# 生命工学に基づく生活・居住環境づくりと共生に関する研究グループ Mongolian Nomadic Lifestyle and Ecological Cycle

川岸梅和(建築工学科) Ishjamts GONCHIGBAT (Mongolian University of Science and Technology)

### 1. Introduction

Mongolians had to move throughout the year due to the Central Asian plateaus place in which Mongolians lived and severe climate. Therefore, the Mongolians are ancestry nomadic people. Now, over 30% of total populations have been living in nomadic style following their animals. In 1990, since animals became private property the quantity of animals reached to 33 million in 1999. Before then the quantity of animal never had reached to this number. However, in 2004, it decreased until 28 million because of the severe weather condition.

Now, 97.2% of total animals are private property. The quantity of herding family is 74710 in 1990 and 183636 in 1997 and the quantity of herders increased by 2.8 times and reached to 410078 from147508.

The main economy of nomadic people was animal husbandry of Mongolia. The main way to carry out animal husbandry is movement.



Fig.1 Change of the number of animals (Mongolian Statistical Yearbook)

#### 2. Essence of animal husbandry

The Mongolians have made five kinds of livestock (sheep, goat, cow, horse and camel) important and raised them in nomadic style. It became their subsistence.

Mongolian herders consider that sky is their



Fig.2 Small settlement (95 km far from Ulaanbaatar)

father and the land is their mother. Due to their mutual dependence, nature (person, animal, and plant) appeared. It is called that a natural three structure, which means sky is alive and nature is land. It is considered that three basic structures of nomadic life Mongolian people (herder) - Mongolian nature (pasture) - Mongolian livestock (5 kinds of livestock) appeared basing on it.

#### 3. Mongolian herder

- could make important five kinds of livestock
- could make their ger tent, food, clothes and their animals' harnesses using raw materials and product of their animal.
- recognized their five kinds of livestock and environment
- carry out the correlation of nature person animal in their everyday life
- could contribute in intellectual and material culture of mankind due to the recognizing their environment and world.

Due to it Mongolians could exit

- Mongolian custom
- tradition
- national special science, culture, education, economy, way to carry out farm business, and market traditional treasury

- herding life style which is not harmful to the animal 's surroundings



Fig.3 The sheep are pasturing.

#### 4. Mongolian nature and environment

Area, pasture and water connect herder – animal - plant. It bases on the correlation of water – pasture climate. Also animal fence, well, hay cutting, fodder, salt marsh, and animal's coverlet have correlation each other. The essential thing of this correlation is nomadic coherence of herder to follow animal and animals to follow water and pasture.

Its base is

- both person and animal are the natural products
- both of them live following laws of nature
- to use pasture by nomadic way
- Mongolian pasture is suitable to carry out animal husbandry

# 5. Five kinds of livestock of Mongolian breed

Animal is a pasture bio industry, which produces raw material and products such as meat, milk and wool eating hay, drinking water and moving.

# 6. Origin of Mongolian animal husbandry

The origin of Mongolian animal husbandry is in existing of correlation of person - environment - animal.

We can include the correlation of Mongol ger tent, food, and clothes in the correlation of Mongolian and environment and its surroundings in the Mongolian nature.

Our ancestors recognized nature and their environment very well and could use it in their way to carry their animals.



Fig.4 Origin of Mongolian animal husbandry

# 7. Ways to carry out nomadic cattle breeding and neighboring household structure

First implementing unit of livestock raising way of Mongolians is farm of household. The activity of herding family and neighboring households' structure is conducted basing on the principle of three basing structure.

When household is the concept about only one family, camp of gers (families) is the concept about more than one family. If several families carry out their animals together and live close to each other, it will become camp of gers (families). When two or three household families carry out their animals together living in the distance of 1-2km in warm season, it will be called neighboring household. The



Fig.5 Ways to carry out nomadic cattle breeding and neighboring household structure

main duty of Mongolian family, which was not changed for a long time, is to carry on and make lasting their fireplace, to extend and develop social relation of population, and to bring up their future generation. Territory schedule of family to carry out its farm business normally is pasture or winter place, spring quarters, summer camp and autumn quarters.

Herding family prefers the view "to supply their necessity without much expenditure and without doing a lot of work".



Fig.6 The host family of small settlement (The Dashs)

The scientists explain the Mongolian tradition of having new family and property as distributing animals to their children when they young. Parents not only make understand their children animal's color, age and kind but also learn to carry out their animal and participate in the family work depending on their children's' age.

When male child becomes an adult, his parents make new ger tent and give animals to him. In addition, when female child goes to others family as a bride, her parents prepare furniture inside of the ger tent and clothes for her daughter.

It means that they are making the first economical decision to have new family and to give the rights to lead and spend their own property to their children.

The time to begin to implement this decision is 18-25 years old. Thus, in the new herding family, active work for successful independent life in the situation of nomadic life will begin. In this way, people participate in a wide relation of nomadic life, which became the origin of family life.

Due to the camp of gers (families), people can do their family work such as moving to another place, caring of winter and spring quarters and watering their animals together. Working together like this is significant to use pasture and water together, to do difficult work such as grazing their small animals in shift, cutting wool and making felt together. Livestock of camp of gers bases on the family property. Someone who is experienced, has high reputation and has certain amount of property leads the camp of gers.

The main dwelling of Huns was round shaped felt tent which is easy to collapse and carry and stable in strong wind of Central Asia, warm in cold, cool in hot, light inside, durable, easy to make, met health requirement and suitable to live in it.

The Mongolians invented their ger tent themselves, so they can use it not only for living but also as the room of carrying of their animal. Herders made ger tent in round shape considering their country's climate, special feature of weather, the strength of wind to serve for the surface of ger, influence of water of snow and rain. Herders cover the ger tent with felt, because the felt does not transfer wet, warming of surroundings and coldness. Therefore, warmness and coldness inside of the ger is arranged with little correlation of outside surroundings.

However, felt transfers noise well; therefore, it is possible to control the things around the animal fence, completely.

#### 8. Animal husbandry characters of Mongolia

Due to the survey, scientists expressed the following characters of animal husbandry.

1) Ecological character

- 2) Seasonal character of animal husbandry
- 3) Nomadic character of animal husbandry
- 4) Economical character of animal husbandry



Fig.7 Lighting the dried dung in a stove.



Fig.8 The spaces f fences are usually plastered by cattle dung.



Fig.9 The winter provision placed in the shadow of yurt (mutton, goat meat, kumis, milk, and yogurt)

# 9. Conclusion

The following is a summary of findings.

1) Mongolians could carry out nomadic animal husbandry in the special ecological condition.

2) Mongolians set up special way of life, which is in other country.

3) Animal husbandry life of Mongolian nomadic people set up the whole structure with smartness of herders and ecological focus of Mongolia.

4) Traditional method to raise livestock is conducted in the frame of camps of gers and neighboring households' structure. It is proved by the herding family's life, which lasted until now.



Fig.10 The ash of dried dung is being removed.



Fig.11 Natural hole where ash was thrown out (The ash was thrown out 40-50 km far from the yurt.)



Fig.12 Hay stacked in autumn for ox feeding

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