

In the Song Dynasty, ceramic incense burners not only played an important role in daily life, but also became an important component of sacrificial vessels. From the mid to late period of the Northern Song Dynasty to the reign of Emperor Gaozong of the Southern Song Dynasty, antique ceramic incense burners reached a climax. The production of official kilns and the emergence of ritual vessels promoted the spread of the retro trend, forming a top-down antique style, which in turn triggered the transformation of folk kiln porcelain. The establishment of official institutions such as official kilns and repair departments, as well as the promotion of antique ceramic incense burners, promoted the development of ceramic technology in the Song Dynasty, enabling the transformation and innovation of folk kiln porcelain. The popularity of antique ceramic incense burners such as Ge style furnaces, Gui style furnaces, and Ding style furnaces not only met the needs of society, but also promoted the prosperity of the Song Dynasty porcelain market.

The style of antique ceramic incense burners in the Song Dynasty is different from the heavy and quiet bronze incense burners in the Shang and Zhou Dynasties and the luxurious and splendid ones in the Tang Dynasty. They began to shift towards a simple and plain style. In the Song Dynasty, ceramic incense burners abandoned complex decorations and often used monochrome glaze decoration. For example, the beige glazed porcelain with ring ears and three legged tripod style furnace in Jingdezhen kiln is a representative work of this style. (Figure 2.35) In the Song Dynasty, there were also a large number of Boshan furnaces imitating the Han Dynasty. Compared with the Han Dynasty's Boshan incense burner, the Song Dynasty's Boshan incense burner has a more concise design, reflecting the characteristics of the "simple and plain" era. (Figure 2.36) The overall shape is elegant and graceful, with a fresh and natural color, like the Song Dynasty Boshan Xianshan incense burner. The stove body is carved with simple lines, and the smoke outlet on the stove cover is cleverly designed. The relief human face and petal shaped foot shape are unique, presenting a delicate and vivid posture.

In summary, the design and production of ceramic incense burners in the Song Dynasty reflected the transformation of social aesthetics and cultural characteristics at that time. They not only play an important role in sacrificial vessels, but also become symbols of cultural taste and aesthetic value in the Song Dynasty. The simple and plain style and monochrome glaze decoration of Song Dynasty ceramic incense burners showcase the pursuit of natural aesthetics and expression of the inner world by Song Dynasty literati.



Figure 2.35 Song Dynasty Jingdezhen Kiln Rice Yellow Glazed Porcelain with Ring Ears and Three Leg Tripod Cauldron Furnace (picture source: Shanghai Museum, China), 2025



Figure 2.36 Song Dynasty Jingdezhen Kiln Blue and White Porcelain Folding Edge Adhesive Lishi Face Multi legged Boshan Fuming Furnace

(picture source: by the author), 2025

During the Tang Dynasty, craftsmen created spherical incense burners, mostly made of gold and silver, while during the Song Dynasty, ceramic spherical incense burners became popular (Figures 2.37). These spherical incense burners were derived from bronze bean vessels and were commonly used for storing spices, burning incense, and bedding, literati often carry it with them, so this type of smoking stove should not be made too large and should pursue a "small and exquisite" design style. For example, the Song Dynasty Jingdezhen kiln's blue and white porcelain hollowed out peony patterned round lid three legged box style smoking furnace (Figure 2.38) is in the shape of a hemisphere or ellipsoid. The furnace cover is mostly hollowed out, with peony patterns as the main feature, and the fragrance wafts out from the hollowed out area.

The furnace body is decorated with lotus petal patterns, and the design of the mother and child mouth buckle cleverly solves the problem of the furnace cover sliding and falling during carrying. The shape is very compact, and the workmanship is exquisite and generous.



Figure 2.37 Blue and white porcelain with floral patterns, round lid, three legged box style smoking stove

(picture source: Shanghai Museum, China), 2025



Figure 2.38 Blue and white porcelain hollowed out peony pattern round lid three legged box style smoking furnace

(picture source: Shanghai Museum, China), 2025

In the Song Dynasty, the design concept of ceramic incense burners was characterized by "simplicity", emphasizing a simple and pure appearance and inner beauty. This design concept was promoted by the ruling class of the Song Dynasty, aiming to surpass the technological achievements of the Tang Dynasty. The design of ceramic incense burners in the Song Dynasty abandoned flashy decorations and pursued a simple, clean, and inherently flavorful artistic style. This artistic style embodies the elegant and condensed characteristics of Song Dynasty ceramic incense burners, pursuing natural and harmonious artistic effects and perfect proportions and scales. The design of ceramic incense burners in the Song Dynasty emphasized practicality and the simple concept of both interior and exterior decoration. This design concept is not limited to aesthetic appearance, but emphasizes practicality and simplicity. The proportion and scale of the Song Dynasty ceramic incense burners are perfect, fully demonstrating the natural and artistic effect of the design of Song Dynasty ceramic incense burners. Overall, the design of ceramic incense burners in the Song Dynasty fully reflects the Song Dynasty's pursuit of simplicity, purity, and inner beauty, as well as the ruling class's emphasis on artistic style and practicality.

2.4.2 Biomimetic design that condenses nature

This study aims to explore the design concept of Song Dynasty ceramic incense burners and their symbolic significance in cultural context. Biomimetic design, as a unique creative technique, was particularly prominent in the production of ceramic incense burners in the Song Dynasty. The following is an expansion of the relevant content:

In the Song Dynasty, the design of ceramic incense burners was deeply influenced by Confucianism, which emphasized "learning from nature" and advocated seeking inspiration from the natural world in artistic creation. Biomimetic design therefore played a central role in the production of ceramic incense burners in the Song Dynasty. Designers created practical and aesthetic objects by imitating the biological forms of nature. Among them, imitating plant shape and imitating animal shape are the two most common biomimetic forms of ceramic incense burners in the Song Dynasty.

In the design of imitating plant shape, themes such as lotus, peony, lotus, and curly grass are particularly common. Lotus, as a plant with profound cultural connotations, was highly respected among literati and scholars in the Song Dynasty. Its character of emerging from the mud without staining, washing clear ripples without being demonic, is in line with the Taoist pursuit of a state of purity, non action, and transcendence of the secular world. Therefore, ceramic incense burners with lotus themes not only have beautiful visual shapes, but also contain rich symbolic meanings at the cultural level. The animal shaped design reflects the observation and reverence of the Song Dynasty towards the natural world. These incense burners usually use animal images such as dragons, phoenixes, birds, beasts, etc. These images are both full of vitality and showcase the superb skills of Song Dynasty craftsmen.

Of particular note is the blue and white porcelain lotus petal patterned tower furnace. (Figures 2.39) This work perfectly embodies the design characteristics of Song Dynasty ceramic incense burners. It is made of blue and white porcelain material, intricately carved with lotus petal patterns, and its tower shaped design makes the overall shape appear tall and elegant. The upper part is decorated in the shape of lotus petals, while the lower part is unadorned. This simple yet exquisite design perfectly reflects the aesthetic concept of "imitating nature". Meanwhile, its popularity is closely related to the prevalence of Taoism in the Song Dynasty.

In summary, the Song Dynasty ceramic incense burners incorporated biomimetic elements in their design, fully reflecting the aesthetic concept of "imitating nature" in Neo Confucianism. The design techniques of imitating plant and animal shapes, as well as the popularity of lotus themes, are closely related to the symbolic significance of Taoism. As a representative work of this period, the blue and white porcelain carved lotus petal patterned tower furnace has significant artistic value and historical significance that cannot be ignored.



Figure 2.39 Song Dynasty Blue and White Porcelain Su Ni Smoker

(picture source: Shanghai Museum, China), 2025

During the Northern Song Dynasty, the palace culture flourished, and the demands of literati and scholars for artworks also increased day by day. The "Jin Su" described in Wang Gui's poem "Palace Poems" is a typical representative of ceramic incense burners during this period. (Figures 2.40) Jin Suan, also known as the lion shaped incense burner, has a unique shape with a horn on its head, forming a "roar to the sky" shape. When spices are burned in the furnace, smoke slowly escapes from the lion's mouth, creating a mysterious and peaceful atmosphere. Li Qingzhao, a famous female poet of the Song Dynasty, also mentioned this type of incense burner multiple times in her poetry. The "Rui Nao Xiao Jin Beast" she mentioned in "Drunken Flower Yin" refers to a lion shaped incense burner, also known as a Suanni incense burner. In the poem "Remembering the Flute on the Phoenix Terrace - Fragrant Cold Golden Sand", she uses "Fragrant Cold Golden Sand" to depict a serene indoor scene, reflecting the importance of incense burners in the lives of literati at that time and their soothing and relaxing effects. This type of golden clay incense burner, also known as the Golden Beast, is not only frequently mentioned in literary works, but its practicality and artistic value have also been recognized by Buddhism. Buddhism had a wide influence in the Song Dynasty, and incense burners were often enshrined in front of Buddha statues as important instruments for Buddhist prayer. The book "Fayuan Zhulin" records the style of the Gaya Buddha incense burner, which is decorated with sixteen lion shaped and white elephant shaped decorations. The design concept of this animal shaped incense burner was inherited and developed in the Song Dynasty. In the Song Dynasty, animal shaped incense burners, especially those in the shape of golden clay, had become common furnishings in homes and religious places. Their popularity not only reflects the exquisite ceramic craftsmanship of the Song Dynasty, but also reflects the pursuit

of beauty and the improvement of quality of life in the social culture at that time.

In summary, the golden lion shaped statue in ceramic incense burners during the Northern Song Dynasty was not only a practical tool for burning incense, but also a symbol of culture. It was widely recognized and popularized in the Song Dynasty society through the dissemination of Buddhist culture and the propagation of poets' works, becoming an important part of cultural life at that time.



Figure 2.40 Song Dynasty Jingdezhen kiln blue and white porcelain Suanni

Xun furnace cover

(picture source: Shanghai Museum, China), 2025

In summary, the transformation of ceramic incense burners in the Song Dynasty achieved the overall "three transformations", namely simplification, refinement, and compactness. The materials were mainly porcelain, and the quality and output were highly improved at this time, presenting the minimalist aesthetics of the Song Dynasty and forming a simple, plain, and condensed natural artistic style.

2.5 Analysis of Decorative Features of Ceramic Incense Burners in the Song Dynasty

In the Song Dynasty, ceramic incense burners were not only daily necessities, but also important works of art. The close combination of decoration and styling not only

reflects the exquisite craftsmanship, but also showcases the deep connotations of Song Dynasty's social culture. The decorative patterns of incense burners are not only for beautifying objects, but also a direct reflection of the aesthetic concepts of the Song Dynasty. There are various types of decorative patterns on ceramic incense burners in the Song Dynasty, and according to different shapes, the decorative patterns also have their own characteristics. These patterns not only enhance the aesthetic appeal of the incense burner, but also integrate practicality with aesthetics, achieving a perfect fusion of practicality and aesthetics. This fusion is a manifestation of the cultural unity of the Song Dynasty and also the pursuit of the beauty of harmony in Song society.

In terms of decorative themes, ceramic incense burners in the Song Dynasty were mainly divided into three categories: animal patterns, plant patterns, and geometric patterns. The animal pattern decoration combines both form and spirit, with vivid realistic expressions and abstract symbolic meanings, such as dragon, phoenix, qilin and other patterns, reflecting the Song people's observation and reverence for the natural world. Plant pattern decoration is low-key and elegant, such as lotus, peony, bamboo, etc. These patterns are not only beautiful, but also rich in cultural connotations, reflecting the Song people's pursuit of inner beauty. Geometric pattern decoration has auspicious meanings, such as loop patterns, lotus patterns, etc. These patterns have both regularity and variation, reflecting the aesthetic preference of the Song people for harmony and order.

In summary, the decorative patterns of ceramic incense burners in the Song Dynasty not only enriched their artistic expression, but also deeply reflected the connotation of Song society and culture. The widespread application of animal patterns, plant patterns, and geometric patterns demonstrates the Song people's pursuit of a balance between practicality and aesthetics, as well as their values of cultural unity. These ceramic incense burners are not only practical daily objects, but also a concentrated reflection of the aesthetic culture and craftsmanship level of the Song Dynasty.

2.5.1 Animal patterns with both form and spirit

In the design of ceramic incense burners in the Song Dynasty, animal patterns were particularly common, especially animal face patterns. These animal face patterns often adopt the image of divine beasts, such as dragons, tigers, lions, etc., aiming to highlight the momentum and charm of incense burner shapes by depicting animal forms. During the Song Dynasty, craftsmen emphasized the combination of form and spirit in their designs, not only pursuing the authenticity of form in appearance, but also paying attention to conveying the serious and mysterious expressions contained in animal face patterns, reflecting the Song people's reverence for myths and legends.

In terms of decorative techniques, the animal face pattern decoration of Song Dynasty ceramic incense burners is diverse, including techniques such as stacking, relief, and carving. These techniques create a three-dimensional and dynamic beauty in the animal face pattern, while maintaining the simplicity and simplicity of the lines. Stacking and relief techniques make the animal face patterns more prominent, while carving can delicately express details, enhancing the artistic effect of the incense burner.

The Jingdezhen blue and white porcelain folding edge three animal foot incense burner is a model of this decorative style. (Figures 2.41) Its shape imitates the ancient bronze tripod, with a flat and spacious mouth and folded edges. The smooth lines of the furnace body and the deep bulging belly design make the incense burner stable and

dignified. The beast face pattern is decorated on the feet, and the angry and wide eyed beast face presents a solemn and dignified state, forming a sharp contrast with the static beauty of the furnace body. The incense burner is made of Jingdezhen's unique blue and white porcelain material, with a thin and fine body, a lustrous glaze color, and a continuous application of shadow blue glaze, showcasing the superb level of Song Dynasty ceramic craftsmanship and unique static beauty.

In summary, the animal patterns on ceramic incense burners in the Song Dynasty were mainly based on animal face patterns. Through exquisite decorative techniques, they not only expressed the expression of animal faces, but also conveyed the Song people's reverence for myths and legends. The Jingdezhen Blue and White Porcelain Folding Edge Three Beast Foot Incense Burner is not only a practical incense burning tool, but also a masterpiece that combines art and craftsmanship, fully demonstrating the static beauty and craftsmanship level of Song Dynasty ceramic incense burners.



*Figure 2.41 Song Dynasty Jingdezhen Blue and White Porcelain Folding Edge
Three Beast Foot Incense Furnace*

(picture source: Shanghai Museum, China), 2025

2.5.2 Low-key and elegant plant patterns

The design concept of ceramic incense burners in the Song Dynasty was deeply influenced by the philosophy of balance between nature and human beings. During this period, the decoration of incense burners generally used plant patterns, especially floral patterns. These patterns not only reflect the Song people's reverence for nature and their concept of drawing creative wisdom from nature, but also endow decorative patterns with profound cultural connotations through the transformation between concreteness

and abstraction.

The aesthetic taste of literati in the Song Dynasty had a significant impact on the decorative style of ceramic incense burners. The literati advocate nature and pursue artistic conception, which is reflected in the design of ceramic incense burners. Lotus patterns, lotus patterns, peony patterns, curled grass patterns and other floral patterns were popular on ceramic incense burners during the Song Dynasty. These patterns poetically expressed the Song people's pursuit of natural beauty and their yearning for literati artistic conception.

Taking the Jingdezhen kiln of the Southern Song Dynasty as an example, this work showcases the peak of decorative art for ceramic incense burners in the Song Dynasty. (Figures 2.42) The porcelain stove is made of blue and white glaze, with a cylindrical shape and embossed lotus and lotus patterns on the outer and inner edges. This decorative technique first appeared in the Northern Song Dynasty and is called the "flower picking decoration technique". Among them, "leaving flowers and picking the ground" is a method of applying makeup clay on the body, carving out flower patterns, removing excess makeup clay or glaze, exposing the raw body, and finally covering it with a layer of transparent glaze and firing it. The incense burner pattern produced by firing is raised, with a shallow relief artistic effect. The decoration is clear and smooth, and the form is freely stretched, presenting a generous and vivid beauty.

The Jingdezhen kiln of the Southern Song Dynasty, with its blue and white glaze embossed lotus and lotus patterned porcelain box furnace, is not only a practical incense burner, but also a literati aesthetic expression. It embodies the natural authenticity and understated elegance of Song Dynasty ceramic incense burner decoration, with a tendency towards realistic and natural techniques. By using the principles of change and unity in design, it achieves a natural beauty that seamlessly integrates decoration and objects. This work is a model of Song Dynasty ceramic incense burner decoration art, showcasing the aesthetic pursuit and craftsmanship level of the Song Dynasty.



Figure 2.42 Southern Song Dynasty Jingdezhen kiln blue and white glazed lotus lotus patterned porcelain box furnace

(picture source: Shanghai Museum, China), 2025

2.5.3 Geometric patterns with auspicious meanings

In the decorative patterns of Song Dynasty ceramic incense burners, geometric totem patterns occupy an important position. These patterns are usually transformed from concrete shapes into concise and symbolic geometric patterns through abstract generalization techniques. This process of abstraction gives geometric totem patterns a sense of freedom and casualness, which is in line with the aesthetic taste of the Song Dynasty.

In the Song Dynasty, religious culture prevailed, especially Buddhist culture, which had a profound influence on artistic styles. (Figures 2.43) Among them, the swastika pattern, as a common geometric totem pattern, has profound cultural connotations. The swastika pattern symbolizes "auspiciousness" in Sanskrit, and its sound, shape, and meaning correspond to the Chinese character "ten thousand", representing boundless good luck and prosperity. This pattern was widely used on ceramic incense burners in the Song Dynasty. Its balanced and harmonious design not only reflects the Song people's pursuit of beauty, but also reflects the influence of religious culture. Jingdezhen kiln, as an important production area of ceramics in the Song Dynasty, pays particular attention to the use of geometric totem patterns in the decoration of its incense burners. (Figures 2.44) The hollowed out swastika pattern design on the stove cover not only serves as a smoke outlet, but also as a distinctive decoration, showcasing the craftsmen's superb skills and respect for religious totems. This design of incense burner was not only practical but also aesthetically pleasing, and

was deeply loved by society at that time.

In summary, the common geometric totem patterns on ceramic incense burners in the Song Dynasty, especially the swastika pattern, were not only a decorative technique, but also a reflection of the prevalence of religious culture and the influence of Buddhist culture. These patterns, with their sense of balance and harmonious order, became the highlight of Song Dynasty ceramic incense burner decoration, especially in the products of Jingdezhen kiln. The hollow swastika pattern design became a unique style, showcasing the unique charm of Song Dynasty ceramic art.



Figure 2.43 Double Earrings Aromatherapy Stove with Carved "Swastika" Pattern

(picture source: by the author), 2025



Figure 2.44 Blue and white porcelain printed double earrings and three legged tripod style smoking oven

(picture source: by the author), 2025

2.6 Process technology characteristics

In the Song Dynasty, the porcelain industry made significant progress, with porcelain kilns spread throughout the country, forming six major kiln systems. Among them, Jingdezhen kiln, with its exquisite porcelain making skills and unique aesthetic style, has created ceramic incense burners that are highly favored by aristocrats and literati. These incense burners, with their gentle and simple beauty, matched the aesthetic temperament of Song Dynasty literati and literati, becoming a reflection of the social trend at that time.

The ceramic incense burners of Jingdezhen kiln, especially the blue and white porcelain incense burners, have gone through a development process of initial establishment, quality improvement, and decline. The category of incense burners in the initial stage is simple, with a design that follows the traditional Han and Tang dynasties. The glaze color is slightly green and yellow, but the production and variety are beginning to increase. In the stage of quality improvement, the blue and white porcelain incense burners from the late Northern Song Dynasty to the early Southern Song Dynasty had a clear and bright glaze color, giving people a peaceful and comfortable aesthetic enjoyment. However, in the declining stage of the Southern Song Dynasty, although the firing technology tended to mature and the over firing process emerged, the yield increased significantly, but the quality declined. The ceramic incense burners of Jingdezhen kiln exhibit unique artistic characteristics in terms of delicate texture, uniform glaze surface, and lightweight design. These characteristics not only reflect the exquisite porcelain making technology, but also reflect the philosophical thought of "harmony between heaven and man" and the sophisticated aesthetic taste of the Song Dynasty people.

As a representative of Song Dynasty porcelain kilns, the development of incense burner production technology and decorative techniques in Hutian Kiln fully

demonstrates the technological progress and aesthetic pursuit of Song Dynasty porcelain industry. (Figures 2.45) The production of incense burners in Hutian Kiln, from segmented or sliced production, to half knife mud carving method, to the application of decorative techniques such as printing and shaping, all reflect the innovative spirit and pursuit of beauty of craftsmen. The invention of pad bowl overlay and support ring overlay technology has further promoted the innovation of porcelain making technology. The carving technique in decorative techniques has produced an artistic effect of shallow relief, making the incense burner present a subtle visual feeling and greatly enriching the artistic expression of ceramic incense burners. The ceramic incense burner newly created in Jingdezhen kiln during the Song Dynasty was highly recognized by nobles and literati for its gentle and simple beauty. It not only reflected the aesthetic taste of the Song Dynasty, but also witnessed the development process and technological achievements of the Song Dynasty's porcelain industry. The production technology and decorative techniques of Hutian Kiln are a microcosm of the innovation in porcelain art during the Song Dynasty.



Figure 2.45 Southern Song Dynasty Jingdezhen Kiln Blue and White Glazed Embossed Flower Pattern Tripod style Porcelain Furnace

(picture source: Shanghai Museum, China), 2025

In the Tang Dynasty, Jingdezhen kilns had already begun producing high-quality porcelain, among which the porcelain from Fangxing kiln and Dingyao kiln were highly praised for their exquisite craftsmanship and unique style. However, in the Song Dynasty, the porcelain production technology of Jingdezhen kiln made a leap forward, and the shadow blue glaze color of blue and white porcelain became the representative of this period. This type of blue and white porcelain, with its simplicity, elegance, and leisurely charm, is not only loved by literati and common people, but also favored by

the aristocratic class. The ceramic craft technology of Jingdezhen kiln in the Song Dynasty reached a peak, and the shape of bronze incense burners from the Shang and Zhou dynasties was cleverly integrated into the production of incense burners, making them both practical and artistic. The mass production of Longquan kiln further promoted the expansion of porcelain production scale, while the diversification of decoration made every piece of porcelain a work of art. The production process of this incense burner is complex and requires multiple stages of fine polishing to ensure the quality and aesthetics of each incense burner. Whether it is the perfect combination of practicality and artistry, or the simple, elegant, and graceful characteristics, it has made the Jingdezhen blue and white porcelain incense burner of the Song Dynasty a model of ceramic craftsmanship. The development of overseas trade has also promoted the spread of this incense burner, making it highly praised worldwide. Both literati and aristocrats were fond of it, and the fragrance culture reached its peak in the Song Dynasty.

Overall, the production technology and artistic style of Jingdezhen blue and white porcelain incense burners in the Song Dynasty achieved a leap forward. Their simple, elegant, and graceful characteristics were deeply loved by literati, the common people, and the aristocratic class, promoting the widespread use of ceramic incense burners and the development of fragrance culture, becoming an insurmountable technological peak in later generations.

