

Understanding The Application Of Visual Symbols In Creative Design Works Of The 24 Solar Terms: Analyzing The Method Of Translating Cultural Symbols Into Visual Symbols Based On Semiotics Theory

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Abstract

The 24 Solar Terms, a key element of China's intangible cultural heritage, reflect traditional knowledge of solar movement and seasonal change. This study investigates how the cultural symbols of the 24 Solar Terms can be visually translated to promote heritage in the new media context. Based on six months of data collection and analysis at multiple universities in Shanghai, the research examines user understanding, symbol usage, and visual preferences. Key findings include: (1) challenges in translating cultural symbols; (2) effective methods for symbol translation; and (3) a proposed model for visual transformation. This study offers an initial framework for applying cultural symbol translation in creative design, providing practical insights for the communication of intangible cultural heritage.

Keywords: 24 Solar Terms; Semiotics Theory; cultural symbols; translation; visual symbols

1.1 INTRODUCTION

Cultural symbols refer to symbols that carry specific meanings and connotations. These symbols are highly abstract and culturally rich, serving as the condensed representation of the unique cultural identity of an enterprise, region, nation, or country. As such, they are essential carriers and expressions of cultural meaning (Liu 2021)¹. Visual symbols, on the other hand, are those perceived by the human visual system. They encompass unified and specialized forms of graphics and color with communicative functions, aiming to enhance visual impact and recognition. Visual symbols typically appear under specific conditions and take forms such as icons, scale variation, color changes, or animation to complete effective communication.

Over the past two decades, increasing academic attention has been devoted to the study of Chinese cultural symbols, with research exploring their application and dissemination in diverse fields such as film and television, cross-cultural communication, and education. As modes of cultural transmission become more diversified, the forms and functions of cultural symbols have

expanded accordingly, particularly in relation to intangible cultural heritage (Zhang & Khan, 2024). In contrast, research on visual symbols has largely focused on graphic design, imagery, and color theory, often emphasizing their potential for enhancing message delivery. The use of visual symbols in design is comparable to the montage technique in film, wherein information from different temporal and spatial contexts can coexist to produce richer, more meaningful, and more accessible communication (Jiang 2019)².

Despite increasing scholarly attention, research on translating intangible cultural symbols—such as those of the 24 Solar Terms—into visual symbols remains limited. A review of CNKI reveals a lack of relevant literature, exposing theoretical and practical gaps in extracting visual elements from intangible culture. This gap has impeded the application of visual symbols in traditional cultural design.

To address this, the present study investigates the translation of cultural symbols into visual forms, using the 24 Solar Terms as a case study. It (1) analyzes the cultural connotations and symbolism of the Solar Terms, (2) deconstructs their meanings within a contemporary semiotic framework, and (3) proposes a model for visual transformation. Based on six months of interviews, focus groups, and surveys with students and scholars, the study aims to construct a theoretical and practical framework for effective symbol translation in creative design and cultural communication.

1.2 Literature analysis

1.2.1 24 Solar Terms.

The 24 Solar Terms are a key symbol of traditional Chinese culture and an integral part of China's intangible cultural heritage. Rooted in ancient agricultural civilization, they form a systematic body of knowledge based on long-term solar observation and seasonal change. As a practical agricultural calendar, the Solar Terms embody generations of survival wisdom shaped by regional and cultural contexts. Though their functional role has declined in the modern era, their cultural and emotional significance endures through interpersonal and intergenerational transmission.

In contrast to traditional Chinese festivals, which are structured around six key elements—belief, ritual, language, gifts, food, and art—the Solar Terms differ in both form and function (Tao 2018)³. These six components give festivals a holistic cultural structure and multi-channel means of transmission, which distinguishes them from the seasonal, time-based function of the Solar Terms. As such, the cultural symbols associated with the 24 Solar Terms must be understood on their own terms rather than through the lens of festival traditions.

The culture of the 24 Solar Terms can be effectively communicated through visual symbols—cognitive media expressed via images, colors, and forms. Evolving from linguistic origins, these symbols encapsulate key cultural elements and support reinterpretation within contemporary visual language (Quan & Khan, 2024).

Grounded in semiotic theory, this study explores the symbolic structure and interpretive challenges of the Solar Terms to offer theoretical and methodological guidance for designing culturally resonant visual symbols. By incorporating modern concepts such as wellness, the reinterpretation fosters dialogue between tradition and contemporary life.

Visual symbols also serve as emotional conduits, enhancing audience connection with cultural meaning. Their strategic application strengthens public engagement and offers new avenues for the creative dissemination of traditional culture.

1.2.2 Semiotics Theory.

Zhao Yiheng asserted that, “Semiotics, as the study of sign activity, is fundamentally concerned with meaning-making (Zhao 2016)⁴. Meaning involves two essential processes: the act of sending (expression) and the act of receiving (interpretation), both of which are mediated through symbols. When a symbol is sent and subsequently interpreted, the interpretation itself necessitates the use of another symbol. Thus, interpretation marks the beginning of a new symbolic process. While interpretation may temporarily suspend the original process, it cannot terminate the continuous unfolding of meaning.”

