Hanok Interventions

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Submitted towards the fulfillment of the requirements for the Doctor of Architecture Degree.

School of Architecture
University of Hawai'i at Mānoa

Doctorate Project Committee
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We certify that we have read this Doctorate Project and that, in our opinion, it is satisfactory in scope and quality in fulfillment as a Doctorate Project for the degree of Doctor of Architecture in the School of Architecture, University of Hawai'i at Mānoa.

Doctorate Project Committee

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Marja Sarvimaeki, Chairperson

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Spencer Leineweber

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Hyon-Sob Kim

To my mom, dad, and little sister, who always let me walk at my own pace.

To Magi, for applying the right pressure at the right time and guiding me through.

To my committee members, for helping me find the way.

Last but not least, to my friends, may we always have the good times in our hearts.

Janice Jihae Shon, December 2011

CONTENTS

ABSTRACT

The *hanok* (한옥), or Korean traditional home, stands as a symbol of Korea's built vernacular heritage. Throughout history, the *hanok* has been progressively evolving to integrate and accommodate for the changing lifestyles of people.

This project involves discovering the appropriate methods to preserve and protect the integrity of *hanok*s that are transitioning from traditional to contemporary uses. Through the use of interpretive-historical research and case studies, the study answers questions about the strategies needed when adaptively reusing or renovating an existing *hanok*. The study also investigates alternate preservation approaches in order to get a better idea of the other measures being taken.

As a result of the research and case studies, a set of standards for *hanok* interventions are proposed. The Principles for *Hanok* Interventions are recommendations on what to consider when preserving a *hanok*. The principles can help to create an understanding between architects, preservationists, historians, scholars, and *hanok* owners.

The proposed Principles for *Hanok* Interventions that are suggested in this project will help to establish standards that will identify the way to preserve the traditional characteristics of *hanok*s in the modern times, without compromising the integrity and value of the spatial essence.

INTRODUCTION

韓屋: 한옥, *hanok*[1]

韓 : 한국 한/나라 한, *han* : Korea
屋 : 집 옥, *ok* : house

Deciding on a topic for my doctorate project allowed me the opportunity to expand upon my understanding of Korean culture, of which my personal heritage derives from, while adding to an existing body of knowledge. Not surprisingly, the idea of my topic came from my own home. Even with the 4500 mile distance between Hawaii and South Korea, my mother has kept Korean tradition alive in our home. After realizing this, for example, noticing the placement of drawers and tables, I became curious about where these basic ideals of a "home" and the spaces contained in the home are derived from in Korean culture. This is when I discovered the *hanok* (한옥) or Korean traditional home.

Modest in design and appearance, the *hanok* is one of the oldest representations of Korean heritage and culture that has survived to this day. It is possible to understand the significant traits that belong to the *hanok*s by viewing it as a form of Korean vernacular architecture.

From the start of Korean history, *hanok*s were the primary housing type for the people of Korea. Over time, the idea of a *hanok* lifestyle has gone through many transitions. In the time of rapid development of housing, primarily

[1] Hanja Dictionary

during the 1960s to 1990s, many *hanok*s were demolished to pave the way for apartments and other high-rise towers. Of the *hanok*s that remain standing, many have gone through changes to meet the needs of a family's contemporary lifestyle.

The longevity of *hanok*s has been in jeopardy due to the rapid economic growth of South Korea. Another issue with regard to *hanok*s being threatened deals with certain inconveniences of living in a *hanok* compared to today's high-rise condominium apartments.

*Hanok*s contain particular spaces and spatial arrangements that are determined by many factors such as geography, climate, society and religion. By researching these matters and their relationship to *hanok*s, I discuss the need to preserve a heritage, which is becoming increasingly threatened, in contemporary Korea.

Hanok preservation deals with more than the physical properties of a structure. A *hanok* represents the culture, tradition and heritage of the Korean people. However, the essence of the *hanok* seems to be taken lightheartedly due to the changing lifestyles of people. Although most Korean people have a general knowledge of *hanok*s, the significance of spatial qualities are often lost in the modernization process of the structures. Therefore, this study researches *hanoks* in order to develop a means to preserve what was once the standard way of life for Koreans. There is a way to preserve the traditional characteristics of *hanoks* in the modern society, without compromising the integrity and value of the spatial essence.

In order to focus my research, I have directed my studies to a particular time period and location. This thesis will focus on the *hanok*s built during the Joseon Dynasty (1392-1910) and include case studies of *hanok*s from the early 20th century. While the periods before and after the Joseon Dynasty do comprise of *hanok*s, society during the Joseon Dynasty underwent a marked change that affected the development of *hanok* construction for the periods following. This will be further discussed at the start of Chapter 4: Case Studies. Three types of *hanok*s were built for the different social classes; the *yangban* or noblemen(양반) , the *jungin* (중인) or "middle people", and the *sangin* (상인) or commoners.[2] The *jungin hanok*s were a cross between *banga*[3] and *minga*[4]. During this period, the *banga hanok*s were constructed as planned without any consideration for budget, unlike the *minga hanok*s, which were not always fully built due to monetary restrictions.[5] By identifying with the *hanok*s of the Joseon Dynasty, we will be able to better understand the differences and similarities between the *hanok* types.

The foundation of the thesis will include a brief description of Korea's natural environment as well as its social and cultural background. In order to understand the parts of a *hanok*, I will be

[2] Lett, Denise Potrzeba. *In Pursuit of Status*. Massachusetts: Havard University Asia Center, 1998. p 16-17.
[3] *Banga* - Residences of Korean *yangban* gentry (the ban of ban-ga and yang-ban are the same ideogram for 'nobleman'
[4] *Minga* – commoners or people's houses
[5] Choi, Sang-Hun. *Interior Space and Furniture of Joseon Upper-Class Houses*. Seoul: Ewha Womans University Press, 2007. P. 21.

taking a look at the types, forms, structures, materials and spatial qualities. Furthermore, previous attempts at preservation made on the local, national, and international level will be included to highlight the issues and challenges facing *hanok* preservation today. Observations made from the case studies help in understanding how traditional and contemporary ideas have been integrated.

Capturing tradition in architecture can occur through a wide range of methods. With the continual change in notions of traditional and contemporary architecture, awareness of the similarities and differences between the styles are beneficial to any preservation plan.

The methodologies that I have used for my thesis are primarily interpretive-historical research and observations through case studies. The first part of my thesis focuses on the information acquired through interpretive-historical research. I have interpreted the topics mentioned above through readings and other sources on and relating to *hanoks*.

Along with books, journal articles and web resources, I have also watched documentaries and movies to further my studies and understanding. Some of the documentaries I have looked into are from Korean news stations titled "Three Days at a *Hanok* Guesthouse" (한옥 게스트하우스에 서의 3 일) and "*Hanok*'s Secret" (한옥의 비밀). In addition, I was also able to acquire a documentary titled "Old Future, People Who Build Modern *Hanoks*"(오래된미래, 현대한옥을 짓는 사람들), which focuses on one of the few firms that take part in *hanok* projects in Korea. Most of the documentaries take the viewer through the spaces and describe the rooms and its functions. This form of media offers a different perspective and an actual idea of the sequence of spaces. Also helpful were the interviews of professors and experts of *hanok* and their sensitivity to each space. I was able to visually observe the organization from the entrance to the *hanok* to the transforming of spaces; particularly when the doors and windows are lifted in the large *maru* (마루)[6], which is also known as the *daecheong* (대청)[7]. The documentaries provide a sense of the sequence of spaces while touring the homes.

Fieldwork was necessary in order to understand the scale and ambiance of the space and location. During my field work I was able to choose from a variety of *hanok*s to use as case studies. This portion of the project was completed primarily during the ARCH 547 Studio – Alternative Experience in Spring 2011 and during the following summer.

The initial literature review that laid the foundation for the research include, first of all, *Hanoak: Traditional Korean Homes*, and secondarily both, *Hanguk jutaek geonchuk* (Korean Residential Architecture) and *Hanok e*

[6] Maru (마루) is "a wood floor laid with thin flooring boards".
Choi, Jae-Soon and et al, *Hanoak: Traditional Korean Homes* (Seoul: Hollym Corporation Publishers, 1999), 223.

[7] Daechung (대청) is "a large, wood-floored maru" between rooms in *hanoks*. (same source as above)

Salulilada. From the internet, the Cultural Properties Administration of Korea and United Nations Educational, Scientific and Cultural Organization (UNESCO) websites were invaluable resources.

Hanoak: Traditional Korean Homes has been an important source in forming the basic foundation to understanding *hanok*s. It is one of a handful of books focusing on *hanoks* available in the English language. *Hanoak* provides a general understanding of *hanoks,* integral to laying the groundwork for a more focused study. The book also offers a glossary and references that are beneficial to my research (though the use of two different transliteration systems in the book only add to the confusion with regard to Korean Romanization). The images and diagrams are also significant and many have been translated into English from Korean *hanok*-focused references.

Hanguk jutaek geonchuk (Korean Residential Architecture) has many photographs and drawings in addition to useful information regarding the beginnings of Korean architecture to the formation of *hanok*s. Unlike the previous two sources, *Hanok e Salulilada* focuses on contemporary *hanok*s and the ways in which the *hanok*s have been adaptively reused.

When researching preservation methods, my primary source was the Cultural Properties Administration website and the UNESCO website. These websites offer specific information on the UNESCO World Heritage sites in Korea. In particular, I am focusing on individual *hanok* preservations and the guidelines used to determine appropriate preservation method.

With the information acquired from the research, my thesis determines the links of traditional and contemporary Korean culture in the Korean home and how to preserve the tangible and intangible qualities of a traditional home in a contemporary home. In doing so, the organization of my thesis is as follows:

The contents of the first chapter focus on the natural environment of Korea, followed by a discussion about the social and cultural background that are part of the belief systems in Korea. The natural environment section will discuss the geography and climate in association to *hanok*s. The environmental conditions affected the design of a *hanok* according to the needs of the people. The social and cultural background determined the site and spatial arrangements of a *hanok*. Social orders provided regulations and requirements on the spaces and details of a *hanok*. These aspects of Korean society influenced the development of the forms and spaces in a *hanok*. This chapter provides a general knowledge base in understanding Korean culture in order to understand *hanok*s.

The second chapter focuses on the tangible and intangible qualities of a *hanok* from the physical components to spatial essences. This chapter will discuss the types and forms, and structure, and materials of a *hanok*. The rooms and spaces in a *hanok* will be defined in terms of function and use. Another important aspect of *hanok*s deals with their contemporary use. The function and use of *hanok*s in the present day has changed and this chapter will review various elements of contemporary *hanok*s that exist in Seoul, as well as new construction of *hanok*s.

The third chapter goes into detail about the current status and conditions of *hanok*s. The chapter draws attention to the efforts and organizations at the international, national, and individual levels that deal with preservation and protection of cultural heritage. While the primary focus is on preservation, there is a need to understand some of the challenges in preservation and the advantages and disadvantages of *hanok*s in contemporary context.

