The Integrating Isan Buddhist Architectural Styles And Symbolic Decorations On Ceilings With Computer Design Technology For Residential Decorative Product Design.

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Abstract

This article is part of a doctoral dissertation entitled "Style and Symbol of Decorations on the Ceiling Inside of Isan Buddhist Building for Residential Decorative Product Design." The study aims to examine the stylistic elements and symbolic meanings embedded in ceiling decorations found within Isan (Northeastern Thai) Buddhist structures. Employing a qualitative research methodology, data were collected from experts, practitioners, and relevant stakeholders using surveys, observation, interviews, and questionnaires. The investigation focused on 13 temples across seven provinces in Northeastern Thailand. Using the theoretical framework of visual art elements, the findings reveal that ceiling decorations are present in structures such as Sim, Ho Chaek, Ho Trai, and bell towers. The most frequent occurrences were found in Sim (8 temples), followed by Ho Chaek (3 temples), Ho Trai (1 temple), and bell towers (1 temple). These decorations appear in both two-dimensional forms (murals) and three-dimensional forms (sculptures, wood carvings, and stucco reliefs). The study further analyzes the symbolic meanings of these decorations through the lens of Ferdinand de Saussure's semiotic theory, addressing both denotative (explicit) and connotative (implicit) meanings. The narratives represented in the ceiling decorations can be categorized into three thematic groups: (1) Buddhist teachings, beliefs, and texts from the Tripitaka; (2) local folklore and traditional lifestyles; and (3) purely decorative elements designed to beautify the religious spaces. Five main stylistic categories of ceiling decorations were identified: (1) human and supernatural figures, (2) animals, nature, and imaginative creatures, (3) landscapes, foliage, vines, flowers, and clouds, (4) architectural representations, and (5) ornamental patterns including traditional Thai motifs, inventive patterns, Chinese patterns, and star motifs. These ceiling decorations not only beautify the Northeastern Buddhist religious buildings but also express faith in Buddhism, encapsulating both direct and indirect meanings rooted in beliefs, lifestyles, and communities, passed down from past to present. The knowledge gained from the forms and symbols of these ceiling decorations especially representations of animals and nature, landscapes, and celestial motifs, which symbolize abundance, happiness, good fortune, and auspiciousness served as inspiration for designing decorative home products.

Keywords: Styles and Symbolic, Decorations on Ceilings, Residential Decorative Product Design

INTRODUCTION

Art serves as a vital expression of cultural heritage, reflecting the identity of ancestors and transmitting their legacy from the past into the future. It encapsulates the forms and beliefs held by people within a given society. In the context of Buddhism, religious beliefs have shaped sociocultural dimensions that significantly

influence the creation of artistic works especially those designed to manifest spiritual devotion. Buddhist architecture, in particular, stands as an important convergence of artistic expression, embodying the wisdom of communities that create sacred spaces for religious practice. In Northeastern Thailand (Isan), the people maintain a deep-rooted faith in Buddhism, with strong cultural emphasis placed on merit-making. Upon the establishment of a community, it is customary for Isan people to unite in constructing a temple as a means of ordaining their descendants into the Buddhist monastic order an enduring local tradition. As such, the temple (wat) holds a central role in the lives of Isan people (Jiramanie, 2002).

A Buddhist temple typically consists of several religious buildings collectively referred to as Buddhasasanakarn, which serve to reflect the artistic and cultural values of the local community. These structures embody the evolution and transformation of vernacular architecture used in monastic rituals and community merit-making ceremonies. According to Pitak Noiwangklang (1997), the functions and significance of Buddhasasanakarn structures can be categorized according to their usage and importance. Each building type exhibits distinct architectural characteristics, shaped by both practical function and the beliefs of the Isan people, beliefs passed down through generations and widely embraced. These forms of sacred architecture are recognized as a refined genre of Buddhist art, continually developed through the craftsmanship of skilled artisans and inspired by religious devotion. The resulting artworks embody human creativity enriched by philosophy and spiritual belief, aimed at honoring the Buddha.

Externally, these religious buildings are often adorned with mural paintings on the outer walls of the sim, known in the local dialect as Huup Taem. These murals are a distinctive feature of Isan religious architecture. In most cases, the murals are painted on the outer walls and are not bound by rigid artistic conventions. Local muralists (chang taem) enjoy considerable creative freedom, selecting scenes from the Buddha's life or from local folklore based on personal inspiration. These are rendered through line, color, and sequential composition, enabling viewers to interpret the narrative visually. The murals stimulate imagination, aesthetic appreciation, and reflection on moral values through foundational visual elements. Each panel typically conveys a complete narrative (Samosorn, 1989). Huup Taem serves as an essential decorative component of the sim, characterized by its unique visual and narrative qualities recognized widely within the region. However, contemporary sim architecture in Isan has evolved under the influence of various artistic traditions. A prominent trend in recent years has been the adoption of stylistic elements from central Thai or royal court architecture. These include elaborate decorative features such as ornate door and window frames, stucco reliefs, colored glass mosaics, and ceramic tiles (Jompru & Thaothong, 2019). These patterns and motifs emerge from local wisdom grounded in religious beliefs, culture, and traditional worldviews. In addition to the wall and structural embellishments both inside and outside the building, decorative motifs are also found on the ceilings, adding yet another dimension to the sacred space.