In classical semiotics, Ferdinand de Saussure proposed a binary model of the sign, consisting of the signifier (the symbol’s form) and the signified (the concept it conveys). The signifier refers to the physical or visual manifestation, while the signified denotes the associated idea or emotion (Li & Khan, n.d.).

Around the same time, Charles Sanders Peirce introduced a more elaborate triadic model, comprising the representamen (symbol form), object (referent), and interpretant (the meaning constructed by the interpreter). While structurally different, Saussure’s dyadic and Peirce’s triadic models are partially translatable, as both emphasize the arbitrariness of symbols—there is no intrinsic link between signifier and signified. This arbitrariness highlights the symbolic and evolving nature of meaning.

The generation of meaning occurs through the interaction between the signifier and the signified. However, meaning is never static. As cognition and communication evolve, the interpretation of symbolic objects deepens and diversifies. The meaning of a symbol expands over time, particularly as societies progress and existing referential frameworks become inadequate. Consequently, symbols undergo semantic shifts, extensions, or transformations, resulting in new symbols or multiple meanings for a single signifier across different historical or cultural contexts (Chen 2011)⁵.

A symbol, therefore, is a representational form—an object or mark that conveys specific meaning. Its carrier refers to the material form through which the symbol is manifested. While the relationship between a symbol and its material carrier may be debated, it is widely acknowledged that symbols are primarily used to enhance understanding and facilitate communication. In this regard, materiality constitutes a fundamental attribute and functional aspect of symbols (Du et al., 2023).

1.2.3 Cultural symbols in intangible cultural heritage.

The cultural significance of the Spring Festival is often manifested through various festive activities, among which cultural symbols play a crucial role. The continually evolving forms and increasingly enriched meanings of these symbols are essential elements in understanding the inheritance and innovation of Spring Festival culture. Traditional symbols associated with the Spring Festival include door gods, peach wood charms, spring couplets, New Year paintings, paper cuttings, the character “Fu” (福), Chinese zodiac figures, lanterns, and firecrackers. These symbols are predominantly presented in red and yellow, colors that embody festivity and auspiciousness. They encapsulate folk traditions such as the worship of deities, the pursuit of good fortune and prosperity, the farewell to the old and welcome of the new, and the collective celebration of joy and harmony. As such, these symbols not only enhance the festive atmosphere but also convey cultural messages. They serve as a symbolic expression of the spiritual essence,

national consciousness, and behavioral norms associated with the Spring Festival, thereby functioning as vital carriers for the transmission of festival culture (Pan 2012)⁶.

As one of China's oldest and most important traditional festivals, the Spring Festival embodies profound cultural significance. Its customs, shaped by historical experience, have evolved into symbolic markers reflecting deep emotional and cultural values. Analyzing these symbols offers insight into the festival's atmosphere and embedded meanings (Chongcharoen et al., n.d.).

Spring Festival symbols can be classified into two types:

- Static symbols, which are enduring visual or spiritual elements rooted in collective memory;
- Dynamic symbols, which arise from social practices and include behavioral and ritual expressions.

Within the specific symbolic system of the Spring Festival, the “signifier” refers to tangible and material “intermediary objects” such as spring couplets, New Year paintings, firecrackers, lanterns, the Spring Festival Gala, dumplings, and the New Year's Eve dinner. These are perceptible objects – “visual images” that are recognized and appreciated by the public. Through these intermediary forms, the concepts symbolized by the Spring Festival—such as renewal and rejuvenation, blessings and good fortune, familial reunion, and harmonious social relations—are vividly expressed and communicated (Qin 2017)⁷.

Cultural symbols are highly abstract and connotative, serving as essential carriers for expressing cultural meaning. In specific social contexts, they render culture visible and communicable. This applies not only to the Spring Festival but also to traditions like the 24 Solar Terms. Although these are established cultural systems, their ongoing vitality depends on the continued use of cultural symbols in everyday life.

1.2.4 Visual symbols in intangible cultural heritage.

Visual symbols are a mode of social interaction that extends from language and are an essential part of human communication. In the context of rapid technological advancement, visual symbols have become increasingly capable of fulfilling people's desire for rich and diverse sensory experiences (Zheng 2022)⁸. The study of visual symbols is inherently tied to the study of visual culture. In essence, any inquiry into visual symbols must be situated within the structural framework and research scope of visual culture. In contemporary society, visual culture plays an increasingly dominant role. With the dramatic shifts in technology, modes of production, and lifestyle, visual communication has become a central, powerful means of expression in everyday life, relied upon by virtually everyone.

Within this framework, visual symbols perform a crucial function. Through the complex representational practices of visual symbols, new social structures and relationships are constantly being formed. Simultaneously, these symbols serve as a means to reflect upon and critique existing social formations. The process of “visual construction”—developed through a multiplicity of visual experiences and symbolic representations—ultimately contributes to “cultural construction” (Yue 2023)⁹.

