

A Semiotic Framework for Traditional Textile Patterns: Extending Morris's Theory to Visual Cultural Heritage

Lei Xu¹, Muhamad Fairus Kamaruzaman^{2*}, Rusmawati Ghazali³

¹Faculty of Art and Design, Universiti Teknologi MARA, 40450 Shah Alam, Malaysia;
Academy of Arts and Design, College of Chinese & ASEAN Arts, Chengdu University, 610000 Chengdu, China.

Email: xulei@cdu.edu.cn

²Faculty of Art and Design, Universiti Teknologi MARA, 40450 Shah Alam, Malaysia.

Email: muhamadfairus@uitm.edu.my

³Faculty of Art and Design, Universiti Teknologi MARA, 40450 Shah Alam, Malaysia.

Email: rusma362@uitm.edu.my

ABSTRACT

CORRESPONDING AUTHOR (*):

Muhamad Fairus Kamaruzaman
(muhamadfairus@uitm.edu.my)

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Traditional textile patterns, as significant carriers of visual cultural heritage, embody profound cultural connotations, yet existing research lacks a unified theoretical framework. Based on the classical semiotic tripartite model, this study constructs an extended semiotic framework specifically applicable to traditional textile pattern analysis through interdisciplinary theoretical integration, encompassing three dimensions: visual syntactics, cultural semantics, and social pragmatics. Visual syntactics analyzes pattern elements, color systems, spatial composition, and craft techniques; cultural semantics explores historical background, meaning evolution, regional features, and value representation; social pragmatics examines usage contexts, group differences, social influences, and contemporary practice. This research employs Chinese traditional dragon-phoenix patterns as a case study, conducting in-depth analysis of representative works from three periods (the Warring States, Qing Dynasty, and contemporary era) to validate the effectiveness of the extended framework. Results demonstrate that the framework can systematically reveal the multiple attributes and complex values of traditional textile patterns, overcoming the limitations of traditional single analytical methods and achieving unified analysis of form, content, and function. This study provides new directions for the development of semiotic theory toward multimodal visual symbolic systems and offers systematic methodological tools for visual cultural heritage research and traditional cultural transmission practice.

Contribution: This study contributes to existing literature by extending the semiotic tripartite model to visual cultural heritage, forming an analytical framework that transforms traditional syntactics-semantics-pragmatics into visual syntactics and social pragmatics for systematic textile pattern research. It preserves the Shu brocade through NFTs, ensuring it is not lost over time.

1. Introduction

Visual cultural heritage, as a crucial carrier of human civilization, occupies an increasingly important position in contemporary interdisciplinary research. Traditional textile patterns, as vital components of visual cultural heritage, embody profound historical and cultural information along with complex symbolic meanings. However, existing research methods demonstrate significant deficiencies in theoretical depth and analytical systematicity (Elkins, 2013). Current academic analyses of traditional textile patterns primarily rely on traditional methods such as formal analysis, historical verification, and cultural interpretation. While these methods have achieved important progress within their respective domains, they lack a unified theoretical framework to systematically reveal the symbolic value and cultural connotations of patterns.

Semiotic theory, since the establishment of foundational theories by Peirce (1934) and Saussure (1983), has developed into a tripartite analytical framework centered on syntactics, semantics, and pragmatics, as proposed by Morris (1938). This theoretical framework provides a scientific methodological foundation for symbolic analysis and has been widely applied in linguistics, communication studies, literary criticism, and other fields. However, this classical framework was primarily designed for linguistic symbolic systems, and when applied to visual symbols such as traditional textile patterns, it reveals obvious limitations. Traditional textile patterns possess unique attributes including multimodal symbolic characteristics, material carrier dependency, and historical transmission dynamics, which transcend the expressive scope of linguistic symbols and require more appropriate theoretical analytical tools (Kress & Van Leeuwen, 2020).

Although scholars have recently begun to focus on the application of semiotic theory in visual culture research, most efforts remain at the level of direct transplantation of classical theories, lacking theoretical innovation targeting the characteristics of visual symbols. Bateman and Wildfeuer (2014) points out that traditional language-centered semiotic methods encounter fundamental difficulties when dealing with multimodal visual narratives, necessitating the development of specialized multimodal semiotic analytical frameworks. Meanwhile, in traditional textile pattern research, although some attempts at applying semiotic methods have emerged in recent years, these studies are often limited to specific cultural backgrounds or pattern types, lacking the construction of theoretical frameworks with universal significance.

1.1. Research Objectives and Theoretical Contribution

This research aims to construct a theoretical framework applicable to traditional textile pattern analysis through an innovative extension of the classical semiotic tripartite model. The research focuses on three core objectives: first, establishing new analytical dimensions of visual syntactics, cultural semantics, and social pragmatics to transcend the language-centered limitations of traditional semiotic theory; second, employing Chinese traditional dragon-phoenix patterns as typical cases to validate the effectiveness and practicality of the extended theoretical framework in traditional textile pattern analysis; finally, providing systematic methodological tools for visual cultural heritage research and promoting the in-depth development of interdisciplinary research.

The theoretical contributions of this research manifest at multiple levels. In terms of semiotic theory development, the research promotes the shift of semiotic theory from

language-centered to multimodal symbolic systems through extending the established tripartite model, providing new directions for contemporary semiotic theory development. In methodological innovation, the research integrates resources from multiple disciplines, including art history, cultural anthropology, and design studies, establishing interdisciplinary analytical frameworks and contributing systematic methodological contributions to visual culture research. In practical application, the research provides theoretical support for cultural heritage protection, educational communication, and cultural industry development, possessing significant social value and practical importance.

