

Research Article

A Study on the Translation of Decorative Pattern Terms in Dunhuang Culture from the Perspective of Transknowletology

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Abstract

As an artistic treasure of Chinese civilization and a vital witness to the cultural exchanges along the ancient Silk Road, the Dunhuang Mogao Caves possess immense cultural significance. The accurate translation of decorative pattern terms related to Dunhuang culture is essential for promoting the rich heritage of traditional Chinese culture on a global stage. Guided by Transknowletology and its principles of truth, goodness, and beauty, this study systematically explores the classification and translation methods for Dunhuang cultural decorative pattern terms. These terms are classified into three categories based on their attributes: cultural, formal, and functional. Within the theoretical framework of Transknowletology, distinct translation strategies are proposed for each category: transliteration with annotation for cultural terms to ensure the full transmission of cultural meaning; a combination of literal translation and aesthetic expression for formal terms to accurately convey visual features while enhancing artistic appeal; and literal translation supplemented by functional notes for functional terms to precisely communicate their practical roles. Through detailed case analysis, this study demonstrates that the proposed classification and translation strategies effectively address the challenges of cultural differences and semantic gaps in translating Dunhuang decorative pattern terms. The findings offer both theoretical insights and practical guidance for the international dissemination of Dunhuang culture.

Keywords

Transknowletology, Dunhuang Mogao Caves, Decorative Pattern Terms, Translation Methods, Cultural Dissemination

1. Introduction

The Dunhuang Mogao Caves, known as the “Pearl of Oriental Art,” stand as a significant historical testament to the exchange and mutual learning between Chinese civilization and the rest of the world. As a cultural hub along the ancient Silk Road, Dunhuang embodies the integration and dialogue of diverse civilizations, and its profound cultural heritage is a vital symbol of the Chinese spirit and a concen-

trated expression of Chinese wisdom [1]. In the context of globalization, especially with the advancement of the “Belt and Road” Initiative, there is a growing and urgent demand for the international dissemination of Dunhuang culture. The accurate translation of decorative pattern terms is directly linked to the effectiveness and influence of Dunhuang culture’s communication on the world stage.

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Currently, major challenges in the translation of Dunhuang cultural terms include: the issue of semantic gaps for culturally specific vocabulary-many terms rich in cultural connotation lack equivalents in target languages; the loss of artistic aesthetics-traditional literal translation methods often fail to convey the artistic beauty and aesthetic value of original terms; and the misinterpretation of religious symbolism-complex religious and cultural backgrounds result in decoding errors during translation [2]. These issues severely affect the international dissemination of Dunhuang culture and demand theoretical and methodological solutions.

Transknowletology, an emerging theoretical paradigm in translation studies, was first proposed by Chinese scholar Yang Feng in 2021 [3]. It addresses the limitations of traditional translation theories in dealing with knowledge transfer and aims to construct a new translation framework with knowledge as its core ontology. Grounded in epistemology, sociology of knowledge, and cognitive science, this theory advocates for effective knowledge transfer, innovation, and sharing through language conversion. Transknowletology regards translation as a process of cross-linguistic knowledge processing, reconstruction, and re-dissemination, thereby expanding the traditional boundaries of translation studies and emphasizing the central role of knowledge in translation. Against the backdrop of a knowledge-based economy and increasingly deep global cultural exchanges, Transknowletology not only enriches the theoretical system of translation studies but also provides both theoretical foundation and methodological guidance for the mutual translation of Chinese and foreign knowledge systems as well as the construction of international discourse power [4].

Transknowletology emphasizes the knowledge-based ontology of translation activities and their role in cross-cultural communication, providing essential theoretical support for the construction of international discourse systems and the innovation of professional terminology translation. It holds broad prospects in international academia and professional practice [5]. This study applies the theory of Transknowletology to systematically explore the translation methods of Dunhuang decorative pattern terms. By scientifically classifying the terms and integrating the theoretical principles of Transknowletology, it aims to construct a system of translation strategies tailored to different types of terms, thereby providing both theoretical support and practical guidance for the international dissemination of Dunhuang culture.

