

# Contemporary Translation of Mongolian Yurts' Function and Form Based on Movable and Portable Use

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## Abstract:

The Mongolian yurt is a kind of residential building created by nomads in the long-term nomadic production. Based on the movable and portable characteristics of the yurt, it has been widely used on the grassland. Up to now, it still has great use and research value. Influenced by the change of life style, the single space and residential function of the yurt can not meet the needs of the audience for the composite space under the rapid social development. Therefore, it is necessary to expand and extend its functions and forms on the basis of the movable and portable yurt, with the purpose of translating the single function space and residential about the yurt, and exploring various functions and composite space forms such as catering and display except for living, promoting the inheritance and sustainable development of the yurt.

## Keywords:

Mongolian Yurts, Traditional Dwellings, Symbols, Translation, Sustainable

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## 1. Introduction

Mongolian yurts, also known as Qionglu, Zhanlu, Zhanbao, etc., are called “Menggubo” in Manchu and “ger” in Mongolian, which meaning “home”. The yurt is a movable and portable traditional residential building created by the Central Asian nomads in their long-term nomadic production and life. Its construction materials mainly are common and easily available wicker, felt, mane, etc. “It is a sustainable living form and construction mode” [1] According to its materials and structural characteristics, the structure of the yurt is mainly composed of three systems, including the wooden frame system, felt system and rope system. This unique architectural art has been passed down to until now with strong vitality.

With the development of the city and the settlement of herdsmen, the function of the yurts as a residence gradually declines and is more used in scenic spots. However, the yurts still attract the research attention of many scholars with its unique charm. These studies mainly focus on the historical development and evolution of the yurts, the cultural characteristics of the yurts, the structure and materials of the yurts and

including the upgrading of the wind and snow resistant structure and the heat insulation of the skylight glass. In addition, some scholars have made in-depth research on the translation design of the yurts. They made innovations in modern translation by studying the yurts and its specific residential behavior and deep-seated national psychological mechanism in the three dimensions of time, space and perception [2]. At the same time, they also changed the shape of the yurt for translation design from the perspective of “extending the function of the yurt” [3]. It is on the basis of the research on yurt translation design and promotes the development of the Mongolian yurt, a nomadic traditional residential building, towards the direction of compound space, multiple forms and “similar to the Mongolian yurt”

## 2. Traditional Residential Buildings on the Grassland

China has a vast land and has varied climates. In order to adapt to different geographical conditions and natural climates, the ancestors created different forms of residential buildings, such as the Tulou in Southern Fujian, the caves in the Loess Plateau and the Siheyuan represented by Beijing. These traditional residential buildings are built by erecting wood or building rocks and piling soil. Compared with these traditional residential buildings, the yurts is very special. Its particularity is not only reflected in the materials such as felt, mane and wicker, but also in the fact that the yurts is one of the few movable and portable buildings. “When the two opposites are asymmetric, the one that appears less often is the marked item, and the one that uses more opposites is the non-marked item” [4]. Therefore, compared with many kinds of traditional residential buildings made of fixed masonry materials, the yurts is the “marked item” in Chinese traditional residential buildings, which has eminently “marked nature”.

Under the traditional way of life, the Mongolians lived on the water and grass grassland. According to the water, grass and climate, they carry out rotation grazing. Therefore, the living space also needs to move with people. Under the influences of such production and life style and environment, the architectural art of Mongolian yurt came into being. Rotational grazing on the grassland provides an opportunity for the grassland to cultivate and live. At the same time, the yurts are green and simple. It can be seen that the concept of sustainable development is deeply embedded in the Mongolian culture and natural ecological concepts. Among the three systems of yurt construction, “the wooden frame system is the main body of the yurts, and it is also the main structure and foundation of the yurt. The felt system plays the role of heat preservation, enclosure and decoration, and the rope system plays the role of binding and fixation” [5]. According to the main structure and construction rules of the yurts, the yurts can be divided into “three sections”, including Hana (enclosure), Uni (top pole) and Taonao (skylight). The three parts are independent of the others and easy to disassemble, move and assemble. When migration is required, the yurts can be disassembled and installed on the “Leleche” (Lele cart). In this way, it can arrive at another grassland with the migrating livestock. It has strong portability and is very convenient to assemble. In addition to the structure of the main “three sections”, there are Ude (door) and Bagen (column). ‘The early yurts left a gap in the enclosure wall as an access channel, closed with a felt curtain. In the later stage, frame wooden doors were used, whose height matched the size of the Mongolian enclosure wall” [6] Bagen is generally used in yurts with a large span, and its top has a tenon that can be inserted into the tenon hole of the socket, playing a supporting and load-bearing role.