Among traditional cultural expressions, the visual symbols of the Spring Festival are perhaps the most significant elements within its visual and cultural systems. These symbols vividly express the atmosphere of harmony and celebration associated with the Spring Festival and are rich with layered symbolic meaning. They represent a collective cultural creation and accumulation forged through generations over thousands of years (Chen 2011)¹⁰.

In a broad sense, visual symbols of traditional festivals refer to the external representations of a festival's cultural connotations. They involve the comprehensive integration and artistic expression of festival themes and associated customs through the language of design. Both two-dimensional and three-dimensional symbols—objects used or displayed during festival activities—constitute the content of these visual symbols. In a narrower sense, festival visual symbols refer to those situated within the realm of visual communication. These are typically composed of traditional patterns and thematic elements, conveying complex festival-related information in a structured and efficient manner through graphic forms, typography, color, and other visual components (Yang, Hu and Liu 2014)¹¹.

In contrast to impersonal, mechanized production, the traditional handicrafts preserved as intangible cultural heritage are shaped by human physical effort and spiritual input. This endows the techniques with an “artistic” character that transcends mere utility. As generalized symbols, visual symbols inherently possess a binary structure, comprising a signifier and a signified. According to Saussure's semiotic theory, symbols operate on two levels: the level of expression—the signifier—and the level of content—the signified. Therefore, the visual symbols embedded in traditional crafts associated with intangible cultural heritage carry dual layers of meaning. The external layer pertains to their visible and tangible aspects, including the production process and the final physical form—color, shape, material, space, and texture. The internal layer, by contrast, reflects abstract elements such as cultural will, spiritual belief, philosophical thought, and inherited wisdom (Su, Dai and Zhu 2024)¹².

As an extension of language, visual symbols offer a powerful alternative mode of communication. Compared with linguistic differences, visual symbols more effectively satisfy diverse emotional and sensory needs. According to Charles Sanders Peirce's triadic model of signification, visual symbols can be classified into three categories: iconic, indexical, and symbolic. These types reflect a progression from surface-level representation to deeper levels of abstraction, enabling the production and transmission of multifaceted meanings. For instance, the visual representation of intangible cultural elements such as the 24 Solar Terms exemplifies this gradual process—from formal appearance to symbolic interpretation—while also being shaped by regional, temporal, and economic contexts.

1.2.5 Translation.

“Translation” is traditionally a term rooted in the field of linguistics, referring to the act of rendering one language into another through a mediating process (Guan and Zhang 2019)¹³. Beyond its basic linguistic function, translation also holds generative potential: it facilitates the creation of new meanings in both source and target languages and contributes to the emergence of new forms of subjectivity within cross-cultural interactions. In contemporary discourse, the concept of “translation” has extended far beyond the realm of language alone. It is now understood as a process by which one signifying system influences and shapes the emergence of another in a patterned and meaningful way. This broader interpretation has been widely applied in fields such as media and communication, art and design, and architectural and landscape studies (Wu and Chen 2022)¹⁴.

In the context of cultural and creative products, the translation of cultural symbols involves transforming intangible cultural meanings into tangible, perceivable forms. This process encompasses the extraction and redesign of symbolic elements, the decoding of contemporary user behavior, and the reinterpretation and reinvention of traditional cultural values and

emotional resonance (Zhao and Xue 2023)¹⁵. Such translation is not limited to visual representation but also conveys the deeper cultural values and narratives embedded in the symbols. It aims to abstract and synthesize both the external forms and internal meanings of cultural symbols and to express them multidimensionally through creative products that serve as their carriers.

Various theoretical frameworks have been employed in the study of symbol translation. This study primarily adopts Charles Morris's tripartite theory of semiotics—semantics, syntactics, and pragmatics—as its guiding framework for interpreting and innovatively applying cultural elements (Yang and Ye 2022)¹⁶. Numerous scholars have utilized Morris's semiotics in the interpretation of cultural resources. For instance, Zhu Shangshang and colleagues (Zhu and Luo 2013)¹⁷ proposed a cultural relic interpretation model incorporating not only the three core dimensions of semiotics—semantics, syntax, and pragmatics—but also a contextual dimension to better grasp the cultural meanings behind artifacts. Similarly, Li Juan and collaborators (Li and Chen 2020)¹⁸ suggested design strategies that extract semantics, analyze syntactic structure, and enhance pragmatic relevance, thereby deepening the translation of symbolic meaning from traditional culture into design.

Building on Morris's expanded semiotic model—which includes symbol, interpretant, interpretation, meaning, and context—it becomes clear that a product symbol's meaning does not lie solely in its form, function, or user interaction. Instead, it emerges from a network of external factors, including technological functions, sociocultural norms, and value systems, all of which shape the context.

Context refers to the subjective and objective conditions influencing a symbol's communicative function—such as time, space, content, user identity, psychological state, and cultural background—which together determine how meaning is constructed and interpreted.