2. A Literature Review of the Previous Studies of Dunhuang Culture Terms Translation

As an important component of both Chinese and world cultural heritage, Dunhuang culture's translation studies not

only facilitate international cultural exchange but also play a significant role in the protection and transmission of humanity's shared cultural legacy. In recent years, with the rapid advancement of globalization and increasingly deep cross-cultural exchanges, research on the translation of Dunhuang culture has gradually become a focal point in academia.

The development of Dunhuang cultural translation research has progressed from mere document translation to broader cultural communication. Fan Jinshi points out that Dunhuang culture bears the spirit of resilience and pioneering, a symbiotic spirit of openness, and a humanistic spirit that benefits the world and its people [6]. These qualities make Dunhuang culture a representative of the "diversity in unity" pattern of Chinese civilization. Zheng Binglin further emphasizes that the remarkable continuity, inclusiveness, and innovation displayed by Dunhuang culture exemplify the unified and centralized features of Chinese civilization-characterized by diversity in unity and cohesive integration-creating a model of cultural interaction marked by the influx of Western learning, localization, and re-export [7].

In practical translation work, scholars have conducted in-depth analyses of the challenges involved in the external translation of Dunhuang culture. Zhang Caimei and Chai Jianhong identified issues such as comprehension bias and inaccurate translation in the overseas translation of Dunhuang studies and suggested improving translation quality by paying attention to the collaborative role of language ecology [8]. Chong Tianlin, through the construction of a Dunhuang culture Chinese-English parallel corpus, summarized common errors in Dunhuang cultural translation, including linguistic mistakes, mistranslations caused by a lack of historical and cultural background knowledge, and the misuse of specialized terminology, and proposed reforms in training objectives, models, and internship practice [9]. Liu Xiaoqin, taking the translation of Dunhuang Museum materials as an example, discussed the standardization of museum text translation, emphasized the importance of the "Guidelines for English Translation in Public Service," and highlighted the application of scientific translation theories and strategies [10]. Liu Jing and Wei Xiangqing further examined the connotations and innovative practices of standardizing Dunhuang cultural term translation, arguing that attention should be paid to the differences in term categories during the translation process and advocating for process standardization based on term type and results-based standardization adapted to context [2]. In summary, current research on Dunhuang cultural translation focuses not only on improving translation quality, but also emphasizes the coordination of language ecology factors and the importance of term standardization, offering new perspectives and directions for future studies.

With regard to translation strategies and methods, Bie Shaobing finds through literature review that contemporary Chinese research on the translation of Dunhuang culture is

mainly concentrated in four areas: translation strategies and methods, overseas translation, translation theory and practice, and translator training [11]. Although many translation strategies and methods have been proposed, their actual application is limited, with most research still confined to the theoretical level and lacking sufficient practical validation. Liu Jing and Wei Xiangqing point out that Dunhuang cultural terms fall under the category of “traditional terms with Chinese characteristics,” which possess clear regional, cultural, historical, and individual characteristics. These overlapping features contribute to the complexity of translating such terms [2].

In terms of translation strategies, Jiang Qiuxia (2018) suggests that the translation of Dunhuang culture mainly employs strategies of foreignization, domestication, integration, and convergence, with foreignization being dominant and supplemented by integration strategies. By primarily adopting foreignization, the cultural gene can be effectively retained, and unique cultural symbols are translated through transliteration or back-translation [12]. For example, “飞天” is translated as “flying apsara,” combining the Sanskrit term “apsara” with the English “flying,” which both preserves its Indian origins and highlights its dynamic imagery. Xu Ke, based on language ecology theory, discusses factors related to linguistic ecology in external translation and stresses that translation strategies and methods should comprehensively consider the language ecological environment to optimize translation quality and enhance cultural dissemination [13]. Taking the translation of *Key Concepts of Dunhuang Culture* as an example, she explores how attention to audience, selection of materials, translation strategies and methods, the translator’s cultural sensibility, and evaluation principles can collectively achieve high-quality dissemination.

