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Visual Symbolic Characteristics of YanZhao Culture in Wayfinding Signage Design: A systematic literature review

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Abstract

This study conducts a systematic literature review to discuss the visual features of YanZhao cultural elements from China and their integration methods in wayfinding signage design. The paper puts forward a process model for analyzing and designing cultural symbols, focusing on the historical background, visual features, and symbolic meaning of Yanzhao cultural symbols. The findings will guide future design and research to enhance the application of cultural symbols in wayfinding signage.

Keywords: YanZhao culture, Wayfinding signage, cultural integration, symbolic representation

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1.0 Introduction

1.1 YanZhao Culture and Its Historical Background

Yanzhao culture is rich in connotation and has a long history. It is the cradle of Chinese civilization and an essential branch. The ancient Yanzhao area can also be called the broad Yanzhao, and the opposite is the narrow Yanzhao concept, which refers to Hebei Province in China (Ma, 2013). Yanzhao culture is rich in connotation and has a long history. It is not only the cradle of Chinese civilisation but also a part of Chinese culture with Han nationality as the main body of Chinese civilization. It is a regional culture produced in Yan and Zhao during the Warring States Period. Yanzhao culture is an integral part of the northern culture of ancient China, mainly distributed in Hebei Province and its surrounding areas, covering the states of Yan and Zhao during the Warring States period. Yanzhao culture is famous for its unique historical background and cultural and regional characteristics, as well as its profound historical accumulation and rich cultural connotations. The Yellow River is the southern boundary, the Taihang and Yanshan Mountains are the western and northern boundaries, and the east reaches the sea. The people in the Yanzhao region are fierce and pure. The folk customs are simple and heavy, and they pay more attention to kinship. Its unique cultural characteristics are "generous and tragic songs, good temper and chivalry," its cultural carriers, such as language, literature, art, customs, and geographical landscape, reflect these aspects. (Tian et al., 2021).

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At present, many cities in China are designing and promoting unique display parks. The Provincial Party Committee and the provincial government have stressed the importance of the provincial Garden Expo Park. The goal is to use the expo as a valuable tool to increase urban greenery and improve urban landscaping. It aims to enhance the city's image, alter development concepts, and enhance infrastructure. (Li & Shi, 2020). The unique historical background and rich visual symbols of Yanzhao culture provide valuable inspiration for modern wayfinding sign design.

1.2 The significance of cultural elements in wayfinding sign design

Suzuki (2013) emphasizes that cultural variations influence how individuals from diverse backgrounds perceive and use maps and written directions. It is necessary to extract the cultural elements of the city, then split, transform, and reorganize them, and finally integrate the urban cultural elements into the design and embody them in the signage and wayfinding to emphasize the characteristics of the city and highlight the urban culture. Cultural representation plays a crucial role in visual communication design, as it involves portraying and communicating diverse cultural identities, values, and beliefs(Riyanto, 2023). Culture is essential in defining human wayfinding behavior due to the varying understandings of spatial cues across different cultures(Iftikhar et al., 2021). Merciu et al. (2020) examined the significance of regional visual symbols in preserving cultural heritage. Their study emphasized using symbols like traditional patterns, architectural motifs, and indigenous art forms by heritage sites and cultural institutions to display a region's cultural diversity. By leveraging these symbols, organizations can preserve cultural heritage and educate and engage visitors meaningfully.

Therefore, integrating cultural elements in wayfinding sign design helps improve navigation efficiency and enhances urban culture's display and identity.

1.3 Research Objectives

The main objective of this review is to discuss the visual features of Yanzhao cultural elements and their application in wayfinding sign design through a systematic review and analysis of existing literature. To sort out the historical background and cultural characteristics of Yanzhao culture, Identify and classify the visual symbols of Yanzhao culture. The discussion revolves around applying these symbols in modern wayfinding signage design. This paper proposes a process model of cultural symbol analysis and design, which includes symbol feature analysis, cultural background analysis, symbol representation, visual feature integration, cultural interpretation, and user feedback. Provide theoretical support and practical guidance for future design and research and improve the application effect of cultural symbols in wayfinding signage.

2.0 Literature Review

2.1 Semiotics theory

Visual semiotics should be viewed not only as a sub-field of semiotics but also as a theoretical and methodological perspective utilized and modified across various disciplines such as art history, media, communication studies, cultural studies, and art and design. For this reason, visual semiotics has developed in ways that transcend traditional semiotics. A semiotic lens is also increasingly used to examine visual texts and 'artifacts' other than images, such as packaging, interior design, and layouts (Aiello, 2020). Umberto Eco's theory is critical in the study of semiotics. Eco (1979) emphasized the polysemy of symbols and the construction of meanings in cultural contexts. Symbols are simple indicators and symbols with multiple meanings in different cultural backgrounds and contexts. According to Eco, encoding and decoding construct the meaning of symbols. In this process, the interaction between the creator of the symbol (the coder) and the receiver of the symbol (the decoder) is particularly critical.