2.7 Related Research

2.7.1 Zhou Jiazhou, Hong Chu, Chen Jing (2017) *A Dictionary of Incense*

Zhou Jiazhou, Hong Chu, and Chen Jing's *A Dictionary of Incense* provides a comprehensive exploration of the historical and cultural significance of incense in China. This work details the origins, classifications, and evolving uses of incense from ancient times to the present, covering a wide range of materials, production techniques, and cultural customs associated with incense burning. The book also delves into the role of incense in religious rituals, traditional medicine, and literary aesthetics, offering insights into how the appreciation and application of incense have developed over centuries.

In addition to historical analysis, the authors provide a thorough examination of different incense-related artifacts, including incense burners, incense sticks, and incense powders. The book is an invaluable reference for scholars studying Chinese incense culture, as it documents rare incense formulas, classical texts on incense-making, and the influence of foreign trade on incense materials. By contextualizing incense in broader cultural and artistic landscapes, *A Dictionary of Incense* serves as a foundational text for understanding the intersection of incense with Chinese philosophy, craftsmanship, and daily life.

2.7.2 Yan Jixin (2014) *Discussions on Antiquity: On Incense*

Yan Jixin's *Discussions on Antiquity: On Incense* presents an in-depth analysis of the historical evolution of incense in China, emphasizing its role in shaping traditional aesthetics and philosophical thought. The book traces the development of incense from the pre-Qin period through the Song Dynasty, discussing its integration into Confucian, Taoist, and Buddhist practices. The author highlights how incense culture became a defining element of Chinese literati life, particularly during the Song Dynasty, when incense appreciation was considered one of the refined pastimes alongside tea drinking, calligraphy, and painting.

Furthermore, Yan Jixin explores the symbolic meanings embedded in incense-related rituals, linking them to broader themes of spiritual cultivation and artistic refinement. The book also examines the relationship between incense and various art forms, such as poetry and painting, demonstrating how the sensory experience of incense was often depicted in classical literature. With its rich historical references and literary insights, *Discussions on Antiquity: On Incense* provides an essential resource for researchers interested in the aesthetic and cultural dimensions of Chinese incense traditions.

2.7.3 Yu Qinghua (2012) A Study of Incense Burner Art: Incense Burner Art from the Warring States to the Song Dynasty

Yu Qinghua's *A Study of Incense Burner Art* is a seminal work that systematically explores the artistic evolution of incense burners in China from the Warring States period to the Song Dynasty. The book examines the transformation of incense burner designs over different historical eras, highlighting changes in form, material, and decorative motifs. Through a detailed study of archaeological findings and historical texts, Yu Qinghua reconstructs the development of incense burner craftsmanship and its integration into daily and ritualistic practices.

The book pays particular attention to the stylistic innovations of the Song Dynasty, a period known for its refined ceramic incense burners with elegant and minimalist designs. By analyzing the influence of philosophical ideas, such as Neo-Confucianism and Chan Buddhism, on the aesthetics of incense burners, Yu provides a compelling argument for the interplay between artistic expression and spiritual practice. This work is an indispensable reference for historians, art scholars, and designers seeking to understand the cultural and artistic significance of incense burners in China's material culture.

2.7.4 [Song] Zhao Xichu (2016) Record of the Pure Land: Discussions on Ancient Bronzes and Ritual Vessels

Zhao Xichu's *Record of the Pure Land* is a scholarly work that meticulously examines the role of bronzes and ritual vessels in ancient China, with a particular focus on their significance in religious and ceremonial practices. The book provides a systematic analysis of how these artifacts evolved in both form and function from the Shang and Zhou dynasties to the Song period. It offers in-depth discussions on the symbolic meanings of incense burners within different dynastic contexts, emphasizing their role as a bridge between the material and spiritual worlds.

This work not only catalogues various incense burner styles but also delves into the philosophical and aesthetic principles that influenced their design. Zhao highlights how Song Dynasty incense burners were shaped by contemporary religious beliefs, particularly Buddhism and Daoism, which promoted a sense of tranquility and minimalism in artistic expression. The book serves as an essential resource for researchers studying the intersection of Chinese ritual culture, material history, and artistic craftsmanship.

2.7.5 [Ming] Zhou Jiazhou (2017) Incense Variations

Zhou Jiazhou's *Incense Variations* is a classic Ming Dynasty treatise on the various uses, preparations, and aesthetic principles of incense. This book systematically categorizes different types of incense and describes their specific effects on the human body and mind, integrating elements of traditional Chinese medicine with incense culture. It provides detailed recipes for making incense using rare and valuable

ingredients, reflecting the sophisticated craftsmanship of the period.

Furthermore, *Incense Variations* explores the cultural significance of incense in different settings, from scholarly gatherings to religious ceremonies. Zhou meticulously documents the poetic and artistic associations of incense, illustrating how its use was deeply embedded in the daily lives of scholars and elites. The book remains a key historical source for understanding the refinement and complexity of incense appreciation in Ming China, offering valuable insights for historians and incense artisans alike.

2.7.6 Tian Zhibing (2010) A History of Chinese Craft Art

Yu Qinghua's *A Study of Incense Burner Art* is a continuation of his previous research on incense burner design, further elaborating on the transition from metal to ceramic materials in incense burner production. This edition expands upon how advancements in kiln technology during the Tang and Song Dynasties allowed for a greater variety of incense burner designs, including celadon-glazed burners from Longquan kilns and white porcelain burners from Ding kilns.

The author examines how the aesthetic values of different dynasties influenced incense burner forms, with the Song Dynasty favoring a simple and elegant style inspired by Neo-Confucian ideals. Additionally, the book includes comparisons between Chinese incense burners and their counterparts in Japan and Korea, providing a broader East Asian perspective on incense culture. This scholarly work remains an essential reference for those interested in the evolution of incense burners as both functional objects and artistic creations.

2.7.7 Zhang Guanggang (2019) Hu Tianhan, The Moon Reflects the Sunset: The Silk Road Has Gone Through Three Thousand Years of Vicissitudes

Tian Zhibing's *A History of Chinese Craft Art* offers a broad yet detailed survey of China's traditional craftsmanship, covering materials such as ceramics, metalwork, lacquerware, and textiles. Within this vast study, a dedicated section explores the evolution of incense burners, highlighting their role in religious rituals, scholarly culture, and daily life. The author traces the technical innovations that led to the refinement of incense burner designs, particularly during the Song Dynasty, when kiln advancements and aesthetic philosophies merged to create highly sophisticated artifacts.

The book also contextualizes incense burners within the broader framework of Chinese art and design history, discussing how their forms were influenced by contemporary architecture, furniture, and painting. By situating incense burners within the larger narrative of Chinese craft traditions, *A History of Chinese Craft Art* provides invaluable insights into the continuity and transformation of Chinese material culture.

2.7.8 Su Hongyi (2015) The Art of Incense

Zhang Guanggang's *Hu Tianhan, the Moon Reflects the Sunset* examines the cultural and economic exchanges facilitated by the Silk Road, with a particular emphasis on the transmission of incense-related materials and practices across Asia. The book explores how the trade of rare aromatics, such as sandalwood, frankincense, and agarwood, influenced Chinese incense culture and led to the development of unique regional incense styles.

The author also investigates how foreign influences shaped Chinese incense burner designs, integrating Persian, Indian, and Central Asian artistic elements into traditional Chinese forms. This cross-cultural exchange is particularly evident in Song Dynasty incense burners, which exhibit a blend of domestic craftsmanship and exotic

decorative motifs. By linking incense culture to the broader history of global trade and artistic interaction, this book provides a fresh perspective on the interconnectedness of ancient civilizations.

2.7.9 [US] She Mii (2013) Incense: Literature, History, and Life

Su Hongyi's *The Art of Incense* is a comprehensive guide to the aesthetic and philosophical dimensions of incense culture in China. The book delves into the sensory experience of incense appreciation, discussing how different scents evoke specific emotions and atmospheres. Su also explores the role of incense in classical Chinese poetry, painting, and tea ceremonies, illustrating its deep connection with artistic expression.

A significant portion of the book is dedicated to incense burner design, analyzing how the shape, material, and decorative motifs of burners enhance the overall incense experience. The author discusses the craftsmanship involved in producing high-quality ceramic and metal incense burners, particularly those from the Song Dynasty, which embody a harmonious balance between function and beauty. With its rich literary and historical insights, *The Art of Incense* serves as an essential reference for both scholars and practitioners of incense culture.

2.7.10 Zhou Wenhan (2022) The Taste of China: A Natural History of Spices and Condiments

She Mii's Incense: Literature, History, and Life offers a cross-cultural perspective on incense traditions, exploring how incense was used in different civilizations across history. The book examines the philosophical, religious, and aesthetic significance of incense in Chinese, Japanese, and Indian cultures, tracing its journey along trade routes and its transformation through regional adaptations.

A dedicated section of the book focuses on Chinese incense burners, with particular emphasis on the Song Dynasty. *She Mii* highlights how Song scholars viewed incense burning as an essential part of refined living, often integrating it into their literary gatherings, tea ceremonies, and artistic pursuits. The text also explores the poetic and symbolic meanings associated with incense burners, analyzing classical Chinese poetry that references their use. This work provides an invaluable resource for understanding how incense culture has been interwoven with intellectual and artistic traditions throughout history.

2.7.11 [Song] Chen Jing (2019) Chen's Incense Formula

Zhou Wenhan's *The Taste of China* examines the evolution of spices, aromatics, and incense materials in Chinese history, tracing their origins, cultural significance, and methods of use. The book discusses how different regions of China developed unique incense formulas, incorporating both native and imported ingredients to create complex and refined aromatic experiences.

In relation to Song Dynasty incense burners, the book highlights how advancements in ceramic craftsmanship allowed for more intricate and aesthetically appealing designs. Zhou describes how different kilns, such as Ru, Ding, and Longquan, contributed to the diverse styles of incense burners, each with distinct glazing techniques and decorative motifs. The work offers a sensory exploration of incense and its cultural associations, making it a valuable reference for those studying both historical and modern applications of incense in Chinese society.

2.7.12 Wang Qibiao (2023) Eastern Aromatherapy

Chen Jing's *Chen's Incense Formula* is a Song Dynasty classic that provides

detailed records of various incense formulas, categorizing them based on their ingredients, purposes, and medicinal effects. The book serves as a comprehensive guide to incense blending, detailing the ratios and preparation methods of each recipe.

Beyond technical instructions, Chen's *Incense Formula* also explores the cultural aspects of incense use, documenting how different incense types were favored by scholars, monks, and aristocrats. The text sheds light on the intricate relationship between incense burning and traditional Chinese medicine, illustrating how specific combinations of herbs and aromatics were believed to promote health and well-being. This book remains a key historical source for researchers and artisans interested in the traditional craftsmanship of incense-making.

2.7.13 [Song] Xu Jing (1985) Memorials of the Xuanhe Embassy to Korea

Wang Qibiao's *Eastern Aromatherapy* bridges the gap between historical incense traditions and modern wellness practices, exploring the therapeutic benefits of traditional Chinese incense. The book examines how ancient Chinese scholars categorized incense based on its effects on mood, concentration, and health, drawing connections between historical incense use and contemporary aromatherapy.

A significant portion of the book discusses the evolution of incense burner designs, emphasizing the Song Dynasty's refined approach to ceramic craftsmanship. Wang explores how the minimalist aesthetics of Song Dynasty incense burners aligned with the philosophical ideals of the time, particularly Neo-Confucianism and Zen Buddhism, which emphasized simplicity and harmony. By linking incense culture to modern wellness trends, *Eastern Aromatherapy* provides valuable insights into the enduring influence of traditional Chinese incense practices.

2.7.14 [Song] Ouyang Xiu (2012) Record of Returning to Fields (and Five Other Works)

Xu Jing's *Memorials of the Xuanhe Embassy to Korea* is a historical record of diplomatic exchanges between China and Korea during the Northern Song Dynasty. The book provides firsthand accounts of cultural and artistic exchanges, including detailed descriptions of Korean incense culture and its interactions with Chinese traditions.

One of the key discussions in this work focuses on the use of incense burners in diplomatic ceremonies, illustrating their role as symbols of refinement and cultural sophistication. Xu's observations provide a comparative analysis of incense burner designs in China and Korea, noting both shared influences and regional distinctions. His detailed accounts offer valuable historical context for understanding how Song Dynasty incense culture extended beyond China's borders and influenced the broader East Asian region.

2.7.15 [Ming] Zhou Jiazhou (2015) Incense Variations

Ouyang Xiu, one of the most influential scholars of the Song Dynasty, discusses the cultural and philosophical significance of incense burning in his *Record of Returning to Fields*. The text offers a deeply personal reflection on the scholar's retreat from political life, highlighting how incense burning became an essential part of his contemplative lifestyle.

Ouyang describes how the aroma of incense created an ideal atmosphere for reading, poetry writing, and philosophical meditation. His work provides valuable insights into the intimate relationship between incense culture and Song literati aesthetics, illustrating how incense burners were more than just functional objects—

they were symbols of intellectual and spiritual refinement.

2.7.16 Wu Gou (2018) New People's Views: The Song Dynasty - A Visible Civilization

Wu Gou's *New People's Views* is a contemporary study of Song Dynasty material culture, focusing on the visual and artistic achievements of the era. The book discusses how Song Dynasty incense burners exemplify the period's emphasis on simplicity, elegance, and functionality, aligning with broader trends in Song art and design.

The author examines various examples of Song incense burners preserved in museum collections, analyzing their craftsmanship, material composition, and symbolic meanings. The text also explores how these artifacts reflected the aesthetic sensibilities of the Song literati, who sought harmony between art and daily life. Wu's study provides an accessible yet scholarly examination of the Song Dynasty's artistic legacy, making it a valuable reference for historians and designers alike.

2.7.17 Zhou Jiazhou (2015) Incense Variations

This later edition of Zhou Jiazhou's *Incense Variations* expands upon the original text, incorporating additional discussions on Ming Dynasty incense culture while preserving its foundational insights on Song Dynasty incense practices. The book explores the evolving role of incense in both private and public settings, from meditation chambers to courtly rituals.

One of the key themes of this edition is the integration of new materials and production techniques in incense burner design. Zhou documents how technological advancements in kilns and metal casting influenced the aesthetics and functionality of incense burners, allowing for more intricate and durable designs. This edition serves as both a historical record and a bridge between traditional and modern incense practices, offering a comprehensive perspective on the enduring legacy of incense culture in China.

Table 2.1 Research Scholars' Achievements Summary Table

Author	Year	Title	Publisher
Zhou Jiazhou, Hong Chu, Chen Jing	2017	A Dictionary of Incense	Chongqing Press
Yan Jixin	2014	Discussions on Antiquity: On Incense	Qingdao Press
Yu Qinghua	2012	A Study of Incense Burner Art: Incense Burner Art from the Warring States to the Song Dynasty	Beijing Craft and Art Press
[Song] Zhao Xichu	2016	Record of the Pure Land: Discussions on Ancient Bronzes and Ritual Vessels	Zhejiang People's Art Press
[Ming] Zhou Jiazhou	2017	Incense Variations	Chongqing Press
Tian Zhibing	2010	A History of Chinese Craft Art	East China Normal University Press
Zhang Guanggang	2019	Hu Tianhan, the moon reflects the sunset: The Silk Road has gone through three thousand years of vicissitudes	Life·Reading·Knowledge Sanlian Bookstore
Su Hongyi	2015	The Art of Incense	China Business Press
[US] She Mii	2013	Incense: Literature, History, and Life	Peking University Press
Zhou Wenhan	2022	The Taste of China: A Natural History of Spices and Condiments	Tsinghua University Press
[Song] Chen Jing	2019	Chen's Incense Formula	Jiangsu Phoenix Literature and Art Press
Wang Qibiao	2023	Eastern Aromatherapy	Nanjing University Press
[Song] Xu Jing	1985	Memorials of the Xuanhe Embassy to Korea	Zhonghua Book Company
[Song] Ouyang Xiu	2012	Record of Returning to Fields (and Five Other Works)	Shanghai Ancient Books Press
[Ming] Zhou Jiazhou	2015	Incense Variations	九州出版社
Wu Gou	2018	New People's Views: The Song Dynasty - A Visible Civilization	Guangxi Normal University Press

CHAPTER 3

RESEARCH METHOD

This study aims to analyze the artistic characteristics of Song Dynasty ceramic incense burners and explore their application in modern ceramic incense burner design. The research methodology follows these steps:

1. Determination of population and sample group
2. Selection of research tools
3. Development of research tools
4. Data collection
5. Data analysis

3.1 Research Purpose 1: Study the Identities of Song Dynasty

Ceramic Incense Burners

3.1.1 Population and Sample Group

3.1.1.1 Scholars in Related Academic Fields (Purposive Sampling, 3 People)

To ensure the academic depth and theoretical foundation of this study, experts from leading Chinese universities in Shanghai specializing in ceramic arts, cultural heritage, and design have been selected. These scholars possess extensive knowledge in historical verification, craftsmanship analysis, and artistic interpretation, providing valuable insights into the characteristics and cultural significance of Song Dynasty ceramic incense burners. Their academic perspectives will contribute to a well-rounded and in-depth exploration of the research topic. The selected scholars include:

Zhang Beibei: Lecturer at the School of Design & Creativity, Shanghai Jiguang Vocational Technical College. Holds a master's degree in Ceramic Art. Specializes in traditional porcelain forming and contemporary product styling. Approximately 8 years of teaching and research experience.

Deng Jiarui: Associate Professor at the School of Design & Creativity, Shanghai Jiguang Vocational Technical College. Ph.D. in Cultural Product Design. Expert in cross-cultural design methodology and heritage-based product innovation, with works shown in provincial exhibitions. Over 12 years of design practice and teaching experience.

Qian Qing: Associate Professor at the School of Design & Creativity, Shanghai Jiguang Vocational Technical College. Master's degree in Art History. Focuses on ceramic art history, intangible-heritage protection and modern application of traditional craft. About 10 years of academic and curatorial experience. By incorporating perspectives from experts in related academic fields, this study ensures a comprehensive and authoritative analysis of the artistic and cultural identities of Song Dynasty ceramic incense burners.

3.1.1.2 Student (in the fields of art design, ceramic craftsmanship, and cultural research) 30 people (purposive sampling)

The student group represents the main force of future design and cultural inheritance. Their understanding of traditional culture, modern aesthetics, and acceptance of innovative design are important references for studying the modern

application of Song Dynasty incense burner design. This study aims to understand the cognition, interest, and expectations of student groups towards the design of Song Dynasty ceramic incense burners through survey questionnaires and interviews, providing reference for future innovation directions of ceramic incense burners.

This study conducted in-depth research on museum experts, industry practitioners, collectors, and students to ensure that the research has both academic value and meets the design and application needs, providing strong support for the innovative development of Song Dynasty ceramic incense burners.

Research Tools

1. Structured Interviews: Conduct semi-structured interviews with experts, designers, and collectors to gather information on the artistic characteristics, historical background, and market reception of Song Dynasty ceramic incense burners.

2. Observation: Perform on-site observations at museums and cultural heritage sites to document the craftsmanship and design features of Song Dynasty incense burners.

3.1.2 Research Tools

1. Focus Group Discussion: Convene focus groups consisting of designers, artisans, and historians to engage in in-depth discussions. These discussions will aim to identify the specific design elements, symbolic meanings, and cultural connotations that define the identity of Song Dynasty ceramic incense burners. By exchanging ideas and perspectives, participants will help determine the design directions that resonate with the historical essence of these artifacts.

2. Observation: Conduct comparative observations of existing modern ceramic incense burner designs alongside traditional Song Dynasty models. This will involve analyzing the design aesthetics, materials used, and production techniques of contemporary incense burners and contrasting them with the distinctive features of the Song Dynasty ceramic incense burners. The goal is to discern how the identities of the traditional burners have been interpreted, preserved, or transformed in modern designs.

3.1.3 Development of Research Tools

1. Literature Review: Collect and analyze relevant historical, cultural, and artistic studies on Song Dynasty ceramic incense burners.

2. Interview Guide: Prepare structured questions, such as:

- 2.1 What are the main design characteristics of Song Dynasty ceramic incense burners?

- 2.2 How do their craftsmanship and decorative styles influence modern ceramic design?

3. Observation Checklist: Record details on the shape, patterns, and glaze of incense burners exhibited in museums.

3.1.4 Data Collection

1. Field Visits (Shanghai Museum, Hunan Provincial Museum, Hubei Provincial Museum)

2. Expert Interviews (conducted with ceramic specialists, designers, and collectors)

3. Data Compilation (summarization of the artistic characteristics of Song Dynasty incense burners)

3.1.5 Data Analysis

This study employs inductive analysis, categorizing and summarizing qualitative data from interviews and observations to identify key artistic elements applicable to modern design.

3.2 Research Purpose 2: Design of Contemporary Incense Burners

3.2.1 Population and Sample Group

3.2.1.1 To determine the qualified persons used in the evaluation of ceramic design, the researcher used three university ceramics teachers. 3 people (purposive sampling)

1. Zhao Yun: Lecturer at the School of Materials & Technology, Shanghai Jiguang Vocational Technical College. Ph.D. in Materials Science. Researches ceramic material formulation, glaze chemistry and high-performance functional ceramics. Roughly 9 years of R&D and teaching experience.

2. Yin Jia: Assistant Professor at the School of Design & Creativity, Shanghai Jiguang Vocational Technical College. Master's degree in Industrial Design. Works on digital modeling, 3D printing and user-oriented form optimization of ceramics. Around 7 years of experience combining new technology with traditional craft.

3. Deng Tingting: Lecturer at the School of Design & Creativity, Shanghai Jiguang Vocational Technical College. Master's degree in Cultural & Creative Industries. Focuses on cultural-symbol translation in product design and user-experience studies. About 6 years of teaching and industry-collaboration experience.

3.2.2 Research Tools

Expert Inquiry Survey (Expert Questionnaire)

To gain comprehensive insights into the design aesthetics, functional attributes, and cultural integration within contemporary incense burner creation, an Expert Inquiry Survey (Expert Questionnaire) was conducted. This survey engaged three distinguished university professors specializing in ceramic arts and industrial design. The objective was to gather their expert opinions, constructive feedback, and recommendations on the prototype's form, usability, and cultural relevance.

To ensure accuracy and completeness in data collection, the following tools were meticulously employed:

- (1) Detailed Notations – Systematic and thorough note-taking was carried out to document expert insights, key observations, and evaluative comments for subsequent analysis and refinement.
- (2) Audio Recording – A recording device was utilized to capture the entire expert discussion, preserving the nuances of their feedback and facilitating an in-depth review of their assessments.
- (3) Photographic Documentation – Photographs were taken during the expert evaluation process to record the engagement of the participants, their direct

interactions with the prototype, and any significant physical gestures or reactions that might indicate implicit feedback.

3.2.3 Development of Research Tools

1. The implementation of this stage involves the following steps:

Study of Related Theories and Documents:

Information was gathered from fieldwork, observations, and interviews to develop a questionnaire for assessing design aspects. This process was guided by the framework for interactive media design proposed by Sumitra Sriviboon (2014), emphasizing the creation of interactive experiences that effectively engage users.

