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Research on the Window and Door Decoration Art of Traditional Residential Buildings in Yili, Xinjiang

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Abstract: Architecture is a form of cultural expression and a product of specific historical periods. The traditional dwellings of Xinjiang Ili have developed a unique regional architectural decorative style under the influence of Russian culture and their own ethnic culture through long-term changes. This article explores the design concepts of window and door decorative arts in Xinjiang Ili traditional dwellings from aspects such as an overview of Xinjiang Ili traditional dwellings, factors influencing the formation of window and door decorative arts, and characteristics of window and door decorative arts. Based on this, it aims to uncover the cultural connotations and artistic value of window and door decorative arts in Xinjiang Ili traditional dwellings to better protect and inherit this region-specific cultural product. The goal is to provide valuable references and research findings for modern architectural decoration designers.

Keywords: Xinjiang Ili; Traditional Residential Architecture; Doors and Windows; Decorative Arts; Cultural Heritage.

1. Introduction

Xinjiang Ili is renowned not only for its captivating natural scenery but also for its rich historical culture and diverse ethnic customs. Xinjiang Ili serves as a crucial hub of the ancient Silk Road [1]. Not only did it hold a significant position in ancient trade, but it continues to play a crucial role in China's modern Belt and Road Initiative, connecting East and West and promoting cultural exchange and economic cooperation. On this oasis, the ancient Silk Road witnessed the convergence and fusion of numerous civilizations, giving birth to unique cultural landscapes in Yili. From intricately arranged clusters of ancient buildings to vibrant ethnic costumes; from melodious ethnic music to delectable local cuisine, every aspect exudes a rich cultural atmosphere, deeply illustrating the harmonious coexistence of diverse cultures here [2]. Ili has become a unique and enchanting place, boasting magnificent natural landscapes and rich cultural heritage. In the first half of the 19th century, with the rise of the emerging bourgeoisie following the Industrial Revolution, diverse architectural forms became crucial to meeting people's varied needs, leading to a blind pursuit of luxury. To satisfy these demands, eclecticism emerged, integrating classical and foreign styles such as ancient Roman, ancient Greek, Baroque, and Rococo [3]. Ili has become a unique and enchanting place, boasting magnificent natural landscapes and rich cultural heritage. In the first half of the 19th century, with the rise of the emerging bourgeoisie following the Industrial Revolution, diverse architectural forms became crucial to meeting people's varied needs, leading to a blind pursuit of luxury. To satisfy these demands, eclecticism emerged, integrating classical and foreign styles such as ancient Roman, ancient Greek, Baroque, and Rococo [4]. By the early 20th century, eclecticism in architecture swept across Europe and gradually crossed borders, spreading to China, where it merged with traditional Chinese architectural elements to form a unique Sino-Western hybrid architectural style [5]. By the early 20th century, eclecticism in architecture swept across Europe and gradually crossed borders, spreading to China, where it merged with traditional Chinese architectural elements to form a unique Sino-Western hybrid architectural style [6]. The integration of local ethnic cultures in the Ili region has led to the formation of new architectural styles, which have had a profound impact on the traditional residential architecture of the Xinjiang Ili region. This architectural style is not only evident in public buildings and commercial districts but has gradually permeated into local traditional residences, significantly influencing the residential architectural style of the Ili region. Today, strolling through the streets and alleys of Ili, one can see many buildings that incorporate elements from both Russian and Chinese cultures. These structures retain the practicality and warmth of traditional residences while adding exotic charm, becoming an essential part of Ili's unique cultural landscape and attracting countless visitors to explore and experience this cross-temporal cultural allure.

This study aims to deeply analyze the decorative arts of traditional residential doors and windows in Yili, Xinjiang, through qualitative research methods, revealing their cultural significance and historical origins. First, relevant historical documents, local chronicles, folk materials, etc., will be collected and analyzed to understand the region's historical background, cultural traditions, and architectural characteristics. Secondly, conduct field investigations in the Ili region, selecting representative traditional dwellings for study. Furthermore, interview local residents, carpenters, cultural scholars, and others to gain insights into their perceptions and views on door and window decorative arts. Finally, through image analysis and artistic interpretation, utilizing SketchUp's digital modeling and deconstruction, analyze the decorative patterns of doors and windows in traditional residential architecture in Yili, Xinjiang, identifying their shapes, motifs, colors, and other artistic elements. By integrating cultural background and aesthetic concepts, provide an artistic interpretation of door and window decorations, revealing their cultural significance and symbolic meanings.