Products do not exist in isolation; they derive their significance through contextual relationships. Context functions as the socio-cultural substrate upon which symbols depend for their survival, serving as both the basis for symbolic encoding and the condition for cognitive decoding. It also bridges the gap between the symbolic, imagined world shaped by design and the objective world it aims to represent. In this regard, it can be asserted that the meaning of any symbol is inherently dependent upon its context (Kong and Ning 2014)¹⁹.

1.2.6 Methodology

This study adopts a mixed-methods approach to examine the meaning and function of the 24 Solar Terms' cultural symbols, their transformation into visual forms, and their broader cultural significance. Purposive sampling was used to select participants with expertise in culture and design, including educators, designers, and researchers.

Three primary methods were employed:

1) Semi-Structured Interviews

In-depth interviews explored views on the Solar Terms' cultural relevance, urban presence, transmission, current design practices, and creative challenges.

2) Questionnaires

Two surveys gathered quantitative data on participants' familiarity, engagement with practices, experiences with themed products, recognition of visual symbols, and perceived barriers to development.

3) Controlled Experiment

Group discussions evaluated participants' aesthetic and functional responses to various visual symbol formats, emphasizing user-centered design considerations.

Through the triangulation of qualitative and quantitative data, the study provides a comprehensive understanding of how traditional elements like the 24 Solar Terms can be effectively reinterpreted in contemporary visual design.

Table 1: List of interview experts

Refer to the original document for detailed table content.

Experts	Age	Education	Profession	Major	Years of experience
A	58	Phd	Professor	Folklore	30
B	40	Phd	Designer/Professor	Media psychology, user behavior, cultural and artistic communication	16
C	41	Phd	Visual designer/Professor	Brand strategy and advertising vision	15
D	40	Phd	Professor	Cultural heritage management, cultural industry management	15

A total of four experts were interviewed, each representing diverse professional backgrounds and areas of expertise relevant to the study. The purpose of these expert interviews was to obtain in-depth qualitative insights into the cultural, historical, and design-related aspects of the 24 Solar Terms.

The interviews focused on the following key topics:

- The historical origins and chronological development of the 24 Solar Terms;
- Major stages and turning points in their evolution;
- Issues of inheritance, transformation, and localization specific to Shanghai;
- The distinctiveness and complexity of the 24 Solar Terms in comparison to other forms of intangible cultural heritage;
- The practical relevance and functional role of the 24 Solar Terms in contemporary society;
- The current state and visual representation of content related to the 24 Solar Terms;
- Challenges and limitations observed in existing creative design works that draw from the 24 Solar Terms;
- Difficulties in identifying and extracting appropriate visual symbols, along with potential solutions;
- Case studies illustrating the integration of 24 Solar Terms-themed design works with digital and emerging technologies.

These expert interviews provided valuable perspectives that contributed to a deeper understanding of the cultural significance, design translation, and modern application of the 24 Solar Terms, particularly in the context of visual symbol design and cultural innovation.

Table 2: List of interview contents

Refer to the original document for detailed table content.

Interviewee	Interview aim	Interview questions	Interview materials
Expert A	The history and branches of 24 Solar Terms in China, Shanghai.	<ol style="list-style-type: none"> 1. About the origin and historical development of the 24 Solar Terms. 2. Important literature records about the development of the 24 Solar Terms. 3. The main content and function of the 24 Solar Terms design. 4. Status, inheritance and protection of the 24 Solar Terms. 5. What is the main role and significance of the 24 Solar Terms for modern people? 	Records, dialogue, process photos and other materials from the research process.
Expert B	The change and communication in China, Shanghai.	<ol style="list-style-type: none"> 1. About the role of the 24 Solar Terms (urban and rural). 2. About the problems encountered in the urbanization process of the 24 Solar Terms. 3. The dissemination status of the 24 Solar Terms among young people 4. Traditional cultural transmission forms preferred by young people. 5. A case about the combination of the 24 Solar Terms and urban life. 	Records, dialogue, process photos and other materials from the research process.
Expert C	The current situation and problems of design works of 24 Solar Terms in Shanghai.	<ol style="list-style-type: none"> 1. What are the characteristics and forms of cultural and creative designs that young people like? 2. How to solve the problem of superficiality and homogeneity in the design creation of traditional culture and intangible cultural heritage? 3. From the market perspective, are there any better solutions? 4. Can we use several or one such symbol-like thing to represent the 24 Solar Terms? 5. What is the reason why the visual symbols of the 24 Solar Terms are difficult to express? 	Records, dialogue, process photos and other materials from the research process.

		6. How to transform cultural symbols into visual symbols? 7. How to make cultural and creative products meet the needs of young people?	
Expert D	The inherence problems of 24 Solar Terms in Shanghai.	1. What difficulties has the inheritance of intangible culture encountered in this process? How are the current difficulties different from the previous difficulties? 2. Is urbanization the "end" of the inheritance of the 24 Solar Terms? Is it because it is mainly a time system to guide agricultural production, so it lacks application conditions and practical needs in urban life? 3. What are the advantages and difficulties of the 24 Solar Terms in the context of modern communication? 4. How do young people in cities "connect" with intangible cultural heritage such as the 24 Solar Terms? What form of works can make the inheritance of culture not just stay on the surface? 5. What is the main role and significance of the 24 Solar Terms for modern people?	Records, dialogue, process photos and other materials from the research process.

