

Study on the Environmental Design Principles and Cultural Landscape of the Yangdong Traditional Village*

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Yangdong village is located at Kangdong-myun, Kyungju, Kyungsangbuk-do, Korea. There are two major families, the Sons of Wallsung begun from Son, So(1433~1484) and the Lees of Yeohkang the descendant of Lee, Unjeok. They are lived together under check and help for 500 years. The village located on the hill of Ankaung plain. There are Homyung mountain and Songju peak in front of it and Solchang mountain on the back. 勿 shaped ridges form *Blue dragon to the east, and White tiger to the west*. Ahnrockchon flows from north joined Hyungsan river and flows into Youngilman. Therefore the village is located at mountain on its back and along with stream. Buildings are deployed on the valley between hills, it is not easily detected, but it give its atmosphere of mountain village. Village location and space composition combined with natural environment, folk belief, feng-shui, and social system of confucianism. Blended buildings affected between ruling and ruled classes or among different families shown environmental design accomplishing united cultural space. The prospect of Yangdong village, a mountain village, expressed two sides of visible scenery of open inside and invisible from outside. Observation point such as head family house, pavilion, and village school are deployed at the point taking bird's-eye view, which striving mental stability.

Key words : Yangdong village, Environmental design, Cultural space, Mental stability

1. Introduction

1.1 Object and method

A historical space is artistic expression for understanding the relationship between human and nature based on the special characteristics of periodical, local, and symbolic culture¹⁾. A cultural landscape maintained ecological relationship with the natural environment and included the history based on cultural factors such as resident's sense of values, social structure, social system, custom, technology, and so on affecting on natural landscape²⁾. Also the cultural landscape is vernacular landscape which means natural features, folkways, local mode, or daily life functional expression using shape or material

among local, periodical, or group. It is shape and landscape formed from local tradition and cultural mode and is involved with identity of traditional society³⁾.

Our traditional village is existed as cultural symbol and historical landscape. It took up good space with sense of understanding nature, it also is organically aesthetic space connected with human art using local peculiar natural mood. It mostly located with wide open farm field, slow hills and clear streams in front of the village and mountains in back. This basic principle of blessed dwelling is looking for bright and warm energy, it also have been used local climate and natural mood.

Yangdong traditional village(Important folk date no. 189) based on the basic principal of blessed dwelling shows the intentional principle of environmental plan for construction of coexisting culture between the nobility and the populace or same and different blood. The objective of this study is investigation of the basic principle of

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Table 1. The cultural assets status of Yangdong traditional village

Division	Cultural assets	Area(m ²)	Houses	Residents	Building	Date
Yangdong	important fork date no. 189	969,430	150	365	straw-roofed : 82, tile-roofed : 148, others : 209	1984. 12. 24

environmental plan through comparative study of the literature, the on-site study, the idea for development of settlement environment, space composition, building, and folk belief.

Previous studies have been examined the facts about space composition contents. They only have been analysed the regularity about changing process, cultural property and construction of a village. They have a limitation of insufficient research about not only value of cultural landscape but also presentation of the principle of environmental plan related with management of construction space.

Therefore it is seriously necessary the transmission of traditional space for searching village landscape plan with not only the discovery of value and identity of the local cultural landscape at the circumstances that challenge the conservation value of traditional village but also the close examination of planning principle relating environment of village.

The deduction process of landscape and environmental plan principle through analysis and discussion about spacial arranging design of village location and construction factors such as private home, pavilion, village schoolhouse and examining the priority of this study based on *숙* ancestor's recognition of environment were chosen as an sampling method of this investigation.

1.2 Cultural landscape of traditional village

A popular belief, the principle of cosmic dual forces(Yin-Yang philosophy), chinese geomantic principles, and political and social structure affected the style applied on village location and space composition. Shamanism linked with the principle of cosmic dual forces established spacial environmental rule as Feng-shui, geomancy. Later it is adapted as more persuasive environmental plan standard when it linked with the idea of confucian classes and ancestor worship⁴⁾. While confucian landscape marks such as the head family house, ancestral shrine, altar, village school, memorial hall for great scholar,

pavilion, and so on transmitted as social indices for teaching moral law, succession of blood relation identity and family prestige.