2. Literature Review

2.1 Semiotic Theory and Its Applications

[Morris \(1938\)](#), in his influential work "Foundations of the Theory of Signs," proposed the far-reaching semiotic tripartite theory, dividing semiotics into three interrelated branches: syntactics, semantics, and pragmatics. Syntactics focuses on the formal relationships among signs, studying sign structures, combinatorial patterns, and formal characteristics; semantics explores the relationships between signs and their referents, analyzing sign meanings and referential functions; pragmatics examines the relationships between signs and interpreters, investigating sign effects and social functions in specific usage contexts. This three-dimensional analytical framework provides a systematic theoretical foundation for sign research and has become an important theoretical pillar of modern semiotics.

The application of this theory in cultural research began in the mid-to-late 20th century, as scholars gradually recognized the value of semiotic methods in analyzing complex cultural phenomena. [Eco \(1979\)](#) extended semiotic theory to all aspects of daily life, proposing that culture is essentially a symbolic system, and all cultural phenomena can be effectively analyzed through semiotic methods. [Barthes \(1977\)](#) further developed the application of semiotic theory in visual culture analysis, proposing the analytical framework of connotation and denotation, establishing important theoretical foundations for image sign research. These theoretical developments demonstrate that semiotics possesses analytical potential beyond linguistic signs and can provide in-depth theoretical interpretation for complex cultural symbolic phenomena.

However, as research has deepened, the classical framework also reveals certain limitations when applied to visual cultural symbols. [Kress and Van Leeuwen \(2020\)](#), a leading scholar in contemporary multimodal research, indicates that traditional semiotic theory overly relies on linguistic modes, making it difficult to fully grasp the multimodal characteristics of visual symbols and the complexity of social symbolic practices. [Bateman \(2017\)](#) also emphasizes in his multimodal semiotic framework research that traditional semiotics needs to adapt to the development needs of multimodal communication in the digital age, developing more flexible and inclusive theoretical systems. These criticisms provide important academic background and developmental directions for the theoretical innovation of this research.

2.2. Visual Culture and Traditional Textile Pattern Studies

Visual culture research, as an important branch of contemporary humanities, focuses on the central role of visual images in cultural construction, emphasizing that images are

not merely reflections of reality but carriers of cultural meaning and expressions of social relationships (Mirzoeff, 1999). Visual symbols and linguistic symbols differ fundamentally in their expressive mechanisms: visual symbols possess characteristics of simultaneity and spatiality, capable of simultaneously conveying complex cultural information through multiple elements such as color, shape, and composition; while linguistic symbols primarily rely on temporal sequences and linear structures for meaning expression (Key & Noble, 2017). This essential difference requires researchers to adopt theoretical methods and analytical strategies different from linguistic signs when analyzing visual symbols.

Traditional textile patterns, as important components of visual culture, possess unique symbolic characteristics and cultural value. Harris (1993) points out that textile patterns represent one of humanity's earliest forms of artistic expression, carrying profound cultural traditions and social memory. The symbolic characteristics of textile patterns are primarily manifested in multisensory symbolic expression, where viewers not only perceive pattern colors and shapes through vision but also experience material textures and qualities through touch, forming multisensory symbolic experiences (Andrew, 2008). Furthermore, textile patterns possess dual attributes of materiality and spirituality, serving as both carriers of material culture and expressions of spiritual culture, enabling them to play special roles in cultural transmission.

Current traditional textile pattern research primarily employs the following methods: formal analysis methods focus on visual constituent elements of patterns, revealing artistic characteristics through analyzing elements such as color, composition, and motifs (Schoeser, 2022); cultural history research methods situate patterns within specific historical and cultural contexts, exploring relationships between patterns and factors like social politics, religious beliefs, and economic development (Wilson, 2021); anthropological methods focus on the functions and meanings of patterns in social life, analyzing their roles in identity formation, social interaction, and ritual activities (Weiner & Schneider, 2013). While these methods each possess advantages, they remain insufficient in systematicity and theoretical depth, lacking unified analytical frameworks to integrate research findings from different levels.

2.3. Research Gap and Theoretical Innovation Need

Through systematic review of existing literature, obvious research gaps in theoretical methods for traditional textile pattern studies can be identified. First, existing research lacks unified theoretical frameworks, with different researchers employing varying analytical methods and evaluation criteria, making it difficult to effectively compare and integrate research results. Second, traditional single-disciplinary research methods, while possessing certain advantages within their respective fields, struggle to comprehensively reveal the complex nature and multiple values of traditional textile patterns. Finally, existing semiotic research primarily concentrates on linguistic signs and simple visual signs, with relatively weak research on complex visual symbolic systems such as traditional textile patterns that embody profound cultural connotations (Rose, 2022).

The rapid development of multimodal research in recent years provides new theoretical resources and methodological tools for traditional textile pattern research. Bateman et al. (2017) proposes in his multimodal research monograph that multimodal analysis must consider the material characteristics and sociocultural contexts of different

symbolic resources. This perspective provides important inspiration for understanding the material carrier characteristics of traditional textile patterns. Meanwhile, the development of social semiotics also provides crucial theoretical support for this research, with [Bezemer and Jewitt \(2022\)](#) emphasizing that social semiotics focuses on meaning makers and meaning-making processes, which highly aligns with the cultural transmission characteristics of traditional textile patterns.

The feasibility of semiotic theory extension is primarily manifested in several aspects: first, the basic structure of the tripartite model possesses good extensibility, capable of adapting to the analytical needs of different types of symbolic systems; second, contemporary semiotic theory development provides rich theoretical resources and methodological tools for extension; finally, practical needs in traditional textile pattern research provide realistic motivation and validation opportunities for theoretical extension. The availability of these conditions establishes solid foundations and broad developmental prospects for the theoretical innovation of this research.

3. Research Methods

3.1. Theoretical Framework Development Methodology

This research employs theoretical construction methods, developing an extended semiotic framework applicable to traditional textile pattern analysis through interdisciplinary theoretical integration and case validation based on the classical semiotic tripartite model proposed by [Morris \(1938\)](#). Theoretical construction follows four basic principles: the inheritance principle, maintaining the scientific core and basic structure of this theory to ensure continuity and rationality of theoretical extension; the innovation principle, conducting targeted theoretical innovation based on the unique characteristics of traditional textile patterns to transcend traditional framework limitations; the practicality principle, ensuring that extended theory possesses actual analytical value and operability, providing effective guidance for specific research; the integration principle, effectively integrating theoretical resources and research achievements from related disciplines to achieve interdisciplinary theoretical fusion ([Swedberg, 2014](#)).