The fourth chapter, after this basic research, is the case study section of *hanok*s. The case studies were chosen to represent the integration of the traditional and contemporary *hanok*s. The field studies were essential to understanding the physical changes made and the effects of the changes, from the traditional *hanok* style to the contemporary style. Following the case study analysis, there will be a redesign proposal using one of the cases.

The fifth chapter will conclude with a set of principles on how to preserve *hanok*s in the contemporary setting. The proposal uses the information gathered and the critical analysis of the current designs to suggest enhanced possibilities of how to create *hanok* spaces that represent the link between the past and present. The proposal will take into consideration the traditional and contemporary lifestyle and essence of spaces.

The main goal of this thesis is to make a contribution to the existing body of knowledge by providing principles on how to preserve *hanok*s in the contemporary setting of Korea. Through my own experiences and research, I was able to learn many things that no text could have been able to imbue. With the limited amount of sources about *hanok*s in English, it is an honor to be able to add the combination of knowledge I have gained and the research I have done, to expand the possibilities of sensitive *hanok* design.

1
ABOUT KOREA

"The mountains that we see from the windows of our home and work places are beautiful and stand there firmly protecting us."

- Kyung Rip Park

"일터에서 집에서 무심히 바라보다 마주치는 창
너머 서울의 산의 너울은 눈이 시리도록
아름다우며 꿋꿋하게 서서 우리를 지켜준다."

- 박경립[8]

[8] Korea Institute of Architects. *SEOUL, Architecture and Urbanism 2007*. Seoul: Seoul Metropolitan Government, 2007. P 20.

1.1 Natural Environment

Like vernacular architecture in general, many of the physical components of a *hanok* were constructed in response to the environment. The geography and climate of Korea has come to define many aspects of Korean culture. Knowing about the changing seasons and the harsh weather conditions will help in understanding the relationship between nature and Korean traditional homes and the different elements of a *hanok.*

Figure 1 Topographic map of Korea[9]

Geography

The Korean peninsula is part of East Asia and is surrounded by the Yellow Sea and the East Sea. With an abundance of rocky terrains, approximately 75% of the surface area consists of mountains and mountain ranges, but only 10% of the mountains exceed 3280 ft. (1,000m). Granite makes up for more than one-third of the land.[10] With so much granite, forestry was limited to certain remote areas in the northern and central mountainous regions. This meant that either the use of wood in building was minimized or other resources had to be utilized in the construction of homes during the Joseon Dynasty. In other words, "wooden members were smaller in size than before (the Joseon dynasty) and were used primarily in the roof structures and in the details of doors, windows and the kind" and the use of brick and stone increased.[11]

When deciding on a location for a home, not only was the practice of *pungsu* (also known as geomancy, which will be further discussed in 1.2: Social and Cultural Background) regarded, but practicalities for agricultural needs were also considered. For example, a village located along the lower slope of a hill or mountain "does not occupy good farmland but does have sufficient water supply, natural drainage, and is protected from the reach of floods. The upslope areas behind the village provide a grove of trees that supply firewood as well as shade."[12] The fields in front of the village are suitable for rice paddies. The areas that surround the village were an important aspect when settling on a site. According to Yi Chung-hwan, author of a geographical book *Taengniji: the Korean*

[9] Topographic map of Korean peninsula.*http://www.johomaps.com/as/korea/korea1a.html*

[10] Choi, Sang-Hun. *Interior Space and Furniture of Joseon Upper-Class Houses*. Seoul: Ewha Womans University Press, 2007. P. 13.

[11] Sarvimaki, Marja. "Layouts and : Spatial Arrangements in Japan and Korea." Sungkyun Journal of East Asian Studies Vol. 3, No. 2 (2003). http://sjeas.skku.edu/upload/200605/05_Sarvimaki%20Marja.pdf (accessed August 25, 2010)

[12] Lee, Sang-hae. *Asia's Old Dwellings: Tradition, Resilience, and Change*. Hong Kong: Oxford University Press (China) Ltd., 2003. P 375.

classic for choosing settlements, four significant factors determined the selection of a favorable village site: first was the geographical advantage of the site, secondly the physiological and economic condition, thirdly the traits of villager's mind and human nature, and fourthly the natural scenery of mountains and rivers."[13]

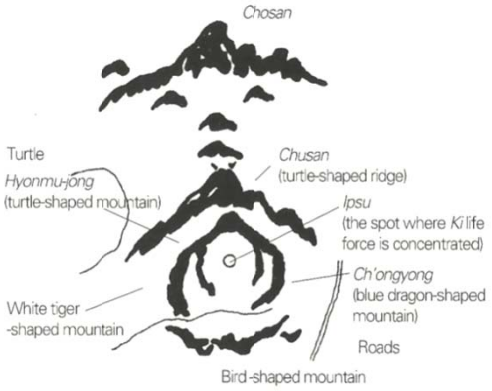


Figure 2 An ideal pungsu location for a town meant a large mountain to the back, a small mountain to the front with a stream flowing before it, and several surrounding low ridges[14]

Climate

Though some are longer than others, Korea experiences all four seasons throughout the year. The climate reaches extreme conditions in the winter and summer seasons, which also happen to be the longest seasons of the year. Typically the months from November to March are considered winter; with the coldest temperature reaching as low as -4 degree F (-20 degrees C) in January. June through September signify the summer months with the hottest temperature reaching 95 degrees F (35 degrees C) and above. Spring begins in April and ends in May with average temperatures of 60 degrees F (15.5 degrees C). October through early November is the autumn season with average temperatures of60 degrees F (15.5 degrees C).[15] The range of temperature is greater in the north than the south and along the coast.

One of the effects of nature on the design of a *hanok* can be seen in the span of the eaves. During the winter, the eaves are constructed high enough to provide passive heating by allowing the low sun angles to shine into the living spaces. The span of the eaves also provides shelter from the heavy snow. During the summer season, the eaves allow for passive cooling by shading the high sun angle. The eaves also provide protection from the heavy rains. The summer monsoon, also known as *jangma*[16], occurs from June to September and accounts for about 70% of the annual rainfall. The raining typically lasts for 30-40 days. To provide shelter from the rain, the rooms of a *hanok* were connected by wooden corridors that opened up to the exterior on one side and had the walls of the rooms on the other side.

[13] Yoon, Inshil Choe, trans. *Yi Chung-Hwans's T'aengniji The Korean Classic for Choosing Settlements* . Canberra: National Capital Printing, 1998, p 10.

[14] Choi, Jae-Soon, Chun Jin-Hee, Hong, Hyung-Ock, Kang, Soon-Joo, Kim, Dae-Nyun, Min, Chan-Hong, Oh, Hye-Kyung and Park, Young-Soon. Hanoak: Traditional Korean Homes. Seoul: Hollym Corporation Publishers, 1999. p. 23.

[15] Chun, Byung-Ok. *Decorative Designs in the Houses of the Chosun Dynasty Period*. Seoul: Po Chin Chai, Inc., 1988. P. 13.

[16] *Jangma* – summer monsoon

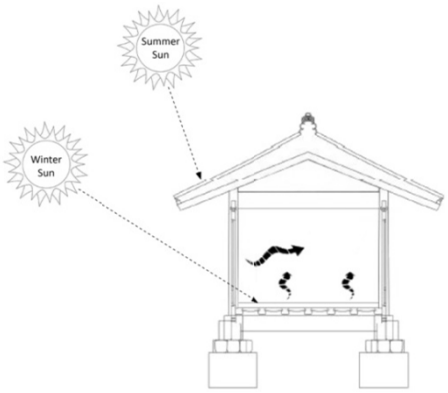


Figure 3 Diagram of passive heating and cooling according to the winter and summer sun angles.[17]

In the summer seasons, winds come from the southeasterly direction. During the winter season, winds come from the northwest. In order to adapt and survive the climatic adversities, heating and cooling methods were created. The *ondol*[18] hypocaust (온돌, for heating) and *maru*[19] (마루, for cooling) spaces are unique to Korean architecture which will be further discussed in the context of the structure of *hanok*s in the next chapter.

The provinces also have climate differences which affected *hanok* design and construction. The form and spatial arrangement of *hanok*s varied according to the region. According to climatic differences, there are six provincial types of *hanok*s according to the climate: Hamgyeong-do, Pyeongan-do, Central, Seoul, Southern, and Jeju-do Island.[20] The different *hanok* types of the provinces will be further discussed in the forms and types section.

Figure 4 Images of the four seasons of Korea[21]

[17] Image by Janice Shon

[18] The *ondol* (온돌) is a unique floor-heating system where smoke from a fireplace, usually in a kitchen or outdoor, flows through under-floor flues, or pipes, and passes out of a chimney. The floor is made of clay and stones that are covered by several layers of oiled paper.

[19] The *maru* (마루) is a wood-floor laid with thin flooring boards that provide ventilation and cooling in the summers.

[20] Ju, Nam-cheol, *Korean Residential Architecture*, Seoul: Iljisa Publishing Co., 1980, p. 74.

[21] http://www.flickr.com/photos/koreanet/4260985963/in/set-72157623053510091/

1.2 Social & Cultural Background

During the Three Kingdoms period, a variety of belief systems were introduced, from China, to the people of Korea. The most noted of these were Buddhism, Confucianism and Geomancy. These belief systems expanded to affect society and everyday life. Confucianism and specifically Neo-Confucianism had the most significant impact on the standard of ruling ideology and social order, particularly during the Joseon Dynasty.

Buddhism

Figure 5 Seokguram Grotto is a Buddhist cave temple that is part of the Bulguksa temple complex.[22]

Buddhism was originally introduced in Korea by Chinese priests in the 4th century CE during the Three Kingdoms Period. However, it was not until the Koryo dynasty (918-1392) that Buddhism became popular among the Korean people. With the support of the royal family and nobles and the increasing publications of sacred texts, Buddhism was able to attain the role of being the state religion.

During the Koryo dynasty, Buddhism was divided into two different practices: *Kyo* or textual Buddhism and *Son* or meditative Buddhism (better known by its Japanese name Zen). *Kyo* Buddhism was greatly supported by the aristocracy and had temples built closer to the capitol. *Son* Buddhism had mountain temples which were away from the capitol and politics. During the late twelfth and thirteenth centuries, support for *Son* Buddhism was emphasized over *Kyo* Buddhism, as a means to weaken the *Kyo* temples as a power outlet for aristocrats who were in support of *Kyo* Buddhism.[23]

Although Buddhism played a big role during the Koryo dynasty, it lost its social significance during the following Joseon dynasty, when Confucianism was established as the official state ideology.[24] At this time, Buddhist monks and nuns were forced to withdraw from state affairs and banished from society. While Buddhism still existed during the Joseon dynasty, the Buddhist beliefs and ideals were weakened and replaced by Confucian beliefs. The cause for Buddhism's decline in popularity was due to the differences in what was measured as important in the belief system. Some officials viewed Buddhism's "tradition to celibacy" as a threat to family and lineage. The idea of an abstract universal love was not as favorable or directed as Confucianism's

[22] http://antiquealive.blogspot.com/2010/11/seokguram-grotto-extraordinary-buddhist.html.