The most important condition for the location of a village, mountains should be to the rear of a residence with water to the front has been preferred as village location. This connected to pantheistic idea that encircled land form is space of the spirit which animates and controls the universe. This condition of location is favorable to develop dwellings and cultivate plants. Utilization of nature or expression of space consciousness such as maintaining matrimony with neighbor and securing land property⁵⁾.

The aspect of a private house is determined after due consideration of privacy and view. Therefore bright and safe place have been chosen for aspect of private house. There are good farming field along with stream in front of gate or out side the stream.

2. Case study of cultural landscape and environmental design for Yangdong traditional village

2.1 A summary of Yangdong village

Yangdong village is located at Kangdong-myun, Kyungju, Kyungsangbuk-do, Korea. There are two major families, the Sons of Wallsung began from Son, So(1433~1484) and the Lees of Yeohkang the descendant of Lee, Unjeok. They are lived together under check and help for 500 years. This is designated as Important fork date at 1984 for 340 buildings including many cultural assets. The shape of village is *勿* shaped consist of three hills and two valleys. The village is formed on the hill from Solchang mountain on northwest side and Songju peak on south east side. There are Suhbackdang(important fork date no. 23) head family house of the Sons, Moochumdang(*national treasure no. 411*) head family house of the Lees on the hill-side. There are Khankachung(*national treasure no. 422*) branch family house of the Sons and

Hyangdan(national treasure no. 412), branch family house of the Lees at the verge of the village. This aspect of competition of two families are expressed as deployment of pavilions, village schools and memorial hall for great scholar.

There are *Sophra japonica*, *Ginkgo biloba* and *Salix glandulosa* as a symbolic tree of the village. Dangsanje, Juldangkiki, Sohraesulnori and Hohminori are transmitted as folk belief and culture of village society.

2.2 Location and deployment of Yangdong village

The village located on the hill of Anjang plain. There are Homyung mountain and Songju peak in front of it and Solchang mountain on the back. 勿 shaped ridges form *Blue dragon to the east*, and *White tiger to the west*. Ahnrockchon flows from north joined Hyungsan river and flows into Youngilman. Therefore the village is located at mountain on it's back and along with stream. Buildings are deployed on the valley between hills, it is not easily detected,

but it give it's atmosphere of mountain village.

Suhbackdang, head house of the Son family is located at the highest place of Angol, Khankachung, branch head house of the family is located at just under the peak of Mulbonggol entrance of the village. Mochumdang, head house of the Lee family corresponding Suhbackdang is located at end of Mubonggol inside of central valley, Georigol. Hyangdan, branch head house of the family, corresponding Khankachung located at east of Mulbong outside of central valley. Two families competitively constructed buildings. Lee family built Oaksansowon, memorial hall of great scholar and Son family built Dongkangsowon for corresponding it.

While living houses of ruling class are deployed on the high place of hills, houses of ruled classes are deployed on lower area of valley. This express the order of rank by their house location. Head houses of both families located the highest place of the valleys, branch houses are on the hills, other buildings are located on the important point of the village^{4,6}.

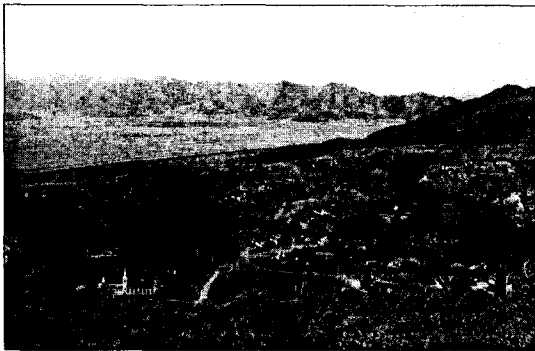


Fig. 1. 勿 shaped topographical type landscape of the Yangdong village.

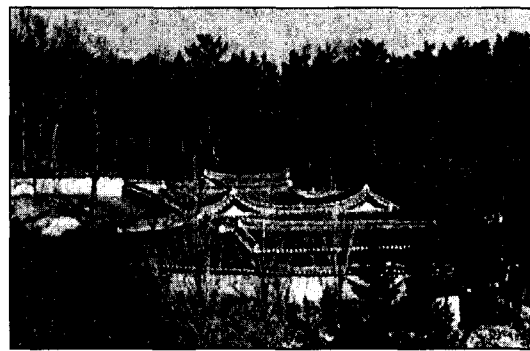


Fig. 2. Suhbackdang.

