

A study on the characteristics of traditional Manchu dwellings in Northeast China

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ORIGINAL RESEARCH



PAPER



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ABSTRACT

China has a lengthy and glorious history spanning thousands of years. Traditional dwellings represent distinct regional cultural origins, and different forms of housing constructions have arisen as a result. However, traditional dwellings preserve area culture and specific life memories as a fundamental component of rural life. From the perspective of conventional dwellings, this paper takes the representative Manchu folk houses in Northeast China as an example. It discusses the architectural structure, appearance style, and overall style of Manchu folk dwellings and the cultural dimension of architecture and its distinctive value under the impact of regional culture.

KEYWORDS

manchu, manchu dwellings, architectural features, heritage

1. MANCHU ORIGINS AND THE EVOLUTION OF MANCHU DWELLINGS

1.1. Manchu origins

The Manchus have a 3,000-year history, with their origins dating back to the ancient Sushen people before 221 BC. The Sushen people are Northeast China's earliest recorded old ethnic group. At the time, tribes were clustered near the river and mainly subsisted on fishing. Except for the Han, the Manchus are the most populous of my country's 56 ethnic groups.

Northeast China is the Manchus' birthplace, and 70 percent of the Manchu people reside there. Northeast China includes of the three provinces of Jilin, Liaoning, and Heilongjiang.

1.2. Dwellings in caves and tree caves

During the pre-Qin period (before 221 BC), the Manchu ancestors constructed nests in trees with branches and leaves, similar to bird's nests, to keep the ground from becoming wet and avoid chasing wild animals. The units serve as the house's structure, and the dense leaves serve as the roof. The Manchus' first home was in this location. However, the Northeast's environment is bitterly cold in winter, making a living outside and among the trees impossible. As a result, the Manchu ancestors began to dwell in caves to stay warm [1].

1.3. Dwellings on the ground

During the late Yuan and early Ming periods (AD 1364–1368), the Manchus who settled in the Central Plains developed a new way of life due to their long association with the Han people. Half-crypt dwellings dug and covered at the foot of the mountain were created during this period. In addition to cave inhabitants, there are wooden dwellings of more than thirty wooden poles arranged in a round cone-shaped wooden frame. The wooden frame is then covered with bark, and in winter, with animal skins. The fire pit is in the center, and people

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gather around it to cook food and sleep. The bark was stripped and taken by reindeer when relocating the fire pit, but the shelf remained in place [2].

During the Qing Dynasty (1636–1912), the Manchu people lived in thatched dwellings with regional variations. The majority of them has civic wood for walls and grass for roofs. The advantages of this type of housing are solid thermal insulation, local materials, and ease of construction. Rubble is used to build walls, and wooden columns support beams in places with abundant stone resources (Fig. 1).

2. THE CAUSES OF MANCHU DWELLINGS

2.1. Natural causes

The Manchus have lived in Northeast China for generations, and their residential architecture and folk customs reflect the northern peoples' regional characteristics. The climate in the Northeast is mid-temperate and continental, with severe winters lasting up to five months. As a result, the Manchu residential houses that have been here for generations naturally develop winter and complex protective properties. The Manchus have a fire in their dwellings, the primary heat source in their homes. It is known for its excellent heat preservation and healing properties, and some Manchu families still use it currently. Geographical location is another factor affecting the architecture of Manchu residential buildings. In the early Manchu period, the Manchu people mostly lived in mountain valleys, so the half-crypt wooden houses built on the hillside were the winter residences of the Manchus. These wooden dwellings are generally made on the sun's slopes, with the walls dug out of the ground and covered with bark and grass and pot stoves and fire kilns for heat preservation and heating [3].

2.2. Shamanism's influence on the design of Manchu residential structures

Manchu architecture is infused with a deep shamanic flavor. Humans receive direction from the goddess of rules, according to shamanic mythology. Since she was the first to designate the West, Westinghouse is the most dominant, typically inhabited by the family's elders. Myths are also based on real-life events. For example, the majority of ancient Manchus resided in the mountains. As a result, the west was warmer because the mountains blocked the frigid northeast winds in Northeast China. Furthermore, Chinese



Fig. 1. Tree nest, semi-crypt, straw hut dwelling (Source: photo and drawing by author)

culture is highly valued by the old, so the elderly and elders of the family reside in Westinghouse [4].