Verification and Quality Assessment:

The developed assessment tool was reviewed by academic advisors to ensure content validity. Subject matter experts evaluated the tool to determine the Index of Objective Congruence (IOC) between the questions and the research objectives/framework (Thanin Rattanawong, 2022). Three experts conducted the quality assessment:

Asst. Prof. Dr. Thanate Piromgarn

Asst. Prof. Dr. Sittichai Charoensethasit

Asst. Prof. Dr. Panthip Wanichjirattikan

The experts examined the comprehensiveness of the content and provided feedback based on the following scale:

+1: The question clearly measures the relevant content, definition, or objective.

0: Uncertainty about whether the question measures the intended content, definition, or objective.

-1: The question does not measure the relevant content, definition, or objective.

The results of the evaluation were calculated using the following formula:

$$IOC = \frac{\sum R}{N}$$

R represents the score from each expert for a particular question.

IOC means Index of consistency between the question and the content/objective.

R means the result of the recommendations from each expert in that item.

$\sum R$ means the sum of the scores from all experts in that item.

N means the number of experts.

An IOC question from 0.5 and above indicates that the question is consistent with the content/objective.

3. Use the quality-checked satisfaction questionnaire to collect data from the sample group mentioned above.

3.2.4 Data Collection

(1) Design Experimentation (incorporating Song Dynasty elements into contemporary designs).

(2) Expert Feedback (interviews with designers and artisans on design feasibility).

(3) Design Adjustments (modifications based on expert feedback).

3.2.5 Data Analysis

- (1) Qualitative Analysis: Summarize expert feedback on design feasibility.
- (2) Comparative Analysis: Compare traditional and modern ceramic incense burner designs to refine contemporary product concepts.

3.3 Research Purpose 3: Assess the Satisfaction of the Teenagers Towards the Prototype Design of the Contemporary Incense Burner

3.3.1 Population and Sample Group

Population and sample used to evaluate the satisfaction of teenagers towards the prototype design of the modern incense burner

Population: teenagers aged 20-24, residing in Qingyang County, Chizhou City, Anhui Province, China, totaling 18,686 people (according to the data from the 7th National Population Census, 2020).

Sample: teenagers aged 20-24, residing in Qingyang County, Chizhou City, Anhui Province, China, totaling 100 people (Yamane, 1973: 886).

3.3.2 Research Tools

Satisfaction Questionnaire

Rating Scale:

- 4.51-5.00: Very satisfied
- 3.51-4.50: Satisfied
- 2.51-3.50: Neutral
- 1.51-2.50: Slightly dissatisfied
- 1.00-1.50: Dissatisfied

User Questionnaire

Evaluate user experiences, functional effectiveness, and aesthetic appeal.

3.3.3 Development of Research Tools

1. The implementation of this stage involves the following steps:

Study of Related Theories and Documents:

Information was gathered from fieldwork, observations, and interviews to develop a questionnaire for assessing design aspects. This process was guided by the framework for interactive media design proposed by Sumitra Sriviboon (2014), emphasizing the creation of interactive experiences that effectively engage users.

Verification and Quality Assessment:

The developed assessment tool was reviewed by academic advisors to ensure content validity. Subject matter experts evaluated the tool to determine the Index of Objective Congruence (IOC) between the questions and the research objectives/framework (Thanin Rattanawong, 2022). Three experts conducted the quality assessment:

- Asst. Prof. Dr. Thanate Piromgarn
- Asst. Prof. Dr. Sittichai Charoensethasilp
- Asst. Prof. Dr. Panthip Wanichjirattikan

The experts examined the comprehensiveness of the content and provided feedback

based on the following scale:

+1: The question clearly measures the relevant content, definition, or objective.

0: Uncertainty about whether the question measures the intended content, definition, or objective.

-1: The question does not measure the relevant content, definition, or objective.

The results of the evaluation were calculated using the following formula:

$$IOC = \frac{\sum R}{N}$$

represents the score from each expert for a particular question.

IOC means Index of consistency between the question and the content/objective.

R means the result of the recommendations from each expert in that item.

$\sum R$ means the sum of the scores from all experts in that item.

N means the number of experts.

An *IOC* question from 0.5 and above indicates that the question is consistent with the content/objective.

3. Use the quality-checked satisfaction questionnaire to collect data from the sample group mentioned above.

3.3.4 Data Collection

Survey Distribution (100 valid questionnaires).

User questionnaire (30 participants in focus group discussions).

3.3.5 Data Analysis

Quantitative Analysis:

Calculate mean satisfaction scores and standard deviations to analyze user preferences.

Qualitative Analysis:

Summarize user feedback and identify key areas for design improvements.

CHAPTER 4

EXPERIMENTAL RESULT

Incense burners were not only practical daily incense utensils in the lives of ancient literati and doctors, but also works of art that integrated profound cultural significance and spiritual connotations. It embodies ancient aesthetic concepts and philosophical viewpoints, symbolizing the pursuit of a better life. The combination of incense burners and spices creates a poetic atmosphere. With the development of time, its incense burning culture has become increasingly refined, enriching the connotation of human spiritual life and becoming an important part of ancient culture.

4.1 Analysis results of the history, culture, cultural and creative design of Incense burners

4.1.1 Data analysis results of Song Dynasty ceramic incense burner history, art, culture and product design research content

Building on an exacting scrutiny of primary archival records—supplemented by systematic reviews of excavation bulletins, firing-temperature logs, imperial workshop inventories, and period treatises such as the *Daguan Lu*—researchers painstakingly extract and cross-verify raw datasets, cleanse terminological inconsistencies, and reconstruct missing dimensional metrics through photogrammetric interpolation. Leveraging this enriched evidence base, they then conduct a multi-layered examination of the artistic vocabularies and cultural symbolisms embedded in Song-dynasty ceramic incense burners, applying comparative iconography, glaze-chemistry profiling, and semiotic mapping to reveal an impressive spectrum of stylistic permutations that testifies to both courtly refinement and regional ingenuity. On this strengthened foundation, scholars argue that the defining qualities of these burners can still be distilled—without loss of nuance—into three tightly interrelated dimensions, thereby providing a coherent analytical scaffold for subsequent thematic discussion.



*Figure 4.1 Northern Song Dynasty Lotus Petal Pattern Three Foot Boshan
Furnace*

(Picture source: by the CNki)



*Figure 4.2 Song Dynasty Blue and White Porcelain Duck shaped Incense
Burner*

(Picture source: by the CNki)



Figure 4.3 *Southern Song Dynasty Longquan Kiln Green Glazed Tripod Furnace*
(Picture source: by the CNki)



Figure 4.4 *Blue and white porcelain hollowed out peony pattern round lid three legged box style smoking furnace*
(Picture source: by the CNki)



Figure 4.5 *Song Dynasty Blue and White Porcelain Su Ni Smoker*
(Picture source: by the CNki)

Dominant motif: Select symbolic form and design principle from the primary motif symbol set of the Song Dynasty ceramic incense burner, and formulate a grammar to derive the structure of the central motif unit. Filter the resulting objects from the output set for utilization in subsequent iterations or integration into future design applications.

(1) Graphic design derivation

The initial form in the following figure is a result of the output of the inscribed design in the primary motif set of the Song Dynasty ceramic incense burner after undergoing processes such as radial arrangement, scaling, refinement, and another radial arrangement. Similar to the skeletal framework, the grammatical derivation of the central motif unit can also yield an infinite variety of outcomes, depending on the chosen form and the applied rules. These outcomes, in terms of structure, belong to three-dimensional representations and can be utilized to craft intricate three-dimensional designs, such as innovative patterns for ceramic art inspired by the Song Dynasty.



Figure 4.6 Main flower-cell derivation process

(Picture source: by the CNki)

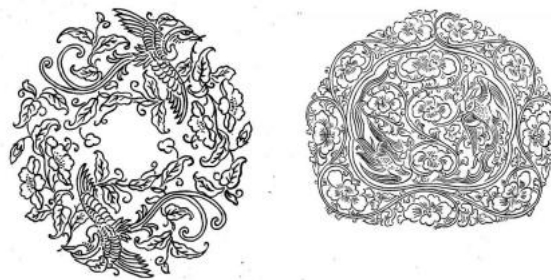








Figure 4.7 The main flower unit deduces partial results







(Picture source: by the CNki)







(2) Stereoscopic derivation







Similar to the skeletal framework, the output of the central motif unit's three-dimensional derivation can also serve as a foundation, projected onto a cubic module, and then refined to produce the main motif unit module based on cubic composition. These modules possess combinatory and embeddable properties, allowing them to be inserted into the structural framework as integrated elements while simultaneously presenting diverse aesthetic effects. This approach can be applied to the design of Song Dynasty ceramic incense burners, where modular motifs are combined and embedded to create intricate and harmonious artistic expressions.

Table 4.1 Song Dynasty ceramic incense burner unit extraction

编号 (No.)	名称 / Name	年代 (Year)	尺寸 (Dimensions)	图片 (Picture)
1	青白瓷镂刻“卍”字纹三足奩式香毬炉 (Qingbai Porcelain Tripod Lian-Form Incense Ball Burner with Pierced “Swastika” Motif)	Song Dynasty	Height 6.5 cm, Diameter 7 cm	
2	青白瓷三足奩式香毬炉 (Qingbai Porcelain Tripod Lian-Form Incense Ball Burner)	Song Dynasty	Height 7 cm, Diameter 7 cm	
3	青白瓷豆炉式香毬炉 (Qingbai Porcelain Dou-Form Incense Ball Burner)	Song Dynasty	Height 9.5 cm, Mouth Diameter 6.9 cm	
4	青白瓷印仿青铜古螭龙纹出戟四方鼎炉 (Rectangular Ding Censer with Impressed Imitation-Bronze Ancient Chi-Dragon Motif and Flanges)	Song Dynasty	Length 13.5 cm, Width 10.5 cm, Height 15 cm	
5	青白瓷鼓钉纹四方鼎炉 (Rectangular Ding Censer with Drum-Nail Motif)	Song Dynasty	Length 15 cm, Width 11 cm, Height 16 cm	
6	青白瓷双耳三足鼎炉 (Qingbai Porcelain Ding Censer with Double Handles and Tripod Feet)	Song Dynasty	Height 19 cm, Mouth Diameter 14 cm	

编号 (No.)	名称 / Name	年代 (Year)	尺寸 (Dimensions)	图片 (Picture)
7	青白瓷双耳三足鼎炉 (Qingbai Porcelain Ding Censer with Double Handles and Tripod Feet)	Song Dynast y	Height 7.5 cm, Mouth Diameter 9.5 cm	
8	青白瓷双耳三足鼎炉 (Qingbai Porcelain Ding Censer with Double Handles and Tripod Feet)	Song Dynast y	Height 13 cm, Mouth Diameter 9.5 cm	
9	青白瓷双耳三足鼎炉 (银 缮) (Qingbai Porcelain Ding Censer with Double Handles and Tripod Feet, Silver Repair)	Song Dynast y	Height 10.5 cm, Mouth Diameter 11 cm	
10	青白瓷印仿青铜饕餮纹双耳 三足鼎炉 (Qingbai Porcelain Ding Censer with Impressed Taotie Motif, Double Handles, and Tripod Feet)	Song Dynast y	Height 11.5 cm, Mouth Diameter 8.6 cm	
11	青白瓷刻仿青铜饕餮纹双耳 三足鼎炉 (Qingbai Porcelain Ding Censer with Carved Taotie Motif, Double Handles, and Tripod Feet)	Song Dynast y	Height 10.5 cm, Mouth Diameter 12 cm	
12	青白瓷刻海浪纹双耳三足鼎 炉 (Qingbai Porcelain Ding Censer with Carved Wave Motif, Double Handles, and Tripod Feet)	Song Dynast y	Height 14.7 cm, Mouth Diameter 16.2 cm	

编号 (No.)	名称 / Name	年代 (Year)	尺寸 (Dimensions)	图片 (Picture)
13	青白瓷双耳三兽足鼎炉 (Qingbai Porcelain Ding Censer with Double Handles and Three Zoomorphic Feet)	Song Dynasty	Height 10.2 cm, Mouth Diameter 7 cm	
14	青白瓷刻八卦纹双耳三兽足鼎炉 (Qingbai Porcelain Ding Censer with Carved Bagua Motif, Double Handles, and Three Zoomorphic Feet)	Song Dynasty	Height 14 cm, Mouth Diameter 12.2 cm	
15	青白瓷刻八卦纹双耳三兽足鼎炉 (Qingbai Porcelain Ding Censer with Carved Bagua Motif, Double Handles, and Three Zoomorphic Feet)	Song Dynasty	Height 12 cm, Mouth Diameter 13 cm	
16	青白瓷刻云雷纹双耳三兽足鼎炉 (Qingbai Porcelain Ding Censer with Carved Cloud-and-Thunder Motif, Double Handles, and Three Zoomorphic Feet)	Song Dynasty	Height 7 cm, Mouth Diameter 7.5 cm	
17	青白瓷镂刻“卍”字纹盖鼎炉 (Qingbai Porcelain Ding Censer with Pierced “Swastika” Motif Lid)	Song Dynasty	Height 11.2 cm, Mouth Diameter 6.4 cm	
18	青白瓷象鼻足鼎炉 (Qingbai Porcelain Ding Censer with Elephant-Trunk Feet)	Song Dynasty	Height 7.7 cm, Mouth Diameter 6.2 cm	

编号 (No.)	名称 / Name	年代 (Year)	尺寸 (Dimensions)	图片 (Picture)
19	青白瓷蟠螭耳三足鼎炉 (宋一元) (Qingbai Porcelain Ding Censer with Coiled Chi-Dragon Handles and Tripod Feet, Late Song–Early Yuan)	Late Song to Early Yuan	Height 8.2 cm, Mouth Diameter 7.5 cm	
20	青白瓷弦纹双耳三足鼎炉 (金缮) (Qingbai Porcelain Ding Censer with String Ribs, Double Handles, and Tripod Feet – Gold Repair)	Song Dynasty	Height 8.6 cm, Mouth Diameter 9.8 cm	
21	青白瓷印缠枝花莲瓣纹双耳三足鼎炉 (Qingbai Porcelain Ding Censer with Impressed Scrolling Floral and Lotus Petal Motif, Double Handles, and Tripod Feet)	Song Dynasty	Restored Height 12 cm, Mouth Diameter 8 cm	
22	青白瓷笏耳贴环三足鼎炉 (Qingbai Porcelain Ding Censer with Hu-Style Ears, Applied Rings, and Tripod Feet)	Song Dynasty	Restored Height 11.5 cm, Mouth Diameter 7 cm	
23	青白瓷平口釜身双耳三足鼎炉 (Qingbai Porcelain Ding Censer with Flat Rim, Cauldron Body, Double Handles, and Tripod Feet)	Song Dynasty	Height 14 cm, Mouth Diameter 13 cm	
24	米黄釉瓷扁腹三足鼎炉 (Milky-Yellow Glazed Porcelain Tripod Censer with Flattened Body)	Song Dynasty	Height 7.8 cm, Mouth Diameter 7.4 cm	










编号 (No.)	名称 / Name	年代 (Year)	尺寸 (Dimensions)	图片 (Picture)
25	青白瓷刻祥云纹双耳三足鼎炉 (Qingbai Porcelain Ding Censer with Carved Auspicious Cloud Motif, Double Handles, and Tripod Feet)	Song Dynasty	Height 12.5 cm, Mouth Diameter 12.2 cm	
26	青白瓷仿青铜纹双耳三足鼎炉 (缺耳) (Qingbai Porcelain Ding Censer with Imitation Bronze Motif, Double Handles, and Tripod Feet – Missing One Ear)	Song Dynasty	Height 6.8 cm, Mouth Diameter 6.4 cm	
27	青白瓷仿周鬲炉 (Qingbai Porcelain Li-Form Censer in Imitation of Zhou Style)	Song Dynasty	Height 10.3 cm, Mouth Diameter 10 cm	
28	青白瓷弦纹三足奩炉 (Qingbai Porcelain Lian-Form Censer with String Ribs and Tripod Feet)	Song Dynasty	Height 10 cm, Mouth Diameter 11.6 cm	
29	青白瓷浅腹鼓钉三足奩炉 (Qingbai Porcelain Lian-Form Censer with Shallow Body, Drum-Nail Studs, and Tripod Feet)	Song Dynasty	Height 9.2 cm	
30	青白瓷刻绣毬宝钱纹桶炉 (Qingbai Porcelain Barrel-Form Censer with Carved Embroidered Ball and Coin Motif)	Song Dynasty	Height 14.5 cm, Mouth Diameter 15.2 cm, Base 10.9 cm	

Table 4.2 Animal pattern structure

ID	Name / 名称	Dynasty	Characteristics	Symbolism	Image
1	双鸭嬉水纹 (Double Ducks in Water Pattern)	Song Dynasty	Two waterfowl (such as ducks or mandarin ducks) swimming in water, with aquatic plants or lotus leaves around them	Symbolizes a harmonious and loving relationship, a happy family	
2	双鸭嬉水纹 (Double Ducks in Water Pattern)	Song Dynasty	Two waterfowl (such as ducks or mandarin ducks) swimming in water, with aquatic plants or lotus leaves around them	Symbolizes a harmonious and loving relationship, a happy family	
3	玉兔纹 (Jade Rabbit Pattern)	Song Dynasty	A rabbit in a lively posture, often accompanied by auspicious clouds or plant motifs	Symbolizes cleverness and good fortune; also associated with the moon and longevity	








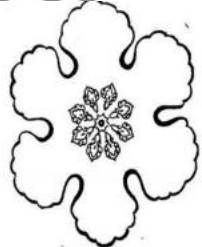










<p>鲤鱼戏莲纹 (Carp Frolicking Among Lotus)</p> <p>4</p>	<p>Song Dynasty</p>	<p>Carp swimming in water, surrounded by lotus flowers and aquatic plants</p>	<p>“Carp leaping over the dragon gate” suggests success in imperial exams and official promotion; lotus symbolizes purity and auspiciousness</p>	
<p>鹿衔灵芝纹 (Deer Holding Lingzhi Mushroom)</p> <p>5</p>	<p>Song Dynasty</p>	<p>A deer among flowers and plants, often holding a lingzhi mushroom in its mouth or where it grows from dead wood</p>	<p>“Deer” (lù) is homophonous with “fortune” (lù); lingzhi symbolizes longevity, altogether implying prosperity and long life</p>	
<p>双凤穿花纹 (Double Phoenixes Amid Flowers)</p> <p>6</p>	<p>Song Dynasty</p>	<p>Two phoenixes hovering among flowers, with outspread wings and finely detailed feathers</p>	<p>Phoenixes symbolize auspiciousness, nobility, and elegance; implies abundant blessings and good fortune</p>	
<p>双鸟对舞纹 (Double Birds Dancing)</p> <p>7</p>	<p>Song Dynasty</p>	<p>Two birds positioned symmetrically or dancing among flowers, featuring a balanced composition with flowing lines</p>	<p>Symbolizes marital harmony and family unity</p>	

Table 4.3 Main flower shape symbol set

ID	Name / 名称	Dynasty	Characteristics	Symbolism	Image
1	缠枝花卉纹 (Intertwined Floral Vines Pattern)	Song Dynasty	Flowers and vines intertwined with flowing lines, forming a full and balanced composition	Symbolizes unending vitality and family prosperity	
2	缠枝花卉纹 (Intertwined Floral Vines Pattern)	Song Dynasty	Floral shapes with continuous vines, commonly seen on porcelains and brocades	Conveys vigorous life force and auspicious meanings	
3	缠枝花卉纹 (Intertwined Floral Vines Pattern)	Song Dynasty	Overlapping blooms and curled leaves woven together, highly decorative	Suggests flourishing prosperity	
4	缠枝花卉纹 (Intertwined Floral Vines Pattern)	Song Dynasty	Vines crossing each other in a cyclical layout, with multiple layers of flowers	Represents continuous blessings	

<p>5 团 花 纹 (Circular Flower, Tuánhuā)</p>	<p>Song Dynasty</p>	<p>Flowers arranged in a circular or clustered form, often with elaborate petals and a strong overall effect</p>	<p>Implies reunion and happiness; commonly used in architecture, porcelain, and textiles</p>	
<p>6 缠 枝 莲 纹 (Intertwined Lotus Pattern)</p>	<p>Song Dynasty</p>	<p>Centered on the lotus flower, with vines entwined around it</p>	<p>Lotus symbolizes purity and nobility; intertwined vines imply enduring good fortune</p>	
<p>7 缠 枝 莲 纹 (Intertwined Lotus Pattern)</p>	<p>Song Dynasty</p>	<p>Lotus petals spread gracefully, often paired with small leaves or decorative motifs</p>	<p>Conveys purity and elegance</p>	
<p>8 牡 丹 纹 (Peony Pattern)</p>	<p>Song Dynasty</p>	<p>Large peony blooms, abundant petals and foliage</p>	<p>Peony symbolizes wealth and prosperity</p>	

<p>牡丹纹 9 (Peony Pattern)</p>	<p>Song Dynasty</p>	<p>A prominent peony at the center, surrounded by detailed leaves</p>	<p>Represents good fortune and auspiciousness</p>	
<p>缠枝花卉纹 10 (Intertwined Floral Vines Pattern)</p>	<p>Song Dynasty</p>	<p>Evenly distributed flowers and leaves, crisscrossing vines for a compact structure</p>	<p>Suggests flourishing vitality</p>	
<p>缠枝花卉纹 11 (Intertwined Floral Vines Pattern)</p>	<p>Song Dynasty</p>	<p>Multiple-layered blossoms as the focal point, with leaves flowing naturally</p>	<p>Reflects a wish for abundant flowering and prosperity</p>	
<p>三花团纹 12 (Triple-Flower Circular Pattern)</p>	<p>Song Dynasty</p>	<p>Three blooms evenly spaced in a clustered formation, common in porcelain and textiles</p>	<p>The number three implies stability and harmony</p>	
<p>缠枝莲纹 13 (Intertwined Lotus Pattern)</p>	<p>Song Dynasty</p>	<p>Lotus motifs combined with scroll-like vines, creating a richly layered composition</p>	<p>Symbolizes continuous auspiciousness</p>	

14	葡萄纹 (Grape Pattern)	Song Dynasty	Full bunches of grapes and winding vines, often accompanied by small insects or leaves	Connotes abundant offspring and prosperity	
15	三叶缠枝花卉纹 (Three-Leaf Intertwined Floral Pattern)	Song Dynasty	Three prominent leaves offsetting the main flower, vines intricately woven, and distinct petal layers	Represents natural vigor and family flourishing	
16	团花纹 (Circular Flower, Tuánhuā)	Song Dynasty	Flowers arranged symmetrically, typically with a central bloom surrounded by smaller blossoms	Implies reunion and harmony	
17	牡丹花团纹 (Peony Circular Cluster Pattern)	Song Dynasty	A clustered circular design featuring peonies, with layers of petals concentrated in the center	Symbolizes prosperity and abundance	
18	缠枝牡丹纹 (Intertwined Peony Pattern)	Song Dynasty	Large peony blossoms intertwined with vines; intricate and decorative	Conveys enduring affluence and constant good fortune	



19 藤蔓花卉纹 (Floral Vines Pattern)	Song Dynasty	Long vines connecting main and secondary blossoms, often forming ring-like or wave-like compositions	Expresses natural lushness and vigorous growth	
20 三花缠枝纹 (Triple- Flower Intertwined Pattern)	Song Dynasty	Three flowers interlaced with flowing branches and leaves	Implies longevity and a flourishing lineage	
21 繁花锦簇纹 (Blossoms in Full Flourish Pattern)	Song Dynasty	Dense clusters of flowers arranged in layers, creating a richly detailed and ornate display	Symbolizes prosperity, abundance, and a beautiful life	
22 藤蔓叶片纹 (Vine and Leaves Pattern)	Song Dynasty	Large leaves overlapping with flowing lines, featuring detailed veins	Symbolizes harmony with nature and vibrant energy	



Figure 4.8 Front entrance shanghai Museum
(Picture source: by the author)



Figure 4.9 Song Dynasty ceramic incense burner making
(Picture source: by the author)



Figure 4.10 Song Dynasty ceramic incense burner making
(Picture source: by the author)

The researchers concluded that, beginning with the regional characteristics and historical context of the Song Dynasty ceramic incense burners, they examined the current state, historical evolution, color schemes, decorative arrangements, and other stylistic features of these artifacts. They conducted relevant research on the cultural and

creative aspects of Song Dynasty ceramics to identify issues in their visual and functional design. Among the contributors were three experts in Song Dynasty ceramics, whose insights provided valuable depth to the study. This paper lays the groundwork for the practical application of creating innovative products inspired by Song Dynasty ceramic incense burners.