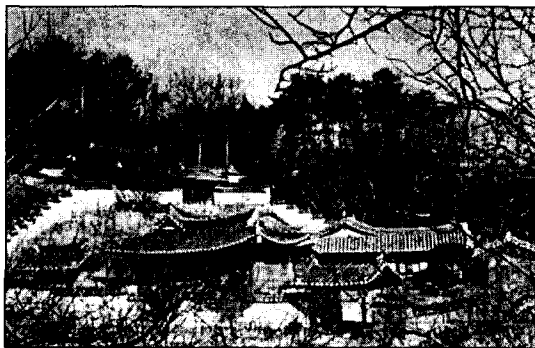


Fig. 3. Mochumdang.

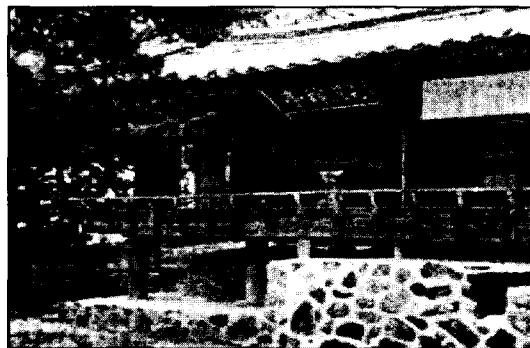


Fig. 4. Khankachung.

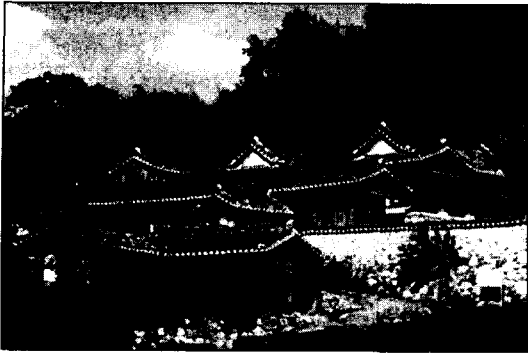


Fig. 5. Hyangdan.

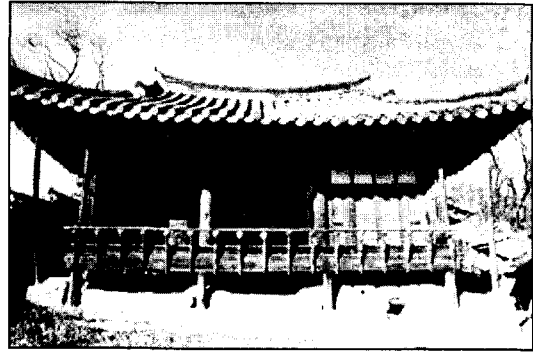


Fig. 6. Soowoonchung.

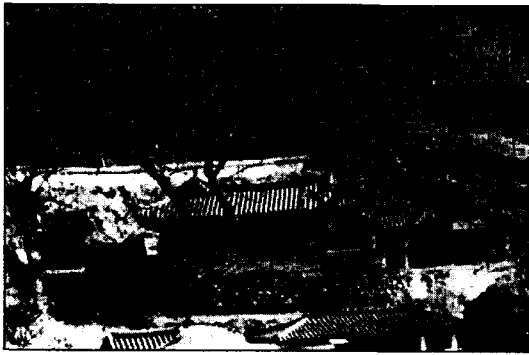


Fig. 7. Simsoochung.

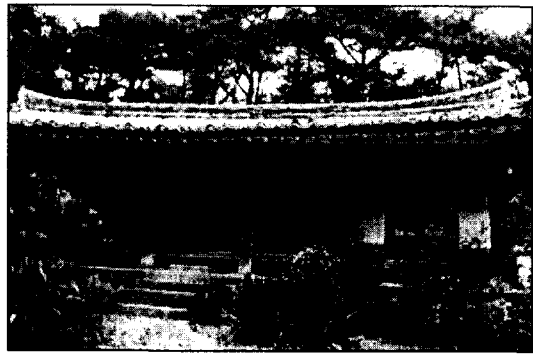


Fig. 8. Ahnrockchung.