2.3. Site selection characteristics of Manchu residential settlements

The placement of Manchu dwellings has evolved. As the Manchus continued to migrate to central China, the building's location changed from mountainous to terraced, hilly, and finally plain. Manchu villages are mainly built along the banks of rivers and lakes. Alternatively, the sunny location in front of the hill is also close to the main village road, directly related to the convenience of life. Because the building's overall layout is oriented primarily toward the sun, the houses are arranged horizontally in a straight row (Fig. 2).

3. CHARACTERISTICS OF MANCHURESIDENTIAL DWELLINGS

3.1. Classification and materials of dwellings

Manchu residential buildings in the northeast region are mainly divided into brick and tile houses in towns, courtyard houses in villages, and single-family tiny houses in villages. The town's dwellings are large and of high construction grade, brick and timber construction with grey tiled roofs. Rural courtyard houses are mainly small courtyards formed by multiple houses, generally earth and wood structures, with grass roofs. Finally, tiny detached houses in the countryside are single-family earth and wood structure houses with a simple courtyard layout and small areas (Fig. 3).

3.2. Courtyard and building layout

There are two types of large urban residences: triple courtyard and quadrangle courtyard. The yard is centered on the



Fig. 2. Aerial photograph of Deer Circle Village, Tonghua City, Jilin
Province
(Source: photo by author)



Fig. 3. Urban brick courtyard, rural courtyard, rural earthen house (Source: photo by author)



main structure and is flanked on both sides by two subbuildings. The yard is rectangular in design, and its center is split into an outer and an inner courtyard by a low wall or screen wall (A screen wall opposite gate or inside the entrance). There is no space in the courtyard's front, the gate is open, and the yard is enclosed by a large wall [5].

Manchu houses are composed of the principal room, wing rooms, and rooms connected by gates. The main room and the gatehouse are arranged on the central axis, and the wing rooms are at both ends of the principal room. Most of the principal rooms and wing rooms have a front porch, and the houses are connected by a veranda, forming the courtyard form of a triple and quadruple courtyard. The relationship between the principal and wing rooms symbolizes the relationship between the primary and secondary. The principal room is where the elderly owners live in a courtyard, which means that the interstitial frame is tall and the building is spectacular. On the other hand, the wing room is smaller than the principal room since it houses the juniors and guests; therefore, the workers and facilities rooms in the outer courtyard are smaller.

The house plan is divided into rooms, typically three, five, or seven in number. Each chamber is rectangular, ranging approximately 6–9 m in length and 3–5 m in width. The Manchu house's layout is defined by heat-able brick beds (kang) on three sides of the ring chamber, with the north and south heat-able brick beds heat-able brick beds joined via the west heat-able brick bed. West heat-able brick bed is often somewhat narrow. The hanging cradle is a particular fixture in the Manchu room. Because the Manchus lived in a hunting culture, venomous snakes and creatures were common in the mountain forests. It's dangerous to put a baby who cannot walk on the ground, and putting it on the heat-able brick bed will make it sick from the heat, so people devise a technique to hang it (Fig. 4).

3.3. The courtyard's elements

3.3.1. Footsteps. The steps are positioned at the house's front and back facades and the road. It is 10-20 cm above



Fig. 4. Aerial photograph of Manchu dwellings (Source: photo by author)

the ground bordered by stone strips with bricks in the center. It is the same length as the road's width.

3.3.2. *Gates.* Gates are classified into three broad categories. Firstly, a house-type gate is used at the front of a triplex-style house. The houses attached to the ends of the gates become quadrangle-type gatehouses. Secondly, the wooden plank gate results from the massive wall that forms the front of the courtyard, and its structure is quite lovely, making extensive use of the indigenous material – wood plank. Thirdly, the single stick gate is a straightforward structure that consists of two wooden pillars and an upper end secured with a log. It is commonly utilized throughout the northeast region, from urban to rural locations (Fig. 5).