2.2 YanZhao cultural elements and visual characteristic symbols

and good fortune.

Yanzhao culture shows rich visual symbols and artistic elements. According to Hao & Zhou (2024), Pottery, bronzes, and architecture fully display these elements. Table 1 shows the visual features of Yanzhao culture in some literature.

Category	Major Characteristic	Representative instance	Authors
Bronze	 Exquisite design and excellent craftsmanship symbolize 	Inlaid Silver Winged Beast,	(Hao &
Pattern	mysterious power and the pursuit of beauty. •The dragon and phoenix pattern means auspiciousness and harmony, smooth lines, and an elegant shape.	Dragon, and Phoenix Design	Žhou, 2024)
Ceramic Pattern	 The decorative patterns are diversified, including flower and bird patterns, and the layout is symmetrical and balanced. The three techniques of cutting, picking, and printing are widely used in various forms of expression. 	Peony Pattern, Phoenix Pattern, Mandarin Duck Pattern	(Wang & Li, 2024)
Folk Art	Symbols, analogies, and exaggerations are often used in various forms to reflect folk customs and people's ideological aspirations, including papercut and shadow play, bright colors, diverse forms, and unique styles. Traditional Chinese woodblock printing: Depicts folk stories and historical anecdotes; Showcases wisdom and creativity of YanZhao people; Reflects wishes for prosperity, happiness,	Tangshan Shadow Puppetry, Yuxian Paper Cutting, Wuqiang New Year Pictures	(Tian, 2023), (Wu & Chen, 2024), (Li, 2023)

Architectural Decorative Arts	•Emphasized the aesthetic principle of symmetry and harmony. •The engraving is fine, and the rich and diverse decorative elements reflect the solid regional cultural characteristics. •Typical carvings and decorations commonly seen in ancient	Imperial Summer Resort, Congtai Terrace, Hebei Section of the Great Wall	(Wang, 2010),(Zhao, 2019),
	buildings include cornices, Dougong, stone carvings, brick		
	carvings, and paintings.		

Riyanto (2023) emphasizes the role of symbols and ICONS in visual communication design and their impact on cultural expression.

2.3 Wayfinding signage design

Wayfinding signage is information systems that help people navigate the physical environment. The different types of wayfinding signage are identification, directional, information, and regulatory(Lee et al., 2020). Kim et al. (2023) conclude that signs, landmarks, and other urban elements should attract attention to or harmonize with the environment for successful landscape design. These elements also provide information during navigation, and visual saliency prediction is valuable for urban designers. Integrating saliency feedback into the design process supports better navigation and accessibility in urban spaces, creating more effective and visually appealing wayfinding systems(Kim et al., 2023). Parate & Parate (2024) emphasize the significance of unique visual elements as identities for effective wayfinding. Visual elements, such as landmarks and distinct characteristics, are crucial in guiding individuals through their surroundings. These elements serve as markers in the wayfinding process, providing critical visual cues for navigation within complex urban environments.

Hence, Visual elements are crucial for effective wayfinding signage, helping people navigate their surroundings. Incorporating Yanzhao cultural elements into wayfinding signage design may cause conflict between the "legibility" of the symbol and the "understandability" of the user. Alternatively, the balance between the "decorativeness" of the symbol and the "practicality" of the functional design, this study will consider how to address the cultural specificity of symbols in wayfinding signage design.

3.0 Methodology

3.1 `Data Extraction and Analysis

The researchers used several academic databases to search and select relevant literature and extract and analyze data from the literature. Search keywords include "Yanzhao cultural symbols," "wayfinding sign design," "integration of cultural elements," and "semiotic analysis. Secondly, literature screening criteria should include the following: (1) Research related to Yanzhao cultural symbols and cultural backgrounds; (2) Application research involving Wayfinding signage design fields; (3) The use of semiotic theory for analytical research. However, the exclusion criteria include: (1) The text focuses exclusively on studies that center on Yanzhao culture in Hebei Province, excluding any that involve Yanzhao culture outside Hebei Province. (2) Non-academic articles, such as news reports and non-peer-reviewed articles.