Although Dunhuang cultural translation already has a certain research foundation, the systematic integration of Transknowletology and Dunhuang cultural term translation remains relatively rare. Existing research gaps mainly include: a lack of systematic theoretical frameworks guiding the translation of Dunhuang decorative pattern terms; insufficient in-depth studies of term categorization; a need for more systematic and operable translation methods; and a lack of close integration between theory and practice.

In light of the above, this study attempts to systematically apply the theory of Transknowletology to the translation of Dunhuang decorative pattern terms. This includes establishing a three-category classification system based on term attributes, constructing a set of translation methods corresponding to the “truth, goodness, and beauty” principles of Transknowletology, and validating the effectiveness and practicality of the proposed theoretical methods through concrete case analyses.

3. Theoretical Essentials of Transknowletology and Its Guiding Significance for the Translation of Dunhuang Decorative Pattern Terms

3.1. Theoretical Foundations and Core Concepts of Transknowletology

As an emerging theoretical paradigm in translation studies, Transknowletology is grounded in interdisciplinary integration. Rooted in the epistemology of philosophy, this theory incorporates resources from the sociology of knowledge, knowledge science, cognitive science, and other fields, forming a unique perspective and methodological system for translation. From the angle of philosophical epistemology, Transknowletology inherits the traditional discourse on the nature of knowledge since Plato but goes beyond the limitations of traditional epistemology. While traditional epistemology focuses mainly on the ontological question of “What is knowledge,” Transknowletology views translation as a cultural act and social practice involving the cross-linguistic processing, reconstruction, and dissemination of knowledge, thus prioritizing the practical aspects of translation [14].

Yang Feng notes that Transknowletology upholds an objective epistemological stance, arguing that knowledge is the recognition and experience acquired by humans in practical life, serving as the conscious, symbolized, and structured informational tools necessary for human existence and accumulated living experience [15]. This definition highlights the practical, instrumental, and structural features of knowledge, providing a new cognitive foundation for translation studies. From a sociological perspective, Transknowletology acknowledges the socially constructed character of knowledge, suggesting that knowledge does not exist in isolation as an abstract concept, but rather forms and develops within specific social and cultural contexts. Given that knowledge systems under different cultural backgrounds are expressed and valued in distinct ways, translation should not only achieve linguistic conversion but also reconstruct and re-disseminate knowledge systems.

The core concepts of Transknowletology include three layers: knowledge, translation, and knowledge translation. At the level of knowledge, the theory categorizes knowledge into scientific knowledge, social knowledge, and humanistic knowledge. Scientific knowledge is characterized by objectivity, universality, and verifiability; social knowledge by contextuality, relativity, and constructiveness; and humanistic knowledge by subjectivity, pluralism, and interpretability. This classification offers theoretical guidance for the translation of different types of knowledge. In terms of translation, Transknowletology defines translation as a cultural act and social practice that involves the cross-linguistic processing, reconstruction, and re-dissemination of knowledge. This definition breaks through the boundaries of

traditional translation research limited to linguistic transformation and approaches translation from a macro-perspective of knowledge production and dissemination.

3.2. The “Truth, Goodness, and Beauty” Principles of Transknowletology

The methodological core of Transknowletology lies in the three principles of “truth, goodness, and beauty” - pursuing truth for knowledge, establishing meaning through goodness, and achieving style through beauty. These principles are interdependent and progressively layered, together forming a comprehensive methodological framework for knowledge translation.

The “truth” principle is foundational, emphasizing the pursuit of factual and conceptual accuracy in knowledge. In translation practice, this principle requires the translator to ensure objectivity and authenticity, faithfully conveying the original knowledge, avoiding subjective assumptions and misunderstandings, and maintaining integrity and consistency [16]. Specifically, the “truth” principle encompasses requirements of factual accuracy, conceptual accuracy, logical accuracy, and contextual accuracy. Translators must align the translated contents with the facts of the original, accurately interpret and deliver the core concepts, preserve the logical structure and argumentation, and consider the contextual factors to ensure appropriateness in the target-language environment.

