A Study on the Characteristics of the "An-chae with Wings" in Jollanam Province, Korea

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Abstract

This paper analyses the An-chae with wings of the houses in the inland region of Jollanam Province to identify the architectural characteristics and to demonstrate the spatial differences. The findings are as follows. Firstly, the layout of the building has a significant impact on the external space. This is especially the case with the An-chae with wings, where the interior space affects the exterior space. While houses with a 一-shaped An-chae have rather dull exterior spaces, houses with An-chae with wings have diversified external spaces, such as a public space in the front and a private space in the rear. Secondly, the most important characteristic of the An-chae with wings is that it is integrated with a building plan adapting the changes in the architectural requirements of the early modernization era. The spatial division of the An-chae has given rise to its function as both a private space, centring on the master bedroom, and a public space, centring on the Geonneon-bang. And lastly, the number of rooms and the area of the An-chae with wings of Boseong are proportional. The number of rooms and the area of the An-chae with wings of Hwasun are inversely proportional. Additionally, houses in Boseong are not very different in terms of private, public, and buffer zones, whereas houses in Hwasun show significant differences in terms of the zones.

Keywords: An-chae with wings; Hwasun; Boseong; traditional Korean house

1. Introduction

Traditional Korean houses reflect the weather and geographic characteristics of their respective regions. They are also constructed in accordance with the culture and lifestyles of Korean people. One factor that determines the characteristics of the house is the lifestyle. The social status of the residents also affects the form of the house. The usage of space, which usually depends on the lifestyle of the residents, also influences the design of the ground plan.

An-chaes (housewives' quarters), which are found in the inland region of Jollanam Province, have wings that are different from the ones found in other parts of Jollanam Province. As the country's modernization progressed, Nalgae-chae houses (building wings) were added to the large 一-shaped Mom-chae house (main building) so that the latter could function as a Sarang-chae house (husband's quarters) as well. In the case of a Boseong House, an Anchae is formed by the addition of Nalgae-chaes to the rear of a Mom-chae house, whereas in the case of a Hwasun House, Nalgae-chae houses were added bidirectionally, thus forming a structure of An-chae with wings. Boseong Houses and Hwasun Houses differ in terms of their basic structures. In the Hwasun House, each quarter is independently structured, whereas the Boseong House has a single integrated structure.

Given the similarities and differences, a comparative study on the An-chaes of Boseong Houses and the Hwasun Houses is worthwhile.

This study aims to define the spatial structure of an An-chae, which, in the process of modernization, has come to function as a Sarang-chae house by becoming a single structure. Five An-chaes with unique floor plans (Nalgae-chae houses added at both ends of a Mom-chae house without a Sarang-chae house) were selected among the traditional houses built in the late nineteenth century in Jollanam Province that are designated as cultural heritages.

Data on the buildings were collected through onsite measurement and published measurement reports. (Chonnam National University Museum, 1992; Hwason, 2007).

The methodology involves, firstly, examining theories on the An-chae with wings, and then analysing the buildings in terms of architectural characteristics and functionality. It then focuses on finding the cause of the evolution of An-chae with wings in terms of zoning, floor plan and space division by role.

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2. Definition of the An-chae with Wings

An An-chae with wings is a building consisting of three structures: a 一字-shaped structure (main building), and two Nalgae-chaes (wings) on either side of the一字-shaped structure. Thus, it is different from "ㄱ-shaped" (Gopae-jip) structures, which only have one annex to the main building, or "ㅁ-shaped" structures, which have the main building and annexed An-chae, Sarang-chae house and Gwang-chae to form a patio in the middle. An-chaes with wings are classified into "ㄷ-shaped" (wings protruding in the front), "凹-shaped" (wings protruding at the rear) and "工-shaped" which has wings protruding at both the front and rear, thus forming an工-shape.

The most important characteristic of the An-chae with wings is the spatial division and harmony of the interior and exterior spaces. This structure accommodated the social changes that took place in the early modern era, such as the reduction of gender discrimination and collapse of the social class system. These changes are represented in the building floor plan with its multipurpose uses. The houses allow for separate spaces for men, women, and families as well as for the public, without requiring a separate Sarang-chae house.

3. Review of Preceding Research

The houses that are the subject of this study, which have An-chaes with wings, belonged to wealthy farming families and were located in rural areas. Generally, the upper class at that time was composed of three classes, which were the influential family class, the landlord class and the wealthy farmer class. (Choi, 1989) These reflected the fact that the social class system had shifted from the nobles and commoners system to a hierarchical class system. The wealthy farmers at that time had developed a new style of residential houses away from the Confucian tradition. Therefore, those houses had historical meaning in the modernization of traditional dwellings.