Table 3: List of control experiment members

Refer to the original document for detailed table content.

Member	Age	Education	Major	Years of experience
A	20	Bachelor	Visual art	3
B	19	Bachelor	Animation design	2
C	21	Bachelor	Animation design	3
D	20	Bachelor	Game design	3
E	21	Bachelor	Game design	3

The controlled experiment addressed challenges in extracting and applying visual symbols from the 24 Solar Terms by exploring effective strategies for their design representation. Using a variable-controlled method, one attribute—such as shape, color, or material—was modified at a time within a fixed thematic context. For example, under the theme of food-related visual symbols, individual adjustments to form and hue were made to evaluate their influence on design outcomes.

The experiment, involving five participants, was organized into three thematic categories:

- Character design based on cultural symbols of the 24 Solar Terms
- Food-related visual translation of cultural symbols
- Folk cultural symbol translation within the Solar Terms context

Each group explored how cultural elements could be transformed into visually engaging and culturally authentic designs. Systematic manipulation of variables allowed for analysis of user perception and design effectiveness, ultimately contributing to a conceptual model and practical strategies for visualizing cultural symbols.

Table 4: List of two questionnaires

Refer to the original document for detailed table content.

Topic	Number of participants	Age	Education
The dissemination and application of the 24 Solar Terms in cities.	201	17-45	Bachelor to master.
The perception and preference of visual symbols of the 24 Solar Terms in cities.	108	15-27	High school to master.

Participant Demographics and Questionnaire Surveys

4) First Experiment

In the first phase, over 200 participants aged 17–45 were recruited. Of these, 95% held a college degree and 90% had an art and design background. Geographically, 48.25% were from first-tier cities, 19.4% from provincial capitals, 29.35% from third-tier cities, and the rest from rural areas. After informed consent and demographic data collection, participants completed a structured questionnaire on the dissemination and application of the 24 Solar Terms in urban contexts. The 25-item questionnaire included:

- 3 demographic questions
- 10 items on cultural knowledge (folk customs, food, festivals)
- 10 items on urban communication methods and challenges
- 2 items on relevance to contemporary youth

All responses and design outputs were compiled for analysis.

5) Second Experiment

The second phase involved over 100 participants aged 15–27, 90% of whom held a college degree, and 81% had an art/design background. Participants were primarily from first-tier cities (73.15%), with others from provincial capitals (14.81%), third-tier cities (10.19%), and rural areas.

Participants completed a 23-item questionnaire addressing visual perception and preferences regarding the 24 Solar Terms in urban settings:

- 3 demographic questions
- 3 items on general awareness and exposure
- 6 items on visual element selection (e.g., color, style, classification)
- 11 items on design preferences and expectations for symbol application

All responses were analyzed to inform culturally resonant and visually engaging design strategies.

1.2.7 Results

1) Part I: the problems in the translation process of the cultural symbols of the 24 Solar Terms.

① Regional Diversity and Pluralistic Representation

The 24 Solar Terms began as an agricultural system in the Yellow River Basin and gradually became embedded in local customs nationwide, influencing rural life, rituals, and practices. However, China's vast geography and diverse climate have resulted in regional differences in how the Solar Terms are observed. Customs, foods, and seasonal practices vary; for instance, insect-repelling ceremonies during Awakening of Insects are common in southern regions but absent in the frozen north. These disparities challenge the creation of a unified visual language and necessitate regionally adaptive, pluralistic design approaches.

② The Interconnected Nature of Solar Term Content

Beyond agriculture, the 24 Solar Terms represent an integrated cultural system. A review of literature and expert interviews identified eleven overlapping dimensions: calendar regulation, meteorology, agriculture, festivals, folk customs, literature, seasonal food, plants, healthcare, astronomy, and art. These elements form a networked, rather than linear, structure. Highly regional customs—such as weighing oneself or eating salted duck eggs in Shanghai during the Beginning of Summer—reflect climate adaptation through food culture. However, this richness complicates visual representation and risks oversimplification or cultural distortion.

③ Weakening Cultural Identity

Cultural identity rooted in shared traditions is weakening, especially regarding the 24 Solar Terms, due to urbanization, changing lifestyles, and conceptual complexity. In urban settings, the Solar Terms are increasingly disconnected from daily experience, particularly among younger generations. While still referenced in popular discourse, they are often understood only superficially. Effective transmission requires moving beyond static imagery to reconnect with their deeper meanings. For example, the Winter Solstice, once rich in cultural meaning, is now commonly associated only with dumplings or glutinous rice balls—popularized on social media but divorced from historical context—revealing a broader identity gap.