“In the circular interior space of the traditional yurts, the placement and seating arrangement of furniture and daily necessities have formed certain rules and customs in the long-term life” [7]. “With fire support in the center, the interior of the yurt has built a strict spatial order, reshaping and reproducing the social relationship structure between holiness and secularity, ancestors and descendants, men and women, the old and the young, and family and the outside world” [8]. In the yurts, the fire support (fire stove) is the center of the circle, and daily necessities are mainly placed in the south. From the perspective of dignity and priority about seats, it is the position of the humble (the position of the young). The northwest is dedicated to the Buddhist niche, so the north is the position of the venerable (the position of the elderly). The East is the main area for women’s activities, with cupboards, buckets, etc.. The west is the main area for men’s activities, with saddles, whips, etc. Thus, three virtual “circles” have been formed inside the yurt, including “the furniture location close to Hana at the outermost layer, the fire support location in the center and the living location between the two, thus forming a unique sense of space stage inside the yurts, and the production and life of herdsmen are orderly carried out around the fire support in the center in such a circular space” [9].

### **3. Mongolian Yurt with Applied to Symbols**

The inheritance and development of the yurts are closely related to the living environment, the Mongolian economic production mode, the Mongolian living habits and the changes of materials and technology. “From nomadism to fixed grazing, and then to settlement, every change in the grassland animal husbandry and management mode” [10] will also affect the development trend of the yurt. It gradually moves from the functional entity of residence to the symbol representing the Mongolian culture. Due to its “markedness”, the yurt is gradually regarded as the representative of the Mongolian nationality and Mongolian culture. In the process of becoming a symbol, the traditional material form of the yurts and its residential function as a traditional folk house are gradually weakened. It has become the decoration and attachment of modern buildings, and a symbol carrying Mongolian cultural information. “The absence of meaning is the first necessary condition for symbols” [11]. The key to the Mongolian yurt becoming a symbol lies in its combination with modern architecture. The part or abstract form of the Mongolian yurt is applied in modern architecture, that is, the body is present, while the meaning of Mongolian or Mongolian culture is not present.

In the process of the yurt gradually becoming a symbol, through many changes in form, structure and materials, some of these changes have promoted the innovation and development of the yurts, while others have annihilated the most prominent feature of the yurts - mobility and portability. From the perspective of appearance modeling, this change can be divided into two types. One is to retain the original basic appearance of the yurt and make changes in structure and materials, such as brick and concrete yurt, frame yurt and inflatable yurt. The brick concrete yurt is built with bricks and concrete on the circular platform base combined with the appearance of the yurt, and cannot be moved after completion. The frame type yurt is generally made of wood or steel. It generalizes the “three-stages” structure of the yurt into a frame, and only a few columns represent Hana and Uni, which play a supporting role, while retaining the movable characteristics of the yurt. Inflatable yurts are made of plastic materials, which are light, portable and moisture-proof. The other is to preserve the part of appearance about the yurts. Generally, the top of the yurt is mostly preserved,

and changes are made in the structure or materials. Generally, it is an important step in the process of yurt applied to symbol by combining the part characteristics of the yurts with modern architecture.

#### **4. The Translation of Mongolian Yurt's Function and Form**

Economic development gradually promotes people's requirements for the quality of living environment. The requirements for the living environment "gradually develop from livable to livable and happy. Although the three have not progressed in time" [12], it can be seen that people are very concerned about the experience of the living environment and the future development of the environment. As a traditional residential building, under such requirements, the yurt obviously can not fully meet the needs of users. Therefore, the development of the yurt should pay more attention to its own sustainable and composite function development. Therefore, the innovative translation design of the yurts is particularly important. On the basis of retaining the original movable, portable and morphological features of the yurt, the translation design "recreates the structural organization of the space and has certain identifiability within the building community" [13], and develops its new functions, even composite functions, on the basis of the original space functions of the building.

The construction of traditional yurts "does not need bricks, earth, stones and metal, but only wood, felt and rope, so it can minimize the consumption of natural resources for building houses. It does not need to excavate the foundation, so it will not leave ruins after demolition, and better protect the grassland" [14]. The concept of sustainable development is fully reflected in the yurt. In addition to the sustainability of its material selection, it is also reflected in the mobile portability and reusability of the yurt itself. Its mobility and portability just meet the demand for temporary buildings in today's rapid development of economic and social activities, especially commercial activities. In addition to tourist attractions, yurts can also be promoted to cities as temporary buildings. In terms of function, the Mongolian yurt needs to be redefined from the traditional living function, that is, in order to meet a variety of needs, its functions can be translated into catering functions, display functions, office functions, etc. in addition to living. Due to the translation of the functions of the yurts, people's original space demand for residential functions will also change accordingly, from the original basic space demand for safety, warmth preservation, etc. to more complex and diverse new demand, and the degree of demand varies with different functions. If the degree of demand is divided into five levels, the function translation of the yurt can be completed only on the basis of meeting the new demand.