Interdisciplinary theoretical integration adopts systematic synthesis strategies, primarily involving three related disciplinary fields. From art history, mature methods of visual analysis are absorbed, particularly traditional methods such as formal analysis, style research, and iconographic studies, providing technical support for the visual syntactics dimension of the extended framework. From cultural anthropology, theoretical methods of symbolic analysis and cultural interpretation are borrowed, particularly theoretical achievements in symbolic anthropology and cultural semiotics, providing theoretical foundations for the cultural semantics dimension of the extended framework. From design studies, professional knowledge including color theory, compositional principles, and material craftsmanship is introduced, providing scientific basis for technical analysis in the extended framework ([Denzin & Lincoln, 2011](#)).

Specific operational procedures for theoretical extension include: literature review and theoretical organization, systematically reviewing the foundational theory and related extension research; conceptual reconstruction and dimensional adjustment, redefining three analytical dimensions based on traditional textile pattern characteristics; method design and tool development, designing specific analytical methods and operational

procedures for each dimension; case validation and theoretical refinement, validating theoretical framework effectiveness through typical case analysis and making necessary adjustments and improvements. This procedure ensures the scientific nature and systematicity of theoretical construction.

3.2. Case Study Design and Quality Assurance

Dragon-phoenix patterns, as typical representatives of Chinese traditional textile patterns, possess outstanding advantages and representativeness in case selection. From the perspective of historical transmission, dragon-phoenix patterns originated from ancient Chinese mythology and legends, developing over thousands of years to form complete symbolic systems and expressive norms, embodying profound historical and cultural foundations (Lu, 2012). From the perspective of cultural connotations, dragon-phoenix patterns carry rich symbolic meanings, possessing both imperial political symbolic functions and folk cultural auspicious implications, reflecting the multi-layered characteristics of Chinese traditional culture. From the perspective of visual characteristics, dragon-phoenix patterns demonstrate distinctive features in formal composition, color application, and spatial layout, providing rich materials for multi-dimensional analysis.

Quality assurance measures for case analysis primarily include the utilization of multiple data sources and standardization of analytical processes. Regarding data sources, the research comprehensively employs various materials, including historical documents, physical specimens, and image resources, improving the credibility of analytical results through triangulation validation. Regarding analytical processes, the research establishes standardized operational procedures, including clarification of analytical steps, specification of evaluation criteria, and normalization of recording formats, ensuring reproducibility of analytical processes and comparability of results (Yin, 2017). Case analysis adopts a progressive in-depth strategy, systematically developing analysis according to three dimensions. First, visual syntactic analysis is conducted, focusing on visual elements such as formal composition, color characteristics, and spatial relationships of dragon-phoenix patterns; then cultural semantic analysis is performed, deeply exploring historical origins, symbolic meanings, and cultural connotations of dragon-phoenix patterns; finally, social pragmatic analysis is carried out, systematically examining functional realization and usage situations of dragon-phoenix patterns in different historical periods and social contexts. This progressive analytical strategy ensures both systematic analysis and reflects the internal logical relationships among the three dimensions.

4. Results

4.1. Limitations of Traditional Framework

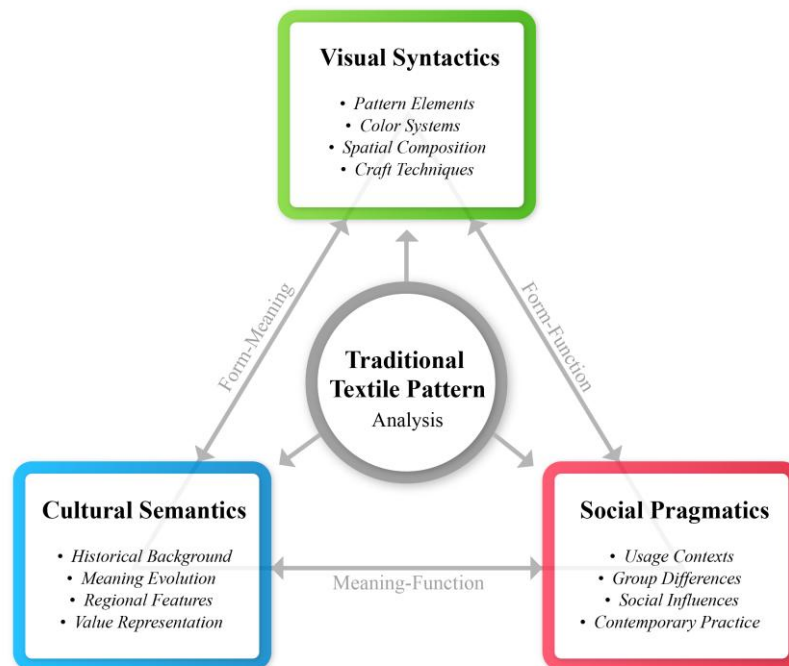
The classical semiotic framework proposed by Morris (1938) faces multiple limitations when applied to traditional textile pattern analysis, stemming from the framework's language-centered characteristics and static analytical orientation. First, the traditional framework is primarily constructed based on linguistic sign characteristics, with its analytical categories and methods centered on the linear structure and abstract nature of linguistic signs. However, traditional textile patterns, as visual symbols, possess unique characteristics including spatiality, simultaneity, and materiality, which cannot be adequately represented through linguistic sign analytical frameworks (Kress & Van

[Leeuwen, 2020](#)). Linguistic signs primarily convey meaning through temporal sequences, while visual symbols construct complex meaning networks through spatial relationships and simultaneous presentation of visual elements.