The preceding research dealt with the characteristics of the houses as well as the social characteristics of the wealthy farmers. The preceding researches of wealthy farmers' houses are as follows. Firstly, there was a research into the social and historical values of the wealthy farmers' houses in the traditional housing development process. (Kim, 1982) Secondly, there was a research into the spatial transformation process of An-chae, the main living space, through the structural and spatial changes of wealthy farmers' houses. (Chonnam National University Museum, 1992) And finally, there were researches into classifications of the various styles of An-chae plans through surveys of residential houses in specific farming regions. (Na, 2001) Even though these researches focused on the modernization processes and developments of the wealthy farming houses from the macro point of view, they overlooked the fact that An-chae, the main living space, was developed and integrated its functions with those of Sarang-chae.

4. An-chae with Wings of Jollanam Province, Korea

The一字-shaped An-chae is the most commonly found An-chae in Jollanam Province. However, five houses (two in Boseong, three in Hwasun) have unique architectural features in that they all have a Nalgae-chae house (building wings) added to both/either the right and/or left side of the main building.

Lee Kumanje's and Lee Yongu's houses, which have An-chae with wings, are located in Boseong Boseong-eup Okam-ri Yedong Village and Deukryang myeon Ohbongri Ganggol Village, respectively. These are the villages of the Gwangju Lee clan (光州李氏). The Gwangju Lee family, originally from Gyeonggi-do, moved to and settled down in Jollanam Province when their fifth-generation Sejong (世貞, 1461~1503) was dispatched to the region as a governor. The houses of Yang Dongho, Yang Seungsu, and Yang Hwedoo are located in Hwasun dogok-myeon wolgok-ri, the village of the Cheju Yang clan (濟州梁氏). The clan gained its prominence during King Seongjong's reign, owing to Hagpo (Yangpaengson), a master of landscape painting. Hagpo moved village, following his close friend Jo Gwangio.

5. Factors Concerning Changes to Wealthy Farmers' Houses in the Latter Period of the Chosun Dynasty

The residential culture has a close relationship with the social and cultural background of an era. This would mean that the modernization process in the latter period of the Chosun Dynasty before the opening of the port would have greatly influenced the changes in the residential houses. Specifically, during
the drastic transformation period after the Imjin war and Manchu war in the latter period of the Chosun Dynasty, there were the collapse of the medieval social hierarchy system, the changes in Confucian traditions, and the development of new ideas for dwellings that had influenced living spaces. In particular, the differentiation of the Yangban (aristocrat) class by political and economical changes in the latter period of the Chosun Dynasty would have influenced the changes in the layout of dwellings.

The collapse of the status system in the latter period of the Chosun Dynasty caused the differentiation of the Yangban class, the emergence of new Yangbans with various status backgrounds, and a decrease in the Nobi (servant/slave) population. These had a direct impact on the cultural diversities of the upper class. In the early Chosun Dynasty, the Yangban class was protected by a strict caste system that restricted the size of the house and its decoration (Joo, 1994). On the other hand, during the social dislocation in the latter period of the Chosun Dynasty, the Yangban title was obtained by the people from lower classes who tended to show the upper class-oriented housing culture. In particular, the housework, which had been managed by Nobi, started to be managed by the family members instead and the living space was adapted to these changes accordingly. (Kim, 1987)

The subject of this study, the wealthy farmer class, was one of the new Yangban classes that emerged from the social dislocation in the latter period of the Chosun Dynasty and its origin was certainly different from the original Yangban class. Furthermore, the development of agricultural technology for commercial crops led to a status differentiation within the farmer class itself. The wealthy farmer class had developed their houses not only according to the basic principles of Confucianism but also with practical aspects of living in mind. While the dwellings of the upper class in the Chosun Dynasty had been constrained by the many rules and norms of Confucianism, those of the new Yangban, wealthy farmer class were rather focused on the practical principles.