[23] Seth, Michael J., *A Concise History of Korea: From the Neolithic Period through the Nineteenth Century*. Maryland: Rowman & Littlefield Publishers, Inc., 2006.P103.

[24] Lee, Gil-sang, et al. *Korea: More Accurate Facts and Information*. Seongnam-si: Academy of Korean Studies, 2007. P12.

idea of family first, then friends, then neighbors.[25]

Although these anti-Buddhist ideas existed, Buddhism was not completely rejected. Many Joseon dynasty officials continued to accept and support Buddhism at this time. Members of royal families continuously went to Buddhist temples and consulted monks.[26]

Confucianism

Figure 6 Conference building within Gyeongbok Palace. Considered to be the main palace built during the Joseon dynasty.[27]

Confucianism was a school of thought that was adapted from China, ever since the Three Kingdoms Era. Although it existed earlier, Confucianism was not as enforced as during the time period of the Joseon Dynasty.[28]

With the establishment of the Joseon Dynasty, Confucianism became the underlying foundation for the majority of the Korean people. It could be said that the beginning of the Confucian transformation of Korean society occurred with the start of the Joseon Dynasty. With the fall of the Koryo dynasty, Neo-Confucianism became the dominant belief system for the new Joseon dynasty. "Although Neo-Confucianism grew out of the long tradition of Confucian thought, it was revolutionary in its insistence that the state and society be structured according to the moral principles that governed the universe."[29]

At the start of the Joseon dynasty, social change became an important issue. Martina Deuchler, the leading scholar on the radical Confucianization describes three stages in how and why the Korean society converted to Confucianism.

> The first stage, belonging to the late Koryo, featured a pragmatic search by a group of reform-minded scholars and officials for a cure for social disorder and an effort to find that cure in close imitation of Chinese social institutions. The second, in the early Joseon, was marked by an 'increasingly differentiated view of the Confucian mission' as some scholars, such as Yang Song-ji , began to assert the need to preserve native customs. The third stage, in the sixteenth century, was the development of philosophical Neo-Confucianism, which provided the Koreans with a means to rationalize the retention of native customs and to integrate those customs with the Chinese values the Koreans had been assimilating since the beginning of the Joseon dynasty.[30]

[25] Seth, Mi*chae*l J. *A Concise History of Korea: From the Neolithic Period through the Nineteenth Century*. Maryland: Rowman & Littlefield Publishers, Inc., 2006. P 122.

[26] Seth, Mi*chae*l J. *A Concise History of Korea: From the Neolithic Period through the Nineteenth Century*. Maryland: Rowman & Littlefield Publishers, Inc., 2006. P 124.

[27] Photo taken by Janice Shon

[28] Keum, Jang-tae. *Confucianism and Korean Thoughts*. Seoul: Jimoondang Publishing Company, 2000. 34.

[29] Seth, Mi*chae*l J. A Concise History of Korea: From the Neolithic Period through the Nineteenth Century. Maryland: Rowman & Littlefield Publishers, Inc., 2006. P. 124.

[30] Deuchler, Martina. *The Tradition: Women during the Yi Dynasty: Virtues in Conflict*: *Tradition and*

These changes became instilled in the daily lives of the Korean people which will be further discussed in Chapter 1.3: Social Orders.

One of the basic principles of Confucianism that changed society was the idea of family as a basic unit of society. Under the Confucian ideal, collectiveness was more favorable, which helped to develop the extended family system. [31] The family-oriented traits included living with generations under the same patriarch. With the emphasis on family came a hierarchical system within the household. The hierarchy was lead by the head of the household, typically the eldest male, followed by the eldest son, and so-on according to age. Women were excluded from any form of rank in society. This hierarchy could be seen in the manner in which space was used based on seniority. "As for meals, the head of the household ate in the *sarangbang* [in the men's quarters] while other members of the family in the *anbang* or wooden-floored *maru* [in the women's quarters]."[32]

The decline in the status of women was emphasized in every aspect of life under the Neo-Confucian society of the Joseon dynasty. Joon-sik Choi states in *Understanding Koreans and Their Culture*, that "the entire history of Joseon can be interpreted as the process of the exclusion of women." [33] "Women had no public positions and were forced to be passive and obedient to men."[34] Prior to the Neo-Confucian society, daughters were able to inherit her father's estate or properties, but not in the Joseon dynasty. During the Joseon dynasty, women were also not allowed to partake in ancestral rituals, instead they took the role of helping for the preparations of sacrificial foods dedicated to their husband's ancestors. They were not allowed near the grounds where ancestral performances were held. Also, as a part of the Neo-Confucian belief, remarriage was forbidden for women and seen as a disloyalty to her deceased husband and family.[35]

Gender segregation is also evident in the spatial arrangements of the *hanok* layouts during the Joseon dynasty. Women's quarters, also known as *anchae*[36] (안채), were separated from men's quarters, also known as *sarangchae* (사랑채) [37]. The women's quarters were located in the innermost part of the home, typically to the west side, as west represents female, injustice, and darkness in the traditional

the Korean Woman Today. Seoul: Royal Asiatic Society, 1977. 73.

[31] Choi, Sang-Hun. *Interior Space and Furniture of Joseon Upper-Class Houses*. Seoul: Ewha Womans University Press, 2007. P17.

[32] Knapp, Ronald G. and Sang-hae Lee. *Asia's Old Dwellings: Tradition, Resilience, and Change*. Hong Kong: Oxford University Press (China) Ltd., 2003. P383.

[33] Choi, Joon-sik. Understanding Koreans and Their Culture. Seoul: Her One Media, 2007. P15.

[34] Slote, Walter and George DeVos. *Confucianism and the Family*. New York: State University of New York Press, 1998.p 187.

[35] Choi, Joon-sik . *Understanding Koreans and Their Culture*. Seoul: Her One Media, 2007. P 16.

[36] The *anchae*, or women's quarters, include the *anbang*, and*aecheong*, ut*bang* and *geonneonbang*, *bueok* and an*madang*. Thee an*madang* was typically where all the women's daily activities were held.

[37] The *sarangchae*, or men's quarters, include the *sarangbang*, chim*bang*, sarang-daechong, *numaru* and *sarang-madang*. These spaces were used by the head of the household and other male members of the family.

symbolism.[38] "Regardless of what shape a dwelling might take, the quarters for women were placed in the innermost part of the house, a separate sphere of activity apart from the men's quarters, which were located towards the alley or near the entrance gate."[39] The function and users of the spaces will be further discussed in the context of the spatial division of *hanok*s in Chapter 2: About Korean Traditional Homes.

Joseon Dynasty Class Structure

The start of the Joseon dynasty was also the start of the strict enforcement of Confucian ideals to society. Although Confucian and Neo-Confucian ideals came from China, Korea in many ways became an ideal Confucian society. Consequently, Korea underwent major changes with emphasis placed on ancestor worship, patriarchal family and the status of women, according to and depending on the three social classes of people during the Joseon Dynasty.

The social classes during the Joseon Dynsasty consisted of the *yangban* (양반) or upper class, the *jungin* (정인) or middle class, and the *sangin* (상인) or commoners. The *yangban* consists of the educated upper-class people who took positions as government officials or were qualified to be such. The *jungin* was made up of rich farmers. The *min* class consisted of low class people who took positions in agriculture, manufacture or commerce.[40]

During the Joseon dynasty, ancestor worship was heavily emphasized in the everyday lives of the Korean people. Each household was required to build a three-*kan* building known as the *sadangchae* (사당채), or family shrine. [41] "Ancestor worship became an important part of daily life in the Joseon dynasty era. To meet the requirements of ancestor worship, a building to house the ancestral shrine or *sadang* was located at the most sacred place within the house grounds, which is usually directly opposite the householder's quarters. For example, if the householder's quarters are in the southeast corner of the house complex that is near the gate, the ancestral shrine would be placed in the north-east corner of the house grounds. The reason for this is that enshrinement is carried out by the male descendants of the family. Most ancestral shrines were three-*kan* (bay) structures surrounded by a wall and gate."[42]

The Rules of Domiciles was created to enforce the regulations on *hanok*s. There were strict laws and regulations regarding sizes and details of a *hanok* during the earlier part of the Joseon dynasty, but the policies became

[38] Choi, Sang-Hun. *Interior Space and Furniture of Joseon Upper-Class Houses*. Seoul: Ewha Womans University Press, 2007. P 68.
[39] Knapp, Ronald G. and Sang-hae Lee. *Asia's Old Dwellings: Tradition, Resilience, and Change*. Hong Kong: Oxford University Press (China) Ltd., 2003. p382.
[40] Choi, Sang-Hun. *Interior Space and Furniture of Joseon Upper-Class Houses*. Seoul: Ewha Womans University Press, 2007. P. 21.
[41] Choi, Sang-Hun. *Interior Space and Furniture of Joseon Upper-Class Houses*. Seoul: Ewha Womans University Press, 2007. P35.
[42] Knapp, Ronald G. and Sang-hae Lee. *Asia's Old Dwellings: Tradition, Resilience, and Change*. Hong Kong: Oxford University Press (China) Ltd., 2003. P383.

lax during the mid and later parts of the dynasty. The size of land and the house were determined by the ranking of the head of the household. *Hanok* sizes were restricted as follows: 60 *kan*s for the *taegun* (rank of princes by the king's first wife); 50 *kan*s for the ranks of *gun*(군 or princes by the king's secondary wives); 40 *kan*s for the *jongchin* (종친 or king's relatives); 30 *kan*s for Class Three and lower; and 10 *kan*s for *soin*s (소인 or citizens).[43] Although laws were set in place, the regulations were so lenient that by the latter part of the Joseon Dynasty, some residences of rich people constructed larger than the 60 *kan*s limitations of the highest ranking officials. By this point, government regulations on *hanok* constructions were completely ignored.

Aside from sizing restrictions, there were limits to the type of decorations a *hanok* could contain. During the earlier Joseon Dynasty, a public decree was made which forbade the painting of red buildings, with the exclusion of temples, royal palaces, and official buildings. Private homes were not allowed to be decorated with *dancheong* (단청), which are five different bright colors for painting buildings. Stated in the *Kyongguktaejon*, a volume on governance, failing to comply with these rules led to 80 floggings.

Other prohibitions on *hanok* decorations were limits on *suksok*s (sculpted stones used for the corner stones) and restrictions on *hwagong* (화공, an ornate carving technique of the beams). Round pillars were only allowed for temples, royal palaces, and official buildings. The restrains on excessive details and decorations of residences were evident in the rules made by the government.[44]

Geomancy

In addition to Buddhism and Confucianism, the practice of Geomancy spread from China to Korea among other Chinese beliefs. Geomancy (known as *pungsu* in Korean and *feng shui* in Chinese, both literally 'wind' and 'water') involves ideas from Daoism and Zen Buddhism. From here on out, the term *pungsu* will be used when speaking of Korean geomancy. *Pungsu-jiri-seol* can be translated to wind-water-earth principles. The *pungsu* belief system evaluates land, mountain and water and connects these aspects to human fortune/misfortune, peace/calamity, and advancement/decline which date back to the late 900s.[45]

The concepts of *pungsu* played a significant role in the geographical arrangement of homes, with emphasis placed on the "mountains to rear, employing soft contours that harmonized with their surroundings."[46] Having rivers to the front was also a typical trait of the *pungsu* arrangement. "An area with mountains surrounding it and protecting

[43] Choi, Jae-Soon, (et al). *Hanoak: Traditional Korean Homes*. Seoul: Hollym Corporation Publishers, 1999. P 37.