2. Overview of Traditional Residential Architecture in Yili, Xinjiang

2.1. Geographical Location and Natural Environment

The Xinjiang Ili region is located in the northwest of China's Xinjiang Uygur Autonomous Region, specifically in the northwestern part of Xinjiang, under the jurisdiction of the Ili Kazakh Autonomous Prefecture. The area consists of a triangular region formed by the Tianshan Mountains and the South Tianshan Mountains, with its topography sloping from northeast to southwest [7]. The natural environment of Yili region is unique, featuring a continental mid-temperate semi-arid climate with distinct seasons. Located on the northern route of the ancient Silk Road, Yili enjoys the reputation of being the 'Jiangnan beyond the Great Wall' and the 'wet island of Central Asia' due to its distinctive geographical location and climatic conditions [8]. The natural environment of Yili region is unique, featuring a continental mid-temperate semi-arid climate with distinct seasons. Located on the northern route of the ancient Silk Road, Yili enjoys the reputation of being the 'Jiangnan beyond the Great Wall' and the 'wet island of Central Asia' due to its distinctive geographical location and climatic conditions [9].

2.2. Ethnic Distribution and Cultural Characteristics

2.2 Ethnic Distribution and Cultural Characteristics [10], It is also an area where adherents of Islam are concentrated. Its traditional residents mainly consist of multiple ethnic groups, including Kazakhs, Uyghurs, Kyrgyz, and Han Chinese. The Ili Kazakh Autonomous Prefecture is the only prefecture-level administrative region in China, where 47 ethnic groups have long been residing, creating a unique phenomenon of multicultural integration [10,11]. For example, the handicrafts of Yili, including Uygur carpets, Kazakh yurts, and silver and copper crafts, are all the fruits of local artisans' wisdom and are highly favored by tourists. Additionally, Yili boasts a rich intangible cultural heritage, such as the migration festival of the Sibe people, Kazakh dombra art, and folk songs. The Xinjiang Yili region is widely praised for its long history, profound cultural heritage, and the integration of diverse cultures, making it a genuine multi-ethnic settlement area where various ethnic groups jointly create a rich and colorful cultural landscape.

2.3. Overall Characteristics and Styles of Residential Architecture

Xinjiang, with its fragrant fruits, and its hospitable people, this is the fresh and beautiful image slogan that Xinjiang presents to the world. Upon entering Xinjiang, one can deeply feel the charm of this phrase. Among the traditional inhabitants of the Ili region of Xinjiang, this praise is well attested. It consists of two parts, the main building, which is a masterpiece of multicultural fusion, and the courtyard, which is an example of a garden courtyard [12]. The courtyard layout of residential houses typically includes transitional areas near the entrance, living spaces under the veranda, areas for growing vegetables and fruits, and private zones. This arrangement not only meets the daily living needs of residents but also demonstrates efficient use of space [13,14]. The most distinctive feature is that traditional residential courtyards of the Uighur ethnic group in Xinjiang's Ili region typically consist of two parts: a garden orchard and a living courtyard. Ili garden-style residences usually occupy about 667 square meters, with the courtyard serving as an extension of the main building space, occupying the majority of the area. The courtyard comprises sections such as the entrance area, eaves corridor and the activity zone before the corridor, planting area, and private area [14]. Traditional residential buildings in Yili often feature transitional spaces such as veranda living areas that blend indoor and outdoor environments. These spaces can serve as extensions of indoor activities while also providing shelter for outdoor activities. This design is both practical and aesthetically pleasing, enhancing the comfort and functionality of the residences. The main building's eaves typically connect with grape trellises to form a semi-open, roofed recreational space (see Figure 1). This is also one of the distinctive features of traditional residential architecture in the Ili region. Uyghur residents place beds or carpets under the grape trellises (see Figure 2), where they can cool off and rest during hot summer days. Hospitable Xinjiang people often gather here with family and guests for meals, socializing, singing, dancing, and observing the life around them.

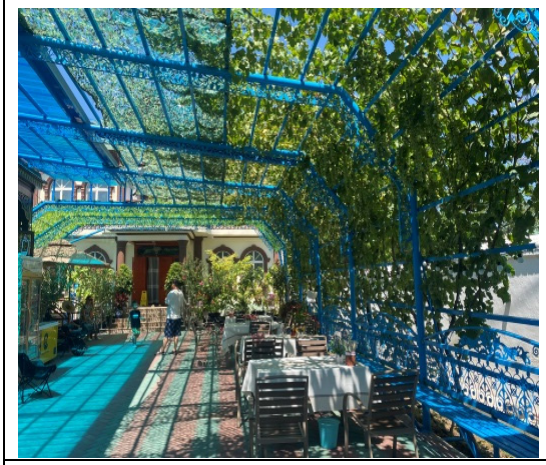


Figure 1. Traditional residential courtyard of Xinjiang Ili. (photographed by the author in a residential house in Xinjiang Ili).