④ Homogenization and Superficiality in Visual Design

Despite growing interest in traditional culture-themed design, many outputs suffer from homogenization and lack depth. Designers frequently prioritize recognizable symbols over audience needs, especially for younger users. Spring Festival designs, for instance, emphasize red envelopes and couplets while neglecting cultural significance. Likewise, designs inspired by the 24 Solar Terms often ignore regional nuances and symbolic depth. Many works fail to consider media formats, design techniques, or user demographics, reducing cultural elements to decorative motifs on generic products. This results in aesthetic fatigue and diminished engagement.

To address this, design must emphasize cultural inheritance over superficial novelty. It requires understanding the needs of younger audiences, selecting meaningful content, and translating it into visually resonant forms. Design should also serve broader societal roles by reflecting lived experience and exploring new communication modes. Translation efforts must integrate technological advancements and interdisciplinary approaches. Digital platforms and social media offer opportunities for interactive, participatory engagement. To stay relevant, the visual language of the 24 Solar Terms must embrace usability, interactivity, and responsive design.

2) Part II: The Process and Method of Translating the Cultural Symbols of the 24 Solar Terms into Visual Symbols

① Deconstructing the Cultural Symbols of the 24 Solar Terms in a Contemporary Context

In modern reinterpretations of the 24 Solar Terms, deconstruction serves as a central analytical method. Many scholars apply Charles Morris’s semiotic model—semantics, syntax, and pragmatics—and extend it with Peirce’s triadic model: sign, object, and interpretant.

Morris’s framework highlights how meaning emerges through the interaction of form, context, and usage, offering key insights for transforming traditional cultural symbols into modern visual expressions. Within this model, meaning is reconstructed through the interpretant, which connects cultural content (object) and its visual form (representamen). This meaning-making process is non-linear and subject to multiple interpretations.

Emphasizing the interpretant helps designers understand how cultural heritage can be revitalized through design. This semiotic approach provides a theoretical lens for bridging historical meaning and contemporary visual communication.

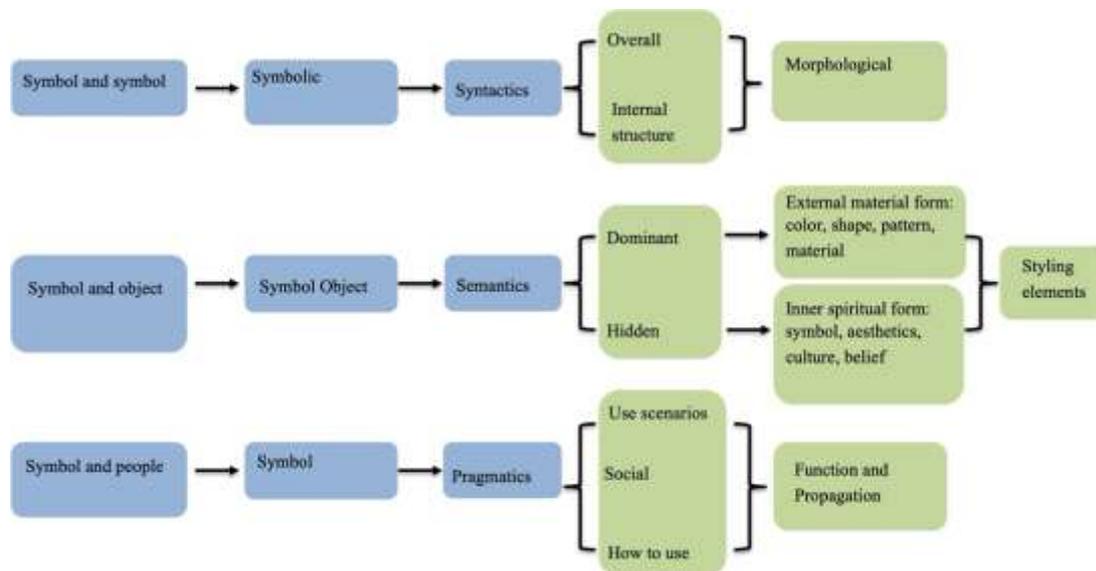


Figure 1 The correspondence between Peirce’s Triadic Principle and Morris’s Trichotomy.

② Semiotic Perspectives on Translating the Cultural Symbols of the 24 Solar Terms

The translation of cultural symbols into modern visual language can be effectively analyzed using Morris’s tripartite framework—syntax, semantics, and pragmatics—supported by Peirce’s sign theory. This model facilitates the structural, meaningful, and contextual transformation of traditional symbols into contemporary design.

- Syntactic perspective (symbol form): Focuses on visual composition. The 24 Solar Terms form a dense symbolic system incorporating food, medicine, and rituals. Design choices must align with modern cultural contexts, digital formats, and user expectations, ensuring clarity and expressive coherence.
 - Semantic perspective (symbol object):
 - Explicit symbols include easily recognizable elements like seasonal foods and phenological markers.
 - Implicit symbols carry deeper philosophical, spiritual, or cultural meaning, requiring metaphorical reinterpretation to convey narrative and emotional depth.