The ceiling decorations are located in the uppermost section of the interior space, immediately beneath the roof structure. This area typically consists of beams and cross-frame panels (krob waen), which are often adorned with decorative patterns. The placement of these motifs on the ceiling surface is what defines them as ceiling decorations. From ancient times to the present, artisans have traditionally painted the entire ceiling red, with gold used for the decorative elements. A commonly applied design is the "star surrounding the moon" motif, wherein a large central star is surrounded by smaller stars arranged in a circular pattern. The corners of the ceiling are usually filled with animal figures or ornamental designs fitted into triangular spaces, known as ceiling corner motifs. The number of these motifs depends on the dimensions of the ceiling, which vary according to the architectural structure of the ubosot (ordination hall), vihara (assembly hall), or sala kanprian (sermon hall). In general, repeated patterns are preferred for ceiling decoration. To facilitate the process, artisans create stencils by cutting designs onto paper or transparent plastic sheets. These stencils are

then applied to the ceiling surface, followed by the application of gold leaf or gold paint through the cutout patterns. This technique, known as gold stencil application, is commonly used for large-scale decorative projects involving repetitive motifs (Thongyoo, 2001). In addition to painted patterns and murals, ceiling decorations also include sculptural elements. These are three-dimensional artworks created using various materials and techniques, including modeling, carving, casting, and assembling. Sculptures typically fall into three categories: bas-relief (low relief), high relief, and free-standing forms (Srisila, 2014). The forms and motifs seen in these ceiling decorations are deeply rooted in symbolic beliefs, religious values, local wisdom, and cultural heritage. They serve as visual symbols capable of communicating shared meanings and cultural understanding within each community.

Culture is a system of symbols. Symbols are human-made constructs, aligning with the assertion of Srisakra Vallibhotama, who stated that "humans are symbolic beings; symbols are matters of belief." Culture is not instinctual behavior but rather a product of human creation. It manifests in material forms, behaviors, ideas, and systems of operation. Culture arises to fulfill the fundamental needs of human beings and, in essence, constitutes the symbolic system of a society created by humans and subsequently transmitted through generations. Once established, culture is taught and passed on for future generations to learn and practice. Social agreements, customs, and traditions function as conventions that guide collective behavior. Customs (khonopthaniam), traditions (prapheni), and social values (khanayom) serve as the foundational frameworks for societal order. Values represent shared criteria or opinions regarding ways of life and acceptable conduct. In small communities, customs and values often form the basis for regulating behavior. However, in larger societies, formal legal systems are established to define and enforce societal norms (Phongphit, 1990).

The term "kati" refers to patterns, methods, or customary practices, while "sunyaluk" or symbol denotes a sign or representation that stands in place of something else. Symbols may take the form of objects, letters, shapes, colors, or other visual elements that convey shared meanings or ideas. These symbols may be tangible or abstract, and often contain embedded ideological messages intended to prompt reflection or guide behavior. Over time, such ideologies, communicated through symbols, become integrated into daily life and eventually form social customs (Phed Sukkasem, 2010). In addition to their literal meanings, symbols often carry underlying ideological connotations. Symbolic representation is not limited to literature; it is widely employed in visual arts, including painting, sculpture, architecture, and other forms of artistic expression. The ways in which symbols are interpreted and utilized in art vary across communities, each of which possesses unique cultural characteristics and artistic identities that distinguish one locality from another.

This aligns with the country's development direction as specified in Thailand's 13th National Economic and Social Development Plan (2023–2027), which emphasizes the government's promotion of a sustainable economic system driven by the concept of the Creative Economy. This concept involves advancing the economy through knowledge, education, creativity, and the use of intellectual property, all of which are interwoven with cultural foundations. The approach focuses on utilizing each region's distinctive cultural capital and integrating it into the product design process.

Based on the aforementioned background and significance, the researcher conducted a study of the forms and symbolic concepts found in ceiling decorations within Northeastern Buddhist religious buildings. The objective is to examine both the artistic elements presented on the ceilings and the symbolic meanings—both explicit and implicit—that can be connected with the culture, beliefs, and lifestyles of the local communities, from the past to the present. The goal is to acquire knowledge that links culture with daily life and to combine it with creativity and appropriate innovation. This integration helps differentiate products, providing academic, commercial, community, and social benefits.