The data extraction process includes recording the basic information of each article, including the author, publication year, research purpose, research methods, main findings, and conclusions. At the same time, it pays special attention to the specific description and analysis of Yanzhao cultural symbols in the literature and records its visual characteristics and cultural background. Finally, we use data analysis. This study uses content analysis and subject analysis to analyze the extracted data. Content analysis mainly identifies and describes the main symbols and visual features mentioned in the literature, focusing on understanding how different documents present these symbols. Detailed reading and coding of documents identify the most representative cultural symbols and visual elements. According to Fuchs (2023), thematic analysis is a widely used method for analyzing qualitative social science research data, including familiarizing oneself with the data, generating initial codes, searching for themes, reviewing and refining them, and defining and naming them. The Researcher uses thematic analysis to deeply analyze the discussion of the meaning and application of cultural symbols in literature, extracting the main themes and ideas. By coding and classifying the contents discussed in the literature, we can identify the recurring themes and concepts in the research to deeply understand the meanings of Yanzhao cultural symbols in different backgrounds and application scenarios. The Methodological Framework is shown in Figure 1.

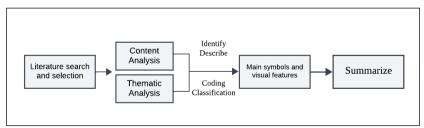


Fig. 1: Methodological Framework

3.2 Analytical Framework

In analyzing Yanzhao cultural symbols, this paper adopts Umberto Eco's semiotic theory and cultural research method as the primary analysis framework. Eco's semiotic theory focuses on the construction and transmission process of symbols and their meanings, emphasizing the multiple meanings of symbols in specific cultural contexts. Specifically, this study first identifies and classifies the main symbols and patterns in Yanzhao culture, including architectural elements, decorative patterns, and folk art. Secondly, a literature review analyzes these symbols' cultural connotations and historical backgrounds to understand their changes and evolution in different historical periods. In addition, it examines the use and meaning of symbols in specific cultural contexts and illuminates their function and role in social mores, values, and belief systems. On this basis, the paper discusses the specific forms of symbols in visual design, such as shape, color, and composition, and analyzes their application effect in wayfinding sign design. Finally, through user feedback and actual use, Evaluators assess the identification and functionality of symbols and suggest improvement. Through this systematic analysis framework, this paper aims to ensure the practical application of Yanzhao cultural symbols in wayfinding sign design and provide theoretical support and practical guidance for future cultural symbol design.

4.0 YanZhao Culture and Its Visual Symbolic Characteristics

4.1Historical and Cultural Context

According to Ma (2013), Yanzhao culture originated in the States of Yan and Zhao during the Warring States Period. It was in present-day Hebei and Shanxi, influenced by the Central Plains and the northern nomadic cultures. During the Spring and Autumn Period and the Warring States Period, the states of Yan and Zhao were famous for their bravery and military strength. Yanzhao culture was further integrated with the Central Plains during the Qin and Han Dynasties but retained its unique local style. Geographical location and environmental diversity provide rich artistic materials for Yanzhao culture. The Yanzhao culture frequently interacted with the Central Plains culture and the northern nomads through diplomacy, war, economy, and trade, and absorbed elements such as horse harnesses, clothing, and decorative patterns, forming a unique cultural integration. Cultural exchanges and integration have profoundly impacted visual symbols such as bronzes, ceramic crafts, architectural decoration, and folk art in the Yanzhao region(Hao & Zhou, 2024).

4.2 Key Visual Symbols and Motifs

Yanzhao culture is rich in visual symbols and motifs, which are an essential part of the decorative arts and reflect the beliefs and values of the Yanzhao people. The dragon and phoenix patterns symbolize strength, authority, and auspiciousness; Auspicious animal totems such as the unicorn and the brave animal represent peace, prosperity, and protection; Geometric patterns such as loops and more have eternal and mystical significance; Animal and plant patterns, such as peonies and birds and animals, show wealth and natural vitality; Architectural decorative elements such as cornice and dugong emphasize the combination of aesthetics and function; Folk art symbols such as Yuxian paper-cut and Tangshan shadow play show bright colors and diverse forms of art styles. These visual symbols enrich the artistic expression of Yanzhao culture and provide valuable inspiration for modern design.

4.3 Symbolic Meanings and Interpretations

The visual symbols of Yanzhao culture have decorative functions and contain profound symbolic meanings. In the decorative pattern, the dragon and phoenix pattern symbolize strength, authority, auspiciousness, and harmony; Auspicious animal totems, such as the unicorn and the brave animal, represent peace, prosperity, and protection; Animal and plant patterns, such as peonies and birds and animals, symbolize wealth and natural vitality; These symbols have been widely used and interpreted in cultural and social contexts. Architectural decorative elements such as cornices symbolize the majesty and beauty of buildings, reflecting the perfect combination of architectural aesthetics and practical functions of ancient architects, the unity of symbolic power and beauty of dugong, and the complex structure and exquisite design reflect the wisdom and skills of artisans (Wang, 2010). Folk art symbols, such as the Yuxian paper cut, symbolize the pursuit of happiness and a better life and are often used for festival decoration to express happiness and blessings (Wu & Chen, 2024). Tangshan Shadow Puppetry shows characters and stories through light and shadow, symbolizing the inheritance of traditional culture and art (Tian, 2023). The Wuqiang New Year pictures depict folk stories and historical anecdotes through traditional woodcut techniques. They show the wisdom and creativity of the Yanzhao people and reflect their good wishes for prosperity, happiness, and good luck (Li, 2023).