- Pragmatic perspective (symbol interpretation): Explores how symbols function across contexts, influenced by time, audience, and medium. Meaning, as Peirce observed, is fluid. For younger, urban users, agricultural relevance has declined, while interest in seasonal health, rituals, and digital interaction has grown. These changes guide how designers should adapt symbols for resonance.

Following deconstruction, reconstruction is essential. Cultural symbols must be reorganized and rearticulated according to their contemporary purpose, ensuring cultural continuity while enabling innovative design.

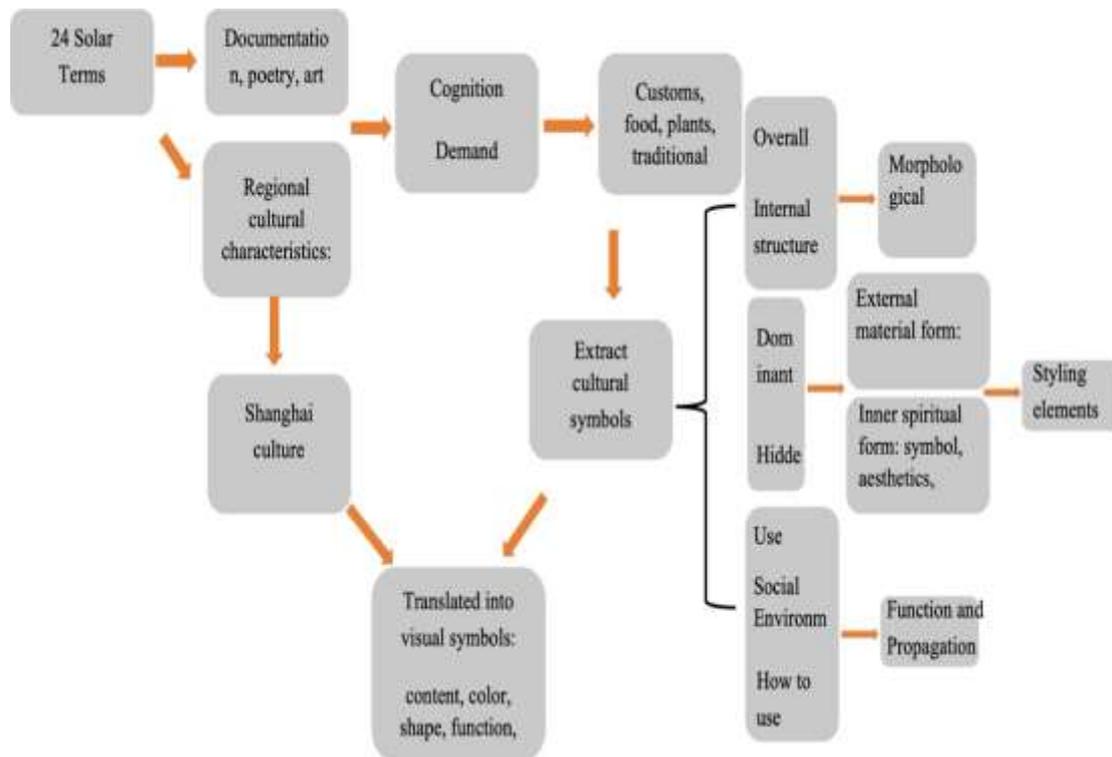


Figure 2 The translation process of the visual symbols of the 24 Solar Terms.

③ Establishing a Multidimensional Design Library Based on Deconstructed Symbols

Building on the semiotic model, the cultural symbols of the 24 Solar Terms can be deconstructed across multiple dimensions to create a comprehensive design library—a structured repository of visual and conceptual components for future creative use.

This library may be divided into:

- Explicit elements such as color, shape, form, function, and communication format;
- Implicit elements including ritual practices, folklore, symbolism, and cultural narratives.

This dual categorization captures both the material and intangible aspects of the Solar Terms. Translating these into a modular, adaptable system provides a flexible foundation for design. It allows creators to work from a curated, culturally rich resource aligned with specific goals, audience needs, and communication contexts. Through this approach, the visual language of the 24 Solar Terms can be seamlessly integrated into contemporary design, supporting both cultural preservation and creative innovation.