Figure 2. Traditional residential courtyard living area of Xinjiang Ili. (photographed by the author in a residential house in Xinjiang Ili).

3. Factors Influencing the Formation of Traditional Yili Residential Door and Window Decorative Arts

The traditional dwellings of the Ili region have been influenced by climatic conditions, historical changes, social and cultural accumulation, levels of economic and technological development, and ethnic and religious factors. Influenced by Russian architectural styles, the decorative features of the traditional Uyghur dwellings in the Ili region during the early 20th century were characterized by their window and door decorations [15].

3.1. Natural Environmental Factors

The Ili River Valley has long nurtured this land with abundant water resources and lush vegetation, providing favorable conditions for residential architecture in the Ili region. Due to the significant diurnal temperature variation, ample daylight, and rapid evaporation of moisture, traditional residential buildings in the area predominantly feature large skylights in the main hall and high side windows in the main room, while smaller skylights are used for other spaces. This structure not only meets the building's ventilation and lighting requirements but also reduces the excessive light and excessive energy exchange with the outside caused by excessively large window areas in other spaces. This avoids issues such as excessively high indoor temperatures during the day and excessively low temperatures at night, providing residents with a relatively comfortable living environment. Geographical conditions have significantly influenced the selection of building materials, thanks to the abundant natural resources and unique geographical environment of Yili. The diverse natural conditions and rich resource endowment have provided ample construction and decorative materials for local ethnic groups, thereby promoting the advancement of traditional residential door and window decoration arts in the Yili region of Xinjiang [16].

3.2. Social and Human Factors

The Ili region has been a place of multi-ethnic settlement and migration since ancient times [10]. The Ili region has been a place of multi-ethnic settlement and migration since ancient times, Successive migration of Uighur farmers from southern Xinjiang regions such as Kashgar, Aksu, and Kuche to the Ili region for agricultural development. Today, most of the Uighurs in the Ili region are descendants of these immigrants [17]. In this trade city on the northern route of the ancient Silk Road, it connects East Asia, Central Asia, and Western Asia, and serves as one of the significant trade routes between South Asia and Europe [18], Known as the 'Silk Road,' this hub of East-West transportation has experienced numerous migrations and cultural exchanges throughout history, becoming a crucial conduit for cultural interactions between the East and West. These factors collectively shape the distinctive architectural cultural characteristics of traditional houses in Ili [19]. For example, Uyghur residential architecture incorporates elements of Russian architectural culture in its window and door decorations, resulting in a distinct decorative art style different from other regions in Xinjiang [20]. These decorative arts not only form part of residential architecture but also carry the essence of local ethnic culture, showcasing the lifestyle and aesthetic pursuits of the ethnic groups in Yili, Xinjiang.

4. Specific Characteristics of the Window and Door Decorative Arts in Traditional Ili Residences

The traditional residents of the Ili region in Xinjiang are mainly Uyghurs, who practice Islam. Therefore, their lifestyle and architectural styles differ from those of other ethnic groups. Additionally, influenced by Russian culture, a unique form of residential architecture that blends Islamic and multicultural influences has taken root and flourished in the Ili region of Xinjiang.

4.1. Types and Structures of Doors

A door serves as a medium for entering one space from another and also acts as a connection and boundary between two spaces. The traditional Chinese concept of 'men di' (family status) has long existed, making 'door' naturally a symbol that represents family background and different social class statuses [21,22]. The first significant node when transitioning from outdoor to indoor space is the main gate, which serves as the boundary between public areas and private domains, typically situated at a prominent street-facing location. The design of the door header in Yili residences is both aesthetically pleasing and functional, with unique features. The decorative designs on the main gate reflect the homeowner's aesthetic preferences and economic status, making the construction and decoration of the door header highly valued by each household.

Different regions have unique interpretations of doors in architecture. In traditional homes in Yili, Xinjiang, doors are designed by integrating various cultures and are categorized into courtyard gates and entrance doors based on their location and purpose. Due to the Xinjiang traditional dwellings' passion for life, attention to detail, and love for decoration, they believe that the main entrance of the courtyard facade should be constructed with exquisite aesthetics, pleasing passersby. Additionally, due to the integration of various ethnic styles, the decorative components of the doors of traditional Xinjiang Ili dwellings are more intricate compared to those of general regional ethnic residences. The primary components are divided into several types (see Table 1).

Traditional residential courtyard gates in Xinjiang Ili usually consist of a pair of double doors (see Figure 3), but there are also some residential courtyards with a combination of one large (double) door and one small (single) door (see Figure 4). This combination of sizes makes the courtyard gate appear more spacious and grander.