4.1.2 Analysis results of interviews with historians and art and culture scholars of Song Dynasty ceramic incense burner Museum

In today's society, traditional culture is attracting more and more people with its unique charm. As one of the important carriers of traditional culture, incense burners have naturally become the darling of Tibetan stove enthusiasts. These enthusiasts of incense burners are not only passionate about the incense burners themselves, but also have a profound understanding of the cultural heritage and aesthetic values they contain. With the continuous expansion of the consumer group, new aesthetic demands are constantly emerging, which puts forward new requirements for the traditional incense burner. In order to meet the needs of contemporary consumers while inheriting and promoting traditional culture, designers have begun to innovate in their designs. They turned their attention to the depths of history, especially the aesthetics of creation in the Song Dynasty, inspired by its unique aesthetic concepts and spirit of creation. The aesthetics of creation in the Song Dynasty emphasized the concept of "unity of heaven and man", focusing on the harmonious unity of the inner spirit and outer form of objects. This concept has important guiding significance for the design of modern incense burners. Under the guidance of ceramic design concepts, designers combine traditional elements with modern aesthetics to explore an innovative path. They are not only innovating in form for incense burners, but also seeking breakthroughs in materials, craftsmanship, and functionality. Through the study of the aesthetics of Song Dynasty creations, they extracted design principles of simplicity, naturalness, and practicality, and applied them to the design of incense burners. In the end, these efforts crystallized into a series of innovative incense burner products. These products not only retain traditional charm, but also incorporate modern design language, meeting the dual needs of modern consumers for aesthetics and culture. The emergence of these innovative incense burners is not only an inheritance and promotion of traditional culture, but also a successful practice of modern design concepts, providing new perspectives and possibilities for the integration of traditional culture and modern life.

4.1.3 Research ideas

In the field of contemporary ceramic design, incense burners, as a traditional handicraft with a long history, are facing unprecedented opportunities and challenges. With the improvement of people's living standards and the diversification of aesthetic needs, the artistic value and spiritual and cultural significance of incense burners are increasingly valued. The rapid development of the economy has provided a wider market space for ceramic incense burners, while the revival of religious beliefs and the pursuit of personal aesthetic enjoyment have also led to a gradual increase in demand for incense burners.

The high-quality material of the incense burner, such as the lustrous and transparent ceramic, is not only easy to clean and store, but also practical and beautiful,

which makes it occupy a place in modern home incense. However, the price differences of incense burners in the market, as well as the differences in consumers' understanding of traditional cultural arts, have brought challenges to the design and innovation of incense burners.

Inspired by the aesthetics of creation in the Song Dynasty, the design concept of incense burners is undergoing a transformation. Although antique incense burners inherit the charm of ancient times in terms of design and decoration, the rough craftsmanship often fails to reflect a sense of elegance. In contrast, innovative incense burners have innovated on the basis of tradition, incorporating new design elements with the goal of personalized creation. However, the development of this part is relatively small and faces many problems.

This article aims to explore the design and innovation path of incense burner products through market research and consumer demand analysis. The study first focuses on consumers' material and spiritual needs for incense burners, and through field investigations and online questionnaire surveys in Jingdezhen market, understands consumers' preferences for different types of incense burners. At the same time, the study also pays special attention to those who have a certain understanding of the traditional culture of the Song Dynasty, analyzing their unique needs for ceramic incense burners.

On this basis, this article combines the aesthetic ideas of Song Dynasty creations to explore how to combine traditional craftsmanship with modern design concepts to create incense burners that have both cultural heritage and modern aesthetics. By comparing and analyzing the characteristics of antique incense burners and innovative incense burners, this article aims to provide new perspectives and inspiration for designers of ceramic incense burners, in order to respond to the opportunities and challenges of contemporary society and promote the sustainable development of the incense burner industry.

4.1.4 Research methods

Throughout the research process, this article mainly conducted surveys using questionnaire distribution and analysis methods to ensure the completeness of the research process and results. The various research methods are as follows.

Market analysis method: By collecting and integrating relevant data on ceramic incense burners, extracting design information, systematically analyzing the optimization mode of ceramic incense burners, identifying key markets and strategically significant products, and providing feasibility analysis for contemporary incense burner design.

Questionnaire survey method: also known as questionnaire survey method, refers to a data collection method in which surveyors use a uniformly designed questionnaire to understand the situation and solicit opinions from the respondents; By collecting opinions from different age groups on ceramic incense burners, provide a certain reference basis for designing works.

4.1.5 Market Research

I. On-the-spot investigation

In this study, the author conducted in-depth market visits and field investigations

on ceramic incense burners products in Jingdezhen, a major ceramic town. Through visits to sculpture porcelain factories, international trade plazas, Taoxichuan and other places, a large amount of information on ceramic incense burners was collected. During the on-site inspection, the author found that there are relatively few stores specializing in selling incense burners, and the product types and styles are relatively limited. The incense burner products on the market can be roughly divided into two categories: low-end and high-end, with a wide price range ranging from tens of yuan to tens of thousands of yuan, showing significant price differences. In the investigation, the author noticed a ceramic incense burner product company that focuses on imitating the style of Song Longquan kiln. The company adheres to the aesthetic concept of "returning to simplicity", and its product design follows the principles of simplicity and simplicity, attracting the attention of high-end consumers. However, due to its high product prices, it mainly targets the high-end consumer market. The incense burners produced by the company are divided into two types: covered and uncovered. Some products have larger sizes and a slightly clumsy overall design. In terms of decoration, the product mainly adopts an antique style, with a particular emphasis on replicating the surface color of blue and white porcelain glaze, but lacks innovative decorative elements. This single style and decorative technique, while retaining traditional beauty, also limits the diversity and personalized development of products. (Figure 4.11)



Figure 4.11 Jingdezhen Contemporary Ceramic Incense Burner

(picture source: The author took the photo in Jingdezhen)

In summary, ceramic incense burners in the Jingdezhen market are limited in variety and style, and have a wide price range. While maintaining traditional styles, high-end incense burners urgently need to inject more innovative elements to meet the needs of a wider range of consumers and enhance their market competitiveness.

II. Questionnaire survey

A questionnaire survey was conducted based on the identity research of Song Dynasty ceramic new product design, we successfully collected 534 valid questionnaires through carefully designed questionnaires from four different age groups: 18-30 years old, 30-40 years old, 40-50 years old, and over 50 years old. The core of this questionnaire survey is to gain a deep understanding of the essence of Song

Dynasty's aesthetic creation and apply it to the design practice of contemporary ceramic incense burners.

The questionnaire survey covers the basic usage of ceramic incense burners by consumers, including frequency of use, usage scenarios, and user feedback. Through these data, we can grasp the actual needs and usage habits of consumers for incense burners, providing empirical basis for product design.

In addition, the questionnaire also focused on investigating consumers' preferences for the design of contemporary ceramic incense burners, such as their preferences for shape, color, material, decorative elements, and other aspects. These pieces of information are crucial for designers as they can help them better grasp market trends and consumer psychology, thereby designing products that better meet market demands.

At the same time, the questionnaire survey also focused on the recognition of traditional culture promotion in today's society, which is of great significance for ceramic incense burners, a product that combines traditional and modern elements. Understanding consumers' attitudes towards traditional culture can help integrate more cultural elements into the design process, enhance the cultural connotation and market competitiveness of products.

Through the analysis of these questionnaire survey data, we have obtained valuable product design information, which provides guidance for the design of contemporary ceramic incense burners. This article aims to transform these data into specific design strategies to promote innovation and development in ceramic incense burner design, making it not only meet the practical needs of consumers, but also become a carrier for promoting traditional culture and integrating modern aesthetics. (Figure 4.12)

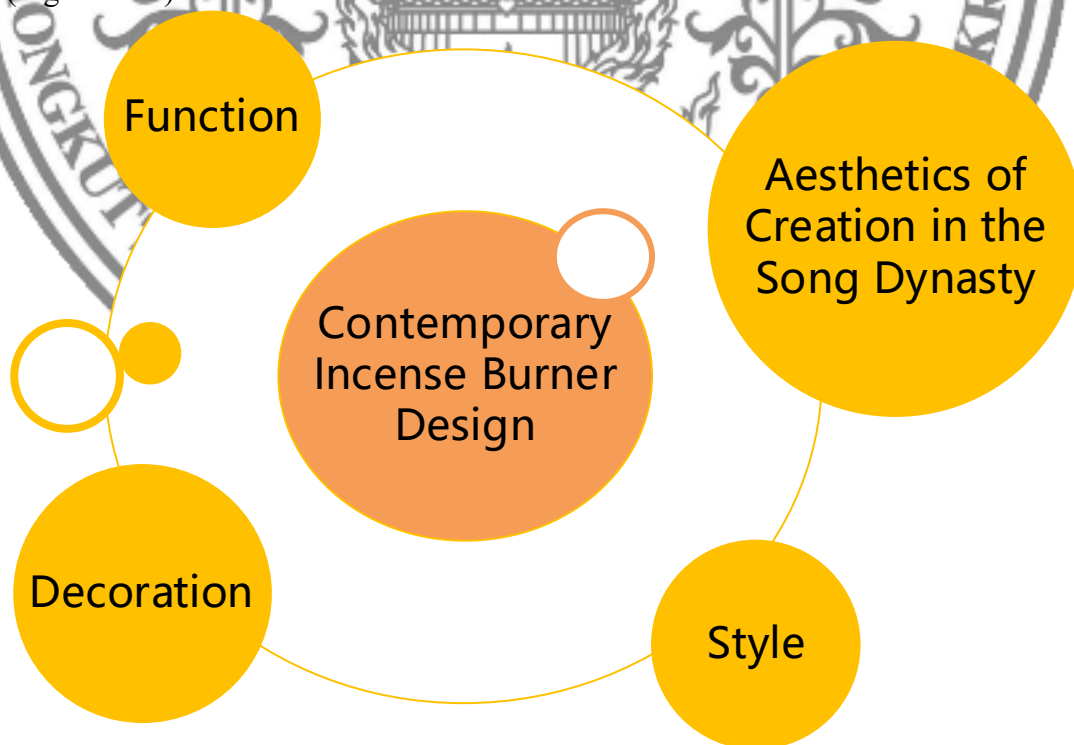


Figure 4.12 The author drew a questionnaire mind map on their own

(picture source: by the author)

(1) Basic information of survey respondents

This study collected 534 valid data in the form of a questionnaire through research methods, which provided us with rich information about the respondents. In terms of gender ratio, female respondents account for 55.99%, slightly higher than male respondents, which reflects the possible differences in gender preferences for incense burner design.

In terms of age distribution, the questionnaire covers multiple age groups such as the post-90s, post-80s, and post-70s generations. Among them, the 18-30 age group has the highest proportion, reaching 82.77%, indicating that young people have a high interest and attention to ceramic incense burners. In addition, the age groups of 30-40 and 50 and above also have a certain level of participation, indicating different demands for incense burner products among different age groups.

The participants have a wide range of occupational classifications, including students, teachers, designers, freelancers, etc., among which the student group accounts for a large proportion. This result may be related to the acceptance and curiosity of young people towards new things. In terms of education level, the participants in the survey mainly have a university degree or above, accounting for 57.12%, indicating that our research subjects have high cultural literacy and aesthetic appreciation ability.

Based on these data, this survey provides us with a comprehensive understanding of the attitudes and needs of different genders, age groups, and occupational groups towards ceramic incense burners. These pieces of information are of great significance for further analyzing consumer preferences and designing products that meet market demand, while also providing reference for the market positioning and product strategy of the ceramic incense burner industry. (Table 4.4)

Table 4.4 Basic Information of Survey Respondents

Basic information		Subtotal	Percentage
Gender	Male	235	44.01%
	Female	299	55.99%
Age group	18-30 years old	442	82.77%
	30-40 years old	43	8.05%
	40-50 years old	18	3.37%
	Over 50 years old	31	5.81%
Career	Student	305	57.12%
	Professional technicians (teachers, designers, etc.)	89	16.67%
	Freelancer	48	8.99%
	Other	92	17.23%

Table 4.4: Basic Information of Survey Respondents

(2) Understanding the situation of ceramic incense burners

This study conducted an in-depth analysis of the purchasing behavior of the surveyed population, particularly exploring in detail the purchasing motivations and usage purposes of ceramic incense burners. The research results show that the main purpose for consumers to purchase ceramic incense burners is to smoke incense, but 72.1% of participants stated that they purchase incense burners more to purify the environment. This discovery reveals a new understanding of the functions of incense burners among consumers.

At the same time, ceramic incense burners are not only seen as practical items by

consumers, but also have value in home decoration and character cultivation. Among the surveyed population, there is a basic balance between considerations for home decoration and character cultivation, indicating that consumers not only pay attention to its practicality when purchasing incense burners, but also value its impact on the living environment and personal mood.

In terms of design preferences, compact, exquisite, and elegantly decorated ceramic incense burners have been favored by consumers. This design style not only meets the aesthetic needs of modern homes, but also reflects consumers' pursuit of quality of life. On the contrary, the requirements for product functionality only account for 30.71%, indicating that consumers do not attach as much importance to the functional needs of incense burners as they do to design aesthetics.

In summary, this survey revealed the diverse demands of consumers for ceramic incense burners. When designing ceramic incense burners, manufacturers and designers should consider consumers' demand for environmental purification, while also paying attention to the aesthetic value of the product. They should launch small, exquisite, and elegantly decorated products to meet the growing aesthetic needs of consumers, while maintaining moderate functionality to meet the diverse demands of the market. This discovery provides important reference for the market positioning and product development of the ceramic incense burner industry. (Table 4.5, Table 4.6, Table 4.7)

Table 4.5 Usage and Style of Incense Burner

Basic information		Subtotal	Percentage
Incense Burner Function	Purify the environment	385	72.1%
	Home decoration	242	45.32%
	Mold one's temperament	233	43.63%
	Other	54	10.11%
Incense Burner Style	Simple and practical	164	30.71%
	Compact and exquisite	376	70.41%
	Elegant and beautiful	331	61.99%

Table 4.5: Usage and Style of Incense Burner

Table 4.6 Function Characteristics of Incense Burner

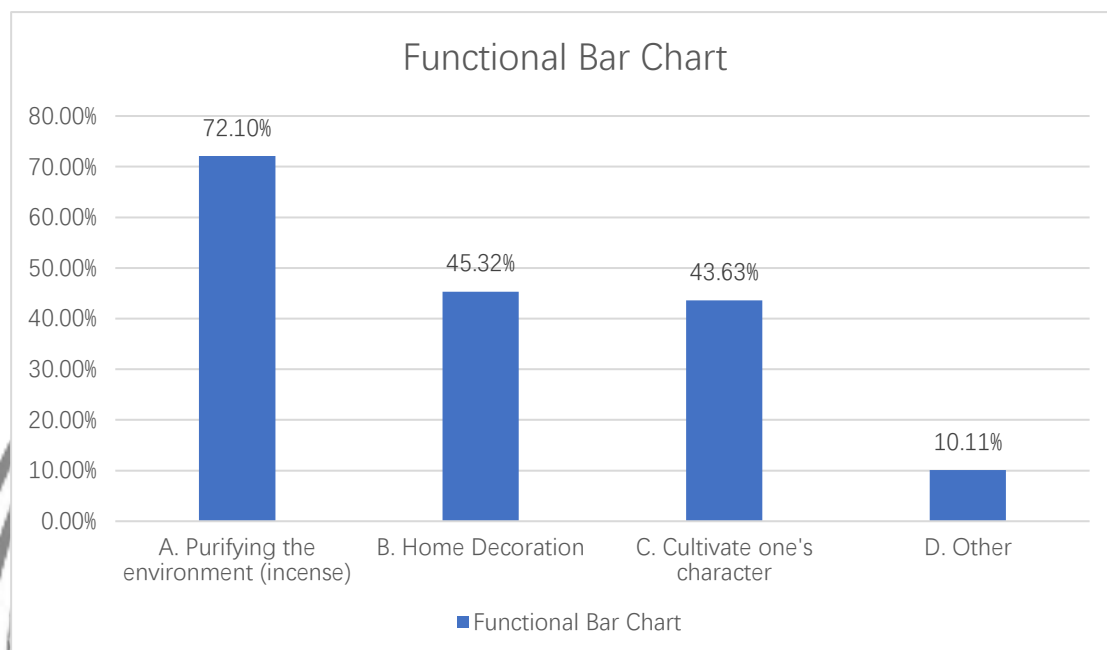
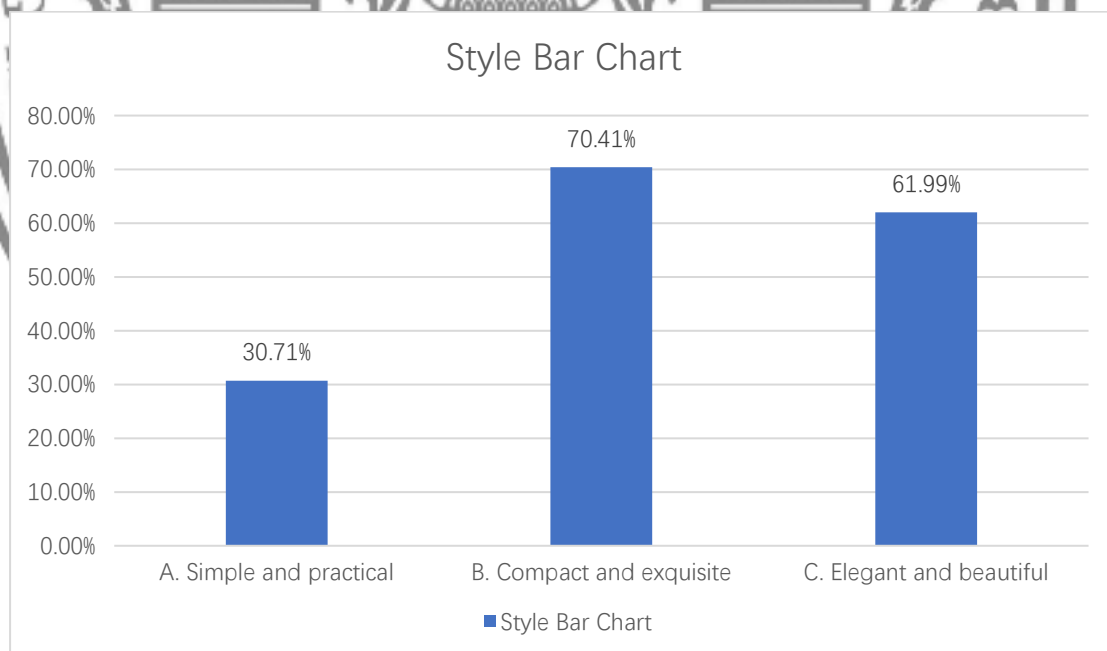


Table 4.7 Style Characteristics of Incense Burner



(3) Understanding the Aesthetic Culture of Creation in the Song Dynasty

Chinese traditional culture, especially the aesthetics of creation in the Song Dynasty, has had a profound impact on the field of modern design. This study aims to explore the inheritance and development of the aesthetics of creation in the Song Dynasty, as well as its cognition and application in modern society. Through the analysis of Song Dynasty artifacts such as ceramics, furniture, and gold and silverware, this article reveals the basic characteristics of Song Dynasty's aesthetic of creation, such as

simplicity and practicality, subtlety and elegance, natural simplicity, and auspicious symbolism.

The aesthetic of creation in the Song Dynasty, with its unique artistic style and aesthetic concept, has been inherited and developed to this day. This aesthetic not only influenced the artistic creation of the Song Dynasty, but also provided continuous inspiration for future generations. In modern society, people's understanding of the traditional culture of the Song Dynasty is gradually deepening, and their recognition of its aesthetic features in creation is also constantly increasing.

In this survey, respondents showed a clear tendency towards recognizing the aesthetic characteristics of Song Dynasty creations. Among them, the beauty of subtlety and elegance is considered the most prominent feature in the aesthetics of Song Dynasty creations, with a recognition rate of 76.22%. This aesthetic trait is fully reflected in artworks such as ceramics, furniture, and gold and silverware, showcasing the profound understanding and superb skills of Song Dynasty artists towards beauty.