[44] Choi, Jae-Soon, (et al). *Hanoak: Traditional Korean Homes*. Seoul: Hollym Corporation Publishers, 1999. P 39.

[45] San-shin.net/punngsu-jiri.html

[46] Choi, Sang-Hun. *Interior Space and Furniture of Joseon Upper-Class Houses*. Seoul: Ewha Womans University Press, 2007. P. 13.

it from the winds while being cradled by a turtle-shaped mountain to the back, a bird shape to the front, a dragon to the left, and a tiger to the right was considered the ideal location, having four godly animal protectors on guard in all directions."[47]

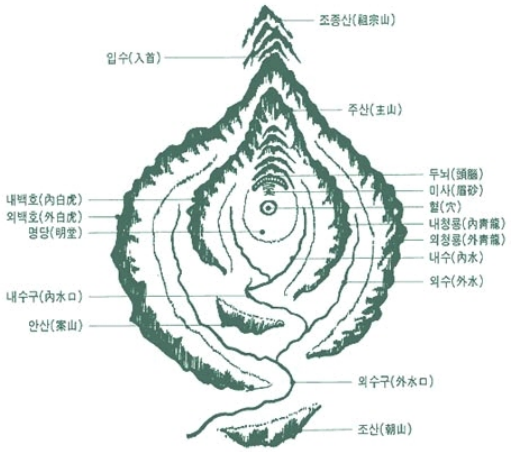


Figure 7 Diagram of geomancy guidelines[48]

1.3 Conclusion

The focus of Chapter 1 was to provide a basic understanding of the natural and ideological background of Korean culture that has contributed to the development of *hanok*s. The environmental conditions vary according to the different regions in Korea. The social and cultural background lays the foundation to understanding how spaces within the hanok were established. The research also discusses the belief systems and the directly affected the everyday lives of Korean people.

Following the background of Korea, the next chapter goes into detail about the regional differences and the different components of a *hanok*.

[47] Choi, Jae-Soon, (et al). *Hanoak: Traditional Korean Homes*. Seoul: Hollym Corporation Publishers, 1999. P 22.

[48] Ju, Nam-cheol. *Hanguk jutaek geonchuk* (Korean Residential Architecture). Seoul: Iljisa Publishing Co., 1980. p.74.

2
ABOUT TRADITIONAL KOREAN HOMES

Chapter 2 will focus on *hanok* buildings and spaces, followed by an understanding for the contemporary spaces. The section about buildings will discuss *hanok*s in relation to Korea. The structure and materials will also be discussed to understand the physical components of the structure. In addition, the *ondol* and *maru* will be discussed, as both are distinctive to Korean architecture. The section on tangible and intangible spaces will cover more detailed elements of a *hanok*. To end the chapter, the section on contemporary spaces will go over the current uses of *hanok*s.

2.1 *Hanok* Buildings

The elements of a *hanok* are categorized into four sections focusing on the types and structure and materials of a *hanok*. There are several different types of *hanok*s in Korea that vary according to the region. A region of a *hanok* can be distinguished by the different forms. The structure of a *hanok* is simple and apparent. The materials used in constructing a *hanok* create a unique sense of home from that of other structures. The physical features of a *hanok* are designed for dual purposes: functional and aesthetic reasons.

Different components of a *hanok* are discussed in this section, starting with the physical building, in terms of the types, forms and structure and materials. The diversity of *hanok*s can be recognized through the types and forms. The next part describes the physical and spiritual qualities of spaces of a *hanok* that are both indoor and outdoor. The contemporary spaces part is mentioned to provide instances of the transitioning of *hanok*s. Through adaptive reuse and renovations, the function of a *hanok* has expanded to include coffee shops, restaurants, museums and business offices amongst other uses.

Individual Building Forms

The regional *hanok* types comprise of two types of forms: the single-row and the double-row layouts. Which come in a variety of spatial layouts according to the climate and geography of a place. Other factors determined form such as family status and measuring systems.

The single-row *hanok*s came in two forms: the — (*i eung*) or the ㄱ (*giyeok*). The — type was typically found in the northern, northwestern, southern, and Jeju-do areas and the ㄱ type was found in the central area of Korea. Although the *hanok*s may have shared the same form, as in the case of the — type, the arrangement of spaces and layouts differed, which will be further discussed in the latter part of this section. Often times, when an addition was made to a single-row *hanok*, the form changed: ㄱ, ㄴ, ㅁ shapes appeared.[49] The ㄴ (*nieun*) and ㅁ (*mieum*) types could be seen as variations of the ㄱ type. For instance, if a ㄱ shape *hanok* were to expand, it could add a ㄴ shape to become a ㅁ shape. However, the shapes were defined according to the type of living spaces, which will be further discussed in 2.2: Inside a *Hanok*. Additions were usually made when families grew or when the family status or wealth changed, which was a rare occurrence.

Another method that determined the form of *hanok*s was by the measuring system of *kan*. *Kan* refers to the column distance space created by two posts, which also indicated the Confucian social order. Different social classes were allowed different lengths of *kan*: Commoners' were allowed 6-7

[49] Choi, Jae-Soon, (et al). *Hanoak: Traditional Korean Homes*. Seoul: Hollym Corporation Publishers, 1999. P 60.

cheok, while *yangban* could have 8-9 *cheok* (sometimes up to 11), and the royal family had 11-12 *cheok*. (1 *cheok* is ca. 11.8 in. or 30 cm.)[50] In other words, more than a measuring system and building module, *kan* also reflected the social order.

The forms and size of a house also depended on the status and income of a family. The wealthier the family, more buildings were constructed on the compound.[51] During the early Joseon Dynasty, the restrictions and enforcement of the forms and sizes were taken more seriously than in the previous periods and latter part of the Joseon dynasty.

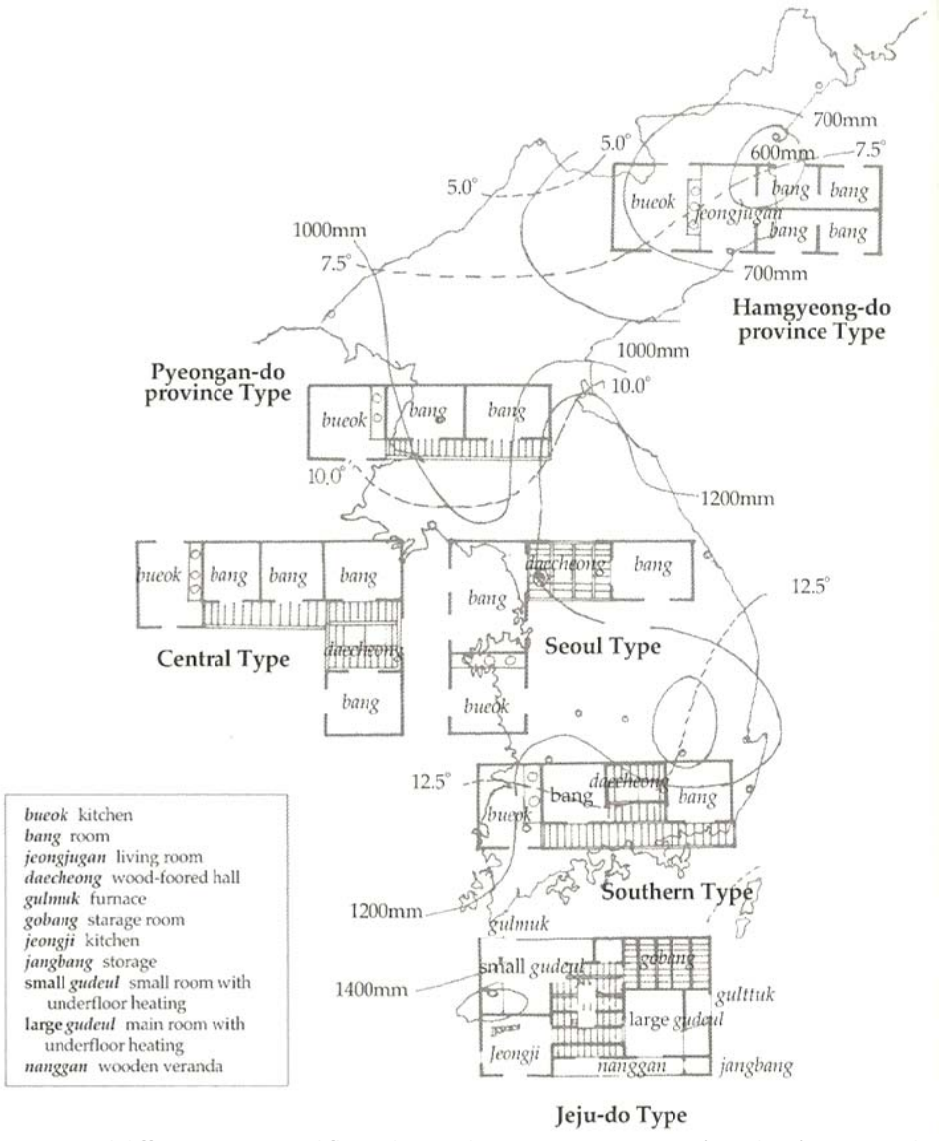


Figure 8 Regional differences in typical floor plans and average temperatures (in Celsius). Ju, Nam-cheol. Korean Residential Architecture (Hanguk jutaek geonchuk). Seoul: Iljisa Publishing Co., 1980. p.74

[50] Sarvimaki, Marja. "Layouts and Layers: Spatial Arrangements in Japan and Korea." Sungkyun Journal of East Asian Studies Vol. 3, No. 2 (2003). http://sjeas.skku.edu/upload/200605/05_Sarvimaki%20Marja.pdf (accessed August 25, 2010). P 92.

[51] Chun, Byung-Ok. *Decorative Designs in the Houses of the Chosun Dynasty Period*. Seoul: Po Chin Chai, Inc., 1988. P16.

Layout of *Hanok* Complex

There are six provincial types of *hanok* layouts that vary according to the climate: Hamgyeong-do, Pyeongan-do, Central, Seoul, Southern, and Jeju-do Island.[52] The layout of the spaces in a *hanok* varies according to the different provinces in response to the climate. In most cases, the *bueok* or kitchen is located next to the *bang*s or rooms in order to transfer the heat, used for cooking, to the *ondol* or under floor heating system.

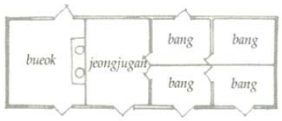


Figure 9 Northern Type

The Hamgyeong-do Province is located in the northern part of Korea. The *hanok*s in this province were layed out differently from the others types because the home had to consider conserving heat and protecting residence from the cold. Due to the severe winters in the province, the rooms are all nestled together in one building, in order to conserve heat for the indoor living spaces.