In traditional residential buildings in Yili, Xinjiang, although the entrance doors are not visible from outside the courtyard walls, residents who love life and pay attention to decoration still emphasize the architectural design of the entrance doors. For example, they would set up a small open space at the entrance door, with a roof-like architectural component extending from the top of the entrance door, and columns connecting the ground from the top structure on both sides, symmetrically.

Table 1. Components of the main entrance of traditional residential buildings in Yili, Xinjiang.

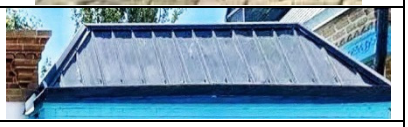
Name	Design	Function	Image
Goalpost	Primarily made of brick. The door is flanked symmetrically by square pillars.	Protect the storefront, enhance aesthetics, and showcase grandeur.	
Armchair	Also known as 'door threshold stone'. Located at the lower end of the door columns on both sides of the door, approximately 40 to 45 centimeters high, with distinct edges.	Door sleepers are set up to be versatile, not only as part of the architecture, but also for practical use in everyday life, such as acting as benches.	
Lintel top	Articulated above the gateposts, the entire top of the gate, mostly triangular, trapezoidal iron.	Protective door structure, shields against wind and rain.	
lintel	The overhead coverings on the façade are typically constructed from brick or stone, projecting outward to form lines and decorative elements, with their tops covered by tiled eaves or metal sheets.	Decorative patterns are used to prevent rainwater from flowing onto the door panels and to symbolize good fortune.	
Door knock	Also known as beast-head. The door knockers on courtyard gates are typically fashioned into the shape of animal heads. There are also circular or mushroom shapes.	Sliding doors, knock on the door.	
Door studs	Also known as a nail head. The nail is embedded in the door panel, presenting a circular shape.	Fixed panels, now often serve as decorative elements.	
angular leaf	Metal strips attached in a patterned manner at the corners of the door panel.	Strengthen and decorate the mortise-and-tenon joints.	
eaves and walls	At the corner junction, extend the brickwork beyond the wall surface.	Aesthetic decoration.	



Figure 3. Traditional courtyard double-door entrance of residential houses in Yili, Xinjiang. (photographed by the author in a residential house in Xinjiang Ili).

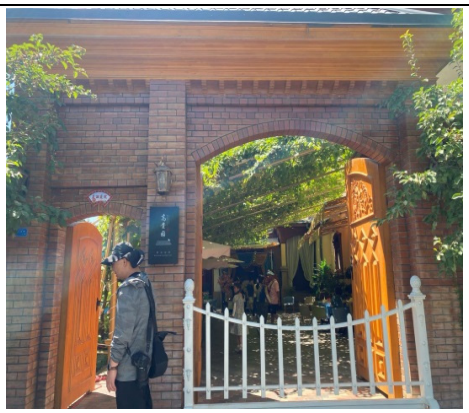


Figure 4. A combination of large and small gates in a traditional residential courtyard in Yili, Xinjiang. (photographed by the author in a residential house in Xinjiang Ili).

Some residences even have four columns, arranged front, back, left, and right. The entrance door is typically connected to the courtyard's flat ground by stone steps (see Figure 6). For aesthetic appeal and privacy, traditional curtains are installed at the veranda (see Figures 5 and 6). We refer to this entire structure as the 'entrance veranda' (see Figure 5). The design of the entrance doors for traditional residential buildings in Yili, Xinjiang, also emphasizes safety and practicality. They not only provide shade, wind protection, and rainproofing but also play a crucial role in connecting indoor and outdoor spaces, serving as a transitional buffer zone. These areas can be used to store umbrellas and footwear and can also function as a resting area [23,24].

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Figure 5. Traditional residential entrance porch of Yili, Xinjiang. (photographed by the author in a residential house in Xinjiang Ili).



Figure 6. Entrance porch staircase of traditional residential architecture in Yili, Xinjiang (photographed by the author in a residential house in Xinjiang Ili).

4.2. Types and Structures of Windows

The traditional residential door and window decoration art of the Ili region in Xinjiang is unique in terms of materials and structure. For instance, traditional residences in Ili typically use brick and wood structures to resist cold and dampness, characterized by high foundations, thick walls, and small windows. In terms of design, they have been influenced by Russian culture, inheriting the triangular decorative lintels and window shutters typical of Russian architecture [25]. Triangular tympanum windows (see Figure 7) are relatively common in the Ili region, featuring pointed arch designs with capitals on either side. They typically consist of double-hung sashes, often with embedded frames and glass panes [26]. Additionally, there are windows with semi-circular arch lintels (see Figure 8), which feature pointed or semi-circular arches added to rectangular window openings. Such decorative treatments on doors and windows break the monotony and add geometric beauty.