Second, the traditional framework lacks dynamic consideration of symbolic historical evolution, primarily focusing on static characteristics of signs at specific time points. Traditional textile patterns, as living cultural heritage, experience symbolic meaning evolution with changes in historical and cultural contexts, and this diachronic meaning construction process represents a key dimension for understanding pattern cultural value. This static analytical approach struggle to grasp this dynamic meaning evolution process, failing to reveal the adaptive and innovative characteristics of traditional textile patterns in cultural transmission ([Hall et al., 2024](#)).

Finally, the traditional framework neglects the material carrier characteristics of symbols, failing to adequately consider the important influence of factors such as production techniques, material properties, and technical conditions on symbolic construction. Traditional textile patterns are not only visual symbols but also carriers of material culture, with their production processes, material selection, and technical craftsmanship all constituting important components of symbolic meaning construction. For example, different weaving techniques affect pattern expression effects, and different materials influence pattern visual characteristics—these material-level factors are often overlooked in traditional semiotic analysis ([Andrew, 2008](#)). These limitations indicate that traditional textile pattern analysis requires more suitable theoretical frameworks. This research constructs an extended semiotic framework specifically for traditional textile patterns based on the tripartite model. As illustrated in [Figure 1](#), the extended framework transforms the three dimensions into an analytical system adapted to visual culture characteristics.

Figure 1: Extended Semiotic Framework for Traditional Textile Patterns



Source: Developed by the authors based on the classical tripartite model ([Morris, 1938](#))

Visual syntactics focuses on pattern formal composition and craft constraints; cultural semantics explores pattern historical evolution and cross-cultural connotations; social pragmatics examines pattern usage contexts and contemporary practices. The three dimensions are interrelated, providing comprehensive analytical perspectives for traditional textile patterns.

4.2. Visual Syntactics

Extended visual syntactics transcends the limitations of traditional syntactics focusing on symbolic formal relationships, establishing a formal analytical system specifically targeting the visual characteristics of traditional textile patterns. The core task of visual syntactics is to reveal the visual compositional principles and aesthetic patterns of patterns through systematic analysis of basic elements, combinatorial methods, and visual effects to understand their formal characteristics and expressive mechanisms.

Analysis of basic pattern elements constitutes foundational work in visual syntactics, primarily including geometric elements such as points, lines, and planes; representational elements such as animals, plants, and figures; and abstract decorative motifs. These elements in traditional textile patterns are not simply combined but follow specific cultural logic and aesthetic principles. Element selection reflects specific cultural values and aesthetic ideals, while element combination reflects traditional artistic compositional rules and expressive techniques (Wong, 1993). Through systematic analysis of basic elements, the compositional foundations and expressive vocabulary of traditional textile patterns can be revealed.

Color system analysis constitutes an important component of visual syntactics, as color application in traditional textile patterns often follows specific cultural norms and symbolic systems. The five-color system (qing, red, yellow, white, black) widely adopted in Chinese traditional textiles not only possesses decorative functions but also carries profound cultural connotations and philosophical concepts. Color selection and coordination reflect traditional cultural understanding of natural laws and pursuit of harmonious beauty, while also reflecting technical levels and aesthetic tastes of different historical periods (Welch, 2013). The symbolic nature of color makes it an important meaning carrier in traditional textile patterns.

Spatial compositional principle analysis focuses on pattern spatial organization and visual order, with traditional textile pattern composition reflecting profound cultural concepts and aesthetic thoughts. Symmetry and balance principles reflect traditional cultural pursuit of harmonious unity; repetition and continuity principles reflect traditional cultural understanding of eternity and circulation; hierarchical and primary-secondary relationships reflect traditional social concepts of hierarchy and order (Rawson, 1984). These compositional principles are not merely technical design methods but visual expressions of cultural concepts.

Craft technique constraint analysis represents unique content in visual syntactics, focusing on the influence of production techniques on pattern formal expression. Different weaving techniques, dyeing processes, and decorative methods possess specific expressive capabilities and technical limitations, directly affecting pattern design possibilities and visual effects. Technical innovation often brings breakthroughs in pattern forms, while technical limitations create specific stylistic characteristics. Through analyzing relationships between craft techniques and pattern forms, the

material foundations and production logic of traditional textile patterns can be deeply understood.

4.3. Cultural Semantics

Extended cultural semantics establishes a meaning analytical system specifically targeting the cultural characteristics of traditional textile patterns based on traditional semantics. Cultural semantics not only focuses on direct referents of pattern symbols but more importantly explores deep meanings such as cultural connotations, historical origins, and value concepts. The cultural semantics of traditional textile patterns possesses multi-layered and complex characteristics, requiring multidisciplinary knowledge and methods for comprehensive analysis.

Historical and cultural background analysis constitutes core content of cultural semantics, as the formation and development of traditional textile patterns are closely related to specific historical and cultural contexts. Pattern origins can often be traced to ancient cultural phenomena such as mythology, religious beliefs, and social systems, with their developmental evolution processes reflecting historical and cultural transformation trajectories. Through analyzing pattern historical and cultural backgrounds, their deep cultural roots and evolutionary dynamics can be understood, revealing their important roles in cultural transmission (Clunas, 1997).

Cross-temporal meaning evolution analysis focuses on historical change processes of pattern symbolic meanings, as cultural meanings of traditional textile patterns evolve with changes in social and historical conditions. The same pattern symbol may carry different cultural connotations in different historical periods, and this meaning change reflects the dynamic and adaptive nature of culture. Analysis of meaning evolution helps understand cultural transmission mechanisms and transformation patterns, recognizing the active role of cultural symbols in historical processes (Williams, 1977).

Regional cultural characteristic analysis examines cultural features of traditional textile patterns from different regions, as factors such as geographical environment, ethnic traditions, and lifestyles all influence pattern formal characteristics and cultural connotations. Regional cultural differences create rich diversity in traditional textile patterns while reflecting the unique values of different cultural traditions. Through comparative analysis of pattern characteristics from different regions, cultural diversity and rich expressions of human creativity can be better understood.