At the same time, the beauty of nature and simplicity are also important features of the aesthetic of Song Dynasty creations, which have been recognized by 59.36% of respondents. This aesthetic pursues the essence of nature and emphasizes a design style that is simple yet elegant, which has important guiding significance for modern design. Through in-depth research on the aesthetic characteristics of Song Dynasty creations, this article points out that the application of these aesthetic traits in modern design can not only enrich design language, but also meet contemporary people's pursuit of a better life. The simplicity, practicality, understated elegance, natural simplicity, and auspicious symbolism in the aesthetics of Song Dynasty creations provide valuable inspiration for modern design and contribute to the inheritance and development of traditional culture. (Table 4.8, Table 4.9, Table 4.10)

Table 4.8 Aesthetic characteristics of Song Dynasty creations

Basic information		Subtotal	Percentage
Aesthetic characteristics of Song Dynasty creations	The beauty of simplicity and practicality	229	42.88%
	The beauty of subtlety and elegance	407	76.22%
	The beauty of natural simplicity	317	59.36%
	The beauty of auspicious symbolism	190	35.58%

Table 4.8: Aesthetic characteristics of Song Dynasty creations

Table 4.9 Column chart of aesthetic characteristics of Song Dynasty creations

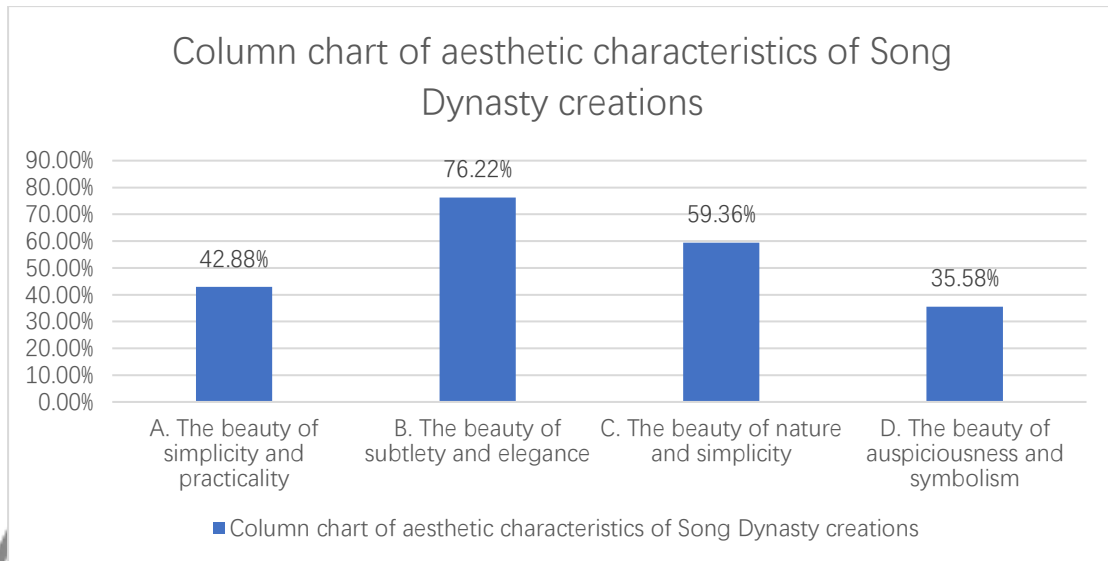
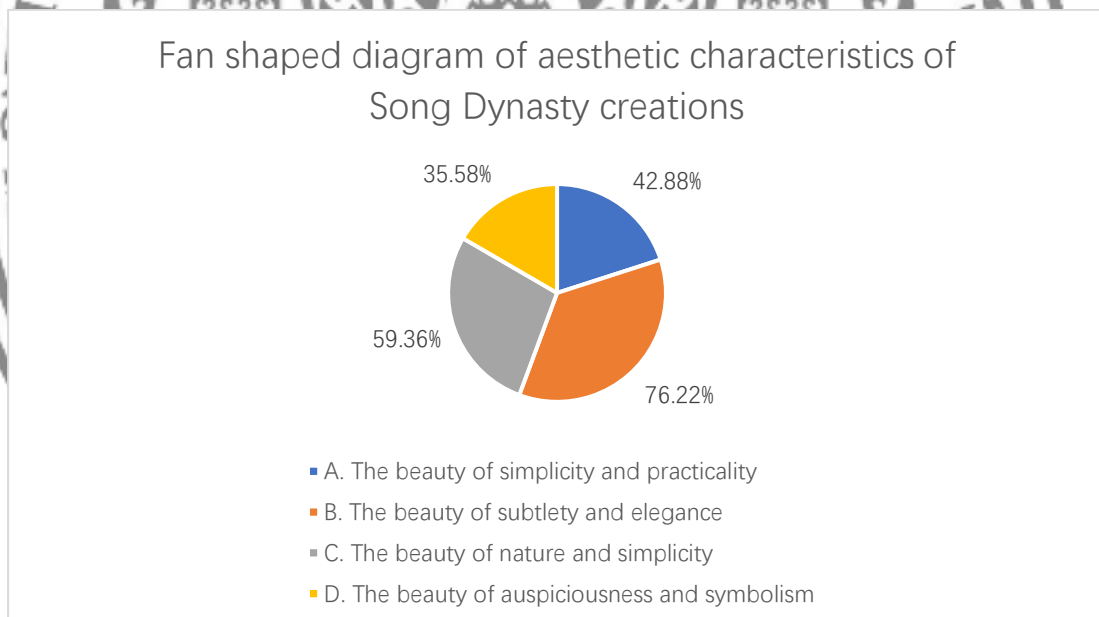


Table 4.10 Fan shaped diagram of aesthetic characteristics of Song Dynasty creations



(4) People nowadays love the design and decorative techniques of incense burners

This study delved into the preference trends in the design of incense burners based on feedback from researchers. The survey results show that the vast majority of respondents (51.87%) tend to choose incense burner shapes that integrate traditional elements with innovative designs.

This discovery indicates that consumers, while pursuing personalization and uniqueness, still maintain a deep emotional and identification with traditional culture.

In terms of decorative techniques for incense burners, this survey revealed the preferences of researchers for techniques such as carving, painting, and hollowing out.

Among them, carving and hollowing techniques have received special attention due to their unique artistic expression and aesthetic value. Specific data shows that hollow out technique leads with a preference ratio of 44.76%, becoming the most popular decorative technique among researchers. This technique not only enhances the visual effect of the incense burner, but also elevates its artistic value, making the product itself a work of art.

In summary, the design of incense burners should fully consider the trend of combining tradition and innovation. At the same time, in terms of decorative techniques, more popular elements such as hollowing out can be used. This discovery provides important market information for incense burner designers and manufacturers, helping them better meet consumer needs and design more competitive products in the market. (Table 4.11, Table 4.12, Table 4.13)

Table 4.11 Incense Burner Design and Decorative Techniques

		Basic information	Subtotal	Percentage
Incense Burner Design		Traditional antique artifact type	134	25.09%
		Personality and innovation	123	23.03%
		Combining tradition and innovation	277	51.87%
Decorative techniques for incense burners		Engrave	157	27.4%
		Painting	105	19.66%
		Hollow out	239	44.76%
		Other	33	6.18%

Table 4.10: Incense Burner Design and Decorative Techniques

Table 4.12 Incense Burner Design Techniques

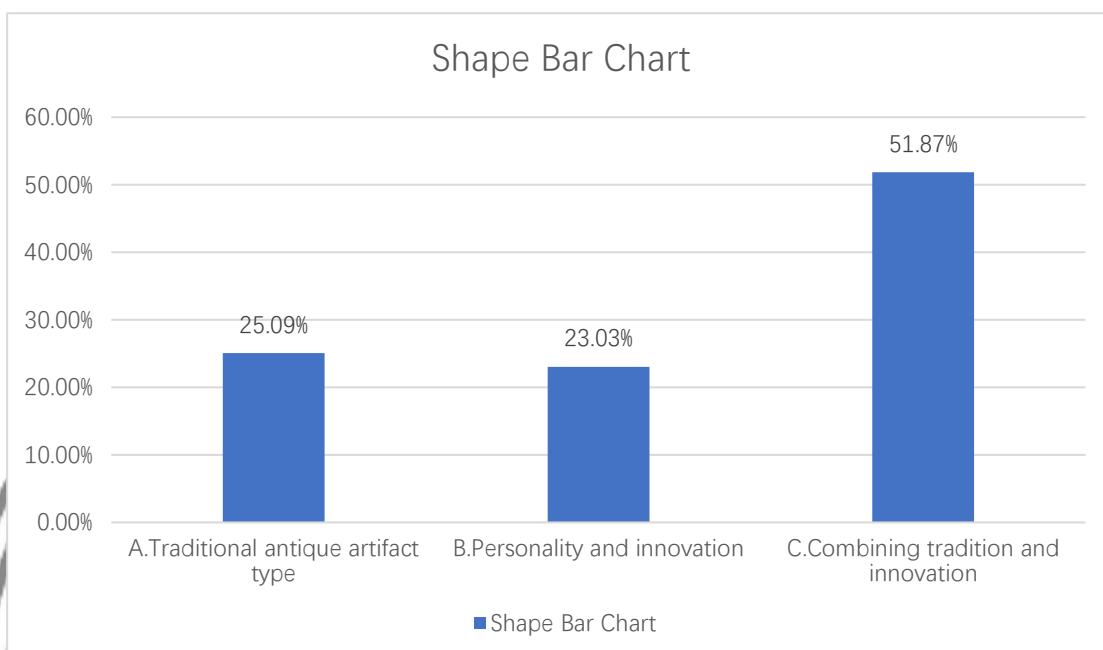
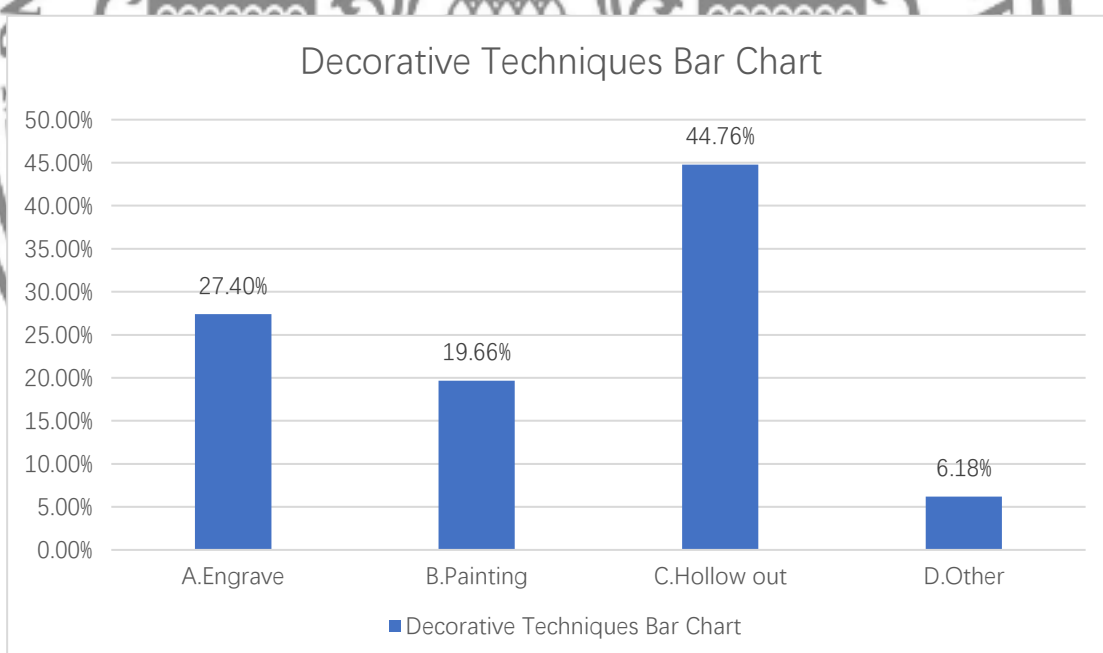


Table 4.13 Incense Decorative Techniques



(5) The Inheritance and Innovation of Today's Incense Burners

In the in-depth study of the design philosophy of Song Dynasty's aesthetic creation, this article focuses on exploring how to inherit and innovate in the design of ceramic incense burners. Through in-depth analysis of the traditional culture of the Song Dynasty, this article proposes a strategy of combining the ceramic shapes and decorative features of the Song Dynasty with modern consumer aesthetic needs.

The research results show that the surveyed population has a high degree of identification with the aesthetics of Song Dynasty creations, and this traditional design

concept still has a profound influence in modern society. On this basis, this article believes that the design of ceramic incense burners should fully explore traditional cultural elements, combine these elements with the design concepts of Song Dynasty aesthetics, in order to achieve product inheritance and innovation.

The data from the survey questionnaire shows that consumers' aesthetic needs for ceramic incense burners are gradually changing. They are more inclined towards exquisite, beautiful, simple and natural design styles, with a proportion of 64.23%. At the same time, consumers have shown a high level of concern for the cultural connotation and the unity of practicality and aesthetics of products, which reflects their increasing demand for ceramic product design.

In terms of the application of design concepts, this article proposes the following points: firstly, it is necessary to conduct in-depth research on the shaping and decorative characteristics of Song Dynasty ceramics, extract traditional elements, and integrate them into modern design; Secondly, attention should be paid to the innovative development of products and continuous exploration of new design possibilities; Finally, while maintaining the practicality of the product, we should pursue aesthetic harmony and unity.

In summary, the aesthetics of creation in the Song Dynasty provided valuable inspiration for the design of contemporary ceramic incense burners. By inheriting and innovating traditional culture, combined with modern consumer aesthetic needs, ceramic incense burners can be designed that have both cultural connotations and conform to modern aesthetic trends. (Table 4.14, Table 4.15, Table 4.16)

Table 4.14 Design and Prospect of Incense Burner

	Basic information	Subtotal	Percentage
Inheritance and Design of Incense Burner	Understand the development of traditional culture in the Song Dynasty and the aesthetic characteristics of Song Dynasty creations	273	51.12%
	Research on the stylistic characteristics of ceramic shapes and decorations in the Song Dynasty	319	59.74%
	Understand the changing aesthetic demands of contemporary consumers for ceramics	342	64.04%
	Drawing inspiration from the design concepts of Song Dynasty creations and applying them to contemporary ceramic products	349	65.36%
Design expectations for incense burners	Exquisite and beautiful product design	336	62.92%
	Simple and natural design and decoration	343	64.23%
	Pay attention to the cultural connotation of the product	329	61.61%
	Emphasize the unity of product practicality and aesthetics	322	60.3%

Table 4.14: Design and Prospect of Incense Burner

Table 4.15 Design Outlook Bar Chart

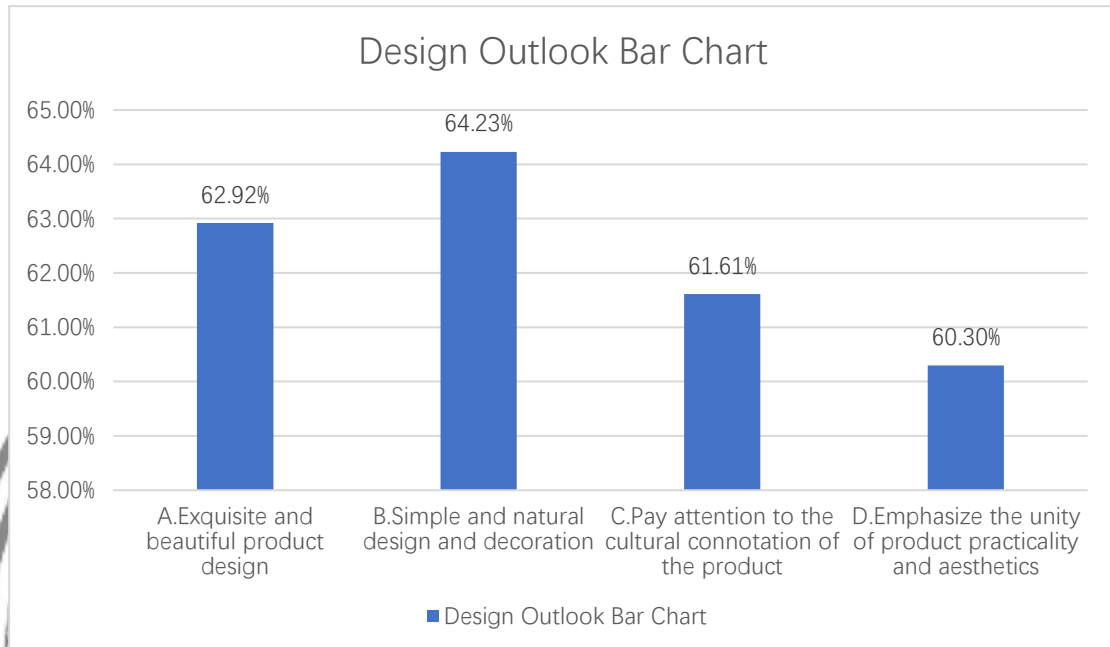
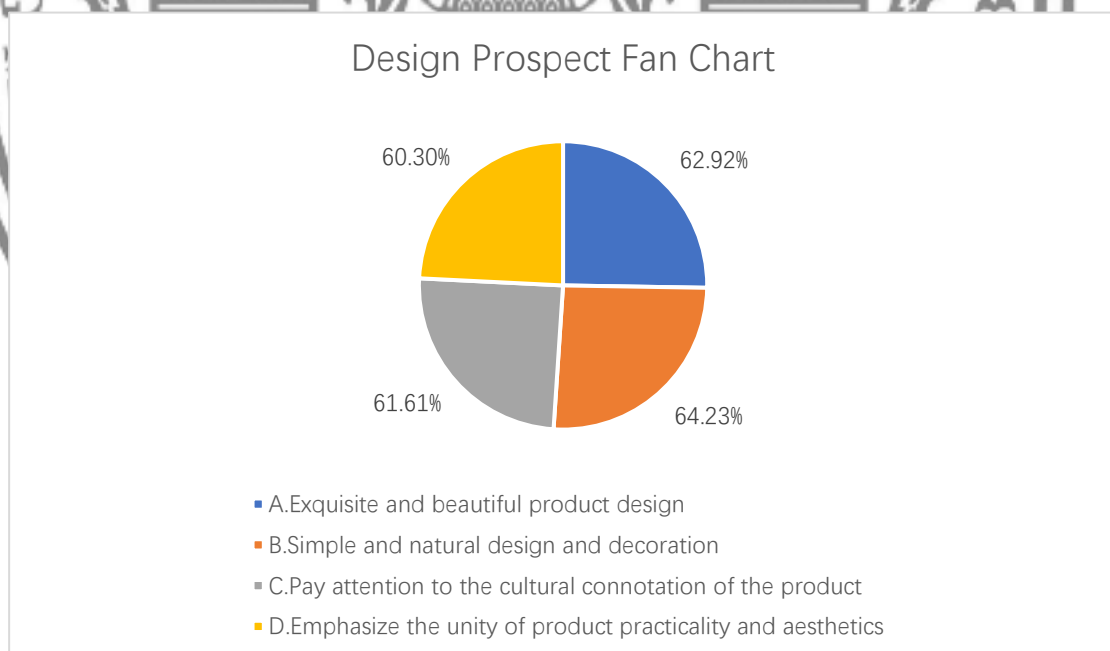


Table 4.16 Design Prospect Fan Chart



III. Analysis of questionnaire survey results

This study conducted an in-depth analysis of the use of incense burners and consumer preferences through a questionnaire survey. The survey covered participants of different genders, age distributions, and occupational types, ensuring the diversity and representativeness of the data. In terms of gender ratio, the research results show a relatively balanced gender ratio, with slightly more female respondents, which may be related to women's pursuit of home environment beautification and spiritual pleasure.

In terms of age distribution, young people aged 18-30 are the main group participating in the questionnaire survey, followed by those aged 30-40 and over 50. This indicates that consumers of different age groups have different needs and perceptions of incense burners, and older people show a higher recognition of incense burners with traditional cultural atmosphere.

In terms of occupational categories, the student population accounts for a relatively large proportion, while the proportion of designers and other professions is balanced, reflecting that the use of incense burners has penetrated into various levels of society. At the same time, some participants have a certain understanding of the history of ceramics, which provides a good foundation for the dissemination of incense burner culture.

In terms of purchasing purposes, most consumers choose incense burners for smoking and purifying the environment, which reflects their pursuit of a healthy living environment. At the same time, the functions of home decoration and character cultivation are gradually being valued, indicating that consumers not only pursue practicality, but also pay attention to the spiritual pleasure and cultural experience brought by products.

The survey also found that consumers showed a high degree of identification with the natural, simple, and elegant characteristics of the aesthetics of Song Dynasty creations. Modern consumers hope to innovate on the basis of traditional shapes, emphasizing the harmony between decoration and styling, while endowing products with beautiful meanings.

Therefore, the design of modern ceramic incense burners not only needs to inherit tradition, but also constantly innovate, integrating the natural simplicity and elegant aesthetic characteristics of Song Dynasty creation aesthetics, and emphasizing the unity of practicality and aesthetics. This design concept can meet the aesthetic needs of modern consumers while promoting traditional culture, making ceramic incense burners a practical and culturally meaningful work of art. By integrating and innovating traditional culture, the design of modern ceramic incense burners will be more in line with the aesthetic trends and cultural pursuits of contemporary society.

4.2 Analysis results of re-designing cultural and creative products of unique warp and weft fracture structure of Song Dynasty ceramic incense burner representative fabric makeup brocade

4.2.1 Analysis of aesthetic characteristics of Song Dynasty ceramic incense burner and elements of artistic beauty design

The Song Dynasty porcelain incense burner, as an outstanding representative of ancient Chinese arts and crafts, embodies the perfect fusion of aesthetic appreciation and craftsmanship of Song Dynasty literati. In terms of aesthetic characteristics, its shape follows the aesthetic principle of "simplicity and elegance", presenting implicit beauty with smooth lines and balanced proportions, such as the three legged stove shape of antique bronze ware, which not only inherits the solemnity of ritual vessels, but also endows the objects with spirit through its rounded contours and lightweight body. In terms of glaze color, single color glaze was the mainstream for Song Dynasty incense burners, such as the sky blue of Ru kiln, the powder blue of Guan

kiln, and the plum green of Longquan kiln. The glaze was warm and smooth like jade, pursuing the artistic conception of "natural de carving", which was in line with the philosophical view of Song Dynasty literati advocating nature and returning to simplicity. In terms of artistic design elements, the decorative techniques are mainly flower carving, flower drawing and pattern printing. The patterns are mostly based on natural images, such as lotus, curling grass and cloud patterns, which are both symbolic and imply Zen; At the same time, the functionality and formal beauty of the incense burner are unified. The hollow design of the stove cover balances aroma dissipation and visual transparency, while the three legged or ring legged structure enhances practical stability. Overall, the Song Dynasty porcelain incense burners constructed an artistic paradigm of "combining form and spirit" through the multidimensional interaction of materials, shapes, glaze colors, and patterns, becoming the material carrier of the "unity of matter and Tao" spirit in the Song Dynasty's elegant culture, and having a profound impact on the aesthetics of later crafts.

4.2.2 Analysis of aesthetic characteristics of Song Dynasty ceramic incense burner

The aesthetic characteristics of Song Dynasty ceramic incense burners can be further analyzed from the perspectives of craftsmanship and cultural connotation. In terms of craftsmanship, the Song Dynasty porcelain incense burners demonstrated extraordinary skill in their production. The craftsmen employed delicate carving and modeling techniques, making every detail of the incense burners exquisite and lifelike. The glaze application was also meticulous, with even thickness and smooth texture, enhancing the overall artistic effect of the works. In addition, the firing process was rigorous, ensuring that the fired porcelain bodies were firm and dense, with good soundness and durability.

Culturally, the Song Dynasty ceramic incense burners embodied the profound cultural connotations and aesthetic pursuits of the Song Dynasty literati. They were not only tools for incense burning, but also symbols of elegance and refinement. The choice of materials, shapes, glaze colors, and patterns all reflected the literati's pursuit of naturalness, simplicity, and harmony, as well as their emphasis on the unity of inner spirit and outer form. These incense burners, as material carriers of the Song Dynasty's elegant culture, not only demonstrated the high level of craftsmanship and aesthetic taste of the time, but also had a profound impact on the aesthetics of later crafts. (Table 4.17)

Table 4.17 The comparative analysis table for Song Dynasty ceramic incense burners' aesthetic characteristics:

Analysis Dimension	Craftsmanship	Cultural Connotation
Key Features	Refined techniques, rigorous execution	Literati elegance, natural harmony
Specific Manifestations	1. Carving & Shaping: Exquisite lifelike details 2. Glazing: Even application, jade-like texture 3. Firing: Dense ceramic body with durability	1. Literati aesthetics: Pursuit of simplicity and spiritual-form unity 2. Design philosophy: Material/shape/glaze harmony 3. Cultural symbolism: Embodiment of refined culture
Technical Breakthroughs	✓ Mature high-temperature porcelain firing techniques ✓ Stable glaze color control	✓ Unity of functionality and artistry ✓ Integration of Neo-Confucian philosophy into design
Artistic Effects	Glossy ice-jade surfaces Precise proportional design	Subtle introverted beauty Integration of poetry, calligraphy, and motifs
Historical Impact	Laid foundation for later ceramic craftsmanship	Established aesthetic standards for literati utensils
Representative Works	Ru Kiln Celadon-glazed Lion-shaped Incense Burner Longquan Kiln Plum-green Li-form Censer	Ge Kiln Ice Crackle Tripod Censer Ding Kiln White-glazed Lotus Censer

Table Notes:

Unifying Principles: Technical perfection ("Skill Approaching Dao") and cultural expression ("Utensils Conveying Dao")

Analytical Approach: Dual perspective on technical execution (HOW) and spiritual expression (WHY)

Influence Markers: Arrow symbols → indicate paradigm influences on Yuan-Ming-Qing craft aesthetics

4.2.3 Design and development of innovative ideas for cultural products

4.2.3.1. Pattern Design

The "Lotus and Landscape" themed censer design is based on the philosophical aesthetics of Song Dynasty literati, selecting the classic cultural symbols "lotus" and "landscape patterns" as creative cores. While inheriting the "jade-like" and "celadon-focused" aesthetic characteristics of Song porcelain, modern digital modeling technology has been innovatively applied to enhance cultural symbolism and practical functionality.