Figure 7. Traditional residential arched windows in Yili, Xinjiang. (photographed by the author in a residential house in Xinjiang Ili)



Figure 8. Traditional residential triangular lintel windows in Ili, Xinjiang. (photographed by the author in a residential house in Xinjiang Ili)

The roofs of traditional Ili residences feature exquisite skylights. These skylights are commonly known as 'cat windows' and represent a typical form of roof skylight in traditional European architecture, characterized by their top and side walls, resembling a small room embedded within a sloped roof (see Figure 9). This type of skylight is one of the distinct features of Uyghur residential architecture in the Ili region influenced by Russian culture. Although their functions differ from those of Russian-style skylights, they both serve to enhance lighting and ventilation, enriching the facade's form and depth [27].



Figure 9. Traditional residential skylight in Yili, Xinjiang. (photographed by the author in a residential house in Xinjiang Ili).

4.3. Carving Techniques for Doors and Windows

Carving techniques are a common architectural approach in traditional Chinese buildings. Their application is extensive, encompassing various forms such as wood carving, stone carving, and brick carving. Each region and period exhibits its own unique style and characteristics [28].The traditional Uyghur residential doors and windows in the Ili region of Xinjiang feature meticulous compositions, exquisite patterns, and exquisite craftsmanship. These elements not only reflect the aesthetic trends of Islamic decorative arts but also encapsulate the cultural and aesthetic concepts of the Uyghur people. In the traditional residential door and window decorations of the Ili region, both wood carving and brick carving are commonly used. The building materials and positions for these carvings are listed in Table 2.

Table 2. Categories of door and window carvings.

Name	Materials	Location	Image
Wood carving	Trees	window panels, window sills, etc.	
carved brickwork	mud bricks, tile dust	door posts, door sills, etc.	

Wood carving decoration is the most common and beloved decorative technique in Ili residential architecture. Compared to brick carving, it is easier to shape and the raw materials are more portable. Due to the environmental conditions of the Ili region, with abundant rainfall and lush vegetation, wood is the most readily available material. Locally sourced poplar, willow, sand, and walnut trees are primarily used as raw materials [29]. Used on door and window panels, door and window sills, window sill columns, porch eaves, etc. In particular, wooden decorative carving is highly demanding of the craftsman's skills. The author conducted field investigations and interviews with local wood carvers to determine the general process of wood carving, as illustrated in Figure 10.

Brick carving, this ancient and exquisite craft, ingeniously uses bricks as carving materials, endowing architecture with unique artistic charm. It is widely applied to prominent positions such as door headers, wall tops, door columns, and door bases, becoming the finishing touch of architectural appearance. The brick carvings in the traditional residential

door and window decorations of Yili, Xinjiang, feature rich and diverse designs, including simple and clear geometric patterns, auspicious symbols, and vivid floral and plant motifs. These patterns are not only aesthetically pleasing but also reflect people's aspirations for a better life. In terms of pattern arrangement, brick carvings employ continuous repetition in two directions or four directions, creating a unified yet varied decorative surface. On some large bricks, the carvers meticulously design a set of individual patterns that often feature rigorous compositions and smooth lines, showcasing their exceptional skills and profound artistic cultivation. In terms of carving techniques, brick carving predominantly employs relief methods, utilizing varying depths of carving to create a sense of three-dimensionality and layering, enhancing visual impact. As for color, brick carvings typically use plain colors, with common shades being gray tile and earthy brick tones. These naturally simple colors complement the overall architectural style, creating an atmosphere of rustic elegance.