The “goodness” principle reflects the ethical dimension of Transknowletology, stressing the social value and cultural function of translation. In practice, it requires translators to consider the societal impact and cultural consequences of their translations, foster mutual understanding between cultures, assume social responsibility for cultural dissemination, and pursue practicality and effectiveness [17]. The specific requirements include cultural responsibility, social benefit, reader orientation, and cross-cultural communication. Translators should take responsibility for the transmission of fine culture, be mindful of social effects, focus on the needs and acceptability of the target audience, strive to eliminate cultural barriers, and promote understanding and respect among different cultures.

The “beauty” principle reflects the aesthetic dimension, highlighting the artistic and aesthetic values of translation. In translation practice, this principle asks translators to attend to the aesthetic qualities of language, preserve the artistic features of the source, pursue harmony between form and content, and enhance the readability and appeal of the translation [17]. Specifically, this includes beauty of language, artistic reproduction, formal harmony, and innovative expression. Translators ought to use elegant and fluent language, strive to recreate the artistic attributes and aesthetic value of the original, seek the harmonious unity of form and content, and employ creative expressions based on the faithfulness to the source, to enhance the artistic merit of the translation.

3.3. Guiding Significance of Transknowletology for the Translation of Dunhuang Decorative Pattern Terms

Transknowletology provides a rigorous theoretical framework and methodological guidance for the translation of Dunhuang decorative pattern terms, delivering significant practical value. First, by stressing the knowledge-based nature of translation, this theory helps translators deeply understand the knowledge content and cultural background embedded in terms, thereby improving the accuracy and depth of translation. Dunhuang decorative pattern terms carry abundant historical and cultural information and feature distinctive knowledge characteristics; applying Transknowletology allows translators to better grasp their essential properties and translation requirements.

Second, the “truth, goodness, and beauty” principles set comprehensive quality standards for term translation, enabling translators to comprehensively consider the demands of accuracy, functionality, and artistry. Under the guidance of the “truth” principle, translators must develop an in-depth understanding of the historical background, cultural connotations, and artistic features of Dunhuang decorative pattern terms, ensuring accuracy and reliability. For example, with the term “龀楣” (niche lintel), the translator must precisely understand its specific location, decorative function, and cultural meaning within Dunhuang cave architecture, avoiding oversimplification as a general architectural term.

Under the “goodness” principle, translators need to fully recognize the function of translation in cultural dissemination, conveying the charm and value of Dunhuang culture to the international community through precise and vivid translation. For instance, when translating the term “飞天” (flying apsara), the translator should express not only its literal meaning, but-through appropriate notes and explanations-assist foreign readers in comprehending its profound cultural implications and artistic value. Guided by the “beauty” principle, translators must attend to the artistic features and aesthetic value of the terms, skillfully using beautiful language and rhetorical figures to recreate the artistic appeal of Dunhuang art.

Moreover, the theory emphasizes the social function and cultural value of translation, guiding translators to undertake their social responsibility for cultural dissemination and foster cross-cultural understanding. The translation of Dunhuang decorative pattern terms involves not just linguistic conversion, but also the transmission and communication of culture and value, reflecting the social role of translation. Its artistic and aesthetic attributes further require that translations possess corresponding beauty and emotional resonance, underscoring the aesthetic function of translation. Hence, applying Transknowletology to guide the translation of Dunhuang decorative pattern terms is both theoretically grounded and practically valuable.

4. Classification and Translation Norms of Dunhuang Decorative Pattern Terms

4.1. Classification of Dunhuang Decorative Pattern Terms

In her seminal work *Decorative Patterns from Dunhuang through the Dynasties in China*, Chang Shana catalogued and systematized over 300 decorative patterns found in the Dunhuang grottoes. These patterns were classified into ten categories according to their decorative placement and functional purposes. Representative designs within each category were carefully reproduced and analyzed [18]. The classification includes:

1. Caisson ceiling patterns (*zaojing*),
2. *Pingqi* and inverted V-shaped patterns,
3. Pediment patterns (*kanmei*),
4. Canopy patterns (*huagai*),
5. Mandorla or halo patterns (*beiguang*),
6. Ornament patterns (*peishi*),
7. Border patterns (*bianshi*),
8. Independent motifs,
9. Carpet and table curtain patterns,
10. Decorative brick patterns (*huazhuan*).