Visual expression analysis of social values focuses on patterns' functions as carriers of value concepts, as traditional textile patterns often represent visual embodiments of specific social values. Pattern selection, combination, and usage reflect social pursuits of beautiful life, advocacy of moral qualities, and maintenance of social order. This value concept analysis helps understand the social functions and educational significance of traditional textile patterns, recognizing their important roles in cultural communication.

4.4. Social Pragmatics

Extended social pragmatics establishes a functional analytical system specifically targeting the social characteristics of traditional textile patterns based on traditional pragmatics. Social pragmatics focuses on actual usage situations and functional

realization of patterns in different social contexts, analyzing social meaning production processes and cultural communication mechanisms of patterns.

Usage context function analysis constitutes core content of social pragmatics, as traditional textile patterns undertake different social functions in different usage contexts. In religious rituals, patterns serve mediating functions communicating between sacred and secular realms; in social interaction, patterns embody roles of identity markers and status symbols; in daily life, patterns undertake functions of environmental beautification and emotional expression. These different functional levels interweave to form complex social functional networks (Turner, 1967).

Social group interpretation difference analysis examines differences in understanding and interpretation of pattern symbols among different social groups, as interpreters' social backgrounds, cultural literacy, and life experiences influence their understanding of pattern meanings. Elite groups often focus more on cultural connotations and symbolic meanings of patterns, while ordinary people pay more attention to practical functions and aesthetic values of patterns. These interpretation differences reflect the influence of social stratification and cultural differences on symbolic reception, demonstrating the complexity of traditional textile pattern symbolic systems (Bourdieu, 2018).

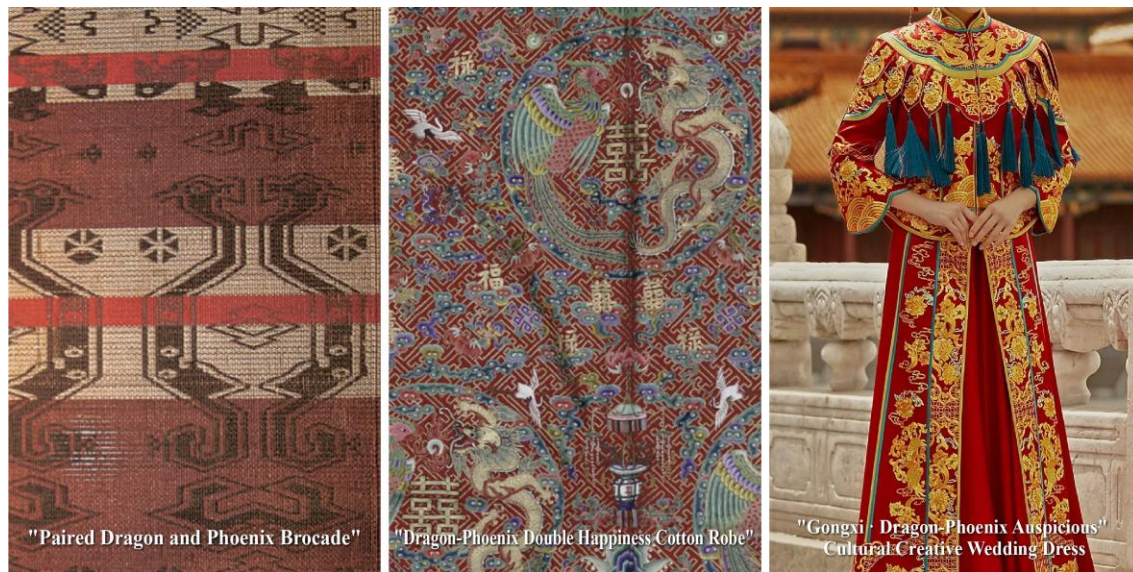
Political and economic environment influence analysis focuses on constraining effects of external social conditions on pattern usage, as political systems, economic conditions, and social environments all influence pattern production, circulation, and usage. Political factors determine pattern usage norms and hierarchical orders, economic conditions influence pattern production techniques and material selection, and social environments shape pattern aesthetic tastes and cultural values. Analysis of these external factors helps understand the sociopolitical functions of traditional textile patterns.

Contemporary transmission practice analysis focuses on new developments and applications of traditional patterns in contemporary society, as traditional textile patterns acquire new usage contexts and social functions with social changes. In cultural heritage protection, patterns undertake missions of transmitting historical culture; in cultural industries, patterns become cultural commodities and creative resources; in international exchange, patterns serve cultural diplomatic roles. This contemporary practice analysis helps understand adaptation mechanisms and developmental prospects of traditional culture in modern society.

4.5. Framework Application: Dragon-Phoenix Pattern Analysis

To validate the effectiveness and practicality of the extended semiotic framework, this research selects dragon-phoenix textile patterns from three different historical periods for systematic analysis, demonstrating the framework's analytical capability in handling diachronic cultural symbolic evolution (Figure 2). Through in-depth analysis of the Warring States period "Paired Dragon and Phoenix Brocade," Qing Dynasty "Dragon-Phoenix Double Happiness Cotton Robe," and contemporary "Gongxi · Dragon-Phoenix Auspicious" cultural creative wedding dress, the transformation trajectory of dragon-phoenix pattern symbolic systems' formal characteristics, cultural connotations, and social functions across different historical contexts is revealed.

