

Characteristics of Space Organization and Modification of the Vernacular Houses

- Focused on the Ban-Ya Village in Bong-Hwa Area -

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I . Introduction

Some slash-and-burn farmers have settled in the mountaineous Bong-Hwa Area, Kyongsangbuk-Do, Korea and their houses have been generally built with the style of log cabin that was composed of the plan type lying in before and behind rooms (be called Kyup-Jip). They show the typical vernacular housing and exist as the residential space contained the contents of their living characteristics.

However, they were neglected by the studies for residential culture, and also were transformed a large part of the objects of 'rehabilitation' or 'improvement' in process of the housing environmental modernization.

Therefore, this study describes the characteristics on the plan types of rural houses on the Ban-Ya village, and clarifies the space usage patterns for environmental adaptability through the spatial modification of their houses to harmonize the work and natural environment by the case studies. The study is aimed to get some data for conflicting the traditionalism with the modernization of housing environment.

The study were surveyed the present and old original plan of 20 houses. Field survey had been fulfilled from on June 29 to July 5 in 1999.

II . Regional Environment

The site of this study is located at 3km away from eastern part of Suck-Po Meyn administrative town. Ban-Ya village is named by its geomorphological form like a small dining table (Fig-1). Before the independence some families such as the Kim-Neug Kims' had removed and settled to make village for the slash-and-burn farming to grow corn, bean, Indian-bean and potato. In its first settlement, there were 60 and more households but now 20 households remained

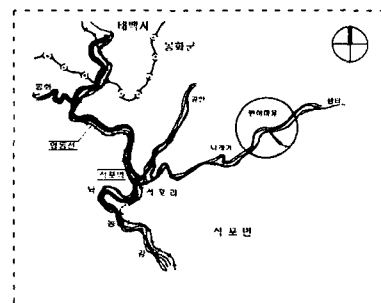


Fig.1 A location of research area (Ban-Ya village)

only.

It is supposed that the regional housing type was mostly log cabin of Kyup-Jip plan that was widespread on slash and burn farming area, and now they are much improved and reused. (Fig-2,3)

Some log cabin had been ranged between Gae-Ma plateau and Nang-Lim mountains where has large forests at the northern area of the country, on mountain region around Tae-Back mountains in Kang-Won Province at the central area, and on the part of So-Back mountains and Ul-Lung Province at the southern area. But recently they are remained Ul-Lung Province and lots of Kang-Won Province around So-Back and Tae-Back mountains.

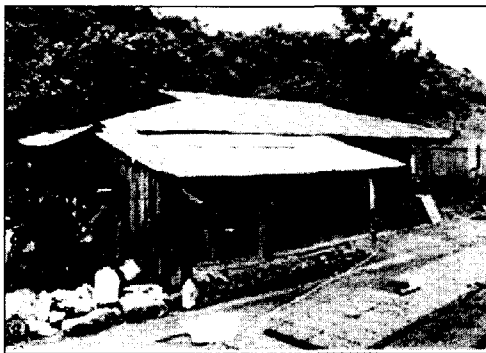


Fig.2 View of the log cabin



Fig.3 Details of the wall

III . The Spatial Characteristics of old Original Plane

The plan type of its regional houses is much changed. So, its old original planes(Archtype) are gathered by interviewing with dwellers(Fig-4), and classified to the types of Hot-Jip(to be composed linearly rooms) and Kyup-Jip(lying in before and behind rooms) as shown in Fig-5.

Regarding the characteristics of the Hot-Jip, the basic type is '—'shape of 3-spans composed by kitchen, room, side wooden floor, and sometimes '—'shape of 4-spans to attach a stable(Magu-Kan) with kitchen(Jungji-Kan) of main building. These plans are the same plans of cabins as Kang-Won Province and the northern region of Kyong-Buk Province, and only have a difference in its added stable. In case one more room, it is formed 'ㄱ'shape that additional kitchen is connected with main kitchen and an attached stable is laid to be bayed at lower part.

In types of floor plan, the Kyup-Jip is classified to 2-bays, 3-bays or, 4-bays houses. The Kyup-Jip is defined that walls of rooms follow to the same line under one top roof of house and other rooms are emerged to lay on two line at

front and rear of house, as the contradiction with the linear house(Hot-Jip). General type of the Kyup-Jip is '田' shaped and scaled to 4 bays of facade and 2 bays of side elevation. Composition of 4 rooms is '田' shaped, which, to be used for 2-bays kitchen, a stable and a storage. But rarely there is Kyup-Jip to have a wooden floor(Ma-Ru) at mountain area on Kang-Won Province.

Case	Archetype	Present	Case	Archetype	Present
1 Kim J.H.			11 Jang H.D.		
2 Kim K.H.			12 Lim B.H.		
3 Kim J.Ho			13 Lim B.C.		
4 Bak J.Y.			14 Jeng J.G.		
5 Kim S.H.			15 Kim G.S.		
6 Kim J.P.			16 Bak Y.D.		
7 Kim Y.S.			17 Ha S.R.		
8 Jang H.Do			18 Yu S.Y.		
9 Lee B.K.			19 Empty house		
10 Kim J.Hi			20 Empty house		

Fig. 4 Plans of surveyed the present and old original form

Especially this village has 6-bays log cabins to be unimpaired. The exterior wall of rear side of room is finished with log wood, and exterior wall of kitchen and stable are enclosed by wooden siding.