Research Objectives

The objective of this study is to examine the styles and symbolic meanings of ceiling decorations in Isan Buddhist architecture.

To design residential decorative products.

Scope of the Research

- 1. The study focuses on analyzing the stylistic characteristics of ceiling decorations in Isan Buddhist architecture, particularly in terms of visual art elements. It also explores the symbolic ideologies embedded in these decorations by interpreting both their explicit (denotative) and implicit (connotative) meanings.
- 2. The geographical scope of this study covers Buddhist religious architecture (Buddhasasanakarn) across seven provinces in Northeastern Thailand, encompassing a total of thirteen temple sites. Among these are eight Sim (ordination halls), three Ho Chaek (scripture halls), one Ho Trai (tripitaka library), and one Ho Rakhang (bell tower). The eight Sim included in the study are: Wat Srichan and Wat Thakok in Loei Province; Wat Phra Sri Maha Pho and Wat Matchimawat in Mukdahan Province; Wat Yai Sri Maha That in Roi Et Province; Wat Pathumkhongkha in Nakhon Ratchasima Province; Wat Sophon Viharn in Sisaket Province; and Wat Phra Lao Thep Nimit in Amnat Charoen Province. The three Ho Chaek examined are located at Wat Khok Srisaket in Nakhon Ratchasima Province, Wat Srinuan Saeng Sawang Arom, and Wat That Suan Tan in Ubon Ratchathani Province. The Ho Trai studied is at Wat Na Phra That in Nakhon Ratchasima Province, and the Ho Rakhang is located at Wat Ban Changhan in Roi Et Province.
- 3.To design residential decorative products by drawing inspiration from the forms and symbolic concepts of ceiling decorations found in Northeastern Buddhist religious buildings. The design process utilizes computer-based technology, specifically Adobe Illustrator, to create patterns on the products prior to the production process.

RESEARCH METHODOLOGY

This study, titled "Style and Symbol of Decorations on the Ceiling Inside of Isan Buddhist Building for Residential Decorative Product Design," adopts a qualitative research approach. The primary objective is to investigate the styles and symbolic meanings of ceiling decorations within Isan Buddhist buildings in order to derive knowledge applicable to the design of residential decorative products. The research was conducted in several stages. First, the researcher identified both the content and human populations relevant to the study. The content-based population consists of ceiling decorations found in key religious structures, namely Sim (ordination halls), Ho Chaek (scripture halls), Ho Trai (tripitaka libraries), and Ho Rakhang (bell towers) across seven provinces in Northeastern Thailand, totaling 13 temples.

The human-based population includes two main groups. The first group comprises knowledgeable individuals such as community leaders, local scholars, Buddhist monks, and academics. The second group consists of stakeholders in the field of product design, particularly experts in decorative product development. Participants were selected using purposive sampling.

The study was conducted over a one-year period. Data were collected using various instruments, including survey forms, observation checklists, structured interview guides, and questionnaires. Data collection was divided into two types 1) Primary data were obtained directly from the selected participants through fieldwork and interviews and 2) Secondary data were sourced from previously published materials, documents, and archival records relevant to the research focus.

All data were systematically categorized and analyzed. Triangulation was employed to ensure the accuracy, credibility, and consistency of the findings in alignment with the research objectives. The results were then interpreted, summarized, and discussed to contribute to both academic understanding and practical design applications.

Research Findings

The field study, collected through observation and interviews revealed that ceiling decorations in Isan Buddhist buildings vary across historical periods, with evidence of stylistic evolution closely tied to regional governance, cultural exchange, and socio-political transformations.

In the early period, between 1760 and 1860 (B.E. 2300-2400), ceiling decorations were found in structures such as the Sim of Wat Pathumkhongkha (est. 1774) in Nakhon Ratchasima, the Ho Chaek of Wat Khok Srisaket (est. 1789) in Nakhon Ratchasima, and Wat Srinuan Saeng Sawang Arom (est. 1797) in Ubon Ratchathani. Additionally, decorations were observed in the Ho Trai of Wat Na Phra That (est. 1787) in Nakhon Ratchasima. A major turning point occurred in 1826 (B.E. 2369), during the reign of King Chulalongkorn (Rama V), who initiated a major administrative reform by implementing the Thesaphiban system, which reorganized the region into provinces (mueang), districts (amphoe), subdistricts (tambon), and villages (muban). Royal commissioners and civil officials from Bangkok were appointed to manage provincial administration. This restructuring divided Isan into three major provinces: Monthon Isan, Monthon Udon, and Monthon Nakhon Ratchasima. The introduction of central governance led to the diffusion of cultural elements from Bangkok into the northeastern region.