There had been social class dislocation from the late nineteenth century, and the wealthy farmer class families formed villages with their families. In Jollanam Province, they also started to emerge during that time and formed a housing culture that emphasized not the Confucian mores but practical living. The characteristics and backgrounds of their residence are as follows.

a. As a result of irrigation works throughout the country, the cropland had been expanded which allowed some farmers to accumulate considerable wealth.

b. Their residences reinvented themselves as they had focused on communal economic activities and living convenience rather than on social hierarchy. They also tended to show off their villages to outsiders.

c. They were either of Yangban origin with increased economic power or became highly successful from families of ordinary background.

d. Similar-sized houses were built as there was a lack of distinct social hierarchy between the families. (Kim, 1997)

e. The authoritative role of Sarang-chae gradually reduced as the practical building ideas grew. Instead, the roles of An-chae increased facilitating spaces for family meetings or various forms of work. However,
the roles of Sarang-chae, with the idea of distinction between the sexes, integrated with those of An-chae. This resulted in the creation of the private sphere in an existing An-chae, and the public sphere in a new Sarang-chae.

6. Spatial Arrangement – Utilisation of the Yard

An-chae with wings has more open space than the traditional An-chaes that were built in relatively earlier eras. This space, however, is segmented and the backyard is separated by a wall and is used as a closed private space.

The internal space of An-chae with wings of Boseong Houses affects the external space. An An-chae with wings acts as both public and private space. The internal space also determines the characteristics of the yard facing the An-chae. The front yard is directly accessible from the gate at both Lee Yongu's house, which has a Sarang-chae house, and Lee Geumjae's house, which does not have a separate Sarang-chae house. Just a tree and the construction at an angle prevent visibility of the An-chae from the gate. This feature differentiates the H-shaped An-chae from the □-shaped An-chae, which has another building blocking the front, thus forming an enclosed patio-like yard in the middle.

The east yards of the two houses are also different: In Lee Yongu's house, the yard is an extension of the An-chae, and in Lee Geumjae's house, the yard houses the Sarang-bang (master bedroom).

![Fig.4. Site Plan of Lee Yongu's House](image)

![Fig.5. Site Plan of Lee Geumjae's House](image)

![Fig.6. Site Plan of Yang Seungsu's House (Left), Yang Dongho's House (Right)](image)

![Fig.7. Site Plan of Yang Hoedu's House](image)

The west yards of both houses are connected to the entrance of the kitchen, thereby acting as work spaces. At Lee Geumjae's house, the yard is used as an extra space to enlarge the backyard, which is defined by the annex building and the wall.

The yard of the Boseong An-chae with wings is highly used. An enclosed space is created by the □-shaped roof and the slope of the back terrain. This space facing the backyard connects each room of the house and generally offers a scenic view (Jeon, 1998). The arrangement of the exterior space determines the characteristic of the yard at the Hwasun House. At Yang Hwedoo's house, the An-chae and Haengrang-chae house (servants' quarters) are parallel to the slope making the Haengrang-chae house accessible from the west. A backyard space exists along the south-east side of the Sarang-chae house wall, which is connected...
to the main house wall. The north-east backyard is a narrow corridor that allows only minimum traffic and is enclosed by a main house wall. This independent space is blocked from the front yard and the side yard and is connected to the sloping backyard. Access is available through the main hall.

Yang Dongho's house was built on a longitude rectangular site. The An-chae faces the north and the Sarang-chae house is to its south facing it. There are no walls dividing the main yard from the Sarang-chae. However, entry to the main yard is possible through the Joong-moon (middle-door) on the west side of the Sarang-chae house. The Sarang yard (yard adjacent to the Sarang-chae house) is enclosed by a separate wall and generally has a Teotpat (vegetable garden) in it. The Teotpat is connected to the main yard.

At Yang Seungsu's house, entry to the main yard is through the Joong-moon. One has to pass the Chokmaru (narrow wooden veranda) that connects the Sarang-chae house and Daecheong (main building) on its left in order to get to the main yard. The Maru-bang has two doors that give a feeling of openness to its space.

7. Architectural Plan
– Accommodation of the Sarang-chae House

Each An-chae with wings in Boseong and Hwasun has seven units. The Mom-chae consists of five units and has a 一-shape architectural plan. These houses were built in the late eighteenth century, and the Confucianism of the Lee dynasty is reflected in the design. They partially accommodate the changes that took place in the existing culture. This is interpreted as a part of the changes of the early modern rural society. (Jeon, 1998)

The An-chae with wings has a unique characteristic of assuming the function of the Sarang-chae house as well, thus making the spatial division difficult. The An-chae with wings in Boseong has units arranged in parallel so as to include various spatial functions. The An-chae with wings in Hwasun has the form of a single building; however, some An-chaes have a partial parallel arrangement.