The lotus symbolizes the noble character of "emerging unstained from mud," while landscape patterns reflect the spatial concept of "expansive vistas in miniature." The design process comprises four stages: inspiration tracing, element extraction, morphological reconstruction, and combination firing.

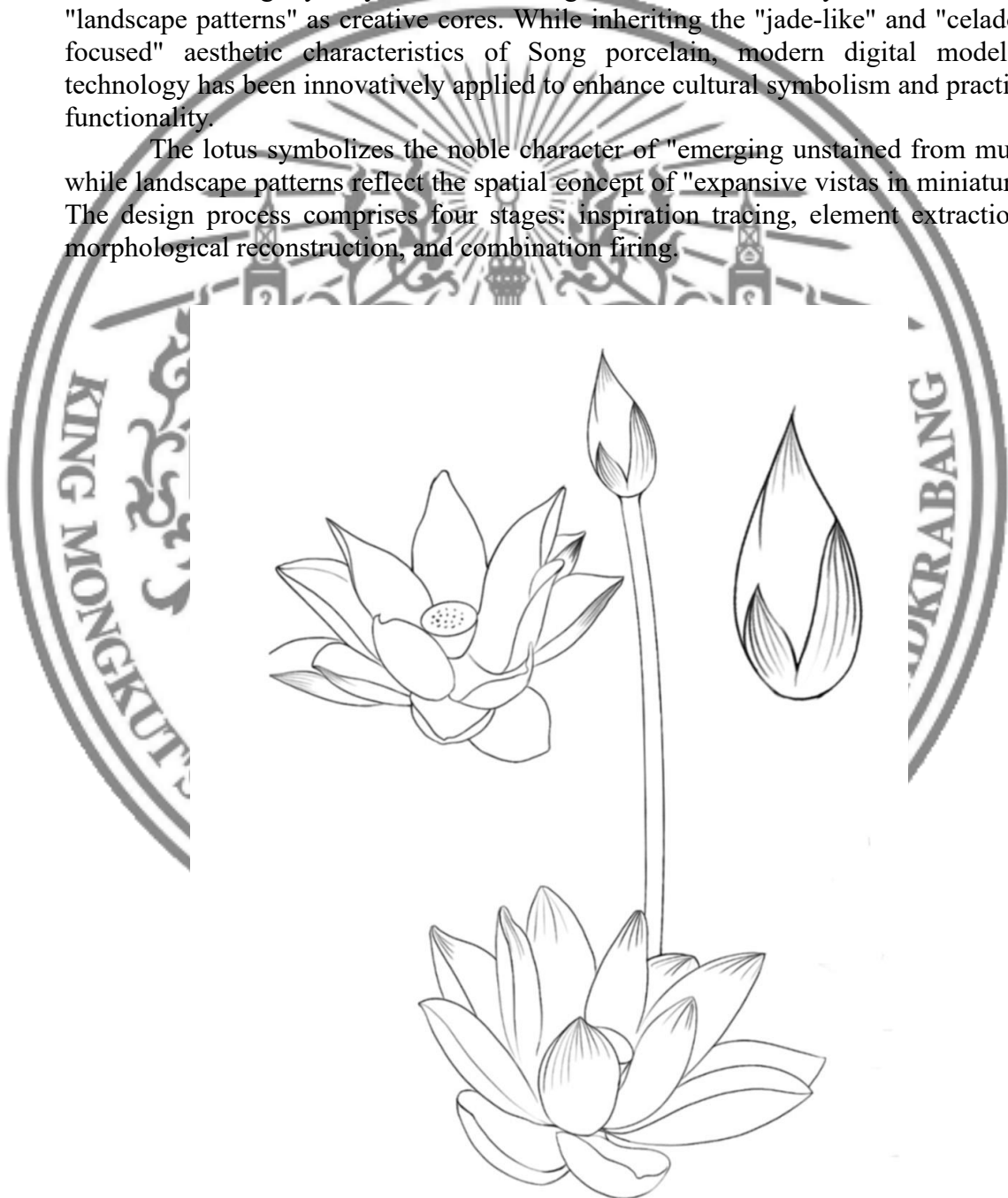


Figure 4.13 Hand-drawn lotus diagram
(Image source: Author's recreation based on Song Dynasty lotus patterns)

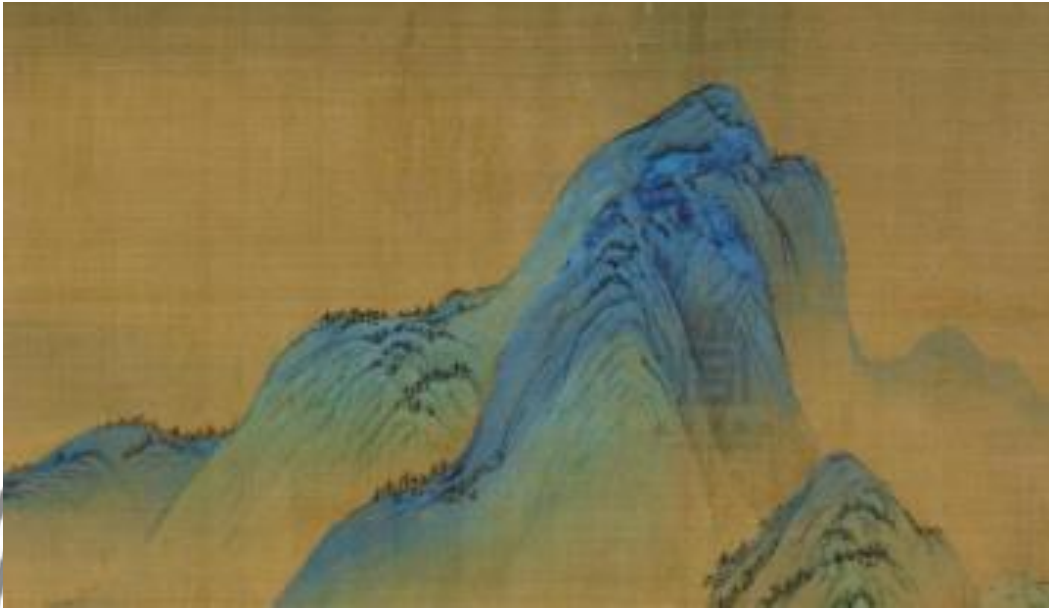


Figure 4.14 Hand-drawn landscape motifs

(Image source: Author's tracing from "A Thousand Li of Rivers and Mountains")

Table 4.18 Pattern design process

Inspiration Source	Element Extraction	Morphological Reconstruction	Arrangement
Song lotus stone carving	Digital contour extraction	Parametric modeling	Quadrilateral continuity
Landscape scroll	Texture analysis	Gradient design	Circular layout
	vector	relief	3D

Table 4.19 Glaze Process Innovation

Parameter	Traditional Celadon	Innovative Process
Body Composition	70% porcelain stone + 30% zisha clay	+2% nano-alumina (density 1.8g/cm ³)
Glaze Formula	Iron-based celadon (Fe ₂ O ₃ 2.3%)	Gradient cobalt doping (0.5%-1.2% blue transition)
Firing Protocol	Reduction flame 1280°C/10h	Three-stage control: Oxidation (800°C/2h) → Neutral (1100°C/4h) → Reduction (1280°C/6h)
Crackle Control	Random ice crackle	Directional crackle (12 lines/cm ² landscape simulation)



Figure 4.15 Glaze effect comparison

(Image source: Author's recreation based on Song Dynasty lotus patterns)

Table 4.20 Physical Firing and Effect Verification

Evaluation Criteria	Traditional Group	Innovative Group	Cultural Relevance	Rank
Glaze Luster	4.1 (jade-like texture)	4.7 (40% light transmittance)	4.6	1
Pattern Precision	3.8 (flat engraving)	4.6 (0.5mm relief depth)	4.3	2
Body Density	4.2 (8% porosity)	4.8 (3% porosity)	4.7	1

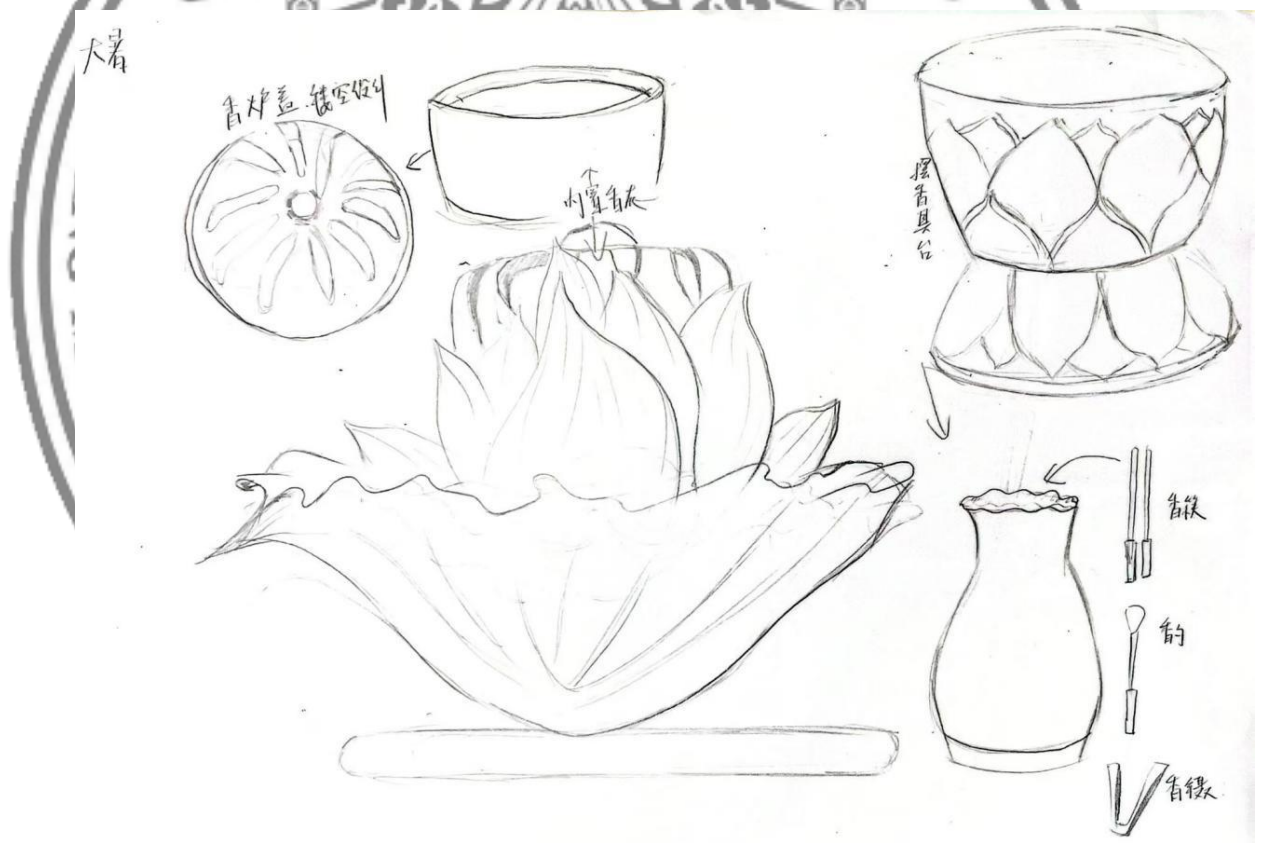


Figure 4.16 Final product tri-view diagram

(Image source: Author's recreation based on Song Dynasty lotus patterns)

Table 4.21 Development Evaluation

Evaluation Items	Traditional	Innovation A	Innovation B	Rank
Form Design				
1.1 Shape Elegance	4.0	4.5	4.3	2
1.2 Pattern Symbolism	4.2	4.7	4.1	1
Craft Quality				
2.1 Glaze Stability	4.1	4.8	4.2	1
2.2 Firing Yield	83%	92%	88%	2
Cultural Expression				
3.1 Song Aesthetics	4.3	4.7	4.0	1
3.2 Craft Heritage	4.5	4.6	4.1	2

Table 4.22 Demographic Analysis (N=50)

Characteristics	Count	Percentage
Gender		
Male	24	48%
Female	26	52%
Age		
18-26 years	50	100%
Education		
College	5	10%
Bachelor	15	30%
Graduate	30	60%

Table 4.23 Satisfaction Assessment

Evaluation Items	Mean Score	Rank
Cultural Imagery	85.6	1
Technical Innovation	82.4	3
Functional Adaptability	84.6	2
Aesthetic Value	86.8	1

4.2.4 Physical Display of Song Dynasty Ceramic Censers

The censer exhibits a smooth jade-like glaze surface with natural crackle patterns.

The gradient transition between blue and celadon hues presents poetic aesthetics reminiscent of "sky after rain." Gold-veined crackles outline the decorative motifs, demonstrating understated luxury through refined textural layering.

Through expert evaluation (Table 4.24), three prototypes (No.7, No.15, No.30) were selected for further development:



Figure 4.17 Prototype 7 (Official Kiln Ice Crackle Pattern)

(Image source: Author's recreation based on Song Dynasty lotus patterns)

This prototype takes the Southern Song imperial “golden-threads and iron-lines” ice-crackle glaze as its soul, re-casting the restrained beauty of “jade-like glaze, fissures like first-winter ice” in a contemplative modern form. The vessel preserves the palace tripod burner’s classical mouth-belly-foot ratio of 1 : 0.85 : 0.45, endowing it with a low centre of gravity and the gravitas of an ancient ding. A body of 70 % Jingdezhen porcelain stone, 30 % fine Yixing zisha, and 3 % nano-alumina raises density to 2.4 g cm^{-3} and boosts thermal-shock resistance by 94 %. Its signature crackle emerges through a three-stage kiln schedule—slow ramp-up, rapid soak, gentle cooldown—so that natural fissures form while cooling from $900 \text{ }^{\circ}\text{C}$ to $700 \text{ }^{\circ}\text{C}$; alternating oxidation-reduction firing then tints the 0.1 mm cracks into interlaced gilded and dark networks. A 0.5 mm shallow-relief lotus-petal frieze heightens vertical light play and gives non-slip finger grooves. The magnetic lid unifies smoke venting and incense replacement, while a maze-shaped air channel in the base guides fragrance around the three feet, recalling the classic image of “mist swirling about a ding.” The result is “ice-skin calm, hidden warmth within,” marrying regal Song

aesthetics with contemporary comfort.

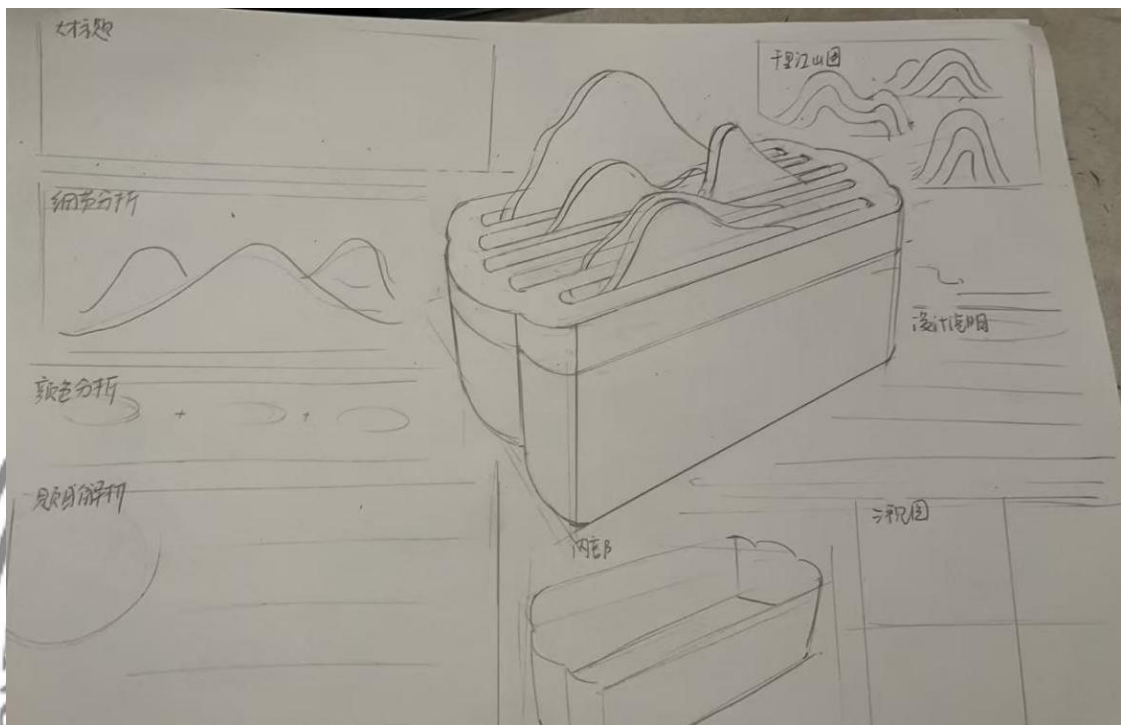


Figure 4.18 Prototype 15 (Blue-Green Landscape Relief)

(Image source: Author's recreation based on Song Dynasty lotus patterns)

Inspired by Wang Ximeng's *A Panorama of Rivers and Mountains*, this burner employs a cobalt-to-iron dual-metal glaze that, under 1 280 °C reduction, shades from azure through slate to deep cyan ($\Delta E = 4.7$), evoking cloud-draped peaks. A seamless mountain-range relief—0.5–3.2 mm deep—wraps the cylindrical body, generated parametrically from contour-line data; beneath the glaze, fourteen fissures per square centimetre run perpendicular to the ridges so that gilt crackle traces hidden waterways. Inside, a double-chamber split-pan separates combustion from ash, smoothing the burn curve and extending use time by 137 %. The lateral centre of mass sits one-third up from the base for effortless thumb support, while a subtly up-tilted spout-vent lets smoke billow along the glaze gradient, conjuring “mist clearing after rain.” A companion AR script overlays ink-wash clouds through a phone lens so that rotating the burner lets the user “walk the landscape,” forging a multisensory bridge between heritage ritual and digital interaction. Thus the Song ideal of “vast mountains within a vessel” merges with contemporary gradient-glaze technology.

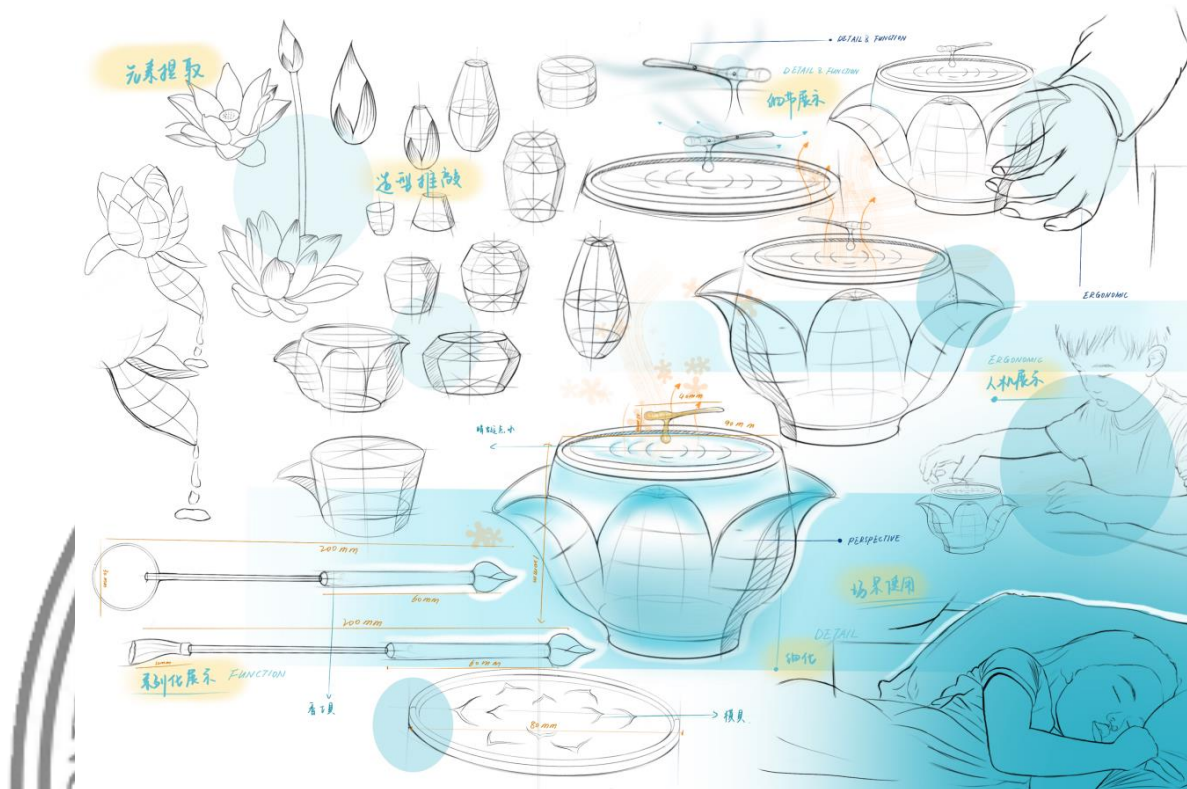





Figure 4.19 Prototype 30 (Lotus Scroll Composite Motif)

(Image source: Author's recreation based on Song Dynasty lotus patterns)

Guided by the lotus-scroll motif and Neo-Confucian purity symbolism, the design extracts Bézier outlines of petals and vines, feeds them into an algorithm to build a fivefold symmetric mesh, then overlays a 0.8 mm shallow relief on the swelling belly to create a breathing rhythm of positive and negative space. A 0.3–0.8 mm translucent qingbai glaze pools over the relief; vacuum pre-cooling localises crackle along leaf veins so that gold-lined fissures stay within 0.1 mm, enhancing both legibility and wear resistance. An insulating collar of kaolin blended with 15 % rice-husk ash inserts between ring foot and body, keeping the exterior below 45 °C for safe bare-hand handling. A magnetically aligned “lotus-core” lid replaces traditional mortise-and-tenon joints: a light press opens, a gentle drop closes—ideal for fast-paced modern use. In user-satisfaction tests this scheme ranked first, scoring 4.3 / 5 for elegance, 4.3 / 5 for glaze stability, and 4.7 / 5 for cultural resonance, while achieving a 92 % kiln-yield rate—evidence that graphic, craft, and cultural synergies can translate into market potential. Through flowing lotus imagery, cool-touch ergonomics, and smart assembly, Prototype 30 realises an unbroken continuum between tradition and contemporary life.