Transknowletology posits that knowledge constitutes the foundation of translation, asserting that the essence of translation lies in the interlingual transmission and transformation of knowledge [3]. It emphasizes that translation is not merely a matter of linguistic substitution, but rather a complex process of cultural negotiation and knowledge reconstruction. In the translation of culturally embedded terms, Transknowletology underscores the importance of moving beyond surface-level linguistic equivalence to engage with the deeper cultural connotations and epistemological structures embedded in the source text.

Building on the theoretical framework of Transknowletology and prior research in term translation studies [19-23], the present study selected 69 decorative pattern terms and classified them into cultural, formal, and functional categories. This classification not only captures the essential features of the terms themselves but also provides a solid theoretical foundation for determining appropriate translation strategies.

Cultural terms refer to decorative pattern terms that carry profound cultural connotations and display distinct cultural characteristics. These terms are often rooted in specific religious, philosophical, or cultural traditions and lack direct equivalents or corresponding expressions in the target culture. The main features of cultural terms include cultural specificity, historical depth, and symbolic significance. For example, “飞天” (flying apsaras) is a special image in Buddhist art that fuses the Indian “Gandharva” with the Chinese motif of immortals ascending to the heavens, thus possessing unique

cultural meanings; “璎珞” originates from Sanskrit and, through the transmission of Buddhism into China, evolved into a localized term with unique cultural implications; “摩尼宝珠” (Mani Jewel) is not only a decorative pattern but also a symbol of wisdom and compassion in Buddhism, bearing profound religious and philosophical significance.

Formal terms refer to those terms that primarily describe the external morphological features of decorative patterns. Such terms are highly visual and intuitive, enabling readers to grasp the formal characteristics of patterns directly. The main features of formal terms include visual intuitiveness, morphological descriptiveness, and artistic expressiveness. For example, “几何纹” (geometric patterns) directly describe the geometric nature of the design; “云纹” (cloud patterns) depict cloud-shaped designs; “回纹” (meander patterns) describe rotational or spiral forms; “茶花纹” (camellia patterns) capture not only floral forms but also reflect the Tang Dynasty’s aesthetic tastes and artistic style.

Functional terms refer to terms that mainly describe the functional role of decorative patterns, emphasizing their specific function and utility in architecture, art, or religious practices. The main features of functional terms are functional referentiality, positional specificity, and practical orientation. For instance, “椽间图案” (patterns between rafters) clearly indicate the location and decorative function of a pattern in architectural structures; “地面花砖图案” (floral floor tile patterns) specify their placement and role in floor decoration; “藻井图案” (caisson ceiling patterns) serve both decorative and spatial-organizing functions within architecture.

4.2. Translation Strategies for Dunhuang Decorative Pattern Terms Based on Transknowletology

Grounded in the “真、善、美” (truth, goodness, beauty) principles of Transknowletology, this study proposes corresponding translation strategies and methods tailored to different categories of Dunhuang decorative pattern terms.

4.2.1. Translation Method for Cultural Terms: Transliteration Plus Annotation Strategy

Cultural terms bear rich cultural values and unique significance but often lack direct counterparts in the target culture. According to the principles of “truth, goodness, and beauty” in Transknowletology, this study recommends the transliteration-plus-annotation strategy for cultural terms to ensure the integrity of cultural connotation in translation.

This strategy meets the requirements of all three principles. From the “truth” perspective, transliteration preserves the original form and cultural genetics of the term, avoiding semantic distortion and cultural loss that may result from free translation; annotation provides the necessary cultural background and semantic explanation, ensuring the accuracy and

completeness of knowledge transfer. Concerning the “goodness” principle, this strategy helps protect and disseminate the unique values of the source culture, fosters cross-cultural understanding and respect, and, by adding annotations, considers the target readers’ capacity for comprehension, thus ensuring practicality and effectiveness. From the perspective of “beauty,” transliteration maintains the phonetic beauty and exotic flavor of the term, while appropriate annotations enhance the readability and expressiveness of the translation.