As a result, Lao-Lan Xang stylistic influences, which had been dominant, began to blend with central Thai forms. The Lan Xang aesthetic originating from both vernacular and royal craft lineages remained prevalent, both directly and indirectly. From 1861 to 1907 (B.E. 2401-2450), ceiling decorations were identified in the Sim of Wat Thakok (est. 1867) and Wat Srichan (est. 1885) in Loei Province, as well as Wat Sophon Viharn (est. 1872) in Sisaket. Additional decorations from this period were found in the Ho Rakhang of Wat Ban Changhan (est. 1885) in Roi Et Province. The earlier administrative reforms had prompted the gradual spread of cultural influences from Bangkok into major towns in Isan. After 1862 (B.E. 2405), central Thai cultural values were increasingly adopted in local practices, significantly reshaping Isan's architectural and artistic landscape (Samosorn, 2001: 15-20). Between 1908 and 1957 (B.E. 2451-2500), additional ceiling decorations were documented in several key temples: Wat Phra Sri Maha Pho (est. 1916) and Wat Matchimawat (est. 1928) in Mukdahan Province; Wat Yai Sri Maha That (est. 1915) in Roi Et Province; and Wat Phra Lao Thep Nimit (est. 1920) in Amnat Charoen Province. This period marks the post-reform era, characterized by the fusion of Lan Xang royal craftsmanship with early Rattanakosin court art, giving rise to the Ubon school of temple design. These styles increasingly integrated Thai and Vietnamese artistic elements, especially after 1940 (B.E. 2483). From 1958 to 2007 (B.E. 2501-2550), ceiling decorations were found in the Ho Chaek of Wat That Suan Tan (est. 1975) in Ubon Ratchathani Province. This era was marked by the proliferation of wat pa (forest temples) and the adoption of a more unified Thai national identity in religious architecture. Decorative works during this period increasingly emphasized "Thainess," often favoring national stylistic ideals over traditional Lao motifs. A more contemporary approach to temple craftsmanship emerged, marked by aesthetic diversity and innovation. These findings demonstrate that ceiling decorations in Isan Buddhist architecture differ across regions and time periods, influenced by environmental conditions, social and political structures, economic contexts, as well as local beliefs and religious practices. These factors collectively shaped the evolution of symbolic expression within the architectural heritage of Isan.

The styles and symbolic meanings of ceiling decorations in Isan Buddhist architecture are found in four primary types of religious buildings: Sim (ordination halls), Ho Chaek (scripture halls), Ho Trai (tripitaka libraries), and Ho Rakhang (bell towers). Among these, ceiling decorations appear most frequently in Sim, with eight temples identified: Wat Srichan and Wat Thakok in Loei Province; Wat Phra Sri Maha Pho and Wat Matchimawat in Mukdahan Province; Wat Yai Sri Maha That in Roi Et Province; Wat Pathumkhongkha

and Wat Khok Srisaket in Nakhon Ratchasima Province; Wat Sophon Viharn in Sisaket Province; and Wat Phra Lao Thep Nimit in Amnat Charoen Province.

Three Ho Chaek featuring ceiling decorations were found at Wat Khok Srisaket in Nakhon Ratchasima Province, Wat Srinuan Saeng Sawang Arom, and Wat That Suan Tan in Ubon Ratchathani Province. One Ho Trai with decorated ceilings was found at Wat Na Phra That in Nakhon Ratchasima Province. Additionally, one Ho Rakhang with ceiling decorations was documented at Wat Ban Changhan in Roi Et Province.



Figure 1: Isan Buddhist Architecture — Sim, Ho Jaek, Ho Trai, and Bell Tower

The ceiling decorations within Isan Buddhist buildings can be classified into two primary types: two-dimensional and three-dimensional forms. The two-dimensional decorations include mural paintings created through drawing, sketching, and color application. The three-dimensional forms consist of sculptures, wood carvings, and stucco reliefs. According to Chalood Nimsamer (2001, p. 18), the artistic elements of these ceiling decorations in Isan Buddhist architecture exhibit ten main characteristics as follows.