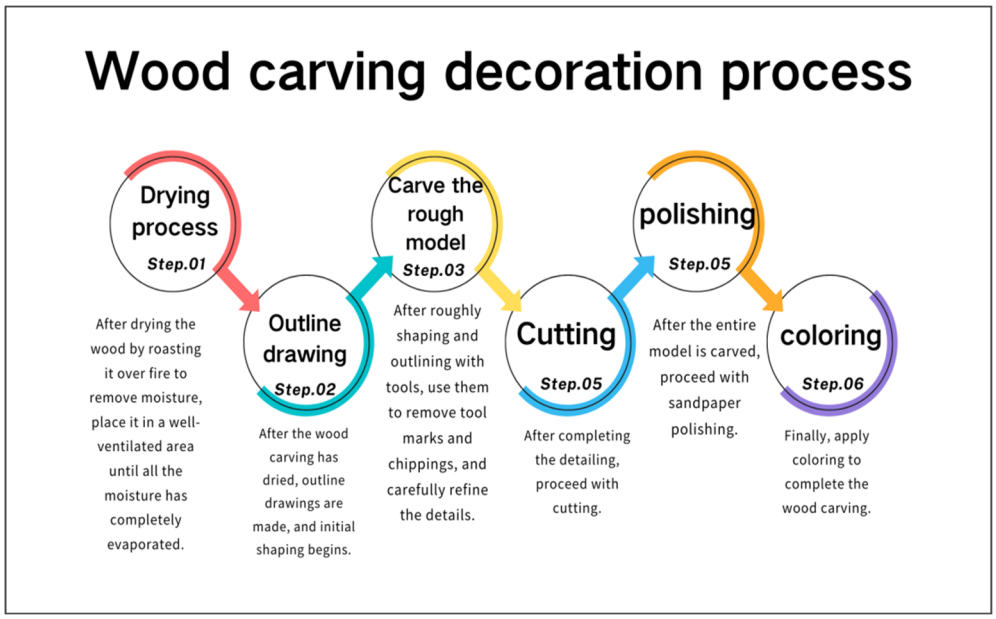


Figure 10. Flowchart of wood carving process in traditional residential door and window decorations in Yili, Xinjiang (based on author interviews)

4.4. Patterns and Colors of Window and Door Decorations

4.4.1. Window and Door Decorative Patterns

The distinctive window decoration techniques and the significance of patterns in Uyghur residential architecture in Xinjiang, derived from Islamic culture rooted in the Quran [30]. The Quran explicitly proclaims that Allah is the Creator of all things in heaven and earth, and is absolutely unique. Allah has no equal, no rival, nor offspring, and nothing can be compared to Him [31].Moreover, idolatry is strictly prohibited in Islamic faith, so Islamic religious culture does not feature figurative patterns of living beings such as humans or animals [32]. Primarily decorated with exaggerated abstract geometric patterns, plant motifs, and occasional textual designs [33]. The integration of other ethnic artistic and architectural aesthetics under the dominance of Islamic religious influence creates infinite aesthetic realms within limited material constraints. This study employs SketchUp modeling software to create traditional residential door and window designs in Yili, providing decorative patterns with local ethnic characteristics and corresponding models for door and window positions. Below is a typical residential door and window design from Xinjiang's Yili (see Figure 11).

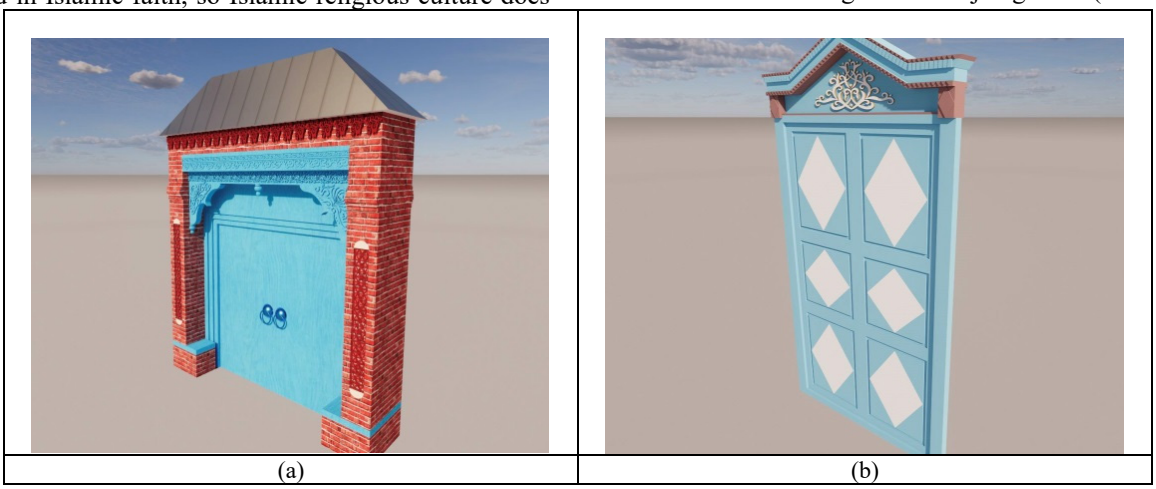


Figure 11. (a) Door design; (b) Window design (drawn by the author using SketchUp modeling software).

Muslim believers hold that celestial bodies and all phenomena in the universe should adhere to their natural laws.

The development of things should be harmonious and stable, with no chaos [34]. Thus, harmony, balance, and richness are significant features in their decorative arts. Geometric shapes, such as rhombuses, squares, and circles, perfectly align with these characteristics, reflecting both a pursuit of order and harmony and a philosophical idea that all things in the universe are interconnected and coexist harmoniously. Therefore, these patterns are also the most common motifs in the traditional residential door and window decorations of Xinjiang Ili (see Figure 12). Islamic civilization emphasizes order and rhythm, so these geometric patterns are often presented in Islamic decorative arts through mathematical methods such as repetition, arrangement, intersection, and continuous patterns in two directions and four directions [35]. These are the most common forms of decorative arts found on doors and windows in traditional dwellings in Yili, Xinjiang.