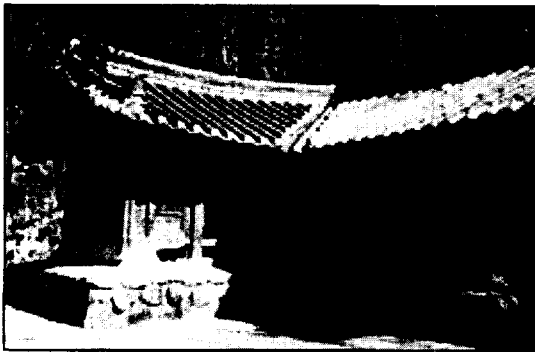


Fig. 9. Kanghaktang.

2.3 Cultural landscape and environmental design of Yangdong village

Adaptation of human at living place is aimed to attain balance with nature, environment and expressed as village. Buildings such as living house, pavilion, and village school along with polk belief aspect shown environmental design principle produced as tangible and intangible view. Location and deployment of buildings at Yangdong village is presented as contrast and

continuity. Cultural landscape and environmental design factors, village, living house, pavilion, village school, memorial hall and polk belief factors, as the objectives of this study were analysed.

2.3.1 Living house and head family house

Living houses of 'Yangban', the nobility were deployed on the eminence, while tenants or servants houses were placed on low-area.

Suhbackdang established in 1458 by Son, So located on high area of hill of Angol. Moo-chumdang built in 1508 by Lee, Bun, Father of Lee, Unjeok located at high hill terminal Mulbonggol. Head houses of both families preoccupied each hilly places, and second sons houses are occupied other hills. Khankachung, Son, Jungdon built when he established branch family deployed at west of Mulbong on entrance of village, and Hyangdan, Lee, Unjeok built for his brother Lee, Ungwal, located at east.

Especially, Suhbackdang is divided 4 area, anchae, saranchae, haengrangchae, and sadang. Sarangchae come out when you entered east