For example, with “璎珞,” the existing translation “*yingluo*” is too simplistic and lacks accuracy. An improved translation is: “*yingluo* (ornamental necklaces of precious stones and pearls strung together, originally a Buddhist decorative item symbolizing boundless light and infinite preciousness),” which retains the transliteration “*yingluo*” to preserve its cultural identity, while the expanded annotation explains its form, religious attributes, and symbolic meaning in detail.

4.2.2. Translation Method for Formal Terms: Literal Translation Combined with Aesthetic Expression Strategy

Formal terms predominantly describe the external morphological features of decorative patterns and are highly visual and direct. According to the three principles of Transknowletology, this study advocates a literal translation combined with aesthetic expression for formal terms. This approach ensures accurate conveyance of formal features while strengthening their artistic expression.

This strategy embodies the three principles as follows: The “truth” principle is met through literal translation, guaranteeing the accurate transmission of the term’s formal characteristics and avoiding over-interpretation or subjective additions; aesthetic expression enhances the translation’s artistic appeal on the basis of accuracy. The “goodness” principle is realized as this strategy conveys the artistic value and aesthetic appeal of Dunhuang art to target readers, fostering the cross-cultural transmission of artistic culture. The “beauty” principle is directly reflected through aesthetic expression, reproducing the artistic features of the original term with elegant language.

For instance, regarding “地面花砖图案,” the current translation, “floral tile floor patterns,” is essentially accurate yet could be more aesthetically nuanced. An improved translation might be: “The exquisite floral floor tile patterns, with their delicate artistry and harmonious compositions” where word order is adjusted for smoother expression and additional phrases such as “delicate artistry and harmonious compositions” highlight the artistic features and specify the value inherent in the design, making the translation more vivid and precise.

4.2.3. Translation Method for Functional Terms: Literal Translation Plus Functional Annotation Strategy

Functional terms primarily identify the functions and practical roles of decorative patterns, emphasizing their signifi-

cance in architectural, artistic, or religious contexts. In accordance with the principles of Transknowletology, this study recommends a strategy of literal translation supplemented by functional annotation to ensure the precise transfer of functional attributes.

This strategy satisfies the requirements of the “truth, goodness, beauty” triad. For the “truth” principle, literal translation assures the accurate conveyance of the functional direction of the term, while functional annotation provides necessary background and usage explanations, ensuring completeness in knowledge transfer. The “goodness” principle is addressed as this approach aids readers in understanding the practical and social value of Dunhuang art, enhancing awareness of the cultural practices associated with it. Regarding the “beauty” principle, well-crafted functional annotations improve the readability and utility of the translation, embodying the pragmatic aesthetics of translation.

Take “藻井图案” as an example. The existing translation, “Caisson ceiling patterns, as important decorations at the top of the caves, not only serve to beautify the space but also carry religious and cultural symbolic meanings,” is basically accurate but could be further detailed in its functional explanation. An improved version would be: “Caisson ceiling patterns (elaborate decorative designs covering the coffered ceilings of cave chambers, serving both structural and aesthetic functions while creating a sense of celestial space), as important decorations at the top of the caves, not only beautify the architectural space but also embody profound religious symbolism representing the Buddhist cosmos and divine realm,” in which detailed functional annotations specify the architectural location and dual purpose, emphasize the role in creating a celestial space, and elucidate the pattern’s religious symbolism.

4.2.4. Summary

This study, grounded in the principles of *Transknowletology*-truth, goodness, and beauty-proposes a tripartite translation strategy tailored to the semantic features and cultural functions of Dunhuang decorative pattern terms. Through detailed case analyses, the study reveals the following key insights:

Firstly, cultural terms require a transliteration-plus-annotation strategy to preserve cultural identity and ensure the accurate transmission of deep cultural and religious meanings. For instance, the improved translation of “璎珞” as “*yingluo* (ornamental necklaces...)” demonstrates how this method balances cultural retention with reader comprehension.