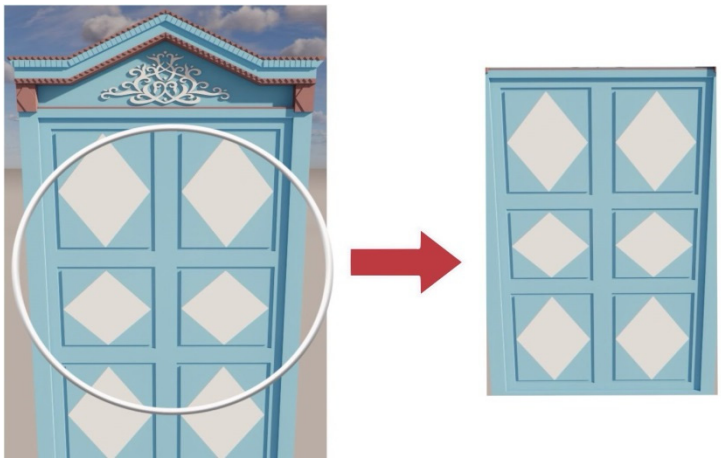


Figure 12. Geometric patterns (self-drawn by the author using SketchUp modeling software).

Furthermore, plant patterns will be processed using transformed straight lines (see Figure 13). The inspiration for these patterns comes from artistic representations of pomegranate motifs, almond motifs, grapes, figs, and various elements such as vines, buds, blossoms, and stems [36]. These plant patterns do not appear in their natural forms but evolve and expand through repetition and arrangement, forming decorative motifs akin to unit combinations (see Figure 13). Aesthetically, they pursue symmetry and balance. The branches, tendrils, and leaves of flowers and fruits typically extend gracefully in wave-like curves, with the shapes of the plants resembling fluid water lines that fill the entire space. Although these vines are not specific images, they seem to possess the vitality of energy.

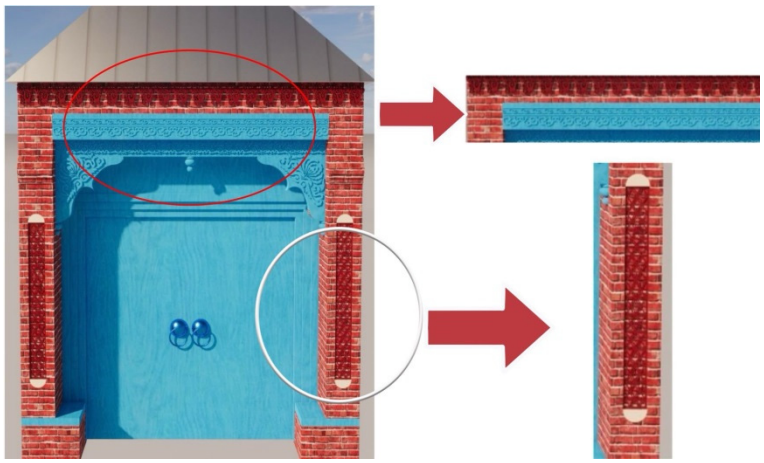


Figure 13. Plant patterns (self-drawn by the author using SketchUp modeling software)

In addition to geometric patterns and plant motifs arranged in order, there are also individual fitted patterns (see Figure 14). Fitted patterns hold a significant position in traditional Chinese aesthetics, reflecting profound aesthetic thoughts through their form language and emotional appeal, and gradually integrating into modern design's aesthetic expressions [37]. This pattern is not only extensively used in ancient architecture and decoration, such as in the ceiling domes of the Mogao Grottoes' Dunhuang murals and the painted ceilings of ancient imperial buildings, but also widely applied in modern visual design [38]. In the Ili region, traditional residential door and window decorations, due to their specific shape and form constraints, typically appear at the top of courtyard gates, on blank walls, and on specific parts of windows. Based on the characteristics of residential architecture, their decorative styles vary, and decorations in different positions also exhibit distinct patterns [16].