Form and shape: These include both two-dimensional and three-dimensional designs. The decorative motifs can be categorized into five types: (1) human and non-human figures, (2) animals, natural elements, and imaginative creatures, (3) landscapes, (4) architectural structures, and (5) patterned motifs, 2.Dot characteristics: Dots are connected to form lines, which contribute to the overall structure and flow of the designs. 3. Line characteristics: Three types of lines are commonly used—sketch lines, solid lines, and contour lines that emphasize key elements within the composition, 4.Color characteristics: Backgrounds typically feature two main color schemes—cool tones such as blue and navy, and warm tones such as red. In some cases, the natural surface color of ceiling materials like wood or zinc is preserved. Within the main illustrations, a variety of color palettes are employed to reflect local aesthetics and cultural preferences. Gold paint is often used to highlight elements and enhance visual elegance, 5. Weight and emphasis: The visual weight is concentrated at the center of the ceiling composition, where dominant, large-scale motifs are placed. Other repetitive patterns with lighter weight are arranged symmetrically at the corners, 6.Surface texture: Based on the material used, two types of textures can be observed smooth surfaces (e.g., polished wood) and rough surfaces (e.g., unpolished wood or metal), 7.Rhythmic arrangement: Decorative patterns follow three types of visual rhythm: (1) radial balance originating from the center of the ceiling, symmetrically extending toward the rectangular edges; (2) distributed rhythm flowing from various directions within the frame, with either symmetrical or asymmetrical balance; and (3) repetitive rhythm, where motifs are uniformly repeated across the frame with consistent symmetry. 8.Use of space: Two types of spatial treatment are observed: space fully filled with painted backgrounds and space revealing the natural surface of the ceiling material, 9.Materials: Common ceiling materials include wood and zinc sheets, 10. Techniques: Techniques primarily involve freehand drawing,

beginning with sketching, followed by detailed color application, outlining, and background painting. In three-dimensional forms, wood carving techniques are applied using patterned stencils as guides.

These artistic characteristics reflect both regional craftsmanship and cultural symbolism embedded in Isan Buddhist architectural traditions.

The narrative content found in ceiling decorations within Isan Buddhist buildings can be categorized into three main thematic groups. The first group encompasses stories related to Buddhism, religious beliefs, and the Tripitaka. These themes are evident in several of the research sites. 1) Wat Pathumkhongkha, Nakhon Ratchasima Province (Sim): The ceiling paintings depict Buddhist cosmology (Traiphum), which describes the universe as comprising three realms—heaven, the human world, and hell. The artwork integrates various flora and fauna, combining naturalistic representations with supernatural creatures. These images reflect an idealized, imaginative style of mural art, conveying local beliefs about animals, moral teachings, and Buddhist parables through visual metaphor and symbolic storytelling. 2) Wat Na Phra That, Nakhon Ratchasima Province (Ho Trai): The ceiling is adorned with depictions of birds from the Himavanta forest (Himmapan), along with decorative floral motifs and star patterns. The stars are placed in symbolic positions, reflecting local cosmological beliefs related to traditional understandings of the universe. 3) Wat Khok Srisaket, Nakhon Ratchasima Province (Ho Chaek): The murals serve as symbolic expressions that inspire faith and reverence for Buddhism. The artwork features imagined scenes of the Himavanta forest, incorporating both mythical and real animals, as well as abundant vegetation. The recurring use of star motifs throughout the ceiling reflects folk cosmology and a belief in the connection between the heavens and spiritual order. 4) Wat Srinuan Saeng Sawang Arom, Ubon Ratchathani Province (Ho Chaek): The ceiling paintings here are rich in variety, illustrating Traiphum cosmology, Himavanta creatures such as naga serpents and swans, and celestial elements such as plants and stars that convey local cosmological symbolism. Additionally, some scenes depict aspects of everyday village life such as rice farming, riding elephants and horses with Dharma puzzles (parittasana thamma) and moral teachings from Buddhist doctrine









- 1) Ceiling decorations inside the Sim of Wat Pathumkhongkha, Nakhon Ratchasima Province
- 2) Ceiling decorations inside the Ho Trai of Wat Na Phra That, Nakhon Ratchasima Province
- 3) Ceiling decorations inside the Ho Chaek of Wat Khok Srisaket, Nakhon Ratchasima Province
- 4) Ceiling decorations inside the Ho Chaek of Wat Srinuan Saeng Sawang Arom, Ubon Ratchathani Province

Figure 2: Characteristics of the ceiling decoration depict narrative content related to Buddhism.

Group 2 is Local Literature and Folk Life. The second thematic group of ceiling decorations consists of narratives drawn from regional literary traditions and depictions of local village life. These themes were observed at several research sites: 1) Wat Ban Changhan, Roi Et Province (Ho Rakhang): The ceiling features paintings of Mekhala and Ramasun, a well-known local folktale popular in the northeastern region. 2) Wat Yai Sri Maha That, Roi Et Province (Sim): The artwork illustrates the story of Phra Malai ascending to heaven to preach the Dhamma, a widely known tale in Thai Buddhist literature. 3) Wat That Suan Tan, Ubon Ratchathani Province (Ho Chaek): The murals include depictions of traditional folk games, such as the bald-headed wrestling game (hua lan chon kan), and are complemented by decorative Thai motifs. 4) Wat Thakok, Loei Province (Sim): The ceiling features imagery of the Constitution Tray, a symbolic object representing the

Thai Constitution. It is surrounded by the Dharmachakra (Wheel of Dharma), kranok flame motifs, and stylized round flowers, all of which reference the political and administrative changes during that historical period. 5) Wat Srichan, Loei Province (Sim): The ceiling includes intricately carved wooden sculptures depicting the twelve zodiac animals (naksat) and mythical creatures from the Himavanta forest, reflecting local beliefs and cultural identity.