In Lee Yongu's house in Boseong, the kitchen, master bedroom, and Daecheong are aligned in a 一-shape. The room in front of the kitchen and those attached to either Nalgae-chae house form a凹-shape. There are three pillars in the Daecheong, and the pillar at the centre of the Maru divides the space. There is a large Maru in front of the Daecheong and Inner Daechong that is in the rear. The Inner Daechong of large rural houses is generally used for household chores and storage. The Maru is built in the front and on the right side of the An-chae. (Mun, 2002) The Chok-maru is built at the rear and is connected to the backyard. Lee Kumjae's House in Boseong is in the kitchen-master bedroom-Daecheong-room format. There are rooms in the front and rear of the kitchen. The Chok-maru, which is installed in the backyard side of the An-chae, serves as the corridor that connects the rooms. There are horizontal sliding doors between the rooms, and the kitchen can be closed or left open. Partitioning of a small room into upper and lower sections is commonly found in the southern part of the country.

Yang Dongdo's house in Hwasun is in the Daecheong-master bedroom-kitchen format. It is an An-chae with wings, which has a room in front of the floor and a kitchen inside the building. The Daecheong and Buok-bang (scullery) protrude at the rear. Yang Seungsoo's house in Hwasun consists of a Gat-daechung, Daecheong, master bedroom, kitchen and Gat-bang with a Buok-bang added to it. The An-chae with wings floor plan looks very similar to that of Yang Seungsoo's house. The Nalgae-chae house protrudes as much as the width of the Chok-maru and accommodates a room and a kitchen. The protrusion is greater at the rear, and the space is used for a Gat-daechung and Buok-bang.
Yang Hwedoo's house in Hwasun consists of three units: a Nalgae-chae house and five units of a Mom-chae house (main house). The kitchen is built in the right wing. There is a room, Daecheong, master bedroom, and kitchen in the Mom-chae house. In the west wing, a kitchen, room and Daecheong are constructed in this order. Two units of the Nalgae-chae house on the right face the kitchen, and a small room connects the kitchen with the Buok-bang.

8. Spatial Division of An-chae by Role
In general, the An-chae is the women's space and is usually located farthest from the gate. It usually consists of a master bedroom, Daecheong, Geonneon-bang (opposite room) and kitchen. The mid-nineteenth to early twentieth century was an era of early capitalism and modernization. As changes took place in people's consciousness, traditional architectural patterns and grammar were partially revised. Simultaneously, various changes were made to accommodate the changes in culture and lifestyle.

The most prominent of those changes was the role division of the An-chae space. The houses studied in this paper have their Sarang-chae houses either diminished in size or not included at all. This was a departure from the traditional residential building. The houses were meant to be rough imitations of houses of the upper class. It is assumed that the large An-chae provided private spaces, a master bedroom, and public place; it also included the Geonneon-bang, thus assuming the role of the Sarang-chae house.

Lee Yongu's and Lee Geumjae's houses in Boseong are characterized by the division of private and public space. In particular, in Lee Yongu's house, the large Maru is split into an open Maru in the front and an enclosed Maru in the rear. The Maru in the front is used for external affairs, such as entertaining workers or guests. The Maru-bang is used as a women's living space with an additional function as storage space to some extent.

The An-chae of Hwasun is longer than that of Boseong. Different types of space form the left and right sides. At Yang Dongho's house, the Gat-bang, a room similar to the master bedroom, was built in the west Nalgae-chae house, which, with the Gat-daechung, formed a public space. The private space located deep inside consisted of a master bedroom, kitchen and Buok-bang. Between the public and private spaces, there is a large Maru, which divides the two different spaces. Since the master bedroom faced the public space, with the Chok-maru in between the two, the size of the door was reduced to shield the master bedroom from being viewed.

The spatial composition of the An-chae of Yang Seungsoo's house is similar to that of Yang Dongho's house. The Nalgae-chae house to the left that has a Gat-bang and Gat-daechung is used as public space. Two units of the Mom-chae house connected to the east Nalgae-chae house are private spaces. Unlike in the houses in Boseong, the backyard of the An-chae was not used much. The door to the backyard provides ventilation.

9. Analysis of Spatial Characteristics
To determine the characteristics of the space, the space and the size of the An-chae were analysed by the unit size as follows. The master bedroom, kitchen, Buok-bang, and storage are defined as private spaces. The Maru and the veranda in both the front and rear are buffer spaces. The other rooms, except the master bedroom, are all defined as public spaces.