In typical Hamggyeong-do type *hanok*s, there are four *ondol* heated rooms in the shape of — (*i eung*) to one side of the building. These individual rooms are more private and separated from the other spaces in the home. Next to the private rooms, typically in the center of the home would be the living room or *jeongjugan*. This space functioned as an open gathering area for the family to have meals or do household chores. Next to the living room was the kitchen or *bueok*, which was on the opposite end of where the *bang*s were located.

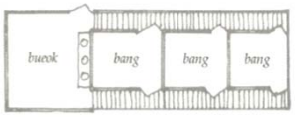


Figure 10 Northwestern Type

The Pyeongan-do Province is located in the northwestern part of Korea. The *hanok* layouts in this Northwestern or Western type style are typically arranged in a — (*i eung*), or straight line with a wooden floor corridor, these houses were similar to the Southern type *hanok*s. However, unlike the single-row *hanok*s of the Southern regions, Northwestern or Western type *hanok*s did not include the *maru* space in the design due to the colder climate conditions.[53] The *hanok*s in this province consist of a *bueok*, (kitchen), which connected to the *araebang (*front room) and the *wuitbang* (back room).

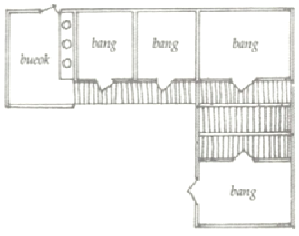


Figure 11 Central Type

The Central region type *hanok*s are in a ㄱ (*gi-yeok*) shape. A significant factor of this *hanok* type pertains to the corridors that connected each room. The

[52] Ju, Nam-cheol, *Korean Residential Architecture*, Seoul: Iljisa Publishing Co., 1980, p. 74.

[53] Choi, Jae-Soon, et al. *Hanoak: Traditional Korean Homes*. Seoul: Hollym Corporation Publishers, 1999. P 61.

*maru*s ran east to west to allow for ventilation and an open-air space which served as a gathering space for the family.

The Seoul type *hanok*s typically are laid out in the ㄱ shape, ㄷ shape, or ㅁ shape. The largest space in the house is usually the *anbang*, which is connected to the *bueok* (kitchen) space and *daecheong* space. The *daecheong* space is also connected to another *bang,* typically the *geonneonbang*[54] or daughter-in-law's room , which is on the opposite end of the *anbang*.

Figure 12 Southern Type

The Southern type *hanok*s are similar to the Pyeongan-do Province *hanok*s in the horizontal layout of the spaces. The kitchen, *anbang*, *daecheong*, and *bang* are placed in a — layout with a wooden corridor connecting all the spaces. The climate in the south is not as demanding of heat conservation as in the north, which is evident in how the *daecheong* is located between two *bang*s. This implies that the layout did not need consideration for heavy winter conditions.

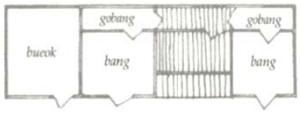


Figure 13 Jeju-do Type

Jeju-do Province is located on an island south of the main peninsula. The climate in this province is warmer than the mainland Korea, which is evident in the *hanok* layout of this area. Jeju-do *hanok* types have the double-row floor plans that are similar to the Hamgyeong-do Province type. Due to the less extreme climate conditions in this area, the *hanok* spaces seem more open and multifunctional.

The Joseon upper-class homes were typically in the — or ㄱ shaped layout. Commoners' houses were known to be arranged in the — shape, while the ㄱ shape took the characteristics of royal palaces. However, the ㄱ shape layouts were also found in commoners' homes, which indicates that there were no strong regulations to the type of *hanok* a family may have.

Although there are several different types of *hanok* layouts, the spaces were used in similar contexts, which will be further discussed in the context of spaces in the following section.

[54] *Geonneonbang*- daughter-in'law's room

Structures and Materials

*Hanok*s of the Joseon Dynasty rarely exceeded one story due to government regulations that limited size (more on government restrictions can be found in 1.2 Joseon Dynasty Class Order). Constructed as a simple wooden post and lintel structure, the base, the body, and roof make up the components of a *hanok*. The materials available during the Joseon Dynasty were limited to what was accessible in nature. Some of the basic materials used for the construction of a *hanok* are stone, wood and mud-infill. Wood was used for the structure, floors, railings, windows and door frames, ceilings and parts of the roof structure.

Important to mention are the *ondol* and *daecheong* systems, which are unique to Korean architecture. These systems determine where rooms were located in order to be used efficiently and will be discussed in the latter part of this section.

A *yangban hanok* was typically built on a granite foundation about 3-4 *cheok* in height. *Minga* were built on earthen bases. Stones were used as a base for the foundation to specify the corners of a *kan*. The stone bases prevented humidity by providing ventilation space between the ground and the house. One *kan* was indicated by a *choseok* (초석), or corner stone at every column distance. The stones for the foundation were used in the natural condition with little to no alterations to the uneven shape. Stones were also used for exterior walls and fences of homes as a means to prevent fires from spreading from one residence to another, while creating an aesthetically pleasing element. Stone and brick were also used to make *banghwajang* (방화장), or fire-resistant walls for areas near the *bueok* (kitchen).

Figure 14 Stones and bricks were used as a Fire-proofing method for walls and foundation footings[55]

Large posts went on top of the base stones. Typically four-cornered-square pillars were used. Round pillars were prohibited on residential structures, with the exception of royal palaces. Structural members were connected with dovetail joints.

The roof structure is one of the most distinguishable components of a *hanok*. The ridge (horizontal force) presses downward and creates the straight and stable component, while the eave (vertical force) pushes upward and creates a light and dynamic component. The horizontal and vertical forces meet to form an upward curve.[56] Purlins spanned the top of columns horizontally

[55] Stones and bricks were used as a Fire-proofing method for walls and foundation footings. Choi, Jae-Soon, et all. Hanoak: Traditional Korean Homes. Seoul: Hollym Corporation Publishers, 1999. p. 105.

[56] Yim, Seock Jae. *Roofs and Lines*. Seoul: Ewha Womans University Press, 2005. p 16.

and beams ran perpendicular to the next columns. Two types of purlins were used: square and round. Square purlins were used in lower-class homes and round ones were used in upper-class homes. Round columns were restricted from being used in common residences and were typically used in royal palaces or buildings with similar status.[57]

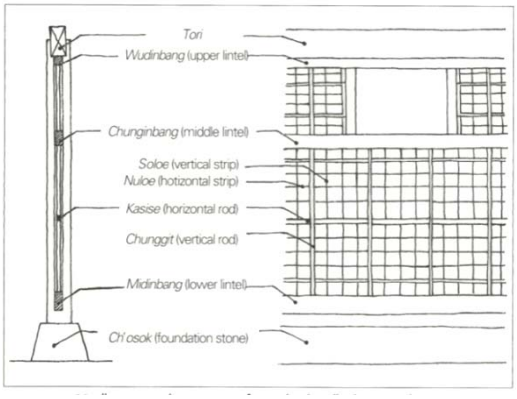


Figure 15 Diagram of a simbyeok wall.[58]

The walls of a *hanok* were different according to the space. Mud-infill walls or *simbyeok* were made of clay mixed with chopped straw with a plaster finish. Typically, two to three walls, of a room, had windows and doors, leaving minimal amount of wall space in a room.[59] The interior walls of a *hanok* were finished with plaster, paper or cloth.

Doors and windows were distinguished by a sill or threshold. If an opening was set about a sill, it was a window and openings without sills were doors, regardless of the size of the opening. Openings constructed above a sill were not intended to be used as a walkway. At times the size of a window was not much smaller than a door. Typically sill heights were about 1.5 *cheoks* (17.7 in or 45 cm.). At this height, a person sitting on the floor could comfortably rest their elbow on the sill and enjoy exterior views.[60]

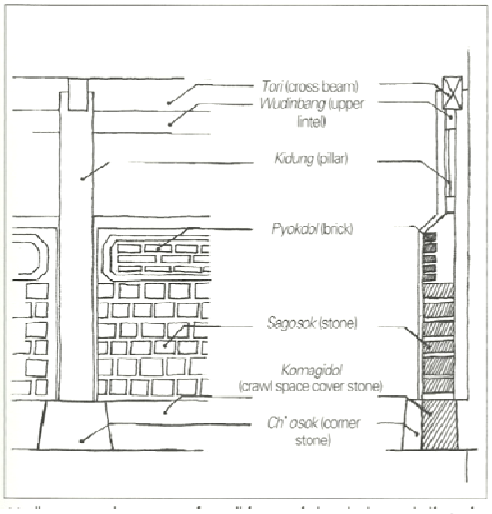


Figure 16 Diagram of the structure of a wall.[61]

One of the unique elements of a *hanok* are the *bunhapmun*s(분합문), or removable doors. The flexibility of these doors made it possible to transform spaces according to climate and use. Typically a *bunhapmun* consisted of four-paneled doors installed between an enclosed room (usually beween the *daecheong* and rooms) and an open space. In the summer, the doors could be lifted up and latched to the ceiling. In the winter, the doors could be closed and area becomes an indoor space to shelter

[57] Choi, Jae-Soon, (et al). *Hanoak: Traditional Korean Homes*. Seoul: Hollym Corporation Publishers, 1999. P 83.
[58] Choi, Jae-Soon, et all. Hanoak: Traditional Korean Homes. Seoul: Hollym Corporation Publishers, 1999. p. 104.
[59] Choi, Sang-Hun. *Interior Space and Furniture of Joseon Upper-Class Houses*. Seoul: Ewha Womans University Press, 2007. P 39.
[60] Choi, Jae-Soon, et al. *Hanoak: Traditional Korean Homes*. Seoul: Hollym Corporation Publishers, 1999. P 86.
[61] Choi, Jae-Soon, et al. Hanoak: Traditional Korean Homes. Seoul: Hollym Corporation Publishers, 1999. p. 105

from the snow. Like many of the spaces in a *hanok*, this flexibility allowed for a diverse range of activities to take place in the area.

The materials used to cover doors and windows were wood finish, cloth finish, or *hanji* (mulberry paper finish) on latticework. Typically the *hanji* finish was used on doors and windows that were commonly used by people. Wood finish on doors and windows were used for storage rooms and less active spaces.