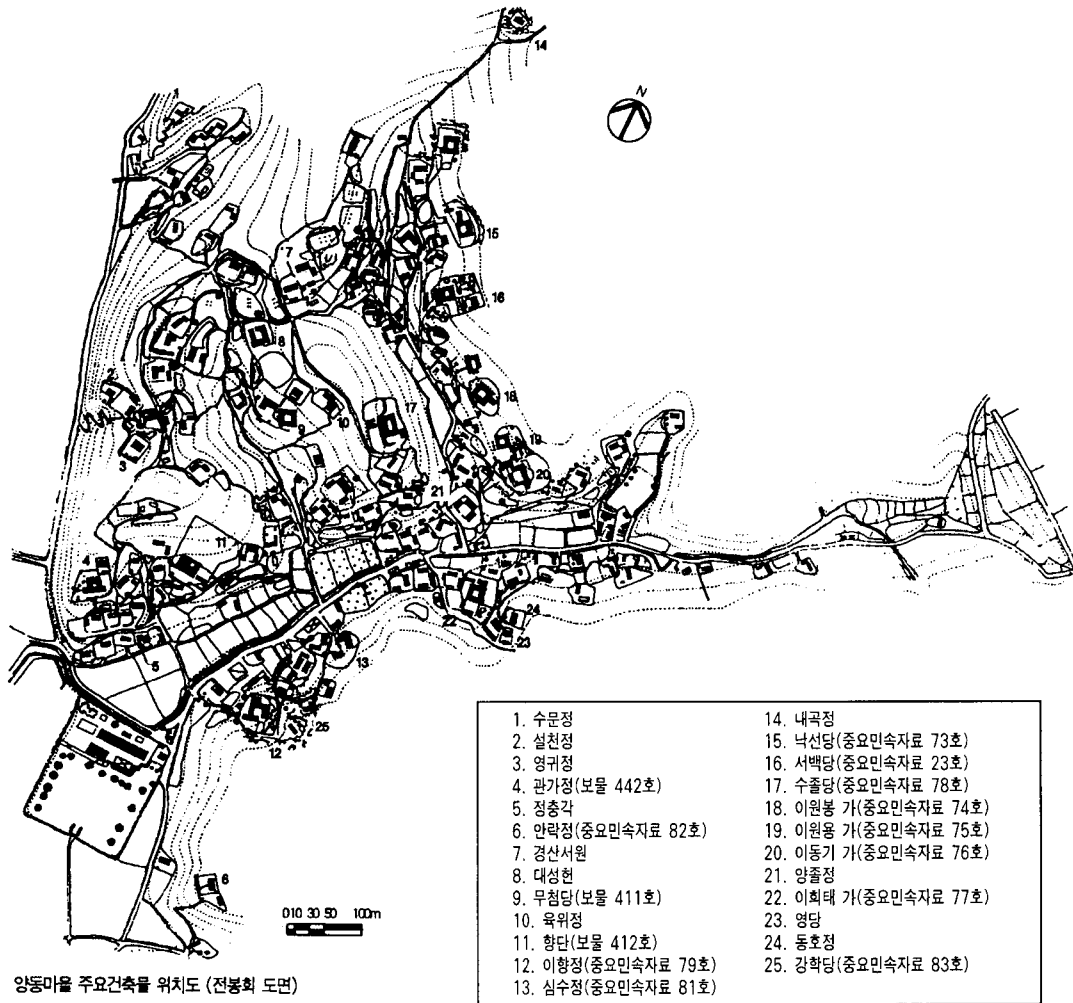


Fig. 10. Yangdong traditional village's arrangement plan.

gate of haengrangchae. It is divided to anmadang and sarangmadang. Sadang is located on due north of sarangmadang. Front garden, village, and a mountain in front are in sight as near, medium, and far view, respectively. An old *Juniperus chinensis*, a local memorial, is planted on the front garden. On Moochumdang, there are living houses, ancha and sarangchae, on east, a detached building on west, and sadang on north. The 'ㄱ' shaped detached building has protruding high wooden floor that has over looking sight of whole village. Simsoochung and Kanghakdang are deployed in front of the sadang. These are the corresponding environmental plan of buildings of the Lee's.

On Khankachung, ancha, sarangchae, and haerangchae are united as a building group and

sadang is located on north east of it. It is located on Moolbong peak, but not protruding. However there are panoramic view of Ankaung prairie on westward and Homyung mountain on ahead. Hyangdan is consisted with two platforms and it is '用' shaped. Haerangchae is deployed on lower platform, and sarangchae and ancha deployed on upper platform as main buildings which have own gardens. Especially, it expose it's external appearance, so it is most conspicuous living house in the village. It show it's romantic expression such as labyrinthine system of line of flow, individuality which determinedly broken it's formality, and so on⁶⁾.

2.3.2 Pavilion

More than 10 pavilions are still left, because

not only both the Son and the Lee families but also branch families of both families competitively constructed them.⁶⁾ They are deployed at quiet and scenic places or center of the village, therefore they functioned as summer house for enjoying scenery or meeting place for family. Servants also lived at the servants quarter and served for their masters.

Son, Yup, grandson of Son, Jungdon established Soowoonchung in 1582. It was an pavilion used as summer house, located at Mulbong and Kalgok north of village. Pavilion is 6-kan and servant's quarter is attached. There is Angang plains and Anrak stream on southwest side. It has a bird's-eye view of Ankang town and produce panoramic scene of wide farm field changed with season.

Lee, Unjeok established Simsoochung(important fork date no. 81) at 1590 for his brother Lee, Ungwal, who stayed at hometown for supporting his old mother. It located at ridge of Keorim. This pavilion has ㄱ-shpaed and servant's quarter is located at diagonal direction. From here, it has a distance view of Moochumdang through 3 *Sophra japonica* on top and Hyangdan directly. This is the exquisite building enjoying village scenery surrounding it.

From the procedure of their territorial expansion of buildings such as branch family house, pavilion, and village school, Wolsong Son's buildings are deployed on the axis from north to south. Khankachung, Ahnrockchung (important fork date no. 82), Nacsundang(important fork date no. 73), Soowoonchung, Naegokchung are deployed on this axis and Suhbackdang on it's center. Yeokang Lee's buildings are deployed as radially, Hyangdan, Leehyangchung(important fork date no. 79), Kanghackdang(important fork date no. 83), Simsoochung, Yangjoulchung, Donghochung, Soojouldang(important fork date no. 78), Kyungsansowon, and Sulcheonchung are located radially from their center Moochumdang. Characteristical principles of environmental plan such as admission of head family house's authority and it's connection to community living is found from their building deployment.