Figure 3: Characteristics of the ceiling decoration depict narratives from local literature and village life

Group 3 is decorative motifs for aesthetic purposes. The third group consists of ceiling decorations created primarily for ornamental purposes, without an emphasis on narrative content. These designs serve to enhance the visual beauty of the sacred space and reflect the aesthetic preferences and religious devotion of their respective periods. This category of decoration was observed in the following sites: 1)Wat Sophon Viharn, Sisaket Province (Sim), 2) Wat Phra Lao Thep Nimit, Amnat Charoen Province (Sim), 3) Wat Phra Sri Maha Pho, Mukdahan Province (Sim), 4) Wat Matchimawat, Mukdahan Province (Sim) In these temples, ceiling decorations feature star motifs, traditional Thai patterns, inventive geometric designs, and Chinese-inspired ornamentation. These elements are employed to beautify the religious space and reflect the stylistic tastes and devotional culture of the period in which they were created.









Figure 4: Characteristics of the ceiling decoration to aesthetically enhance the sacred space

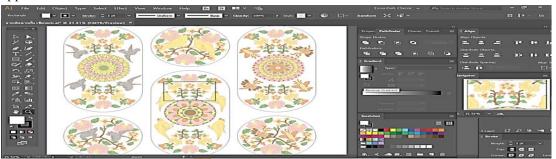
The ceiling decorations within Isan Buddhist buildings contain both explicit and implicit meanings. Based on the analysis of the narrative content found in the three thematic groups across the research sites, it was found that the styles of ceiling decorations can be categorized into five distinct forms. The first form is the depiction of human figures, which includes both humans and non-human beings. Human representations typically portray villagers, while non-human figures include deities and mythological characters such Mekhala, Ramasun, Phra In (Indra), Phra as Thewada (celestial beings), Malai, Phra giants, Kala faces, Kinnara, Kinnari, Hanuman, Suphan Matcha, Apsaras, Gandharvas, and mermaids. The second form involves animals, natural elements, and imaginary creatures. This includes real animals such as bats, chickens, fish, birds, butterflies, elephants, horses, snakes, and frogs, as well as mythical creatures from the Himavanta forest, including the Hasadin bird, Garuda, and Naga. The third form is the depiction of landscapes and vegetation, such as flowering plants, vines, and clouds. The fourth form includes ornamental patterns, such as ceiling star motifs, traditional Thai patterns, invented decorative designs, and Chinese-style motifs.

The researcher employed the semiotic theory of Ferdinand de Saussure (F. de Saussure) as the conceptual framework for analyzing the symbolic ideology (kati sanyalak) of ceiling decorations within Isan Buddhist architecture, which contain both "denotative meanings" (denotation), meaning what is visibly seen, and

"connotative meanings" (connotation), meaning symbolic interpretation. From the analysis of the narrative content of the ceiling decorations in the three groups found in the studied research areas, five forms of ceiling decoration were identified: 1) Human figures: (human) such as villagers, (non-human) such as deities, Mekhala, Ramasun, Phra Malai, Phra In (Indra), Phra Rahu, giants, Kala face, Kinnara, Kinnari, Hanuman, Suphan Matcha, Apsaras, Gandharvas, and mermaids. This form reflects stories related to Buddhism, the Tripitaka, and local literature, which serve as symbolic representations of faith and devotion in Buddhism. 2) Animals, nature, and imagination: natural animals such as bats, chickens, fish, birds, butterflies, elephants, horses, snakes, frogs, and imaginary animals such as creatures from the Himavanta forest, including the Hasadin bird, Garuda, and Naga. 3) Landscapes, flora, vines, flowers, and clouds: this form symbolizes the relationship with nature and community in terms of abundance, happiness, good fortune, and auspiciousness. 4) Ornamental patterns: ceiling star motifs symbolizing cosmology and sacred power; Thai patterns, invented designs, and Chinese patterns used to decorate the religious space for beauty. 5) Architectural imagery, such as the Sun riding a chariot, based on local literature, symbolizing faith in Buddhism.

From the analysis, it can be seen that the signs appearing on the ceilings contain both denotative and connotative meanings connected to the beliefs of local Buddhist communities in Isan. Ferdinand de Saussure's theory helps in understanding the meanings that arise from the connection between ceiling decorations in Isan Buddhist architecture and their cultural context. These ceiling decorations are therefore not merely decorative elements for visual appeal but also communicate meaning, belief, faith, values, and local culture of the Buddhist communities in Northeastern Thailand.