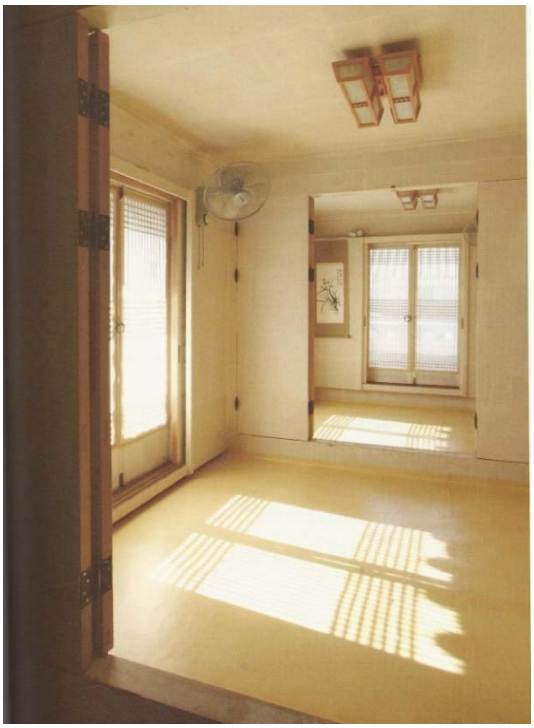


Figure 17 Effects of the Latticework on paper-covered doors and windows[62]

Lattice work was typically seen in windows, doors, and railings. Confucian lattices consist of geometric patterns that are composed of rectangular shapes formed by intersecting lines.[63] The *gyolan* (교란) railing designs display typical Confucian lattice works. There are different types of lattice work: the a-shaped, wan-shaped, and pissal (slanted-grill shaped) *gyolan*s.[64]

Figure 18 Gyolan railing types[65]

Ceilings came in three types: flat or dropped ceiling, exposed roof with center dropped, or conical. The flat or dropped ceiling type, found in *bang*s, hid the beams and other building materials from users of the room. Paper or wood boards were usually the finishes used for the dropped ceiling type. In the *maru*, exposed roof type was used for the *daecheong* space. The conical type sloped down and outward from the highest center point.[66] Upper-class homes had flat ceilings for rooms and exposed roof

[62] Lee,Sang-hae, et al. Hanok e Salulilada (한옥 에 살어리랏다 : 아름답게 되살린 한옥 이야기). Gyeonggi-do Paju-shi: DolBaeGae, 2007. p.206.

[63] Yim, Seock Jae. *Floral Lattices, Columns and Pavilions*. Seoul: Ewha Womans University Press, 2005. P 11.

[64] Choi, Jae-Soon, et al. *Hanoak: Traditional Korean Homes*. Seoul: Hollym Corporation Publishers, 1999. P 86.

[65] Hanoak: Traditional Korean Homes. Seoul: Hollym Corporation Publishers, 1999. p. 104

[66] Choi, Jae-Soon, et al. *Hanoak: Traditional Korean Homes*. Seoul: Hollym Corporation Publishers, 1999. P 107.

for the main halls. Lower-class homes consisted of conical ceilings that sloped down to the edges.

Figure 19 Exposed rafter ceiling with wood boards laid in pattern.[67]

Figure 20 Dropped ceiling finished with wood boards.[68]

Floor Systems: *Ondol* and *Maru*

The *ondol* and *maru* are floor systems that are unique to Korean architecture. The systems are integrated in the design of the home and meet the needs for the climatic conditions of Korea.

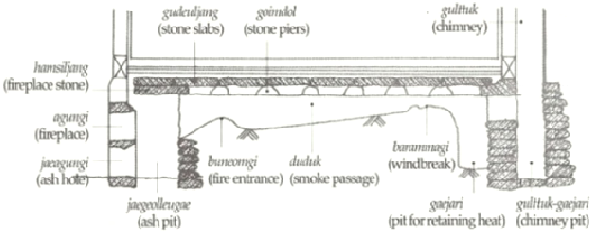


Figure 21 Diagram of a *Ondol* system[69]

The *ondol* (온돌) is a unique floor-heating system where smoke from a fireplace, usually in a kitchen or outdoor, flows through under-floor flues, or pipes, and passes out of a chimney. The floor is made of clay and stones that are covered by several layers of oiled paper. This type of system has a lower risk of causing fire within the home and allows for the space to be fully utilized, unlike cultures that have no heating without a fireplace or hearth.

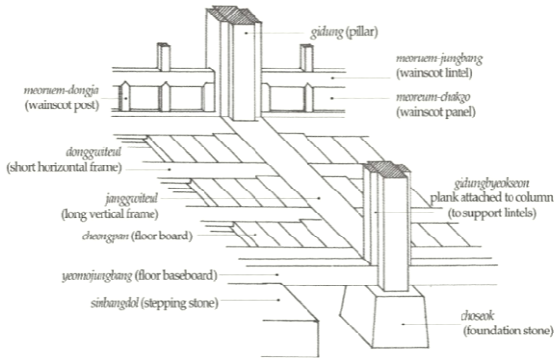


Figure 22 Diagram of a *Maru* system[70]

The *maru* (마루) is a wooden floor system laid with thin flooring boards that provide ventilation and cooling in the summers. There are two

[67] Choi, Jae-Soon, et all. Hanoak: Traditional Korean Homes. Seoul: Hollym Corporation Publishers, 1999. p.107.
[68] Choi, Jae-Soon, et all. Hanoak: Traditional Korean Homes. Seoul: Hollym Corporation Publishers, 1999. p. 107.
[69] Ju, Nam-cheol. Korean Residential Architecture (Hanguk jutaek geonchuk). Seoul: Iljisa Publishing Co., 1980. p. 188.
[70] Ju, Nam-cheol. Korean Residential Architecture (Hanguk jutaek geonchuk). Seoul: Iljisa Publishing Co., 1980. p.188.

types of wooden floor styles: *umulmaru* (우물마루) and *jangmaru* (장마루). The *umulmaru* consists of square-shaped wood pieces and is laid out in a checkered pattern. The *jangmaru* consists of long planks of wood that span the entire length of the *dori* (도리) or girder.[71] The *maru* system was typically used in the *daecheong* (대청), or main hall, the *numaru* (누마루), or veranda, and the *toetmaru* (툇마루), side ledge, used as a corridor space.[72]

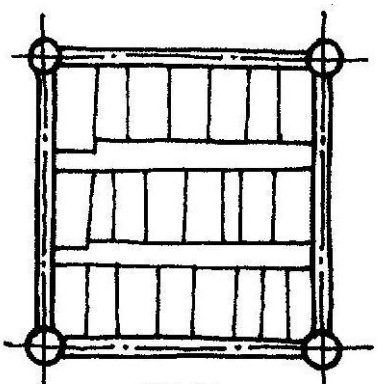


Figure 23 Plan view of *Umulmaru*[73]

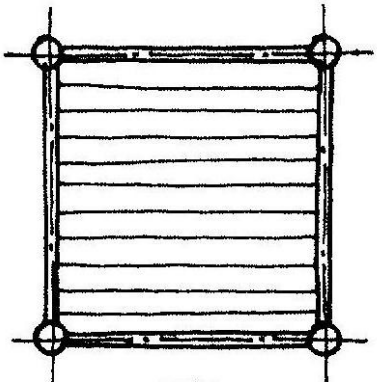


Figure 24 Plan view of *Jangmaru*[74]

[71] Choi, Sang-Hun. *Interior Space and Furniture of Joseon Upper-Class Houses*. Seoul: Ewha Womans University Press, 2007. P 47.
[72] Choi, Jae-Soon, (et al). *Hanoak: Traditional Korean Homes*. Seoul: Hollym Corporation Publishers, 1999. P 224.
[73] Kim, Wang-jik. Hanguk Gunchuk Yong-uh. P 160.
[74] Kim, Wang-jik. Hanguk Gunchuk Yong-uh. P 161.

2.2 Inside a *Hanok*

The arrangement of rooms in a *hanok* has changed over time with the advancements of technology and changes in lifestyle. However the types of spaces used in a *hanok* remain the same. The name of a space may not have changed, but the space itself may have a new function or use from the traditional sense. This section will begin by discussing the tangible rooms and spaces of a traditional *hanok*. The intangible features discuss the qualities of *hanok* spaces that go beyond physical definitions. The contemporary spaces section goes into the transition from traditional to contemporary *hanok*s.

Tangible Features

The tangible spaces of a traditional *hanok* include the different rooms and courtyards of the home. Due to the multifunctional spaces within the interior spaces of *hanok*s, it is difficult to label certain rooms as having one function. Each room has a name and certain purposes, but the functions are usually not limited to one such as in the case of the living room, which can also be considered as a *daecheong*, *madang*, and/or sarang*chae*. The different spaces will be identified and briefly described from the context of a traditional home.

The physical elements are part of the tangible qualities of a *hanok*. Certain physical characteristics and materials are often a visual representation of *hanok*s and have been a design method to try to create a *hanok*-type space. Elements such as exposed wooden ceiling rafters are used to represent the idea of being in a traditional Korean space.

The rooms and spaces in a traditional *hanok* closely resembled the social structure of the Joseon Dynasty. Men and women had separate *chae* (채) or living quarters with a courtyard space that typically connected the interiors. The separate *chae*s consisted of rooms and open spaces that were multi-functional and used for a variety of activities and chores. The spaces in a *hanok* are determined by many factors. Function determined the size and location and how the rooms would connect to one another.

The *madang* (마당) or courtyard space plays an important role in a *hanok*. Often times, the buildings spaces wrap around a courtyard to allow for a connection between the each room and the exterior. The courtyard provides natural ventilation and an aesthetically pleasing view from the interior spaces. In a similar manner as the walkway corridors connect the different rooms together, the courtyard space allows the rooms to share an exterior space. In some *hanok*s, the *madang* connected the *sarangchae* and *anchae*.

Figure 25 View of the courtyard space from the corridor of a *hanok*.[75]

[75] Lee,Sang-hae, et al. Hanok e Salulilada (한옥 에 살어리랏다 : 아름답게 되살린 한옥 이야기). Gyeonggi-do Paju-shi: DolBaeGae, 2007. p.51.

Figure 26 Sarang*bang* drawn by Ju, Nam Chul[76]

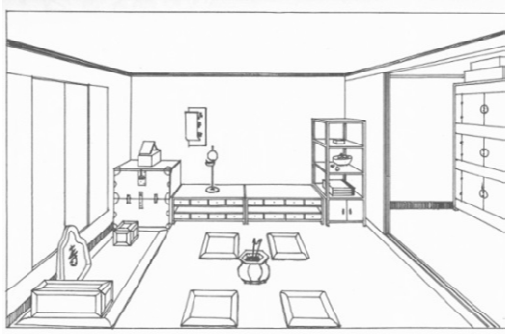


Figure 27 An*bang* drawn by Ju, Nam Chul[78]

The *sarangchae* (사랑채)[77], or men's quarters include the *sarangbang, chimbang*, *sarang-daecheong*, *numaru* and *sarang-madang*. These spaces were used by the head of the household and other male members of the family. The *sarangchae* was usually the first building visible upon entrance from the front gate. The *sarangbang* (사랑방) is the men's room which would be connected to the *sarangchae*. The *chimbang* is typically a room for the bed. The *sarangdaecheong* is a wood-floored main hall in the men's area. The *numaru*, or veranda is typically on the outer ends of the building and is open to the outside. The *sarang-madang* is the exterior courtyard space for men's quarters.

The *anchae* [79], or women's quarters, include the *anbang*, *andaecheong*, *uitbang* and *geonneonbang*, *buok* and *anmadang*. The *anchae* was typically where all the women's daily activities took place. The *sadangchae* was located behind the main hall of the *anchae* or the *sarangchae*.The *anbang* (안방) is located in the innermost part of the *hanok* and serves as the women's room. This room was the most private living space in the whole house and men, with the exception of immediate family members, were forbidden from entering. The eldest daughter-in-law lived in the *geonneonbang* which was typically on the opposite side, with a *maru* in between. The *buok* (부엌), or kitchen was a part of the *anchae*.