On structure of floor plan, a women's room(An-Bang), an inner court(Bong-Dang) and a men's room(Sarang-Bang) are laid in a line at rear, a open kitchen with 3-span is laid at front. A stable is attached to the kitchen and men's room. This structure is similar to the massed house with wooden floor of center in the northern mountain region. A inner court has been changed. The front of men's room has a side wooden floor to show the formality. These are common in slash-and-burn farmer's house and is also existing in this village of same agriculture.

Therefore, due to its geographical surroundings of Tae-Back mountain as opposed that the village is belonging administratively to northern area of Kyong-Buk Province, the floor type of house is analyzed to the complexity mixed with the southern type of a linear house and the mountain type of a Kyup-Jip.

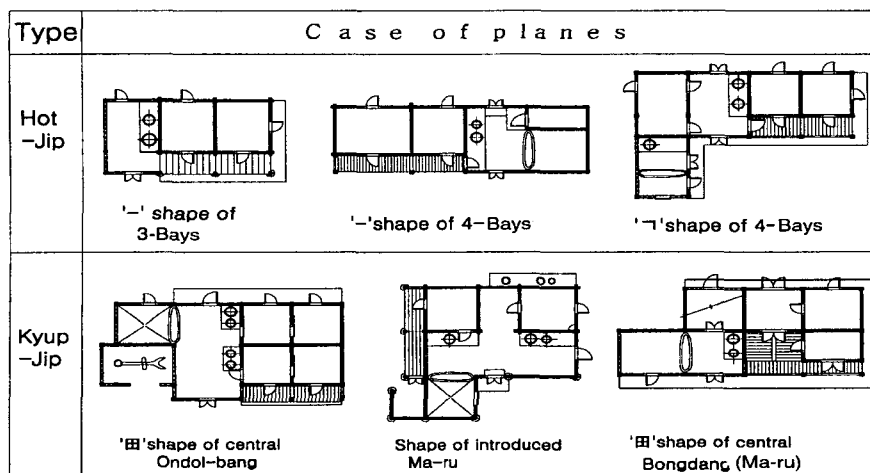


Fig5. Classification of old original plane in Ban-Ya village

IV. The Case Studies of the Spatial Modifications

<Table 1> shows contents of the spatial modifications of 18 out of 20 houses. Its contents have the rehabilitation of the expansion and addition of room, change of the stand-up style kitchen, establish of the bathroom and the boiler room, etc.

In this chapter make some reference to representative 3 houses of the spatial modifications.

Table 1. The contents of the spatial modifications

Type	Details of modifications	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	계	
Room	Expand a room		●					●											●		3
	Expand to a side wooden floors			●						●					●						3
	Unite Two rooms		●		●	●	●	●		●		●	●	●						●	10
	Change of the room	●																			1
	Create a build																●	●			2
Side wooden Floor	Establish of the side Wooden floors								●												1
	Change of the kitchen											●									1
Kitchen	Change of the stand-up style kitchen			●	●		●	●		●	●	●	●	●							9
	Change of the partition to room							●													1
	Create a original traditional kitchen							●													1
Bathroom	Establish of the bathroom			●				●				●		●							4
	A bathroom is used from the old stable						●						●								2
Sable	Change of the kitchen or room			●					●												2
	Change of the boiler room						●	●			●	●									4
Total		1	2	4	2	1	4	7	2	3	2	5	3	3	1	1	1	1	1	1	44/20

1) Kim J. H. Residence

The house of Fig.6 was originally made to 'ㄱ' shape 4-bays that had with 3 rooms, a side wooden floor, an whole Jungji, a stable and a small Jungji, now changed that has with three expanded rooms, bathroom and a stand-up style kitchen. The original traditional kitchen(Jungji-Kan) is rehabilitated into modern style and a original master room(large room) is reused as a bathroom and a new master room(large room) that is reused a original stable and Jungji-Kan is added to the

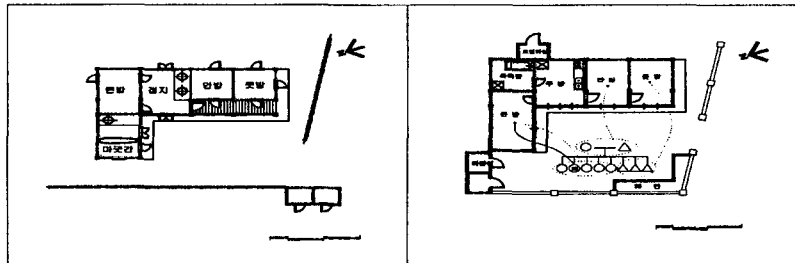


Fig.6 Case of Kim J. H. Residence

front. A An-Bang and a extra room(Ut-Bang) are expanded to a side wooden floor at rear.