3.3.3. A screen wall opposite the gate or inside the gate. Manchu dwellings have screen walls similar to those in other parts of China. It is usually built on the outside of the gate and faces the center of the gate. It is a wall that is visible when people are outside and serves as a shield. It was considered unlucky to enter and exit the gate with the chimneys of other people's homes visible and the cemetery in the distance from the country house in ancient times. As a result, a screen wall is generated to provide additional occlusion. Additionally, it contributes to internal privacy and security by preventing unauthorized visitors from being admitted to the yard [6].

3.3.4. Chimneys. In Manchu dwellings, there are three distinct types of chimneys. The first is a brick chimney connected to the structure through a horizontal ground flue. The brick chimney can be placed on the side of the house and behind and in front of the house. The base of the structure is 1-2 meters from the gable. Due to the North-East's windy climate, the chimneys are pretty tall. The second chimney comes from a whole hollow tree naturally forming in the mountains. The ancient Manchus lived in the mountains, and this hollow tree was everywhere. The third is a chimney built of mud and grass mixed masonry [7]. After the Manchus went to the plains, hollow trees became scarce, so they combined grass and mud with water and shaped them into trees. Since most early Manchu buildings were grass houses, the roof was entirely made of grass. The chimney was separate from the house for fire prevention purposes (Fig. 6).

3.3.5. Corn warehouses. In the courtyard of the northeast farmhouse, a type of aerial pavilion is frequently seen, with the lower section supported by wooden posts and the upper



Fig. 5. House-style gate; wooden board gate; pole gate (Source: photo by author)





Fig. 6. Hollow tree chimney, stone earthwork chimney, stone masonry chimney (Source: photo by author)

section resembling a wooden dwelling. It is positioned in front of the house or on either side of the principal house. The corn silo is brimming with golden corn, while the house's roof and courtyard are covered with snow throughout the winter, which is highly distinctive of the northeast farmhouse.

3.4. Roof structure of the building

3.4.1. Roof. Roofing materials are classified into two categories: tile roofs and grass roofs. Generally, the tile roof is set with tiny green tiles, and the two ends are squeezed together to eliminate the appearance of a narrow roof. At the eaves, double tiles are used, which adds visual interest and speeds up the roofs drainage. The grass roof is covered with grass [8].

3.4.2. Roof ridges. Roof ridges are classified into two distinct styles. One is that the roof ridge is entirely solid and has a simple contour. The other is embellished with tiles or so-called flower tile ridges, which are more intricate and produce a pattern of fish scales and chains. Additionally, some roof ridges feature a lotus form in the center, which signifies auspiciousness. Furthermore, there are numerous shapes at both ends of the roof crest, some basic and others more intricate. Finally, some sides are shaped differently; the east is shaped like a dragon head, while the west is shaped like a phoenix tail, implying that the dragon head and tail can thwart calamities and disasters. All of these shapes represent people's auspicious concepts (Fig. 7).

3.5. Form of the building's façade

3.5.1. *Gable.* Another feature of Manchu dwellings is the usage of gables. One gable is brick, while the other is partially constructed of brick and partly stone. The advantage of mixing brick and stone is that the amount of brick is saved. Masonry decorating is mainly focused on the base stone on the gable side, and the beautiful patterns on the base stone reflect a desire for prosperity and auspiciousness. The stone-carved design on the



Fig. 7. Solid ridge, flower tile ridge (Source: photo by author)

upper portion of the gable wall is a distinctive feature of houses in Jilin Province, northeast China. The patterns are predominantly flowers and animals that signify auspiciousness (Fig. 8).

3.5.2. Windows. The windows are double glazed, and the exterior windows are removed in the summer. Each room has a large window on the south side, joined by a wide wooden strip. The windows are separated into upper and lower sections. The upper fan shaft is located on the top, opens inward or upward, and is either supported by a wooden stick or hangs from a shed hook. The window skeleton's decorative patterns are varied in style. They are impeccably constructed, succinct, rugged in appearance, and auspicious in meaning [9].

3.5.3. Columns. Columns are typically constructed of pinewood and painted red on the outside. The column's lower and upper thicknesses are stated. The lower section's diameter is around 23 cm, while the higher section's diameter is approximately 27 cm. The Manchu house's pillar foundation is remarkably similar in look. It is shaped like a drum and has numerous designs and no patterns (Fig. 9).