Secondly, formal terms are best translated using literal translation combined with aesthetic expression, which conveys visual form while enhancing artistic appreciation. The case of “地面花砖图案” illustrates how refined language can better reflect the aesthetic qualities of the original.

Thirdly, functional terms benefit from a literal translation plus functional annotation strategy, which clarifies both

functional roles and symbolic meanings. The enhanced translation of “藻井图案” exemplifies how this approach accurately conveys architectural function and religious symbolism.

Together, these strategies demonstrate how Transknowletology can guide the nuanced translation of culturally embedded terms, ensuring accurate knowledge transfer while preserving aesthetic and cultural integrity across languages and cultures.

5. Conclusion

Guided by the theoretical framework of Transknowletology and applying its principles of “truth, goodness, and beauty,” this study has systematically explored translation methods for Dunhuang decorative pattern terms. Through theoretical analysis and case-based verification, the following main conclusions have been drawn:

First, Transknowletology offers a scientific theoretical framework for the translation of Dunhuang decorative pattern terms. This theory emphasizes the knowledge-based nature and cultural function of translation, transcending the traditional cognitive framework that centers solely on linguistic conversion, and provides a new theoretical perspective for the translation of terms with profound cultural significance [24]. The three principles of “truth, goodness, and beauty” offer comprehensive quality standards and methodological guidance for term translation, enabling translators to address the diverse requirements of accuracy, practicality, and aesthetics in a balanced manner.

Second, the three-category classification system based on term attributes possesses significant theoretical and practical value. Dividing Dunhuang decorative pattern terms into cultural, formal, and functional categories not only reflects the essential characteristics of such terms but also provides a scientific basis for the selection of translation strategies. This

classification framework introduces a new analytical approach for the study of Dunhuang decorative pattern terms, facilitating a deeper understanding of their inherent patterns and translation requirements.

Third, the construction of a categorized translation methodology achieves an organic integration of theory and practice. With translation strategies tailored for each category-transliteration plus annotation for cultural terms, literal translation combined with aesthetic expression for formal terms, and literal translation supplemented with functional annotation for functional terms-this methodological framework is grounded in solid theory and is highly practical for application.

Fourth, analysis through specific case studies has validated the effectiveness of these translation approaches. By examining representative Dunhuang decorative pattern terms and comparing existing translations with proposed improvements, this research demonstrates that a categorized translation approach based on Transknowletology can effectively address issues of cultural disparity and semantic gaps, thereby significantly enhancing translation quality.

As a treasure of Chinese civilization, Dunhuang culture holds immense cultural significance and contemporary relevance for its international dissemination. Decorative pattern terms, as a vital component of Dunhuang culture, require accurate translation to facilitate the global promotion of Dunhuang culture and to foster dialogue among civilizations. With the further advancement of the “Belt and Road” Initiative and China’s cultural “going global”, the international dissemination of Dunhuang culture faces both new opportunities and challenges. Continued research is needed to further refine translation theories and methodologies, improve translation quality and effectiveness, and thus contribute to building a community with a shared future for mankind and promoting exchanges and mutual learning among world civilizations.

Table 1. Decorative Pattern Terms in the Study.

Category	Chinese Terms	English translations	Translation Methods
Cultural terms	摩尼宝珠	the Mani Jewel (Buddhist Wish-Fulfilling Gem)	Transliteration with Annotation
	团花纹	Tuanhua Patterns (circular floral motifs in Buddhist art)	
	人字披图案	Renzi Patterns (symbolizing architectural vault structures)	
	宝相花纹	Baoxianghua Patterns (auspicious floral motifs)	
	供养菩萨	Gongyang Bodhisattva (devotional bodhisattva motifs in worship postures)	
	伎乐飞天人物纹	Jiyue apsaras Figural Motifs (celestial musicians and dancers)	
	飞天纹	Feitian Patterns (representing celestial dancers in buddhist art)	
	忍冬纹	Rendong Patterns (honeysuckle motifs)	