Figure 2: Dragon-Phoenix Patterns across Three Historical Periods



Source: Images collected and compiled by the authors for academic use

4.5.1. Visual Syntactic Analysis

Extended visual syntactic analysis reveals that dragon-phoenix patterns from the three periods demonstrate distinct technical characteristics and aesthetic evolution in formal composition (Table 1). The Warring States period "Paired Dragon and Phoenix Brocade" reflects the profound influence of early weaving technology on pattern design. As described by Zhao et al. (2012) in "Research on Warring States Paired Dragon and Phoenix Brocade," Warring States brocade was limited by treadle loom technology of the time, requiring pattern completion within 100 weft cycles in the warp direction, leading to relatively abstract and geometric dragon-phoenix images. The Warring States "Paired Dragon and Phoenix Brocade" housed in Hunan Provincial Museum shows dragon patterns with slender bodies and curved postures, decorated with only three circular dots, while phoenix patterns are simplified to variations of different crest decorations, including long-line crested phoenix birds, triangular crested phoenix birds, and double short-line crested phoenix birds. This simplified expressive technique does not represent limitations in artistic level but results from mutual constraint and adaptation between weaving techniques and design creativity. Regarding color application, Warring States dragon-phoenix patterns employed vermilion colored warp strips and light-dark brown two-color brocade systems, reflecting the Chu people's cultural tradition of "favoring red" and the technical level of mineral and plant dyes of the time.

The Qing Dynasty "Dragon-Phoenix Double Happiness Cotton Robe" demonstrates refined expressive characteristics following high development of weaving and embroidery techniques. Yan (2023) points out in his research on Qing Dynasty court costumes that the improvement of Qing imperial costume systems provided normative foundations for standardized dragon-phoenix pattern expression. The Guangxu Empress's wedding dragon-phoenix robe housed in the Palace Museum employs complex multi-layered composition, using bright yellow plain silk as lining and bright red silk as outer fabric, creating eight dragon-phoenix harmony patterns on both shoulders, front and back chest, and front and back lower hem through fine embroidery techniques. Dragon-phoenix patterns of this period tend toward stylization and

decoration in formal expression, with dragon images appearing majestic and dignified with distinct five-claw characteristics, phoenix images appearing gorgeous and elegant with full plumage, and overall composition strictly following symmetrical principles and hierarchical order.

The contemporary "Gongxi · Dragon-Phoenix Auspicious" cultural creative wedding dress reflects innovative transformation of traditional motifs within contemporary design contexts. Designers maintain basic cultural connotations of dragon-phoenix pattern elements from cultural relics while conducting modern reinterpretation of traditional forms, employing simplified lines and modern color coordination, complemented by auspicious cloud water wave patterns, scrolling grass vine patterns and other auxiliary motifs to create visual effects combining tradition and modernity. This design strategy reflects practical exploration of "creative transformation and innovative development" of traditional cultural elements in contemporary cultural creative design.

4.5.2. Cultural Semantic Analysis

From the perspective of cultural semantics, dragon-phoenix patterns from the three periods carry different cultural connotations and symbolic meanings, reflecting value concept changes in Chinese civilization development processes (Table 1). Warring States period dragon-phoenix patterns primarily embody cultural characteristics of early totem worship and mythological thinking. As Ma (2008) points out in his research on Chinese dragon-phoenix patterns, the popularity of dragon-phoenix patterns during the Spring and Autumn and Warring States periods reflects ancestors' worship of mythical animals and expectations for auspicious omens. Dragon-phoenix patterns in Chu cultural contexts possess strong religious coloring and mythological implications, with dragons as symbols of water and thunder gods, phoenixes as embodiments of sun birds and wind gods, their combination reflecting Chu people's reverence for natural forces and understanding of cosmic order (Lu, 2012). Dragon-phoenix patterns of this period follow natural and ethical compositional methods, conforming to rational and abstract requirements, while the yin-yang complementary structure clearly conveys beautiful concepts of harmony, fulfillment, wealth, and auspiciousness.

The cultural semantics of Qing Dynasty dragon-phoenix patterns prominently embody symbolic functions of imperial power politics and hierarchical systems. Under feudal autocratic systems, dragon-phoenix patterns became visual expressions of imperial supremacy and monarchical dignity, with strict usage norms and hierarchical restrictions granting them strong political symbolic meanings. Dragons as exclusive symbols of "Sons of Heaven" embody the political concept of "divine right of kings"; phoenixes as identity markers of "Empresses" embody the social concept of "maternal virtue over the world." The "double happiness" elements in Guangxu Empress's wedding "Dragon-Phoenix Double Happiness Cotton Robe" reflect cultural pursuits of marital harmony and yin-yang balance in imperial weddings, with this combination of political symbolism and human emotion reflecting the complexity of Qing court culture.

The cultural semantics of contemporary "Gongxi · Dragon-Phoenix Auspicious" cultural creative wedding dress prominently embody value reconstruction of traditional culture within contemporary contexts. Dragon-phoenix patterns transform from political symbols to cultural symbols, from hierarchical markers to carriers of national identity. Under globalization, dragon-phoenix patterns become important symbols of Chinese

culture, carrying contemporary connotations of cultural confidence and cultural identity. The successful practice of Palace Museum cultural creative products demonstrates that traditional cultural symbols can acquire new cultural vitality through innovative design. As relevant research indicates, *"Palace Museum cultural creative products deeply excavate rich cultural resources, sowing cultural charm, humanistic sentiment, and artistic spirit behind cultural relics into the hearts of the general public"* (Shan, 2020).

4.5.3. Social Pragmatic Analysis

Social pragmatic analysis reveals functional realization and usage patterns of dragon-phoenix patterns from the three periods in different social contexts (Table 1). Warring States period dragon-phoenix patterns were primarily used among aristocratic classes, undertaking dual functions of identity marking and religious sacrifice. Archaeological discoveries indicate that dragon-phoenix brocades mostly appear in high-level burials, reflecting their social functions as luxury goods and status symbols. Simultaneously, dragon-phoenix patterns served mediating roles communicating between humans and gods in religious rituals, expressing reverence for deities and seeking divine favor through pattern display.