Design Results and Application to Product Development. The researcher employed the knowledge gained from analyzing the forms and symbolic meanings of ceiling decorations in Northeastern Buddhist religious buildings for this design project. The selected motifs focus on natural animals, especially birds such as bats, birds, butterflies, and dragonflies. The literal meaning of these flying creatures is that they soar above in the sky, aligning with the conceptual idea of ceiling decorations as the highest part of the religious building. These motifs were combined with landscapes—plants, vines, and flowers—as well as ceiling star patterns, which carry symbolic meanings of abundance, happiness, good fortune, and auspiciousness. The designs were then applied to product development by incorporating them into three pattern types: animal motifs, landscape (botanical) motifs, and ceiling star pattern motifs. The designs were created using computer technology, specifically Adobe Illustrator, to generate and develop the three styles of patterns for furth er product application.



Application of Pattern Designs

(Animal Motifs) Pattern 1: Traditional style. Pattern 2: Line drawing style. Pattern 3: Symbolic style.



(Landscape Motifs) Pattern 1: Traditional style. Pattern 2: Line drawing style. Pattern 3: Symbolic style.



(Ceiling Star Pattern Motifs) Pattern 1: Traditional style. Pattern 2: Line drawing style. Pattern 3: Symbolic style.



Figure 5: Patterns for Product Application

Home Decor Products Inspired by Ceiling Decorations in Northeastern Buddhist Religious Buildings. The home decor products inspired by the application of ceiling decoration motifs include: Table lamps, Floor lamps, Ceiling lamps, Room dividers, Art frames.



Figure 6: Product types: Home Decorations

Conclusion, Discussion and Recommendations

CONCLUSION

From the study of the styles and symbolic meanings of ceiling decorations within Isan Buddhist architecture across 13 temples in 7 provinces, the findings reveal that the ceiling decorations can be classified into two aspects: the stylistic characteristics and the artistic compositional elements of the decorations. Additionally, the analysis of symbolic ideology includes both denotative meanings (literal meanings) and connotative meanings (symbolic or implied meanings). The ceiling decorations in Isan Buddhist architecture are found in various types of religious buildings, including Sim (ordination halls), Ho Chaek (scripture halls), Ho Trai (tripitaka libraries), and Ho Rakhang (bell towers). The most frequently occurring decorations were found in the Sim, with eight temples: Wat Srichan and Wat Thakok in Loei Province; Wat Phra Sri Maha Pho and Wat Matchimawat in Mukdahan Province; Wat Yai Sri Maha That in Roi Et Province; Wat Pathumkhongkha in Nakhon Ratchasima Province; Wat Sophon Viharn in Sisaket Province; and Wat Phra Lao Thep Nimit in Amnat Charoen Province. Three Ho Chaek were studied: Wat Khok Srisaket in Nakhon Ratchasima Province, Wat Srinuan Saeng Sawang Arom, and Wat That Suan Tan in Ubon Ratchathani Province. One Ho Trai was examined at Wat Na Phra That in Nakhon Ratchasima Province, and one Ho Rakhang at Wat Ban Changhan in Roi Et Province. The styles of ceiling decorations appear in both two-dimensional and three-dimensional forms. Two-dimensional forms include mural paintings and illustrations, while threedimensional forms include sculptures, wood carvings, and stucco reliefs. According to Chalood Nimsamer (2001, p. 18), the artistic components of these decorations can be categorized into ten elements: (1) form and shape, (2) point, (3) line, (4) color, (5) weight, (6) texture, (7) rhythm, (8) space, (9) material, and (10) technique. The ceiling decorations convey both denotative (literal) and connotative (symbolic) meanings. The narrative content can be grouped into three thematic categories: 1) Stories related to Buddhism, religious beliefs, and the Tripitaka; 2) Local literature and folk life; 3) Decorative motifs for aesthetic purposes, without an emphasis on narrative content. These ceiling decorations serve not only as embellishments of sacred architecture but

also carry deeper meaning. They embody the symbolic beliefs of local communities, expressing faith, reverence, and devotion to Buddhism which are values that have been transmitted from the past through to the present.