2.3.3 Education and memorial service

Both family have owned village school, Ahnrockchung and Kanghackdang, and memorial hall, Dongkangsowon and Oaksansowon.

Ahnrockchung was built and named as pavilion by Son family in 1780, is located on the peak of south east hill out of village entrance. There are pond and Sukga mt. encircled with rocks in front yard. It is deployed for seeing beautiful scenery.

Dongkangsowon was built for admiring Woojae Son Jungdon, eminent statesman during King Jungjong's regime of Yi dynasty. There are lecture hall, east and west hall, and managing building around the memorial hall.

Kanghackdang was built for school by Lee family in 1867. It is located on the hill behind of Simsoochung. It faces Moochumdang and overlook village. There is haerangchae for service area on the entrance of 'ㄱ' shaped building. Kyungsansowon is built for another Lee's school, which is moved and rebuilt at Kalgok in 1970 because of Angye-dam construction.

Oaksansowon was built for memorial of Lee, Unjeok in 1573 on the valley under Dokrockdang, it is on the edge of Jaok-mountain and Hwagae-mountain. There is memorial hall behind the lecture hall. Gate, lecture hall, and memorial hall are systematically deployed on the central axis. It shows composition of structural concealment, tension, and hierarchy.

2.3.4 Popular belief

There are Jungjamok and Dangmok for village's constituents of belief. Jungjamok is 600 year old *Ginkgo biloba*. Dangmok is *Salix glandulosa* in the center of village. This is sacred and religious tree of village that is the place for folk event and Dangjae; religious service. Dangmok is on the center of village and symbolic tree of the village.

Juldangkiki, a tug of war, is a folk event. It performed January and August 15th in lunar calendar every two three years. By this event, villagers read good or bad fortune of village. Also Son and Lee family or ruling and ruled people tried made village's reconciliation and harmony. Incantation or folk belief is related with it. Upper and lower villages are divided by the halfway of this village. Both villagers pull rope of Amjul or Sutjul. When upper villagers win, it will be a rich year. When lower villagers win, it will be a peaceful year. Villagers wish harmony of people, abundance,

rich, and peace performing this event.

Sohraesulnori was performed for appreciation of agricultural servant's service in lunar July after rice transplantation. However it is not transmitted anymore because of cease of agricultural servant's system. Hohminori was performed after third weeding practice. The hardest worked servant was selected and put onto a bull's back. They took off the day and enjoyed foods under Jungjamok. It was also a folk belief of incantation as Jisinpalki, trod down master's yard. By this event, master and servants understood and encourage each other and built as one body⁷⁾.

While ruling class invited and served dog soup, tonicking to older people to pavilion in lunar May. They recited Shijo, Korean ode poem. It was executed seven times as Chobok, Jungbok, and Malbok etc. It is transmitted as experiencing elegant culture⁸⁾.

3. Space composition of Yangdong village and discussion of cultural landscape

The village located on the eastern hill of Ankang plain. There are Homyung mountain and Songju peak in front of it and Solchang mountain on the back. 勿 shaped ridges form *Blue dragon to the east, and White tiger to the west*. Ahnrockchon flows from north joined Hyungsan river and flows into Youngilman. Therefore the village is located at mountain on it's back and along with stream.

Living houses and pavilions are deployed on the peak of hills. Suhbackdang, head house of the Son family is located at the highest place of Angol, Khankachung, branch head house of the family is located at just under the peak of Mulbonggol. Mochumdang, head house of the Lee family corresponding Suhbackdang is located at end of Mubonggol inside of central valley, Georigol. Hyangdan, branch head house of the family, corresponding Khankachung located at east of Mulbong.

While living houses of ruling class are deployed on the high place of hills, houses of ruled classes are deployed on lower area of valley. This express the order of rank by their house location. The Son and the Lee family correspondingly constructed pavilions. They are

deployed at quiet and scenic places or center of the village, therefore they functioned as summer house for enjoying scenery or meeting place for family. These are also connected with Haerangchae, servant's quarter.