Table 1: Comparative Analysis of Dragon-Phoenix Patterns Using Extended Semiotic Framework

Analysis Dimension	Visual Syntactics	Cultural Semantics	Social Pragmatics
Warring States Period: "Paired Dragon and Phoenix Brocade"	Abstract geometric dragon-phoenix images, vermilion-brown color system, constrained by loom technology	Totem worship and mythological thinking, dragon-phoenix as mythical animal symbols conveying auspicious fortune	Aristocratic exclusive identity markers, religious sacrificial mediating functions, strict class restrictions
Qing Dynasty: "Dragon-Phoenix Double Happiness Cotton Robe"	Refined dragon-phoenix images, multi-layered composition, bright yellow-red hierarchical colors, exquisite embroidery techniques	Imperial power political symbolism, dragon-phoenix embodying "divine right of kings" and "maternal virtue over the world" concepts	Imperial ritual activity exclusivity, maintaining political order, obvious hierarchical usage differences
Contemporary: "Gongxi · Dragon-Phoenix Auspicious" Cultural Creative Wedding Dress	Creative transformation of traditional relic dragon-phoenix images, fusion of traditional and modern colors, innovative design technology	Political symbols transformed to cultural symbols, carrying contemporary connotations of national identity and cultural confidence	Contemporary wedding culture carriers, cultural identity expression, broadly democratized application

Source: Compiled by the authors

The social pragmatic functions of Qing Dynasty dragon-phoenix patterns prominently manifest in maintaining political order and strengthening hierarchical concepts. The strictness of Qing costume regulations made dragon-phoenix patterns important tools for distinguishing social hierarchies, with differentiated usage among imperial family

members, officials and nobles, and common people reflecting feudal society's power structures. The usage context of Guangxu Empress's wedding dragon-phoenix robe—imperial wedding ceremonies—fully demonstrates the symbolic functions and political significance of dragon-phoenix patterns in important ritual activities. This hierarchical usage pattern not only reflects traditional society's power relationships but also reveals the important role of costumes in social governance.

The social pragmatic functions of contemporary "Gongxi · Dragon-Phoenix Auspicious" cultural creative wedding dress reflect new developments of traditional culture in contemporary life. With changes in social systems, dragon-phoenix patterns have escaped political constraints and gained broader social application spaces. In contemporary wedding culture, dragon-phoenix patterns become important elements expressing traditional cultural identity and national sentiment, with young people expressing love for traditional culture and yearning for beautiful life through selecting dragon-phoenix wedding dresses.

The development of cultural creative industries provides new platforms and mechanisms for contemporary transmission of dragon-phoenix patterns. The successful practice of Palace Museum cultural creative products demonstrates that traditional cultural symbols can acquire broad social recognition and market value through transformation in modern design languages. This functional transformation not only promotes cultural heritage protection and transmission but also provides important creative resources for cultural industry development. In cross-cultural communication, dragon-phoenix patterns serve as important symbols of Chinese culture, playing cultural diplomatic roles in international exchange and enhancing understanding and communication between different cultures.

4.6. Framework Effectiveness and Validation

Through systematic analysis of dragon-phoenix patterns from three different periods, the effectiveness of the extended semiotic framework has been fully validated. The complementarity of three-dimensional analysis manifests in each dimension revealing different aspects of dragon-phoenix pattern characteristics, while organic combination of the three dimensions provides comprehensive understanding of dragon-phoenix pattern symbolic systems. Visual syntactic analysis reveals constraining effects of technical conditions on pattern forms and internal logic of aesthetic evolution; cultural semantic analysis interprets symbolic connotations and value concepts of dragon-phoenix patterns across different historical periods; social pragmatic analysis explores functional realization and usage patterns of dragon-phoenix patterns in different social contexts.

The framework's diachronic analytical capability has been effectively demonstrated through comparative research of three cases. From Warring States period totem worship to Qing Dynasty imperial power symbolism to contemporary cultural identity, the evolutionary trajectory of dragon-phoenix pattern symbolic meanings clearly displays the historical development process of Chinese civilization. This diachronic analysis not only reveals cultural transmission mechanisms of traditional textile patterns but also provides theoretical support for understanding cultural symbols' adaptability and innovation.

Compared with traditional single analytical methods, the extended semiotic framework demonstrates obvious theoretical advantages. Traditional formal analysis methods, while capable of describing pattern visual characteristics, struggle to deeply reveal their cultural connotations and social functions; traditional cultural history research methods, while capable of interpreting pattern historical backgrounds, lack systematic analytical frameworks; traditional sociological methods, while capable of analyzing pattern social functions, often neglect their visual characteristics and cultural values. The extended semiotic framework integrates multidisciplinary research methods through organic unity of form, content, and function, providing more comprehensive theoretical tools for traditional textile pattern research.

5. Conclusion

This research successfully constructs an analytical framework specifically for traditional textile patterns through innovative extension of the semiotic tripartite model proposed by Morris (1938), achieving important breakthroughs in theoretical development and methodological innovation. The extended three-dimensional analytical system of visual syntactics, cultural semantics, and social pragmatics effectively overcomes the language-centered limitations of traditional semiotic theory, providing systematic theoretical tools for visual symbol research. Dragon-phoenix pattern case analysis fully validates the analytical effectiveness of the extended framework, with comparative research across three historical periods, from Warring States period totem worship to Qing Dynasty imperial power symbolism to contemporary cultural identity, clearly displaying the evolutionary trajectory of traditional textile pattern symbolic meanings. Research demonstrates that the extended framework can not only reveal visual compositional principles and aesthetic characteristics of patterns but also deeply interpret their cultural connotation changes and social function realization, achieving organic unity of formal analysis and meaning interpretation.

The academic contributions of this research manifest primarily at theoretical and practical levels: theoretically, the research promotes semiotic development from linguistic signs toward multimodal visual symbolic systems, establishing interdisciplinary analytical frameworks that integrate resources from multiple disciplines, including art history, cultural anthropology, and design studies, providing effective tools for researching complex cultural phenomena. In practical applications, the extended framework provides theoretical support for cultural heritage protection, educational communication, and cultural industry development, particularly in promoting contemporary transformation of traditional cultural elements, where the framework's guiding value has been fully demonstrated, providing scientific basis for organic combination of traditional culture and modern life.