Summary of Product Design Evaluation for Home Decor Based on Expert Assessment

Based on the evaluation by three product design experts regarding the application of forms and symbolic meanings of ceiling decorations from Northeastern Buddhist religious buildings in home decor product design, the following conclusions were drawn: The pattern designs adapted for use in products are those that convey auspiciousness, happiness, and abundance—such as animal motifs, landscape motifs (floral and botanical designs), and decorative motifs (ceiling stars). Three types of patterns were analyzed, and according to the average scores, the third type—symbolic motifs—was found to be the most suitable. The arrangement of symbolic pattern elements applied in product design, which incorporates motifs signifying auspiciousness, happiness, and abundance (animals, landscapes, and decorative motifs), effectively represents the unique characteristics of ceiling decorations. These designs are able to clearly communicate their intended meanings and are well-suited for practical use. They can be applied to a wide variety of product designs and are aesthetically pleasing and appropriate.

DISCUSSION

The styles of ceiling decorations in Isan Buddhist architecture exhibit ten artistic components, which align with the concept of art elements proposed by Chalood Nimsamer (2001, p. 18). This concept pertains to the fundamental elements in the interpretation of art. "Art" refers to something created by humans to express emotion, feeling, thought, or beauty. Art consists of two primary components: 1) The tangible component, which is the physical structure created by humans and can be visually perceived. This is referred to as the physical or formal element—comprising the visible result of material construction. These elements include: (1) form and shape, (2) point, (3) line, (4) color, (5) weight, (6) texture, (7) rhythm, (8) space, (9) material, and (10) technique. 2) The intangible component, which involves the content and conceptual ideas underlying the artist's creation. This is referred to as the abstract element or the content of the artwork.

The symbolic meanings of ceiling decorations in Isan Buddhist architecture convey both denotative and connotative meanings. The narrative content represented can be categorized into three groups: (1) stories related to Buddhism, belief systems, and the Tipitaka; (2) local literature and rural life; and (3) decorative motifs intended to beautify the religious space without emphasizing narrative content. This classification aligns with the perspective of Manat Chompru (2019), who notes that the stories depicted often reflect Buddhist teachings, local literature, and the lifestyle of the rural populace.

From the studied sites, it was found that the decorative patterns on ceilings include representations of human figures (humans) such as villagers and non-human beings such as deities, Mekhala, Ramasura, Phra Malai, Indra, Rahu, giants, Kala face, kinnara, kinnari, Matchanu, Suvarnamachcha, apsaras, gandharvas, and mermaids. These depictions relate to Buddhismu namely the Tipitaka, and local literary traditions, depending on the cultural preferences of each area. For instance, narratives like Mekhala and Ramasura, or representations of architectural elements such as the Sun God riding a chariot, function as symbolic motifs reflecting Buddhist faith and reverence. Animal imagery includes both natural animals such as bats, chickens, fish, birds, butterflies, elephants, horses, snakes, and frogs and mythical creatures from the Himavanta forest, such as the Hadsadin bird, Garuda, and Naga. Scenic representations include flora, vines, flowers, and clouds, symbolizing fertility, happiness, prosperity, and auspiciousness.

Pattern-based designs include ceiling stars, traditional Thai motifs, abstract motifs, and Chinese-inspired patterns. These decorative patterns not only serve aesthetic purposes but also symbolically represent acts of

worship in Buddhism. This interpretation aligns with Ferdinand de Saussure's semiotic theory, which distinguishes between denotation and connotation. The ceiling decorations in Isan Buddhist architecture convey both explicit and implicit meanings and serve as symbolic expressions of community beliefs passed down from past generations to the present.

Discussion of Home Decor Product Design Based on the Adaptation of Ceiling Decoration Forms from Northeastern Buddhist Religious Buildings. The home decor products designed by adapting motifs from ceiling decorations in Northeastern Buddhist halls include ceiling lamps, table lamps, floor lamps, room dividers, and artistic frames. According to the creative economy framework, these products fall under the fourth category, which consists of creative designs of goods and services that respond to diverse consumer needs. Such works employ knowledge that connects with culture, creating products that harness cultural assets embedded in local ways of life. This is further combined with appropriate knowledge, creativity, and innovation to differentiate the products.

This approach is consistent with the ten principles of product design (Udomsak Saributr, 2003). Product aesthetics, Appropriate functionality, User comfort, Consumer safety, Sufficient strength and durability, Reasonable pricing for the target group, Suitability of materials for the product, Appropriateness of production processes, Ease of maintenance, Convenience in transportation. The integrating cultural knowledge with creativity and innovation, the designed home decor products not only fulfill functional and aesthetic requirements but also add cultural value and uniqueness in line with principles of creative product design.

Recommendations

- 1. Further studies should be conducted on the styles and symbolic meanings of ceiling decorations in Buddhist architecture across other regions of Thailand. This would promote diversity in the research and contribute to the development of new bodies of knowledge.
- 2. A comprehensive database should be created to serve as a model of knowledge, which can be integrated into educational initiatives. This would help raise awareness about the importance of conservation, promote appreciation of cultural heritage, and facilitate the transmission of knowledge, thereby establishing valuable community learning resources.

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