According to the needs of people for space environment and the realization of space functions in different spaces, the existing structure of the yurt is difficult to meet the complex needs. Therefore, for the sustainable development and promotion of the yurts, the form of the yurts should also change with the function. That is, the form follows the translation of the function. The traditional yurt takes a single individual as a unit. The space combination form is single and the indoor space area is small. In the translation design, the combination mode of multiple yurts can be considered to intersperse the space and partition the function. In the combination process of multiple yurts, the relationship between individual yurts can be roughly divided into the relationship of separation, tangency, intersection and inclusion. On this basis, it can not only ensure the independence of each individual yurt, but also expands the space and realizes the composite of functions. The Mongolian yurt of the combination mode

corresponds to the relationship of separation, tangency, intersection and inclusion. After combination, the form has changed, including aggregation, series and nesting.

Through the translation of the form of the yurt, the aggregated yurt combination mode has the characteristics of strong privacy. Due to a certain distance between the yurts, there are few connections between them and they do not affect each other. However, the ring appeared will formed a trend of convergence between the yurt and the surrounding environment towards the center. This form is similar to the layout of the living environment in the early nomadic period of the Mongolians - "Guleyan", that is, several Mongolians are surrounded into a ring. It is used for living and continuously extends this "ring" for several kilometers around. As a grazing grassland, this collective way of life provides a security guarantee for early nomads to resist attacks and nomads. The series Mongolian yurt combination mode has the characteristics of expanded spatial scope, poor privacy, but close contact, and the form of interconnection has a strong openness. The nested yurt combination mode combines two yurts of different sizes by means of inclusion to form a Mother-child space. The child space is the core space. This mode has strong privacy, good thermal insulation and sound insulation effects. In the process of yurt translation, mobility and portability are still the biggest features of translated yurts. Prefabricated parts are used for make-up and break-out. Appropriate combination modes are selected according to the place of use and need of use. Yurts of various combination modes can still be reused. This is not only the sustainability of yurts, but also the sustainability of material resources.

## **5. The Significance of Translation Design of Yurt's Function and Form**

The concept of sustainable development is an important part of the natural ecological concept of the Mongolians, and has been practiced in the traditional way of life of the Mongolians. "A sustainable society must have a fundamental concept that can bring sustainability in terms of products and built environment" [15]. For the Mongols, "fundamental concept" is undoubtedly their natural ecological concept. Under the influence of their natural ecological concept, Nomadic lifestyle and movable and portable residential buildings such as yurts have emerged. The translation of contemporary yurts should still hold the natural ecological view of the Mongolian nationality as the "fundamental concept", in order to achieve the inheritance and sustainable development of the yurts, and also take the yurts as reusable buildings to achieve the sustainability of material resources.

The translated yurts on the basis of function, has the characteristics of mobile and portable traditionally as well as the characteristic of flexible spatial organization and wider application sites. According to the combination mode and spatial function, it can not only be applied to grassland pastures and tourist attractions, but also be moved into urban blocks, squares, shopping malls and other places, giving play to its advantages of convenient make-up and break-out and strong adaptability. In urban blocks, it can be used to provide temporary rest space for citizens. The square can be used as a cool-enjoy or temporary dining space for people. In the shopping mall, it can be used as a temporary or semi-permanent commodity exhibition space. The promotion and use of the yurts in the city brings convenience to the audience. At the same time, it plays a role in the dissemination and promotion of the yurts and Mongolian culture and art. So the yurts not only have the function of use, but also turn to symbols, and spread information from the perspective of symbols.

## 6. Conclusion and Prospect

The change of the Mongolian lifestyle has had a great impact on the inheritance and development of the yurts. The innovative design of the yurts is one of the ways for the future development of the yurts. Innovative design includes structural innovation, material innovation, and more importantly, the translation of the function and form of the yurts. Through the translation, the function of the yurts has changed from living to catering, display, etc., and the spatial form has changed from spatial composition and expansion. The change of function and form will affect the places where the yurts is used. It virtually promotes the inheritance and development of the yurts and the spread of Mongolian culture. Perhaps in the future, this mobile, portable and sustainable building can get more attention and be widely used.

## Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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