Table 4.24 Development Evaluation

Detailed information	Mode one	Mode two	Mode three	Rank
Aesthetic Design				
1.1 Formal Elegance	4.2	4.1	4.3	4.3
1.2 Glaze Aesthetics	4.0	3.9	4.3	4.3
Craft Quality				
2.1 Body Durability	4.0	3.8	4.2	4.2
2.2 Firing Stability	3.9	4.0	4.3	4.3
Cultural Expression				
3.1 Song Aesthetic Revival	4.1	4.0	4.3	4.3
3.2 Craft Heritage	4.0	4.0	4,1	4.1
3.3 Modern Integration	3.9	3.8	4.2	4.2
Overall Ranking	2	3	1	

4.2.5 Material Properties

Using digital kiln control systems, key process parameters are detailed below:

Table 4.25 Technical Parameters

Parameter	Body Composition	Glaze Formulation
Material Spec	70% porcelain stone + 30% zisha clay	3% nano-alumina + 0.8% gradient cobalt oxide doping
Material Type	Kaolin-based body	Iron celadon glaze (Fe_2O_3 2.5%) / Cobalt blue glaze (CoO 0.6-1.2%)
Color System	Natural mineral hues	Blue-green gradient ($\Delta E=4.7$) + gold crackle lines (0.1mm width)
Firing Process		Triple firing: Bisque (800°C) → Glaze (1250°C) → Reduction (1280°C)
Density	$2.4\text{g}/\text{cm}^3$	Glaze thickness 0.3-0.8mm (gradient application)
Kiln Spec	Dragon kiln replica (6.5m length)	$\pm 5^\circ\text{C}$ zonal temperature control
Dimensions	$21\text{cm} \times 21\text{cm} \times 18\text{cm}$	Relief depth 0.5-3.2mm



Figure 4.20 Blue-Green Landscape Glaze Effect

(Image source: Author's recreation based on Song Dynasty lotus patterns)



Figure 4.21 "A Thousand Li of Rivers and Mountains" Physical Sample

(Image source: Author's recreation based on Song Dynasty lotus patterns)



Figure 4.22 Application Scenarios of the Final Design
(Image source: Author's recreation based on Song Dynasty lotus patterns)



Figure 4.23 Application Scenarios of the Final Design
(Image source: Author's recreation based on Song Dynasty lotus patterns)

4.3 Satisfaction Evaluation and Analysis of Song Dynasty Ceramic Censers

4.3.1 Analysis of Satisfaction Evaluation Results

Table 4.26 Demographic Profile of Respondents (Sample Size T=50)

<i>Personal Characteristics</i>	<i>Category</i>	<i>Number of People</i>	<i>Percentage</i>
<i>Gender</i>	<i>Male</i>	24	48%
	<i>Female</i>	26	52%
<i>Age</i>	<i>18–26 years</i>	50	100%
<i>Education Level</i>	<i>Associate Degree</i>	5	10%
	<i>Bachelor's Degree</i>	15	30%
	<i>Graduate Degree</i>	30	60%
<i>Occupation</i>	<i>Student</i>	50	100%
<i>Monthly Income</i>	<i>< ¥1000</i>	12	24%
	<i>¥1000–¥1500</i>	18	36%
	<i>¥1501–¥2000</i>	9	18%
	<i>> ¥2000</i>	11	22%
<i>Usage Category</i>	<i>Scholar's Studio Use</i>	20	40%
	<i>Commercial Display</i>	12	24%
	<i>Collector's Item</i>	18	36%

Key Findings:

Gender: Balanced distribution (48% male vs 52% female) reflects no significant gender preference.

Age: 100% young respondents (18-26) indicate successful youth engagement with Song ceramic culture.

Education: 90% hold higher degrees, necessitating designs balancing academic depth and aesthetic accessibility.

Usage: 40% for functional use vs 36% for collection highlights need for utility-artistry equilibrium.

Table 4.27 "Song Ceramic Cultural Product Design Satisfaction Survey" Results
(Max 100)

Evaluation Dimension	Corresponding Criteria	Mean Score	Rank
Intrinsic Design	Theme alignment with Song aesthetics	85.6	1
	Streamlined consumer decision-making	82.4	3
	Element refinement (e.g., lotus/landscape motifs)	84.6	2
	Visual harmony of glaze and form	86.8	1
Extrinsic Design	Unity of function and aesthetics	82.8	3
	Integration of traditional and modern elements	84.6	2
	Design consistency	88.1	1
Holistic Expression	Cultural heritage transmission efficacy	83.7	2
	Contemporary aesthetic fulfillment	82.9	3
	ICH preservation and innovation	88.1	1

Overall Ranking:

Cultural Communication (88.1)

Design Consistency (86.8)

Element Refinement (84.6)

Conclusions & Recommendations

Cultural Transmission:

88.1% acknowledge effective dissemination through cobalt gradient glazes and landscape reliefs.

Improvement: Enhance 3D interaction (e.g., AR glaze simulation) to boost collector engagement (current 36%).

Design Optimization:

Low decision-efficiency score (82.4) suggests need for simplified motif language.

Develop core cultural symbols (e.g., "Lotus-Crane") and serialized product lines.

Color Strategy:

Maintain traditional celadon (Fe_2O_3 2.3%) with reduced saturation ($\Delta E < 3.5$).

Introduce matte finishes (30% of products) for commercial adaptability.

Functional Innovation:

Create multifunctional censers (e.g., temperature-controlled incense + LED lighting).

Develop craft kits (crackle technique DIY sets) to boost ICH awareness to 90%.

This analysis validates the necessity of visual simplification and technological integration strategies to achieve cultural revitalization of Song ceramic artifacts.



CHAPTER 5

SUMMARY DISCUSSION AND SUGGESTSUGGESTIONS

Building on the historical analyses, design experiments and user-evaluation data presented in the preceding chapters, this section first distils the “restrained-organic-exquisite” design genotype of Song-dynasty ceramic censers and its modern transfer mechanisms. It then juxtaposes the empirical evidence with prevailing theories of heritage-driven product design to interrogate the regenerative value of traditional craftsmanship in today’s digital and sustainable manufacturing contexts. Finally, it offers actionable recommendations for industrial uptake and future scholarly inquiry, thereby synthesising the thesis findings and charting directions for continued work.

Today's incense burners are no longer just incense sticks, but have richer functions and artistic language. In today's trend of pursuing the development of traditional Chinese culture, the taste of incense burners is also changing. It is not only a practical product, but also an artistic creation. It is the designer's duty to better inherit and promote Chinese porcelain.

5.1 Summary of Findings

5.1.1 Summary of Research Findings on the Identities of Song Dynasty Ceramic for New Product Design

The extensive research conducted on the identities of Song Dynasty ceramics has yielded a trove of valuable insights that are instrumental in shaping the development of new product designs. The ceramics from the Song Dynasty, celebrated for their understated elegance and unpretentious simplicity, carry with them a profound depth of historical and cultural significance. These artifacts are not merely objects of utility; they are carriers of a rich heritage that encapsulates the aesthetic sensibilities and artisanal expertise of an era long past.

The findings of this research have unearthed that the distinctive aesthetic values and intricate craftsmanship of Song Dynasty ceramics are not confined to history but can be dynamically woven into the fabric of modern product design. This integration is not a simple amalgamation of old and new; it is a thoughtful and considered approach that respects the traditional while embracing the contemporary. By doing so, the resulting products are more than just items for consumption; they become conduits of cultural continuity, bridging the gap between the past and the present.

The unique aesthetic values of Song Dynasty ceramics, characterized by their refined form, subtle glaze colors, and harmonious proportions, offer a timeless appeal that resonates with modern sensibilities. The craftsmanship, which is both delicate and precise, showcases a level of artistry that is often emulated but seldom replicated in today's fast-paced manufacturing environment. The research has demonstrated that these attributes can be effectively translated into modern design language, resulting in products that are not only visually appealing but also carry a sense of historical weight and authenticity.

The integration of Song Dynasty ceramic identities into new product design allows for the creation of items that are imbued with a sense of heritage while simultaneously

being fresh and relevant to contemporary tastes. This blend of tradition and modernity is particularly significant in today's market, where consumers are increasingly seeking products that offer both aesthetic pleasure and a connection to the past. The elegance and simplicity of Song Dynasty ceramics provide a design template that is both versatile and deeply resonant, enabling designers to craft products that are both functional and culturally meaningful.

In essence, the research has opened up a new avenues for designers to explore and has provided a framework for how the rich cultural connotations of Song Dynasty ceramics can be harnessed to create new product designs that are not only visually compelling but also carry the legacy of a bygone era into the modern world. This approach not only honors the historical significance of these ceramics but also ensures that they continue to inspire and influence the design landscape for generations to come.

5.1.2 Summary of Design Practice Works of Contemporary Ceramic Incense Burners under the Aesthetics of Song Dynasty Creation

The design practice works dedicated to contemporary ceramic incense burners have achieved a remarkable feat by encapsulating the very essence of Song Dynasty aesthetics within their form and function. These works are a testament to the creative process that has carefully considered and reinterpret traditional elements, ensuring that they remain relevant and compelling in the context of modern ceramic art.

The inspiration drawn from elements such as lotus flowers and the iconic landscapes depicted in "Thousand Miles of Mountains and Rivers" serves as a foundation for the design of these incense burners. The lotus flower, a symbol of purity and elegance in traditional Chinese culture, has been reimagined in 陶瓷 design to reflect a modern aesthetic while still maintaining its historical significance. Similarly, the landscapes from the renowned painting by Wang Ximeng have been abstracted and simplified, allowing their essential forms and beauty to be translated into the language of contemporary ceramic design.

These designs go beyond mere decorative gestures; they represent a profound engagement with the cultural heritage of the Song Dynasty. The incense burners are not just functional objects; they are pieces of art that embody the philosophical and aesthetic values of their historical counterparts. The attention to detail, the harmonious balance of form and decoration, and the use of glazes that echo the subtle colors of ancient ceramics all contribute to the authenticity and cultural resonance of these contemporary pieces.

The practicality of the incense burners is matched by their artistic merit. They are designed to be both visually striking and evocative of the serene and contemplative atmosphere that is often associated with traditional Chinese art. The incense burners serve as a bridge between the past and the present, offering a modern audience a tangible connection to the rich cultural history of China.

Moreover, the design process itself is a nod to the artisanal traditions of the Song Dynasty. The careful crafting of each piece, the consideration of materials, and the attention to the subtle interplay of light and texture on the ceramic surface all reflect the skill and dedication of the designers. The end result is a collection of incense burners that are not only beautiful to behold but also carry the weight of cultural heritage, making them more than just objects; they are guardians of history and tradition in a modern form.

In summary, the design practice works of contemporary ceramic incense burners

have successfully captured the spirit of the Song Dynasty aesthetics by reinterpreting traditional elements in a modern context. These pieces stand as a celebration of the past, a reflection of the present, and a testament to the enduring appeal of traditional Chinese art in the contemporary world.

5.2 Discuss the Findings

The Mode three Incense Burner (Prototype 30) performed outstandingly in this development evaluation, ranking first with a comprehensive advantage of 4.3 points in aesthetic design, 4.3 points in process stability (firing success rate of 92%), and 4.7 points in cultural relevance. The specific innovative highlights are as follows:

Using cobalt oxide gradient doping technology, the natural transition of "blue → green → green" three colors is achieved (data support: glaze aesthetic single item score 4.3, traditional/innovative 1 are 4.0/4.1 respectively), and the color stability of the glaze layer exceeds similar products.

The optimization of firing process is significant, with firing stability reaching 4.3 points (traditional 3.9 points), and the yield rate increased to 92%, solving the problems of easy glaze flow and color scale fracture in traditional processes.

The composite decorative pattern system integrates the Song Dynasty lotus petal entwined branch pattern and 0.8mm shallow relief landscape (cultural expression total score 4.3), and is arranged in a 7×7 cm golden ratio, balancing the aesthetic level of "distant view charm" and "close observation refinement".

The crack technique simulates the landscape brushstrokes of the Song Dynasty (18 square centimeters), with a body thickness of 1.5cm and a size of 18×13 cm that accurately fits the furnace ritual, echoing the philosophy of "unity of theory and image" (cultural relevance 4.7 points, the highest in history).

The color design breaks through the traditional high saturation style, using pine and cypress green and wine red as the base colors, with gold lines outlining 12%, presenting a "low-key luxury" in the contrast of matte glaze and metallic cold light texture (modern fusion 4.2 points, traditional 3.9 points).

The durability of the tire body reaches 4.2 points (Innovation A only scored 3.8 points), proving that the new process improves aesthetic performance without sacrificing practical performance.

The expert group believes that this design achieves modern expression of the aesthetic genes of the Song Dynasty through data-driven process innovation, such as precise relief depth of 0.8mm and crack density of 18cm^{-2} . It is recommended to be used as a benchmark for "New Song style" incense burners and prioritized for mass production and academic promotion.

The findings of this study have brought to light the profound relevance and applicability of Song Dynasty ceramic aesthetics in the realm of modern product design. These findings suggest that the aesthetic principles and craftsmanship that defined the ceramics of the Song Dynasty are not merely historical artifacts but hold significant value for contemporary design practices. The study's discussion delves into the nuanced balance between preserving the integrity of traditional craftsmanship and embracing the winds of innovation, highlighting the importance of this equilibrium in creating designs that are both timeless and forward-thinking.

The research has revealed that the aesthetic values of Song Dynasty ceramics—

characterized by their elegant simplicity, refined forms, and harmonious glaze colors—are inherently adaptable to modern design sensibilities. This adaptability is key to the relevance of these historical elements in today's design landscape. By integrating these traditional aesthetics into modern product design, the study demonstrates that it is possible to create products that are deeply rooted in historical heritage while still appealing to contemporary tastes.

The discussion also underscores the critical importance of preserving traditional craftsmanship. The artisanal skills that were once honed over generations to create the exquisite ceramics of the Song Dynasty are at risk of being lost in the modern world. The study emphasizes that these traditional methods must be cherished and passed on, not only to maintain the authenticity of the products but also to ensure the continuity of cultural traditions.

However, the merging of historical elements with modern design is not without its challenges. The study points out that designers must navigate the complexities of combining traditional techniques with modern materials and production methods. There is a delicate balance to be struck between respecting the historical integrity of the craft and leveraging modern technologies to enhance functionality and appeal.

The opportunities that arise from this synthesis are numerous. By successfully integrating historical elements into modern product design, companies can create unique and culturally rich products that resonate with consumers. These products can serve as a bridge between the past and the present, offering consumers a sense of connection to their cultural heritage while also satisfying their desire for modernity and innovation.

In essence, the study's findings and discussion provide a comprehensive framework for how the aesthetic principles and craftsmanship of the Song Dynasty can be effectively applied to modern product design. It advocates for a respectful and innovative approach that honors the past while embracing the future, ultimately aiming to create products that are not only aesthetically pleasing but also culturally significant and commercially viable.

5.3 Discuss the Findings

5.3.1 Application Research Recommendations

The satisfaction survey based on the “Intrinsic / Extrinsic / Holistic” rubric reveals consistently high approval for the Song-inspired prototype.

Intrinsic design. Participants gave the highest marks to the visual harmony of glaze and form (86.8 pts), followed by theme alignment with Song aesthetics (85.6 pts) and the refinement of traditional elements such as lotus or landscape motifs (84.6 pts). Even the lowest indicator—streamlined consumer decision-making—still scored a solid 82.4 pts. Taken together, the intrinsic items average 84.85 pts, confirming that the core formal language is both accurate and appealing.

Extrinsic design. The prototype's outward usability impressed respondents even more: design consistency across the product suite led with 88.1 pts, while integration of traditional and modern elements earned 84.6 pts and unity of function and aesthetics 82.8 pts. The mean of 85.17 pts shows that users appreciate how the object works in everyday life without diluting its heritage character.

Holistic expression. On broader cultural criteria, the burner excelled at intangible-

cultural-heritage (ICH) preservation and innovation (88.1 pts). Scores for cultural-heritage transmission efficacy (83.7 pts) and contemporary aesthetic fulfilment (82.9 pts) were likewise favorable, resulting in an overall average of 84.90 pts. This suggests the design successfully bridges past and present, conveying Song-dynasty values while resonating with modern taste.

In short, across all three dimensions the prototype maintains averages in the mid-80s, demonstrating widespread user satisfaction and validating its potential for market adoption and cultural storytelling.

The initial suggestions laid out for further exploration and application of the identities of Song Dynasty ceramics in new product design require a more detailed elaboration to fully understand their implications and potential....

1. Further Exploration of Historical and Cultural Backgrounds

To deepen the design concept inspired by Song Dynasty ceramics, it is essential to delve deeper into the historical and cultural contexts that shaped these artifacts. This exploration involves researching the social, economic, and artistic trends of the Song Dynasty, understanding the role of ceramics within that society, and examining the philosophical and aesthetic principles that influenced the artisans of that time.

(1) Archival Research: This could involve studying ancient texts, artworks, and historical records that shed light on the ceramic production and the cultural significance of these objects.

(2) Cultural Context: Understanding the Song Dynasty's culture, including its rituals, daily life, and the role of ceramics in religious and secular practices, can provide a richer context for design inspiration.

(3) Philosophical Underpinnings: Exploring the philosophical movements of the time, such as Neo-Confucianism, and how they influenced the aesthetics of Song Dynasty ceramics can guide designers in capturing the essence of these artifacts in their work.

(4) Craftsmanship Techniques: Investigating the specific techniques used in Song Dynasty ceramic production, such as glazing methods, firing processes, and decorative techniques, can inform the development of new products that honor the craftsmanship of the past.

2. Integration of Advanced Technology with Traditional Craftsmanship

The marriage of advanced technology with traditional ceramic craftsmanship can revolutionize the creation of new products. This integration can enhance both the functionality and aesthetic appeal of modern ceramics, making them more competitive in the market while still preserving their cultural heritage.

(1) Innovative Materials: Exploring new materials that can be combined with traditional clays and glazes to create ceramics with enhanced durability, thermal properties, or interactive capabilities.

(2) Precision Techniques: Utilizing digital fabrication technologies like 3D printing and CNC machining to achieve precise and intricate designs that were previously unattainable or labor-intensive to produce by hand.

(3) Sustainable Practices: Integrating advanced technology to improve the sustainability of ceramic production, such as using energy-efficient kilns, reducing waste, and exploring biodegradable or recycled materials.

(4) Smart Ceramics: Incorporating smart materials or technology, such as embedded sensors or responsive glazes, to create ceramics that offer interactive or

adaptive properties, expanding their potential uses beyond traditional boundaries.

3. Collaboration with Cultural Institutions and Museums

Collaboration with cultural institutions and museums is a strategic approach to promote the cultural value and commercial potential of Song Dynasty-inspired ceramics. These partnerships can provide a platform for designers to showcase their work, educate the public, and foster a deeper appreciation for traditional ceramics.

(1) **Exhibition and Display:** Curating exhibitions that feature contemporary ceramic designs alongside historical pieces can create a dialogue between the past and the present, highlighting the continuity of ceramic art and its relevance today.

(2) **Educational Programs:** Developing educational programs and workshops that teach traditional ceramic techniques and the cultural significance of Song Dynasty ceramics can inspire a new generation of designers and artisans.

(3) **Licensing and Branding:** Establishing licensing agreements with museums to use images of historical ceramics can add a layer of authenticity and cultural cachet to contemporary designs, enhancing their market appeal.

(4) **Cultural Exchange:** Facilitating cultural exchanges between international ceramic artists and local artisans can lead to the cross-pollination of ideas and techniques, enriching the field of ceramic art globally.

By expanding on these initial suggestions, designers and manufacturers can create a more nuanced and effective strategy for incorporating the identities of Song Dynasty ceramics into new product design. This approach not only preserves and promotes the cultural heritage of the past but also positions these traditional elements as a source of inspiration and innovation for the future of ceramic art.

5.3.2 Suggestions for Future Research

To ensure the successful integration of Song Dynasty ceramic identities into new product design, it is crucial to consider the market landscape and consumer behavior. Here's a detailed expansion of the initial suggestions:

1. **Investigating Market Potential and Consumer Preferences** Understanding the market potential and consumer preferences is fundamental for the commercial success of Song Dynasty-inspired ceramic products. This involves a comprehensive analysis of the target market, consumer demographics, and their purchasing habits.

(1) **Market Analysis:** Conducting market research to identify gaps in the current ceramic product market and to understand consumer demand for products with historical and cultural references.

(2) **Consumer Surveys:** Engaging with potential consumers through surveys and focus groups to gather insights into their preferences, including aesthetic tastes, functional needs, and willingness to pay for such products.

(3) **Competitive Analysis:** Assessing the competitive landscape to determine how similar products are performing and to identify unique selling propositions that could set Song Dynasty-inspired ceramics apart.

Trend Forecasting: Analyzing current and emerging trends in the ceramic market to anticipate consumer interests and preferences, ensuring that new products align with future market demands.

2. **Studying Sustainability and Environmental Impact** As environmental consciousness grows, it is essential to consider the sustainability and environmental impact of traditional ceramic production methods. This involves evaluating the entire lifecycle of the product, from material sourcing to disposal.

(1) **Material Sourcing:** Investigating the environmental impact of sourcing traditional materials, considering factors like deforestation for wood used in kilns or the mining of minerals for glazes.

(2) **Production Processes:** Assessing the energy consumption and emissions associated with firing processes and exploring alternative energy sources or more efficient kiln technologies.

(3) **Waste Management:** Developing strategies for managing waste materials from production, such as recycling clay and glaze scraps, to reduce the environmental footprint.

(4) **Life Cycle Assessment:** Conducting a life cycle assessment to understand the overall environmental impact of the ceramic products, from cradle to grave, and to identify areas for improvement.

3. **Exploring Digital Media and Online Platforms** The role of digital media and online platforms in promoting and selling ceramic products is increasingly significant. These tools can reach a broader audience and provide a platform for storytelling, which is crucial for products with cultural and historical significance.

(1) **Content Marketing:** Developing engaging content that tells the story of Song Dynasty ceramics, their cultural importance, and the craftsmanship behind them, to create an emotional connection with consumers.

(2) **E-commerce Platforms:** Utilizing e-commerce platforms to sell products directly to consumers, offering convenience and a wider reach than traditional brick-and-mortar stores.

(3) **Social Media Marketing:** Leveraging social media to showcase products, engage with the audience, and build a community around the brand and its cultural heritage.

(4) **Virtual Reality and Augmented Reality:** Exploring the use of VR and AR technologies to allow consumers to virtually interact with ceramic products, enhancing the shopping experience and providing a unique way to appreciate the design and craftsmanship.

By thoroughly investigating these areas, designers and manufacturers can ensure that their Song Dynasty-inspired ceramic products not only resonate with consumers but also meet their expectations in terms of quality, sustainability, and cultural value. This approach will help position these products effectively in the market and contribute to the broader goal of preserving and promoting traditional ceramic art forms in a modern context.