Before the renovation, a parent and 8 children dwelled. Now parents were passed away and brothers and sisters married left and now only a second son is living alone. He is using a master room(large room) or an Ut-Bang without using women's room of the old parents. He demolished a side wooden floor but now wishes a wooden floor. He uses his renovated kitchen as a dinning room. Because a kitchen is larger than other's houses and he is using it alone.

2) Kim Y. S. Residence

The house of Fig.7 was much changed as time goes by, so, the shape is very deviant from the original structure. But the floor plan is showing the Kyup-Jip type of central Ondol-Bang '田'-shape that is scaled with 4 spans of front and 2 spans of side, and the modern living is possible with the modification and unifying of original rooms.

A Jungji-Kan and an Jungji-Bang are renovated to a modern kitchen and a attached room. A women's room rather larger is unified to two rooms which to be main space for living. An Ut-Bang and an Jungji-Bang were used commonly for all children before the marriage regardless of sexes and ages and now is used for storage of grains. Kitchens are both traditional and modern styled. A traditional kitchen(Jungji-Kan) is used for cooking meal for cows and heating, and the dining for individuals and all family is happening at An-Bang instead of modern kitchen. A boiler room is used from the old stable and a bathroom is used from an Jungji-Bang at rear of kitchen. A old-styled toilet is standing in the gate to have some distance far from main house but there is nothing uncomfortable.

The family size were 4 persons of one parents and 2 children but now only the parents are living alone.

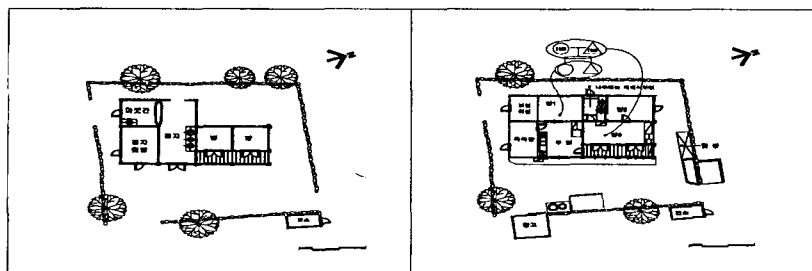


Fig.7 Case of Kim Y. S. Residence

3) Jang H. D. Residence

The house of Fig.8 is shown as modern style that is scaled with 4 bays, but the origin was the Kyup-Jip with wooden floor. A An-Bang was expanded from the

unification with a Ut-Bang beside of Sarang-Bang, and Sarang-Bang was also expanded to a side wooden floor at front. In addition to unifying kitchen and wooden floor, existing a toilet modern-styled, a kitchen for standing works, a entrance hall, living floor room were made. An existing storage was expanded to rear side from the old stable 1-bays.

5 family members are using 3 rooms. A women's room is for the pairs, and all living behaviors of old style that was hold mainly at An-Bang is divided into a kitchen and living room, and An-Bang is used only for individual function as the formality between a parent and the children. But traditionally the formal activities such as the family meeting and the ceremony is also performed at women's room. A men's room is used for brothers and room (3) on fig.8 was made additionally to the personal space for grown daughter to be repaired a storage.

They want to have more rooms, because they feel uncomfortable to be not enough rooms when the married sons and daughters is visiting.

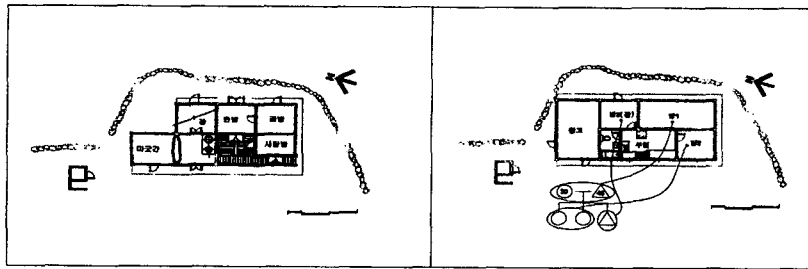


Fig.8 Case of Jang H. D. Residence

V. Conclusion

The rural houses on the Ban-Ya village, Bong-Hwa region are preserved as the style of the massed house on a sight, but its spatial structure is much removed. So these are characterized as below.

1) The massed house(Kyup-Jip) including the log cabin is basically scaled with 6 spans, and as the wooden post-lintel structure it is possible the expansion and flexibility of the living space and room to be fit with the changes of the family style. But it has disadvantage when it comes to narrow spacing for the limitation of material's dimensions and limited spatial usage such as on real function.

2) This site is belonging administratively to northern area of Kyong-Buk Province. Because the house is influenced by geographic location on surrounding of Tae-Back mountain area, the floor type is shown as the complexity mixed with the southern type of a linear house and the mountain type of a massed house.

3) A spatial modifications is proceeded for the comfort of livings, and its contents have the rehabilitation into stand-up style kitchen, the expansion and additional room, the reusing of mill room(Bang-A-Kan) to bathroom and kitchen to boiler room or storage.

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