In the mid Joseon dynasty, *sadangchae* (사당채) or ancestral shrine became an important symbol of the status and lineage of a family. With increasing significance of the ancestral

[76] Nam-cheol. Korean Residential Architecture (Hanguk jutaek geonchuk). Seoul: Iljisa Publishing Co., 1980. p.226

[77] From the Layers and Layouts journal article: The ideogram sa(사) means 'housing' and rang(랑) means 'corridor', *chae*(채) is a suffix indicating an independent building or group of buildings.

[78] Nam-cheol. Korean Residential Architecture (Hanguk jutaek geonchuk). Seoul: Iljisa Publishing Co., 1980. p.218

[79] Sarvimaki, 2003. The ideogram *an*(안) means 'inner' is a Korean word and is not written by the Chinese ideogram *an* for 'safe,' 'peace,' etc. depicted by 'woman' under the 'roof,' although the etymology and connotation might lead to this concept.

worship system, four generations of ancestors became objects of worship ceremonies. Some households were honored with ancestral tablets from the king, in order to give tribute to the outstanding service for all of eternity by the descendants.[80]

In contemporary *hanok*s, many of the terms for the rooms of traditional homes are rarely used in the same manner. One of the reasoning behind this issue, has to do with how spaces have evolved to be less multifunctional. Unlike the traditional household, where large extended families lived under one roof, the contemporary household has reduced to include the immediate family.

Intangible Features

Closely related to the use of spaces are the intangible qualities in a *hanok,* not so much defined by materials and physical conditions, but instead by emotional responses to a space and by the duality of notions and of connections within the home. Intangible spaces in a *hanok* can be analyzed by an understanding of Korean culture and heritage, which will be discussed in terms of duality and sense perception.

In Korean culture and heritage there is an aspect in the duality of things. The concept of emptiness and formlessness exists in a Korean traditional space. These concepts are a part of Confucian, Buddhist, and Daoist teachings. There are two means to emptying: emptying the complete value in itself (to have its own fundamental value) and the possibility of filling. There can be no emptiness without filling. A wall can only be a wall when there is emptiness. A wall that is without emptiness is merely a physical barrier. The emptiness can be filled but never full. [81] This concept of filling and emptying is evident in how spaces are described and used in a *hanok*.

One of the ways to understand the concept of filling and emptying would be by using spatial instances. The emptiness and filling of a space could be described as both open and closed, such as in the case of the *daecheong*. The *daecheong* can function as both an open and closed space according to how the space is used. During the summers, the doors were lifted up and the room was opened up to the *madang* space. By lifting the doors up, the space was no longer limited to the indoors, rather a strong connection to the outdoors was created, which filled the space with nature. At the same time, the space became empty of privacy and closed elements. During the winters, the doors of the *daecheong* were shut and the space became closed and limited to the extent of the walls and doors.

[80] Choi, Jae-Soon, (et al). *Hanoak: Traditional Korean Homes*. Seoul: Hollym Corporation Publishers, 1999. P 40.

[81] Yim, Seock Jae. *The Traditional Space*. Seoul: Ewha Womans University Press, 2005.p 13-27.

Figure 28 *Daecheong* in the summer with the doors lifted up[82]

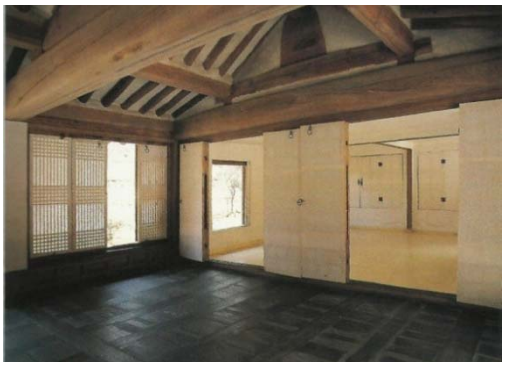


Figure 29 *Daecheong* in the winter with doors closed[83]

While the space became empty of nature, it was also filled with indoor space (a walled area). The duality of the *daecheong* also extended to the activities that occurred in the *daecheong*. Household choirs and leisure activities often took place interchangeably from the *daecheong* and *madang*, as a result of the spatial duality created by the walls. As the weather went from hot to cold, the way in which the spaces were transformed changed to create different types of intangible spaces. The idea of empty and filled, and open and closed existed in the spaces of a *hanok* and varied according to nature, function, and time.

[82] Choi, Jae-Soon, et all. Hanoak: Traditional Korean Homes. Seoul: Hollym Corporation Publishers, 1999. p.91.

[83] Choi, Jae-Soon, et all. Hanoak: Traditional Korean Homes. Seoul: Hollym Corporation Publishers, 1999. p.91

The *madang* makes for an important space with many intangible qualities. Although the *madang* is physically an exterior space, the area was used for several indoor activities as well. In the case of a *madang*, the space is filled with nature, and open to outside views. In the same manner, the space could also be seen as empty of and closed off from the outside world (due to the high fences and front gate). From a different perspective the space could be empty of interior and full of exterior. The duality of the space is closely related yet opposite.

Figure 30 *Hanok* courtyard filled with nature[84]

Figure 31 *Hanok* courtyard filled with nothing[85]

The duality of a hanok is also evident in the types and uses of the rooms. The bang and maru are two types of rooms in a hanok. The bang is heated by an ondol and the maru is natural

[84] http://thenomaddiary.com/2010/05/28/exploring-seoul/

[85] http://www.flickr.com/photos/82351312@N00/2583814570/

ventilated. The juxtaposition of the bang and maru represents the duality of the uses of space. Typically a maru space would be like a corridor space, connecting the bangs. In the wintertime the bangs would be the main rooms while in the summer, the maru was used more frequently.

The intangible space also extends to the neighborhood as a whole. In a *hanok* village, the sense of community and neighborhood was strong and active. The intangible elements that make a *hanok*, could exist in the large scale of a village. Neighbors were like extended families and there was a safety in having this type of support and familiarity that is becoming less and less common with the demolishing of *hanok*s.

The intangible features of a space can also be identified through the use of multisensory perceptions. The senses of smelling, touching, and hearing bring enhance the intangible qualities of a hanok.

As a timber structure, the smell of wood permeates through the house and has a lasting effect on people. The smell of the pine wood lasts long after construction, due to the chemical free use of the wood. The smell of wood is relaxing and comforting. In recent times, it is not common to find the natural smell of wood within a home. The smell of wood is a feature that people appreciate and can identify with *hanok*s.

When touching the structure of the hanok, it becomes more apparent that the hanok is not just typical building. The feel of the wood is much more gentle and pleasant than any other type of building material, such as concrete or steel. As the surface of the wood changes over time, the feeling of the aged material becomes soft and smooth. As the house grows old, a warm atmosphere is created through the smooth aged quality of the material.

When closely listening to the sounds within a *hanok*, it is possible to feel calm and peaceful. The hanok as an individual structure on its own plot of land, allows the home to be separated by the everyday noises that surround the home. Although the outer sounds can be heard, the fencing provides a buffer. Having a courtyard with vegetation also invites small wildlife animals such as birds and squirrels.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) has defined intangible cultural heritage as four basic points:

- traditional, contemporary and living at the same time
- Iinclusive
- representative
- community-based[86]

These points authorize the importance of intangible cultural diversity through knowledge and skills that are passed on from generation to generation. In a *hanok*, not only are the physical elements an important commodity of the traditional home, but the cultural dialogue that represents and characterizes Korean culture and heritage exists in the intangible qualities and should be preserved and passed on.

[86] United Nations Educational, Scientific and Cultural Organization (UNESCO). http://www.unesco.org/culture/ich/index.php?pg=00002

2.3 Conclusions

The contents of Chapter 2 focused on the elements of the building and spaces of a *hanok*. By understanding the environmental and physical qualities of a *hanok*, from regional differences to the materiality, it is possible to discuss the more refined details of the features of a *hanok*. The tangible and intangible features of a *hanok* emphasize the cultural and traditional values that are captured in the space by multisensory perception. This section helps to expand the knowledge regarding the essence of a *hanok* and how the physical features and non-physical features are integral to *hanok* spaces.

Through Chapter 2 it is possible to acknowledge that there are many qualities of a *hanok* that are worth preserving and protecting. While there are strong ties to *hanok*s as a representation of the culture and heritage of Korea, there are many other traits that are less evident, but still exist within a *hanok*. These intangible qualities, along with the tangible and physical qualities, require preservation and protection. In the following chapter, the issues regarding *hanok* preservation will be discussed to further the understanding of what is being done to protect *hanok*s.

3

ABOUT *HANOK* PRESERVATION

The built heritage of a place is important to preserve and protect. In order to understand the need to preserve *hanok*s, it is important to know about the issues and challenges involved in their preservation.

This chapter will discuss the challenges of preservation regarding location, conditions, and regulations. The rural and urban areas of Korea have different issues regarding *hanok* preservation. The conditions of *hanok*s will be discussed in terms of the needs of people in current times. The regulations for *hanok* preservation have been met with challenges from the government and from *hanok* owners. The preservation efforts being made locally,

nationally, and internationally will be discussed to show how different approaches are being made.

By providing an overview of the current situation and the efforts, it is possible to understand the extent of the measures taking place to protect *hanok*s. After knowing about the challenges, one can get a glimpse of the difficulties that individuals and organizations face to preserve the symbol of the Korean cultural and heritage through the built environment.

3.1 Preservation Challenges

The present status of *hanok* preservation varies according to location, the conditions of the structure, and the allocated regulations, amongst other variables. This section will discuss the challenges of *hanok*s according to location and condition of the structure. In addition, an overview of the enforcement of regulations will be discussed to express the difficulties in meeting demands. In terms of location, *hanok*s can be found in rural and urban settings in Korea.

Location

The issues that threaten the traditions of a *hanok* differ in the rural and urban settings. While the rural and urban settings are very different in terms of the built environment, the issues are closely related. This section will discuss the current status of *hanok*s in the rural and urban areas and some of the cause and effects of the changing times.

While *hanok*s in the rural areas of Korea might seem to be less in danger of becoming demolished, they come across a different kind of threat. The *hanok*s in rural areas typically belong to large extended families or people in the field of agriculture. In recent times, the children of the older generation are better educated and look for employment in an urban setting that requires less manual labor, as physical work was often associated with low-class status. As the children move away, the *hanok*s that would have been passed on to the

younger generations are abandoned or remain empty.

Yang-dong Village in Gyeongju, Korea is one of the few oldest traditional villages. The village was inscribed as a UNESCO World Heritage in 2010, as the village represents the traditional Korean lifestyle of the Joseon Dynasty. While the village may physically appear to be traditional, many of the traditional *hanok*s no longer function as a home, but instead are emptied out and functions as a *hanok*-stay experience for visitors. During my visit in May 2011, I noticed that many of the *hanok*s have become a display for visitors. While the empty *hanok*s are used for *hanok*-stay experiences at Yang-dong Village, there are several traditional *hanok*s that function in the same manner in rural areas. While the commercialization of *hanok* guest houses may be helpful to the continuation of the household, the value of the traditions of the *hanok* lifestyle is lost with every visitor that passes through.