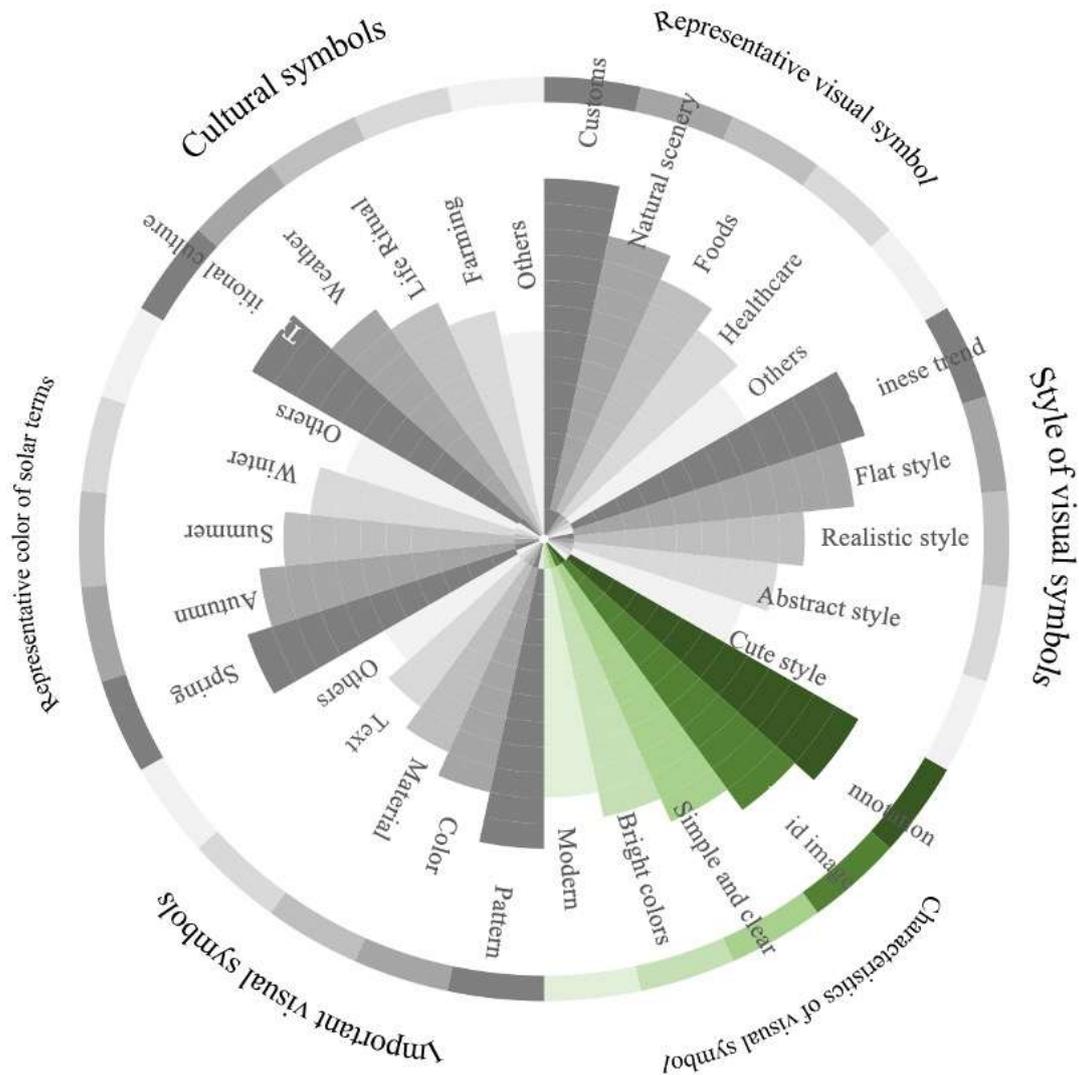


Figure 3 Controlled trial data.

1.2.8 CONCLUSION AND DISCUSSION

1) Conclusion

This study adopted a mixed-methods approach, integrating semi-structured interviews, controlled experiments, and questionnaire surveys to investigate the translation and dissemination of 24 Solar Terms' cultural symbols in contemporary creative design.

Through analysis of existing design works, interview participants identified key challenges in cultural translation and visual symbol extraction. These challenges were categorized based on participants' professional backgrounds and specific question sets.

Results revealed a general preference for design styles with strong Chinese aesthetic features, vivid colors, and clear, appealing graphics—often characterized by a playful or “cute” quality. These insights directly informed the design development phase of the study.

Additionally, aggregated questionnaire responses and data analysis supported the selection of dynamic design as the primary visual medium. Themes such as folk customs and seasonal diets were emphasized to align traditional cultural content with modern visual preferences and digital media habits, thereby enhancing cultural relevance and communication efficacy.

2) Discussion

The findings reveal a strong preference among participants for design styles that reflect a distinct Chinese national aesthetic—marked by vibrant colors, simple and legible visuals, and emotionally engaging, often playful, tones. These preferences were consistent across demographic groups and significantly shaped the conceptual and visual development of the study’s design prototypes. Survey results and data analysis further indicate a rising demand for dynamic visual communication. In response, this study adopted motion-based design as the primary medium, centering on themes of folk customs and seasonal diets associated with the 24 Solar Terms. This approach aligns traditional cultural content with modern visual tastes and digital media habits. By employing dynamic design to reinterpret cultural symbols, the study highlights visual communication’s dual role as an aesthetic and cultural tool. This strategy enhances the relevance and accessibility of the 24 Solar Terms for younger urban audiences and offers a sustainable model for integrating intangible cultural heritage into contemporary visual practice.

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