3.5.4. Structural characteristics. The wooden structure of Manchu residential buildings is often a system of beam and column structures, which are also seen in official offices and aristocratic residences. It is also the most intact type of structure at the moment. The beam and column structure entails erecting columns on the ground and beams on the pillars to form the house's skeleton.

4. THE SIGNIFICANCE OF MANCHU RESIDENTIAL CHARACTERISTICS STUDY

4.1. Research value

Manchu traditional architecture is not only a microcosm of Manchu history and folk culture but also a portrayal of



Fig. 8. Carvings on the gable and cornerstone (Source: photo by author)



Fig. 9. Column, window (Source: photo by author)



nature. Manchu traditional architecture is a unity of nationality, particularity, and regionality, with high research value. Traditional Manchu architecture represents changes in Manchu life and has a rich Manchu folk culture. Sociology, folk culture, environmental science, architecture, planning concepts, and aesthetics all have a role in Manchu traditional architecture. Modern architecture can benefit from Manchu building techniques. In addition, secondly, the historical study of Manchu traditional architecture can distill a series of theoretical systems on how to preserve and develop Manchu conventional architectural heritage [10].

4.2. Socioeconomic value

Traditional Manchu architectural design methods confirm the Manchu folk culture's social system, folk traditions, historical processes, and religious beliefs. Therefore, the conservation and development of Manchu architectural and cultural heritage can effectively help develop the cultural industry of Manchu settlements while driving the growth of local cultural tourism.

4.3. Artistic value

Manchu architectural form, color, and natural settlement selection all have specific qualities that can apply to modern buildings. Traditional architecture's unique spatial shapes and layouts also have a clear artistic research value.

5. MANCHU ARCHITECTURAL FEATURES' INHERITANCE AND APPLICATION IN THE CONTEMPORARY ERA

5.1. The architectural manifestation of Manchu features

Using the architectural design of modern buildings in Changchun Friendship Village, traditional components and emotional spaces are incorporated when the houses are erected. The more critical architectural nodes are decorated with traditional Manchu elements, and the walls and entrances are decorated with conventional Manchu motifs. Can upgrade a standard heat-able brick bed into a solar heat-able brick bed using energy-saving technology, which is both hygienic and aesthetically pleasing, environmentally friendly and energy-efficient, and increases comfort (Fig. 10).



Fig. 10. Hotel building exterior and interior design (Source: design by author)

5.2. Renewal of traditional materials

Since the 1950s, many inexpensive brick and tile buildings have been built to address the rural housing need, resulting in the loss of traditional construction techniques. However, individuals can transform conventional materials into new forms using current construction technologies, resulting in diverse architectural textures. For example, the walls of traditional dwellings are constructed of stone and mud masonry, which has the disadvantage of being easily cracked. Utilizing current technology and scientific and acceptable proportioning can increase a building's performance, which saves money and enhances the building's image [11].

5.3. Rational layout of functional space to adapt to modern life

Traditional houses' functional space cannot match the demands of modern life. For example, it is highly inconvenient to use on rainy summer days and cold winter nights when the toilet is located outside. As a result, it should be well-planned, adaptable to the current life, and prioritize modernization and practical space clarity. Moreover, it is necessary to focus on optimizing the additional functional space, the connection to running water and the installation of indoor toilets, and the flexible layout to adapt to the current different family structures.

6. CONCLUSION

Completely excavating northeast China's distinctive architectural style is essential for preserving the inheritance of traditional Manchu residential dwellings. A comprehensive study of history enables us to make more informed decisions about the future of traditional residential architecture. Manchu architectural culture's connotation should be grasped through form, and the periodization of the indigenous culture of traditional Manchu dwellings should also be inherited and portrayed. It should give the indigenous culture and characteristics of Manchu dwellings greater attention. Not only in assimilating foreign civilizations but also in comprehending Manchu dwellings' local culture and factors. Moreover, it should also be acknowledged that, despite reflecting the times, the modern Manchu residential architectural culture keeps and inherits the great connotation of Manchu residential culture with distinct national features.

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