Although this research has achieved positive results in theoretical innovation and empirical validation, certain limitations remain. The cross-cultural applicability of the extended framework requires validation through more cases from different cultural backgrounds, and the standardization level of analytical methods needs further improvement. Future research should focus on cross-cultural validation of the framework, integrated application of technical means, and practical exploration in broader fields to promote further refinement and development of the theoretical system.

Ethics Approval and Consent to Participate

This research obtained ethical approval from the Universiti Teknologi MARA (UiTM) Research Ethics Committee under approval code REC/03/2024 (PG/MR/127). All procedures were conducted following the ethical standards and guidelines established by the Committee.

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Conflict of Interest

The authors declare no conflict of interest.

References

- Andrew, S. (2008). Textile semantics: Considering a communication-based reading of textiles. *Textile*, 6(1), 32-65. <https://doi.org/10.2752/175183508X288680>
- Barthes, R. (1977). *Image-music-text*. Hill and Wang.
- Bateman, J., Wildfeuer, J., & Hiippala, T. (2017). *Multimodality: Foundations, research and analysis—A problem-oriented introduction*. Walter de Gruyter GmbH & Co KG. <https://doi.org/10.1515/9783110479898>
- Bateman, J. A. (2017). Triangulating transmediality: A multimodal semiotic framework relating media, modes and genres. *Discourse, Context & Media*, 20, 160-174. <https://doi.org/10.1016/j.dcm.2017.06.009>
- Bateman, J. A., & Wildfeuer, J. (2014). A multimodal discourse theory of visual narrative. *Journal of Pragmatics*, 74, 180-208. <https://doi.org/10.1016/j.pragma.2014.10.001>
- Bezemer, J., & Jewitt, C. (2022). Social semiotics. In J. Östman, J. Verschueren, & C. B. Paul (Eds.), *Handbook of Pragmatics* (pp. 1255-1263). John Benjamins Publishing Company. <https://doi.org/10.1075/hop.m2.soc5>
- Bourdieu, P. (2018). Distinction: A Social Critique of the Judgement of Taste. In D. B. Grusky & J. Hill (Eds.), *Inequality* (pp. 287-318). Routledge.
- Clunas, C. (1997). *Art in China*. Oxford University Press, USA.
- Denzin, N. K., & Lincoln, Y. S. (2011). *The SAGE handbook of qualitative research* (4th ed.). SAGE Publications.
- Eco, U. (1979). *A theory of semiotics*. Indiana University Press.
- Elkins, J. (2013). *Visual studies: A skeptical introduction*. Routledge.

- Hall, S., Evans, J., & Nixon, S. (2024). *Representation: Cultural Representations and Signifying Practices* (3rd ed.). SAGE Publications.
- Harris, J. (1993). *5000 years of textiles*. British Museum Press London.
- Key, L., & Noble, B. P. (2017). *An analysis of Ferdinand de Saussure's Course in general linguistics* (1st ed.). Macat Library. <https://doi.org/10.4324/9781912281732>
- Kress, G., & Van Leeuwen, T. (2020). *Reading images: The grammar of visual design* (3rd ed.). Routledge. <https://doi.org/10.4324/9781003099857>
- Lu, X. (2012). Cultural connotation and artistic presentation in symbols of dragons and phoenixes. *Journal of Nantong University(Social Sciences Edition)*, 28(01), 82-87. [In Chinese]
- Ma, Z. (2008). History of the dragon and phoenix pattern. *Journal of Chengdu Textile College*, (1), 76-78. [In Chinese]
- Mirzoeff, N. (1999). *An introduction to visual culture* (Vol. 274). Routledge London.
- Morris, C. W. (1938). *Foundations of the Theory of Signs*. Chicago University Press.
- Peirce, C. S. (1934). *Collected papers of Charles Sanders Peirce* (Vol. 5, C. Hartshorne & P. Weiss, Eds.). Harvard University Press.
- Rawson, J. (1984). *Chinese ornament: The lotus and the dragon*. London: British Museum Publications.
- Rose, G. (2022). *Visual methodologies: An introduction to researching with visual materials* (5th ed.). SAGE Publications.
- Saussure, F. d. (1983). *Course in General Linguistics* (R. Harris, Trans.; C. B. A. Sechehaye, Ed.). La Salle, Illinois: Open Court.
- Schoeser, M. (2022). *World textiles*. Thames & Hudson.
- Shan, J. (2020). Enhancing cultural identity through high-quality cultural products: Insights from the development of Palace Museum cultural creativity. *Han Yangling Museum*. <http://www.hylae.com/index.php?ac=article&at=read&did=1950> (accessed July 12, 2025)
- Swedberg, R. (2014). *The art of social theory*. Princeton University Press.
- Turner, V. W. (1967). *The forest of symbols: Aspects of Ndembu ritual* (Vol. 101). Cornell University Press.
- Weiner, A. B., & Schneider, J. (2013). *Cloth and human experience*. Smithsonian Institution. DOI: 10.1126/science.249.4976.1588
- Welch, P. B. (2013). *Chinese art: A guide to motifs and visual imagery*. Tuttle Publishing.
- Williams, R. (1977). *Marxism and literature* (Vol. 392). Oxford Paperbacks.
- Wilson, K. (2021). *A history of textiles*. Routledge.
- Wong, W. (1993). *Principles of form and design*. John Wiley & Sons.
- Yan, Y. (2023). The imperial court costume system and its cultural connotations in the Qing dynasty: The fourth lecture of the fifth series of "Scholars discuss the Forbidden City". *The Palace Museum*. https://www.dpm.org.cn/classify_detail/262014.html (accessed July 12, 2025)
- Yin, R. K. (2017). *Case study research and applications: Design and methods* (6th ed.). SAGE Publications.
- Zhao, F., Luo, Q., & Zhou, Y. (2012). Study on the brocade with double-dragon and double-phoenix designs of the Warring States. *Cultural Relics*, (7), 51-58. [In Chinese]