Son and Lee family constructed pavilions, Soowoonchung and Simsoochung, and schools, Anrockjung and Kanghakdang, respectively. They also built memorial halls, Oaksansowon for Lee, Unjeok and Dongkangsowon for Son, Jungdon. These reflect the principle of environmental planing, which complete the centripetal of village with mixing confucian cultural aspects.

Son, Jungdon and Lee, Unjeok spent almost half of their lives at Suhbackdang and Mochumdang, respectively. They lived at Khankachung and Dokrockdang thereafter. Then they built villas for their late. Finally, Dongkangsowon and Oaksansowon were built as their memorial hall.

There are threes of *Ginkgo biloba*, *Pinus densiflora*, *Sophra japonica*, *Salix glandulosa*, *Zizyphus jujuba*, and *Phyllostachys bambusoides* are planted in the village. These are the Dangmok or symbolic trees for wishing education, long living, family flourish, and peace.

There are Jungjamok and Dangmok for village's constituents of belief. Jungjamok is 600 year old *Ginkgo biloba*. Dangmok is *Salix glandulosa* in the center of village. This is sacred and religious tree of village that is the place for folk event and Dangjae; religious service. Juldangkiki, a tug of war, is a folk event. It performed January and August 15th in lunar calendar every two three years. By this event, villagers read good or bad fortune of village. Also Son and Lee family or ruling and ruled people tried made village's reconciliation and harmony. Villagers wish harmony of people, abundance, rich, and peace performing this event. Sohraesulnori was performed for appreciation of agricultural servant's service in lunar July after rice transplantation. However it is not transmitted anymore because of cease of agricultural servant's system. Hohminori was performed after third weeding practice. The hardest worked servant was selected and put onto a bull's back. They took off the day and enjoyed foods under Jungjamok. By this event, master and servants understood and encourage each

other and built as one body. While ruling class invited and served dog soup, tonicking to older people to pavilion in lunar May. They recited Shijo, Korean ode poem. It was executed seven times as Chobok, Jungbok, and Malbok etc. It is transmitted as experiencing elegant culture.

4. Conclusions

Environmental planning principle producing characteristic cultural landscape may be found in Yangdong village, Kyungju linked living space of two families, Wolsong Son and Yeogang Lee at geomantic lucky place. The results of this study are followed.

- 1) Village location and space composition combined with natural environment, folk belief, feng-shui, and social system of confucianism. Blended buildings affected between ruling and ruled classes or among different families shown environmental design accomplishing united cultural space.
- 2) Son, Jungdon, Woojae(愚齋) and Lee, Unjeok, Hoejae(晦齋), experienced time sequenced formation - abundance - transcendence - recurrence through Suhbackdang - Khankachung - Soowoonchung - Dongkangsowon(書百堂 - 觀稼亭 - 水雲亭 - 東江書院) and Moomumdang - Hyangdan - Simsoochung - Oaksansowon(無添堂 - 香壇 - 心水亭 - 玉山書院), respectively as systematical continuous space.
- 3) Space scheme divided by upper and lower village expressed the order of rank. Head family houses were located at upper area of hills and the houses of lower classes were located at lower area. Living house, pavilion, and village school of ruling class were located considering north-south axes or radial shape of symbolic buildings such as great head family house or branch family house.
- 4) Ruling and ruled class divided by hill or upper and lower area, living house, pavilion, and village school of ruling class continuously splitted the most suitable and second suitable places. This is the symbol of competition and harmony of both families.
- 5) There are Jongjamok and Dangmok which are the sanctity of the village. folk belief aspects such as Juldangkiki, Sohraesulnori, and Hohminorori committed by ruling class, the Sons and the Lees, and ruled classes were discriminated by subject, method, and position of the commitment. It became a cultural landscape of unified culture including symbolic and artificial scenery pursuit abundance, richness, and mental stability.
- 6) The prospect of Yangdong village, a mountain village, expressed two sides of visible scenery of open inside and invisible from outside. Observation point such as head family house, pavilion, and village school are deployed at the point taking bird's-eye view, which striving mental stability.

Acknowledgments

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