5.0 Integration of Cultural Elements in Wayfinding Signage

5.1 Analytical Signifier (Encoding)

It is necessary to define and classify these symbols, understand their historical and cultural background and Symbolic meaning, and define and classify major visual symbols through Symbolic Feature Analysis to understand the historical and cultural background and symbolic meaning conveyed by symbols. For example, the dragon and phoenix patterns symbolize strength and auspiciousness, and the auspicious animal totems such as Kirin and Pixiu symbolize peace and wealth. Then, the researcher conducts a cultural context analysis to study the ways and meanings of these symbols in different historical periods and social environments. Symbolic Representation and graphic design, color selection, and material use visualize these cultural symbols, both recognizable and capable of conveying rich cultural connotations. In the actual wayfinding sign design application, special attention should be paid to symbol

design's consistency, recognizability, and user experience to ensure they meet modern aesthetic and functional requirements and effectively convey cultural information. Figure 2 shows the steps in integrating culture and wayfinding signage design.

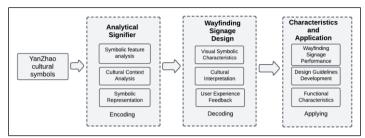


Fig. 2: Process steps to integrate culture and wayfinding signage design

5.2 Wayfinding Signage Design (Decoding)

To integrate Yanzhao cultural elements into the decoding process of wayfinding sign design, Environmental Graphic Design (EDG) designers must focus on three key aspects: visual symbol characteristics, cultural interpretation, and user experience feedback. The representative code is simplified and applied to the graphic design of the logo design while maintaining its cultural connotation. By deeply understanding the cultural background of these symbols, we ensure that the symbols convey the profound meaning of Yanzhao culture. Through user surveys and field tests, we collect user feedback and continuously optimize the design to achieve the best balance between beauty and functionality, providing users with clear, easy-to-use guidance.

5.3 Characteristics and Application (Applying)

Applying Yanzhao culture elements to wayfinding sign design practice requires consideration of sign performance, design guidelines, and functional features. Evaluate signs for visibility, readability, and understanding to ensure that they provide clear guidance in a specific environment. In the application process, the Designer develops design guidelines to consistently apply cultural elements, including symbols, color matching, and material selection. To ensure the durability, protective performance, and easy maintenance of the sign to meet the actual needs of use and extend the service life of the sign, in addition, the design of regional cultural characteristics of the wayfinding sign process also needs to comply with the principles of barrier-free design and universal design. However, this study does not focus on this, but its importance must be addressed.

6.0 Conclusion& Recommendations

This study reveals the importance of Yanzhao cultural visual symbols in wayfinding sign design. Traditional symbols are effectively transformed into wayfinding sign design elements by analyzing symbol features, cultural background, and symbol representation. Specific suggestions include combining Yanzhao cultural symbols, such as the dragon and phoenix, and the Kirin pattern, with navigation functions, such as using the kirin pattern in necessary corners or node identification in path guidance identification to strengthen the application of cultural elements in navigation. With modern technologies such as electronic displays and interactive touch screens, users can understand the cultural background through the touch screen while obtaining real-time navigation information to enhance the interactive experience. Materials with the characteristics of Yanzhao culture, such as antique copper and stone carving, are selected, and modern technology is combined to make signs.

Although this study provides reference suggestions for the visual integration of Yanzhao cultural symbols and guide sign design, the data is based on secondary data from existing literature. This study has not been empirically verified through field observation or user testing, and the actual applicability may be biased. In addition, the cultural interpretation of Yanzhao cultural symbols varies by region and audience group, which limits the generalizability of the research results.

Future studies will combine wayfinding signage accessibility design with universal design principles to ensure the signage system is user-friendly. The researcher will develop detailed design guidelines covering symbols, colour combinations, and material selection to ensure consistency and proper application of cultural elements. Additionally, it will enhance user experience research, collect more feedback, and continually improve the design.

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Paper Contribution to Related Field of Study

This study systematically explores the application of Yanzhao cultural elements in designing guiding signs for the first time and provides a comprehensive process model for integrating cultural symbols. Umberto Eco's semiotic theory provides a solid theoretical basis for interpreting cultural symbols, aiming to improve public space's navigational efficiency and cultural identity.

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