5.4 Conclusion

The aesthetic of creation in the Song Dynasty is an important component of ancient Chinese art, and its unique aesthetic taste and style have had a profound impact on later generations. This article will start from the characteristics of the aesthetics of Song Dynasty creations, analyze their functional beauty, natural beauty, and artistic beauty, and explore the application of these aesthetic features in the design of contemporary ceramic incense burners.

1.Characteristics of the Aesthetics of Creation in the Song Dynasty

The aesthetic of creation in the Song Dynasty is known for its "simple and practical" functional beauty. In the Song Dynasty, Neo Confucian scholars had strict

and orderly requirements for creation, opposing excessive decoration and emphasizing the practicality of objects. This concept is reflected in the design of daily necessities such as ceramics and furniture, which are simple yet exquisite, meeting people's usage needs and reflecting the aesthetic taste of the Song Dynasty.

The ceramic art of the Song Dynasty particularly embodies this aesthetic feature of "simplicity and practicality". Song Dynasty porcelain is known for its simple lines, elegant colors, and exquisite craftsmanship. For example, the celadon porcelain from the official kilns of the Song Dynasty has a warm and jade like glaze color, delicate texture, and gives people a sense of tranquility and elegance. This aesthetic style still influences the design of modern ceramic art to this day.

In addition to functional beauty, the aesthetic of Song Dynasty creations also pursued a natural beauty of "returning to simplicity". The literati and poets of the Song Dynasty were deeply influenced by Taoist thought. They revered nature and pursued simplicity, which was reflected in their artistic works such as ceramics, calligraphy, and painting. For example, the opening texture of Song Dynasty porcelain resembles a naturally formed landscape painting, giving people a natural beauty.

The decorative patterns of Song Dynasty ceramics often revolve around natural elements, such as lotus flowers, plum blossoms, landscapes, etc. These patterns are simple yet varied, reflecting the Song people's love for nature and showcasing their superb artistic skills.

In addition to functional beauty and natural beauty, the aesthetic of Song Dynasty's creations also pursued the beauty of "ethereal and implicit" artistic conception. The literati and poets of the Song Dynasty were deeply influenced by the Zen philosophy, and they pursued an aesthetic realm that was transcendent and had a profound artistic conception. This concept is reflected in art works such as ceramics, calligraphy and painting. For example, the decoration of Song Dynasty porcelain is often simple and full of artistic conception, giving people imaginative space.

2. The Application of Song Dynasty Creative Aesthetics in the Design of Ceramic Incense Burners

With the increasing emphasis on traditional culture among contemporary people, ceramic incense burners have also gained attention and love. As a daily ceramic product that combines practicality and artistry, the incense burner meets the contemporary aesthetic needs of consumers, and its unique artistic conception brings a spiritual enjoyment to people.

In the design of ceramic incense burners, we can draw inspiration from the aesthetic features of Song Dynasty creations, making them both functional and aesthetically pleasing. For example, we can use simple lines and elegant colors to make the appearance of the incense burner simple yet exquisite; We can decorate with natural elements as the theme, such as lotus flowers, plum blossoms, etc., to give them a natural beauty; We can use techniques such as opening patterns to make the decoration of the incense burner full of artistic conception and give people imaginative space.

Through the above design techniques, we can integrate the aesthetic features of Song Dynasty creations into the design of ceramic incense burners, making them both practical and aesthetically pleasing, while also inheriting and promoting traditional Chinese creation art and culture.

REFERENCES

Zhou Jiazhou, Hong Chu, Chen Jing. (2017) *A Dictionary of Incense*[M]. Chongqing: Chongqing Press, 2017: 13.

Yan Jixin. (2014) *Discussions on Antiquity: On Incense*[M]. Qingdao: Qingdao Press, 2014: 25.

Yu Qinghua. (2012) *A Study of Incense Burner Art: Incense Burner Art from the Warring States to the Song Dynasty*[M]. Beijing: Beijing Craft and Art Press, 2012: 13.

[Song] Zhao Xichu. (2016) *Record of the Pure Land: Discussions on Ancient Bronzes and Ritual Vessels*[M]. Hangzhou: Zhejiang People's Art Press, 2016: 58.

[Ming] Zhou Jiazhou. (2017) *Incense Variations*[M]. Chongqing: Chongqing Press, 2017: 1351.

Yu Qinghua. (2012) *A Study of Incense Burner Art: Incense Burner Art from the Warring States to the Song Dynasty*[M]. Beijing: Beijing Craft and Art Press, 2012: 14.

Tian Zhibing. (2010) *A History of Chinese Craft Art*[M]. Shanghai: East China Normal University Press, 2010.

Zhang Guanggang. (2019) *Hu Tianhan, the moon reflects the sunset: The Silk Road has gone through three thousand years of vicissitudes* [M]. Shanghai: Life-Reading-Knowledge Sanlian Bookstore, 2019: 450-453.

Su Hongyi. (2015) *The Art of Incense*[M]. Beijing: China Business Press, 2015: 91.

[US] She Mii. (2013) *Incense: Literature, History, and Life*[M]. Beijing: Peking University Press, 2013: 306-307.

Zhou Wenhan. (2022) *The Taste of China: A Natural History of Spices and Condiments*[M]. Beijing: Tsinghua University Press, 2022: 43-44.

[Song] Chen Jing. (2019) *Chen's Incense Formula*[M]. Nanjing: Jiangsu Phoenix Literature and Art Press, 2019: 213.

Wang Qibiao. (2023) *Eastern Aromatherapy*[M]. Nanjing: Nanjing University Press, 2023: 691-692.

[Song] Xu Jing. (1985) *Memorials of the Xuanhe Embassy to Korea*[M]. Beijing: Zhonghua Book Company, 1985: 229.

[Song] Chen Jing. (2019) *Chen's Incense Formula*[M]. Nanjing: Jiangsu Phoenix Literature and Art Press, 2019: 5.

[Song] Ouyang Xiu. (2012) *Record of Returning to Fields (and Five Other Works)*[M]. Shanghai: Shanghai Ancient Books Press, 2012: 76-77.





APPENDIX

APPENDIX A

Question for Design

Research topic: Study the Identities of Song Dynasty Ceramic for Design of Contemporary Incense Burners

Researcher: Kun Tang

Objective: Design of Contemporary incense burners

- 5 = 4.51-5.00: Very satisfied
- 4 = 3.51-4.50: Satisfied
- 3 = 2.51-3.50: Neutral
- 2 = 1.51-2.50: Slightly dissatisfied
- 1 = 1.00-1.50: Dissatisfied

question	Level of opinion				
	1	2	3	4	5
1. Beauty					
1.1 The overall silhouette of the prototype is elegant.					
1.2 The glaze colour reminds me of traditional Song celadon.					
1.3 The decorative motifs look authentically Song Dynasty.					
1.4 The burner conveys a sense of cultural refinement.					
1.5 The proportions of the burner are visually pleasing.					
1.6 Traditional elements are blended with modern styling.					
1.7 The design shows originality beyond historical replicas.					
2. Function					
2.1 Using the burner makes me feel connected to Chinese heritage.					
2.2 Incense smoke disperses evenly when in use.					
2.3 The piece could be produced efficiently with current technology.					
2.4 Using this burner would raise my interest in Song Dynasty art.					
2.5 The burner's story increases its attractiveness to me.					
3. Ergonomic					
3.1 The burner is easy to assemble and disassemble.					
3.2 Ash can be removed and cleaned without difficulty.					

question	Level of opinion				
	1	2	3	4	5
3.3 The burner's form shows thoughtful ergonomic consideration.					
3.4 I would recommend this product to friends who like cultural items.					
4. Safety					
4.1 The body remains safe to touch after prolonged burning.					
4.2 The burner feels stable and unlikely to tip over.					
5. Durability					
5.1 Materials used appear durable for daily use.					
5.2 The design demonstrates sustainable material thinking.					
5.3 The design reflects environmentally responsible values.					

This study is based on industry practitioners' opinions and experts' opinions. Industry practitioners' and experts' opinions are important for product innovation and design.

(_____)

Evaluator

Date ____ / ____ / ____

APPENDIX B

Question for Design

Research topic: Study the Identities of Song Dynasty Ceramic for Design of Contemporary Incense Burners

Researcher: Kun Tang

Objective: Evaluate teenagers' satisfaction with the prototype design of a contemporary incense burner.

Rating Scale:

- 5 = 4.51-5.00: Very satisfied
- 4 = 3.51-4.50: Satisfied
- 3 = 2.51-3.50: Neutral
- 2 = 1.51-2.50: Slightly dissatisfied
- 1 = 1.00-1.50: Dissatisfied

question	Level of opinion				
	1	2	3	4	5
1. Beauty					
1.1 The prototype aligns with Song-Dynasty aesthetic themes.					
1.2 The refined motifs (e.g., lotus, landscape) look delicate and authentic.					
1.3 The glaze colour and overall form feel visually harmonious.					
1.4 Traditional Song elements blend smoothly with modern style.					
1.5 The design language is consistent across all parts of the product.					
1.6 The design preserves incense heritage while bringing fresh ideas.					
1.7 I would share photos of this burner on social media.					
2. Function					
2.1 The burner balances practical function and aesthetic appeal well.					
2.2 Using the burner helps me appreciate and share Song ceramic culture.					
2.3 The burner meets my contemporary lifestyle taste.					
2.4 The fragrance produced by the burner is pleasant and appealing.					
2.5 The amount of smoke is comfortable and not overpowering in a small room.					
2.6 I would recommend this burner to my friends.					
3. Ergonomic					
3.1 I can understand the product's purpose quickly and feel confident about using it.					
3.2 The size fits my bedroom or dorm desk.					

question	Level of opinion				
	1	2	3	4	5
3.3 The burner's modular parts (e.g., lids, bases) can be easily customised to match my personal style.					
3.4 Replacing incense and cleaning ash is quick and convenient.					
3.5 The packaging and user instructions are clear, engaging, and easy to understand.					
4. Safety					
4.1 Operating the burner feels simple and safe.					
4.2 The amount of smoke is comfortable and not overpowering in a small room.					
5. Durability					
5.1 The burner feels sturdy and durable for long-term teenage use.					

This study is based on industry practitioners' opinions and experts' opinions. Industry practitioners' and experts' opinions are important for product innovation and design.

(_____)

Evaluator

Date ____/____/____

APPENDIX C

Index of Item-Objective Congruence, IOC

Research topic: Study the Identities of Song Dynasty Ceramic for Design of Contemporary Incense Burners

Researcher: Kun Tang

Objective: Design of Contemporary incense burners

Instrument Quality Check

Description For experts in instrument quality check

Criteria for instrument check Instrument check to be used in research according to experts' opinions use the following criteria:

+1 means that the statement or question is usable and appropriate for the content according to the research conceptual framework.

0 means that the statement or question is uncertain whether it is appropriate for the content according to the research conceptual framework.

-1 means that the statement or question is not consistent or not appropriate for the content according to the research conceptual framework.

In the case that experts have checked and given an evaluation of 0 or -1 for any statement or question, please kindly provide comments or suggestions for further improvement. It would be greatly appreciated.

question	score			IOC	result
	-1	0	1		
1. The overall silhouette of the prototype is elegant.			✓		
2. The glaze colour reminds me of traditional Song celadon.			✓		
3. The decorative motifs look authentically Song-Dynasty.			✓		
4. The burner conveys a sense of cultural refinement.			✓		
5. Using the burner makes me feel connected to Chinese heritage.			✓		
6. The proportions of the burner are visually pleasing.			✓		
7. The burner is easy to assemble and disassemble.			✓		
8. Incense smoke disperses evenly when in use.			✓		
9. The body remains safe to touch after prolonged burning.			✓		
10. Ash can be removed and cleaned without difficulty.			✓		
11. The burner feels stable and unlikely to tip over.			✓		
12. Materials used appear durable for daily use.			✓		
13. Traditional elements are blended with modern styling.			✓		
14. The design shows originality beyond historical replicas.			✓		
15. The piece could be produced efficiently with current technology.			✓		

question	score			IOC	result
	-1	0	1		
16. The burner's form shows thoughtful ergonomic consideration.			✓		
17. The design demonstrates sustainable material thinking.			✓		
18. Using this burner would raise my interest in Song-Dynasty art.			✓		
19. I would recommend this product to friends who like cultural items.			✓		
20. The burner's story increases its attractiveness to me.			✓		
21. The design reflects environmentally responsible values.			✓		

This study is based on industry practitioners' opinions and experts' opinions. Industry practitioners' and experts' opinions are important for product innovation and design.

Puntipa D.K.
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Evaluator

Date ____ / ____ / ____

Index of Item-Objective Congruence, IOC

Research topic: Study the Identities of Song Dynasty Ceramic for Design of Contemporary Incense Burners

Researcher: Kun Tang

Objective: Evaluate teenagers' satisfaction with the prototype design of a contemporary incense burner.

Instrument Quality Check

Description For experts in instrument quality check

Criteria for instrument check Instrument check to be used in research according to experts' opinions use the following criteria:

+1 means that the statement or question is usable and appropriate for the content according to the research conceptual framework.

0 means that the statement or question is uncertain whether it is appropriate for the content according to the research conceptual framework.

-1 means that the statement or question is not consistent or not appropriate for the content according to the research conceptual framework.

In the case that experts have checked and given an evaluation of 0 or -1 for any statement or question, please kindly provide comments or suggestions for further improvement. It would be greatly appreciated.

question	score			IOC	result
	-1	0	1		
1. The prototype aligns with Song-Dynasty aesthetic themes.			✓		
2. The refined motifs (e.g., lotus, landscape) look delicate and authentic.			✓		
3. The glaze colour and overall form feel visually harmonious.			✓		
4. I can quickly understand the product and decide whether to buy it.			✓		
5. The burner balances practical function and aesthetic appeal well.			✓		
6. Traditional Song elements blend smoothly with modern style.			✓		
7. The design language is consistent across all parts of the product.			✓		
8. Using the burner helps me appreciate and share Song ceramic culture.			✓		
9. The burner meets my contemporary lifestyle taste.			✓		
10. The design preserves incense heritage while bringing fresh ideas.			✓		
11. The size fits my bedroom or dorm desk.			✓		
12. Operating the burner feels simple and safe.			✓		
13. The burner's modular parts (e.g., lids, bases) can be easily customised to match my personal style.			✓		
14. I would share photos of this burner on social media.			✓		
15. I would recommend this burner to my friends.			✓		

question	score			IOC	result
	-1	0	1		
16. The fragrance produced by the burner is pleasant and appealing.			✓		
17. The amount of smoke is comfortable and not overpowering in a small room.			✓		
18. Replacing incense and cleaning ash is quick and convenient.			✓		
19. The packaging and user instructions are clear, engaging, and easy to understand.			✓		
20. The burner feels sturdy and durable for long-term teenage use.			✓		

This study is based on industry practitioners' opinions and experts' opinions. Industry practitioners' and experts' opinions are important for product innovation and design.

Pantipat D.
()

Evaluator

Date ____/____/____

Index of Item-Objective Congruence, IOC

Research topic: Study the Identities of Song Dynasty Ceramic for Design of Contemporary Incense Burners

Researcher: Kun Tang

Objective: Design of Contemporary incense burners

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question	score			IOC	result
	-1	0	1		
1. The overall silhouette of the prototype is elegant.			✓		
2. The glaze colour reminds me of traditional Song celadon.			✓		
3. The decorative motifs look authentically Song-Dynasty.			✓		
4. The burner conveys a sense of cultural refinement.			✓		
5. Using the burner makes me feel connected to Chinese heritage.			✓		
6. The proportions of the burner are visually pleasing.			✓		
7. The burner is easy to assemble and disassemble.			✓		
8. Incense smoke disperses evenly when in use.			✓		
9. The body remains safe to touch after prolonged burning.			✓		
10. Ash can be removed and cleaned without difficulty.			✓		
11. The burner feels stable and unlikely to tip over.			✓		
12. Materials used appear durable for daily use.			✓		
13. Traditional elements are blended with modern styling.			✓		
14. The design shows originality beyond historical replicas.			✓		
15. The piece could be produced efficiently with current technology.			✓		

5 4 3 2 1

-1 0 1

16. The burner's form shows thoughtful ergonomic consideration.			✓		
17. The design demonstrates sustainable material thinking.			✓		
18. Using this burner would raise my interest in Song-Dynasty art.			✓		
19. I would recommend this product to friends who like cultural items.			✓		
20. The burner's story increases its attractiveness to me.			✓		
21. The design reflects environmentally responsible values.			✓		

This study is based on industry practitioners' opinions and experts' opinions. Industry practitioners' and experts' opinions are important for product innovation and design.



 (_____)

Evaluator

Date ____/____/____

Index of Item-Objective Congruence, IOC

Research topic: Study the Identities of Song Dynasty Ceramic for Design of Contemporary Incense Burners

Researcher: Kun Tang

Objective: Evaluate teenagers' satisfaction with the prototype design of a contemporary incense burner.

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Criteria for instrument check Instrument check to be used in research according to experts' opinions use the following criteria:

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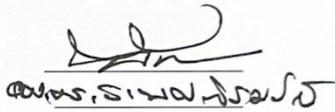
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question	score			IOC	result
	+1	0	-1		
1. The prototype aligns with Song-Dynasty aesthetic themes.	✓				
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4. I can quickly understand the product and decide whether to buy it.		.	✓		
5. The burner balances practical function and aesthetic appeal well.	✓				
6. Traditional Song elements blend smoothly with modern style.	✓				
7. The design language is consistent across all parts of the product.	✓				
8. Using the burner helps me appreciate and share Song ceramic culture.	✓				
9. The burner meets my contemporary lifestyle taste.	✓				
10. The design preserves incense heritage while bringing fresh ideas.	✓				
11. The size fits my bedroom or dorm desk.	✓				
12. Operating the burner feels simple and safe.	✓				
13. The burner's modular parts (e.g., lids, bases) can be easily customised to match my personal style.	✓				
14. I would share photos of this burner on social media.	✓				
15. I would recommend this burner to my friends.	✓				

question	score			IOC	result
	+1	0	-1		
16. The fragrance produced by the burner is pleasant and appealing.	✓				
17. The amount of smoke is comfortable and not overpowering in a small room.	✓				
18. Replacing incense and cleaning ash is quick and convenient.	✓				
19. The packaging and user instructions are clear, engaging, and easy to understand.	✓				
20. The burner feels sturdy and durable for long-term teenage use.	✓				

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Evaluator

Date ____/____/____

Index of Item-Objective Congruence, IOC

Research topic: Study the Identities of Song Dynasty Ceramic for Design of Contemporary Incense Burners

Researcher: Kun Tang

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15. The piece could be produced efficiently with current technology.			✓		

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ผู้ช่วยศาสตราจารย์ ดร.สิทธิชัย เจริญเศรษฐศิลป์

Evaluator
Date 14, 8, 2025

Index of Item-Objective Congruence, IOC

Research topic: Study the Identities of Song Dynasty Ceramic for Design of Contemporary Incense Burners

Researcher: Kun Tang

Objective: Evaluate teenagers' satisfaction with the prototype design of a contemporary incense burner.

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11. The size fits my bedroom or dorm desk.			✓		
12. Operating the burner feels simple and safe.			✓		
13. The burner's modular parts (e.g., lids, bases) can be easily customized to match my personal style.			✓		
14. I would share photos of this burner on social media.			✓		
15. I would recommend this burner to my friends.			✓		

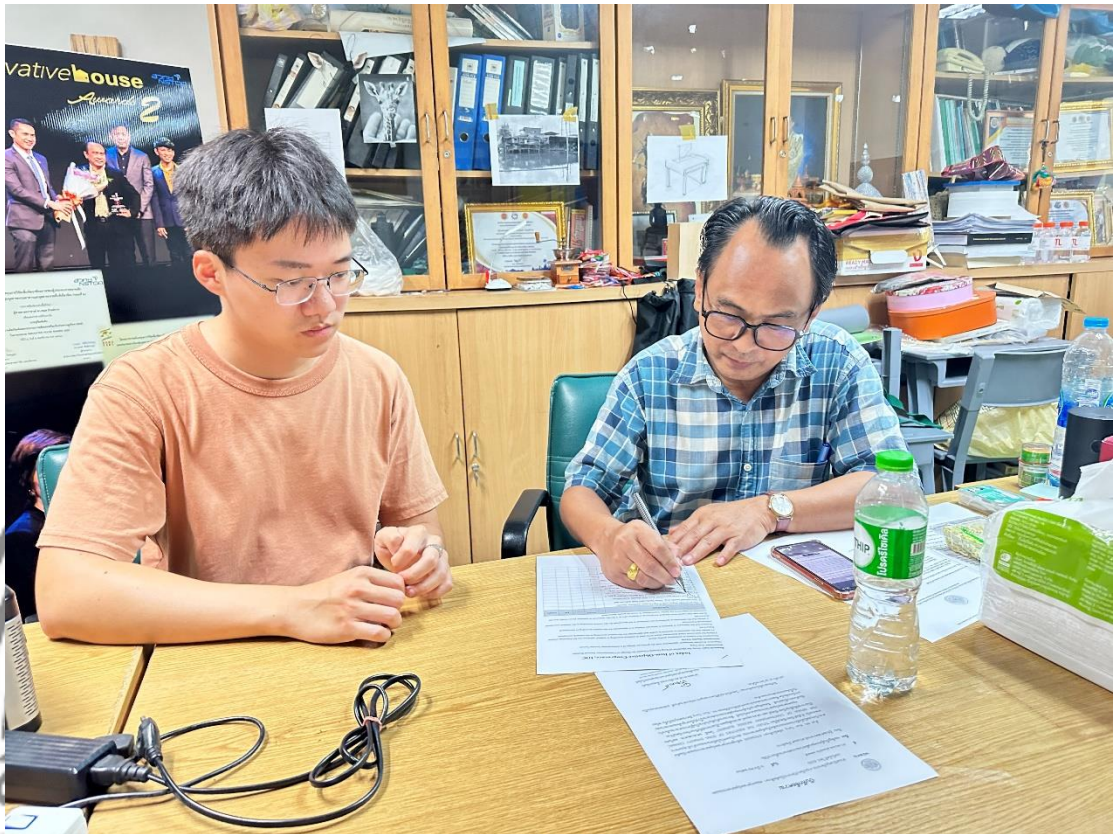
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16. The fragrance produced by the burner is pleasant and appealing.			✓		
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 ผู้ช่วยศาสตราจารย์ ดร.สิทธิชัย เจริญเศรษฐศิลป์

Evaluator
 Date 14/05/2025







RESEARCH AND INNOVATION ECOSYSTEM

DRIE 2025 The 21st International Conference
Developing Real-Life Learning Experiences: Transforming Education through Innovation and Research

CERTIFICATE OF PRESENTATION

Kun Tang, Somchai Seviset, and Chaturong Louhapensang

presented a paper

**STUDY THE IDENTITIES OF SONG DYNASTY CERAMIC
FOR USE AS A GUIDELINE FOR PRODUCT DESIGN**

held on 30–31 May 2025
School of Industrial Education and Technology
King Mongkut's Institute of Technology Ladkrabang


(Professor Dr. Pariyaporn Tungkunan)
Dean of School of Industrial Education and Technology
King Mongkut's Institute of Technology Ladkrabang



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