In architectural decoration, color is not merely a simple natural display but also a symbolic artistic symbol that can convey information difficult to express through the object itself [39]. In the decorative arts of doors and windows in traditional Xinjiang Ili residences, color expression is influenced by Islamic cultural norms while reflecting the essence of life, psychologicalentrust, emotions, and vitality of the ethnic groups, showcasing a rich ethnic aesthetic with a sense of texture. The diversity of colors provides a wide range of choices for the decorative arts of doors and windows in traditional Xinjiang Ili residences, including colors such as

green, blue, orange, white, red, and purple found in Islamic architectural decorations [40]. Different colors evoke different emotions and their connotations are closely linked to cultural history [41]. In the architectural decoration of Yili region, blue is predominant (see Figure 15). In Russian culture, blue holds multiple symbolic meanings and is a richly connotative color, representing both melancholy and friendship [42]. In Islamic culture, blue represents expansive concepts such as the sky and the sea. Therefore, blue is indispensable in both Russian and Islamic architectural decorations. In the traditional residential door and window decorations of Xinjiang Ili, blue not only symbolizes the vastness and tranquility found in religious contexts but also expresses reverence for nature and a passionate love for life filled with hope.

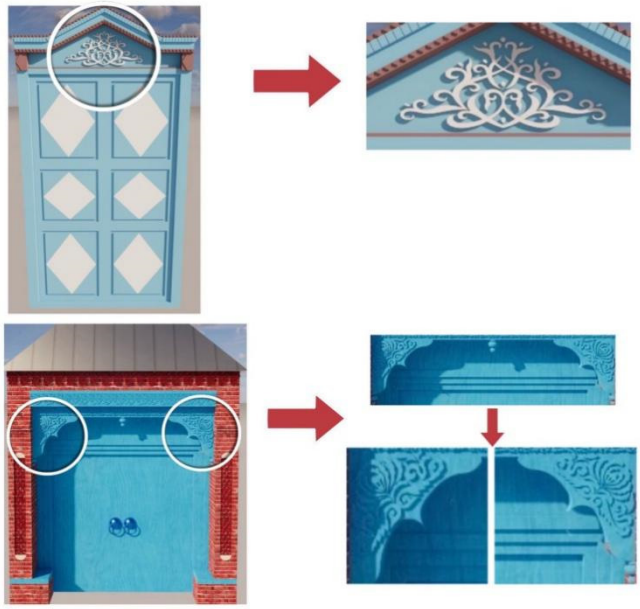


Figure 14. Suitable pattern (self-drawn by the author using SketchUp modeling software).

4.4.2. Window and Door Decorative Colors



Figure 15. Blue buildings in the Ili region of Xinjiang. (The author photographed in Karez, an old city in Yili, Xinjiang)

Green symbolizes life, hope, and vitality. However, due to Xinjiang's location in desert and gravel areas, with a dry climate, scarce surface water, and sparse green vegetation, green has become the color most cherished and yearned for by the people of Xinjiang. In traditional dwellings in Yili, Xinjiang, one can observe extensive use of green for decoration, reflecting the local residents' love for greenery. White is regarded as a symbol of purity and nobility, capable of evoking a sense of tranquility. In traditional residential architecture of Xinjiang Ili, white plays a significant role, evoking respect. Additionally, white serves as a clean background color, often used in traditional Xinjiang architectural complexes, with blue, green, or other colors of patterns added for embellishment. Bright colors such as orange, red, and gold are also utilized; these hues not only reflect the natural beauty of Xinjiang's vast landscapes but also embody the Uyghur people's vibrant, optimistic character traits. The bold use of color combinations not only enriches the living space with strong ethnic charm but also transforms each gaze into a visual feast.

5. Protection and Transmission of Traditional Door and Window Decorative Arts in Ili

The traditional residents of Yili region are not only unique in their lifestyle but also demonstrate their profound historical heritage and rich cultural connotations through cultural inheritance and the integration of diverse cultures. With the advancement of modern technology, some new decorative

materials and techniques have also been applied to door and window carvings, ensuring that this traditional art form can be passed down and developed [43,44]. However, the decorative arts of doors and windows in traditional Ili residences also face certain challenges. With the acceleration of modernization, traditional architectural decorations are increasingly being neglected, and many traditional decorative techniques and materials are at risk of disappearing. Therefore, protecting and transmitting the traditional door and window decorative arts of Xinjiang Ili is not only necessary for preserving cultural heritage but also an important way to promote cultural diversity and sustainable development. In summary, through in-depth research and reasonable protection, this unique cultural heritage can be effectively passed down and developed.

6. Conclusion

The decorative arts of doors and windows in traditional residential buildings in Yili, Xinjiang, are rich in regional and ethnic characteristics. These decorative arts not only reflect the cultural and aesthetic pursuits of the Uighur people but also express their life philosophy and cosmology. The decorative arts of doors and windows in Xinjiang's traditional dwellings, residential architecture, musical instrument decorations, and handicrafts are not only carriers of ethnic culture but also bridges for cultural exchange and integration with the world. These artistic forms, imbued with religious beliefs, life philosophies, and aesthetic concepts, showcase the traditional residents' pursuit of beauty and love for life through unique patterns, colors, and shapes.

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