When the Geonneon-bang, Buok-bang, and Maru-bang are considered consolidated as two rooms, and the Daechung and Gat-daechung as the Daechung, the composition of the space is simplified as the following seven spaces: master bedroom, two rooms, Daechung,
Table 1. Sizes of Private, Buffer, and Public Spaces

<table>
<thead>
<tr>
<th>House</th>
<th>Lee Yongwoo's House</th>
<th>Lee Geumjae's House</th>
<th>Yang Dongho's House</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space</td>
<td>Private</td>
<td>Buffer</td>
<td>Public</td>
</tr>
<tr>
<td>Number of Space</td>
<td>4</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Area</td>
<td>49m²</td>
<td>29m²</td>
<td>32m²</td>
</tr>
<tr>
<td>Area Ratio</td>
<td>45%</td>
<td>26%</td>
<td>29%</td>
</tr>
<tr>
<td>Number of Space</td>
<td>5</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Area</td>
<td>22m²</td>
<td>27m²</td>
<td>48m²</td>
</tr>
<tr>
<td>Area Ratio</td>
<td>23%</td>
<td>28%</td>
<td>49%</td>
</tr>
</tbody>
</table>

Teon-maru, storage, and a corridor. These spaces are compared with each other in terms of the size. The Daechung was the largest. The Daechung of Yang Dongho's house in Hwasun had 6.5 units, followed by Yang Seungsoo's house (6 units). The Daechung of Hwasun houses had larger units than those of Boseong houses. The master bedrooms of each Boseong house and Hwasun house had 1.5 units and 2 units, respectively, showing local similarities.

The Hwasun house had larger units. When the units of the rooms (except the master bedroom) were compared, however, those of Lee Yongu's house and Lee Geumjae's house in Boseong were 4 units and 3.5 units, respectively, making them relatively spacious. The rooms of Hwasun houses are of 2 units each, except for Yang Hwedoo's house, in which the room is of 2 units.

Sizes of private, buffer, and public spaces are analysed and shown in the graph below. Five houses had a high proportion of private space. The ratio of private space of Yang Dongho's house in Hwasun was the highest, whereas that of Lee Geumjae's house in Boseong was the lowest. The proportion of buffer space of Lee Yongu's house in Boseong was extremely low at 3.2%. In the rest of the houses, the ratio was similar within the range of 21~28%. The ratio of public space was 18~38% among Hwasun houses. The ratio was higher among Boseong houses at 39~44%.

Zone-specific space and area were analysed as follows. The numbers of rooms of private and public areas were five each in the Boseong houses. In Hwasun houses, only Yang Hwedoo's house had four private and public rooms; the houses of Yang Dongho and Yang Seungsoo had four and five private rooms, respectively, but only two public rooms each. The areas of their public spaces were small compared to those of their counterparts in Boseong.

Lee Yongu's house has 49.03 m² of private space. This represents a large area and high ratio. Lee Geumjae's house has 36.64 m² of private space, which is relatively high in terms of the ratio, but in terms of size, it is almost equal to the public space of the house.

Spatial hierarchies of Hwasun Houses are as follows:

- Yang Dongho's house: public (51.23 m²) > buffer (38.97 m²) > private (19.05 m²)
- Yang Seungsoo's house: public (47.56 m²) > buffer (27.66 m²) > private (22.43 m²)
- Yang Hwedoo's house: public (49.5 m²) > private (34.76 m²) > buffer (28.84 m²)

Notably, Yang Hwedoo's house has the highest proportion of public space.

As mentioned above, the area is proportional to the number of rooms in the Boseong houses. Among Hwasun houses, the number of rooms and the area are inversely proportional. Also, Boseong houses do not have many differences in terms of private, public, and buffer zones, whereas Hwasun houses show significant differences in the areas by zone.

10. Conclusion

This paper analysed the An-chae with wings of the houses in the inland region of Jollanam Province to identify the architectural characteristics and demonstrate the differences in the spaces. The findings are as follows.

Firstly, the layout of the building has a significant impact on the external space. This is especially the case with the An-chae with wings, where the interior space affects the exterior space. While houses with an I-shaped An-chae have rather dull exterior spaces, houses with An-chae with wings have diversified external spaces, such as a public space in the front and a private space in the rear.

Secondly, the most important characteristic of the An-chae with wings is that it evolved into a building plan that was very flexible in accommodating changing architectural requirements in the early modernization era. The spatial division of the An-chae has given rise to its function as both a private space, centring on the master bedroom, and a public space, centring on the Geonneon-bang.

Lastly, the number of rooms and the area of the H-shaped An-chae of Boseong are proportional. The number of rooms and the area of the An-chae with wings of Hwasun are inversely proportional. Additionally, Boseong houses are not very different in terms of private, public, and buffer zones, whereas Hwasun houses show significant differences in terms of the zones.
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