Category	Chinese Terms	English translations	Translation Methods
Formal terms	云头如意纹	Yuntou Ruyi Patterns (cloud-and-ruyi Motifs, combining cloud shapes and scepter symbols)	Literal Translation
	莲花纹	Lotus Patterns (symbolizing purity and enlightenment in Buddhism)	
	云气纹	Yunqi Patterns (cloud motifs)	
	三兔纹	Santu Patterns (a symbolic design with interconnected rabbits)	
	凤鸟纹	Fengniao Patterns (phoenix motifs, representing auspiciousness and royalty)	
	藻井图案	Zaojing Patterns (caisson ceiling motifs)	
	龕楣图案	Kanmei Patterns (Niche Lintel motifs)	
	华盖图案	Huagai Patterns (Canopy motifs)	
	背光图案	Beiguang Patterns (Buddhist mandorla motifs)	
	莲花伎乐童子边饰	Lianhua Jiyue Tongzi Border Patterns (Lotus-and-Musical boy border motifs)	
	璎珞	Yingluo (Buddhist necklaces of stringed jewelries)	
	花砖图案	Floral Tile Floor Patterns	
	平棋图案	Ceiling Panel Patterns	
	地毯、桌帘图案	Carpet and Table Curtain Patterns	
	单独图案	Single Motif Patterns	
	边饰图案	Border Patterns	
	散点式花叶图案	Scattered Flower and Leaf Patterns	
	佩饰图案	Ornamental Accessory Patterns	
	莲花如意纹卷草纹砖	Lotus-Ruyi Scroll Grass Tile Patterns	
	小花纹	Small Floral Patterns	
	椽间图案	Between-Rafters Patterns	
	几何纹	Geometric Patterns	
	毯心花纹	Carpet Center Floral Patterns	
	二破式半团花二方连续纹样	Two-part Half-Circular Floral Two-directional Continuous Patterns	
	圆形合适图案	Circular Adaptive Patterns	
	带状连续纹样	Ribbon-like Continuous Patterns	
	一簇花卉纹样	Cluster Floral Patterns	
	茶花纹	Camellia Motifs	
	桃形莲瓣纹	Peach-shaped Lotus Petal Patterns	
	重瓣莲花纹样	Double-layer Lotus Patterns	
	一整二破团花纹	One-whole-two-part Circular Floral Patterns	
	方格圆珠纹	Checkered Grid with Round Bead Patterns	
	菱形纹	Diamond Patterns	
	石榴纹	Pomegranate Patterns	

Category	Chinese Terms	English translations	Translation Methods
Functional terms	锁子甲纹	Chain Mail Patterns	Literal Translation with Functional Annotation
	环形联珠纹	Circular Bead-chain Patterns	
	凹凸平台纹	Raised and Recessed Platform Patterns	
	叶形纹	Leaf-shaped Patterns	
	带状纹	Ribbon Patterns	
	回形纹	Fretwork Patterns	
	火焰纹	Flame Patterns	
	三角纹	Triangle Patterns	
	禽鸟纹	Bird Patterns	
	分段式几何纹	Segmented Geometric Patterns	
	连珠纹	Bead-chain Patterns	
	五龙纹	Five-dragon Patterns	
	双龙纹	Two-dragon Patterns	
	葡萄纹	Grapevine Patterns	
	方格纹	Checkered Grid Patterns	
	联珠纹	Connected Bead Patterns	
	卷草纹	Scroll Grass Patterns	
	水涡纹	Swirl Patterns	
	团花纹	Circular Floral Patterns	
	圆形轮状莲花纹	Circular Wheel-like Lotus Patterns	
	珠串	beaded strings (decorative or ritual bead chains in Buddhist art)	
	供桌	ritual offering table	
	地毯	carpet (Buddhist ceremonial ground cover)	
	垂幔	pendent curtains (sacred ritual draperies)	
	金铃	golden bells (sacred bells used in Buddhist ceremonies for symbolic sounds)	
	臂钏	arm bracelets (ornamental arm bands)	
	宝冠	treasure crown (sacred and majestic headgear for divine figures)	
	飘带	floating ribbons (decorative ribbons of celestial beings like apsaras)	

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Conflicts of Interest

The authors declare no conflicts of interest.

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Biography

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