While *hanok*s in rural areas are changing to accommodate for temporary stay, the *hanok*s in urban areas are being demolished and replaced by high-rise apartments, business buildings, and other more profitable structures, such as in the case of Seoul.

The *hanok*s in Seoul have been progressively vanishing. In order to accommodate for the rapid population growth in Seoul, high-rise apartment complexes were quick to replace *hanok*s and other low-rise buildings. In many cases, the increase in population is due to people moving from rural areas to urban settings.

Conditions

Two major challeneges to consider regarding the conditions of *hanok*s are the comfort level and maintenance. These elements play important roles for *hanok* owners, especially with current standards.

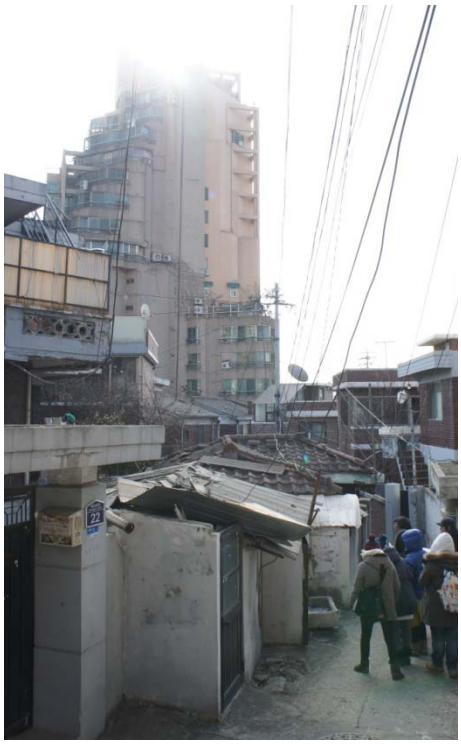


Figure 32 The conditions for the level of comfort for *hanok*s are compromised with the surrounding developments. The image shows how a high-rise tower prevents the low-rise buildings from receiving sunlight during the day. *Photo taken by Janice Shon.*

The level of comfort in a *hanok* is a quality that exists beyond the physical elements. Living in a *hanok* means to live in an environment absorbed in Korean culture and heritage. One is able to go into the courtyard at anytime and take in the features of nature and the built environment. In the busy urban context of Seoul, there is no place one could go to experience such ease and tranquility. The comfort levels are compromised by the construction of taller buildings in the

neighborhood. If an apartment complex is built next to a *hanok*, the life of the *hanok* is greatly altered. Essential natural features, like the sun and wind, are obstructed by the neighboring apartment building. In some cases, depending on the orientation of the apartment buildings, privacy was violated for the residents of *hanok*s. For instance, if the balconies of the apartment building faced the *hanok*s, it was possible to look over into the *madang*s of neighboring *hanok*s.

In addition to the comfort level conditions, the maintaining of a *hanok* is another challenege for *hanok* owners. From the point of view of *hanok* owners, many of the homes are not compliant with modern standards. From simple maintenance, such as repairing plumbing fixtures, to major renovations, such as roofing upgrades, *hanok* repairs are costly. While the government has claimed to provide monetary support for the preservation of *hanok*s, there has been difficulty in setting standards to assess and regulate the needs for individual *hanok*s to receive funds for maintenance. The high cost to maintain *hanok* leads owners to sell their property to developers and investors. Many *hanok*s have undergone demolition due to the change of ownership. Many large corporate firms pressure low-rise residential owners to move into more convenient and modern homes in order to purchase the land to build high-rise residential apartments.

There are instances where the *hanok*s are demolished and rebuilt, in which case the historic value of the structure is lost and the authenticity of the new structure as a *hanok* is questioned.

Regulations

There are several challenges in terms of regulations that restrain *hanok* preservation. *Hanok*s are difficult to maintain because the current guidelines are not always followed, such as when a preservation project becomes a new construction. This section will discuss the regulations of the Bukchon Preservation Plan as an example of how *hanok* preservation policies are regulated.

The Bukchon Preservation Plan was published in December 2001. The Plan was created under the basis of the Bukchon Preservation and Regeneration Project which was a collaborative effort between the residents of Bukchon and the Seoul City Government. There is a lack of the understanding of the significance of *hanok*s and the necessity to preserve the structures.

Many of the guidelines were considered according to Joseon dynasty architecture concepts. The *hanok*s in Seoul were built during the 1930s, after the Joseon dynasty, so many of the regulations for *hanok* buildings do not seem valid. [87]

Some of the main points of the Bukchon Preservation and Regeneration Project can be generally explained as:

- support for *hanok* repair expenses
- an increase in tax exemptions
- need for the general maintenance of the living environment
- increase public investment in Bukchon directly proportional to the

[87] Fouser, Robert. "Rethinking *Hanok* Preservation," *The Korea Times*. June 6, 2011. http://m.koreatimes.co.kr/www/news/opinon/2011/09/314_89266.html (last accessed on September 22, 2011).

amount of every new *hanok* purchased
- need to set up devices and policies which would prevent the further destruction of *hanok*s

The attempt at establishing some type of guidelines or a set of rules may be commendable, many of the points deal with the needs and necessities of individual *hanok*s, rather than considering an approach on how to improve the quality of a *hanok* in an urban setting. This is not to say that the individual *hanok*s needs are less than valid, but a set of guides that consider the larger picture may provide a broader integrated approach to preservation.

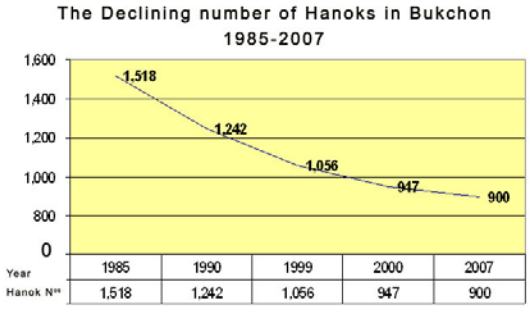


Figure 33 A study done by www.kahoidong.com showing the declining number of *hanok*s in the Bukchon area in Seoul.[88]

The chart above shows the declining number of *hanok*s in Bukchon from 1985 to 2001. In the past decade, *hanok* preservation and protection has increased compared to the drastic decline from the 1980s to the late1990s. With increasing awareness of the importance of the vernacular heritage, *hanok* demolition is being avoided and in place new uses and renovations are being applied. This approach to adapting the traditional to contemporary has helped neighborhoods like Bukchon remain their status as a hanok village in Seoul.

[88] . *"The Destruction of Kahoi Dong." David Kilburn. http://www.kahoidong.com/index_e.shtm (accessed August 21, 2010).*

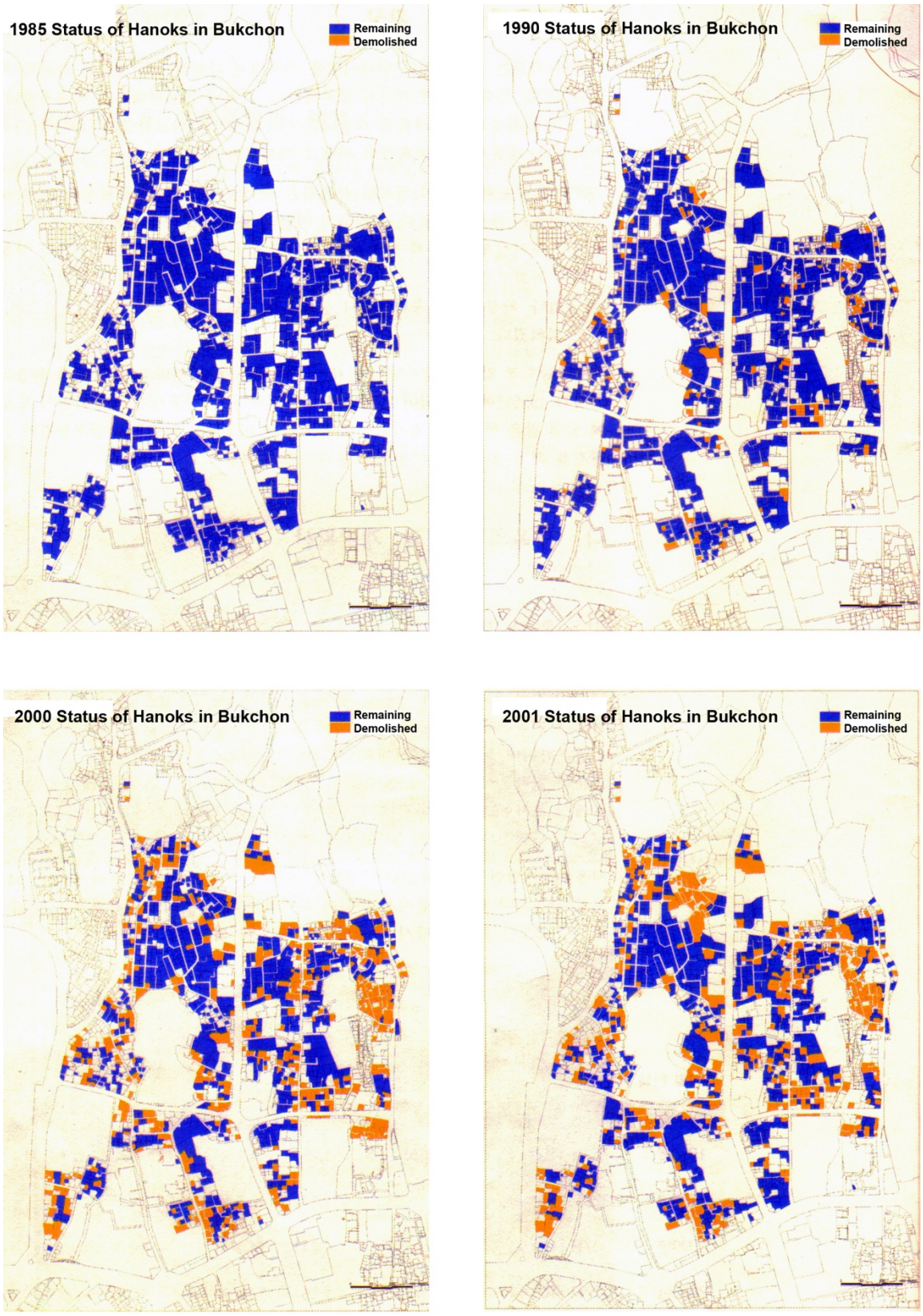


Figure 34 Four maps showing the status of *hanok*s in Bukchon from 1985-2001.
(Taken from the Bukchon Preservation Plan p. 32)

3.2 Preservation Efforts

From a cultural and historical standpoint, the preservation and protection of *hanok*s are essential to maintaining the heritage of Korea. While many of the palaces, temples and statues of historic Korea have been protected by national laws and international organizations, the lack of regulations regarding the threat of *hanok* extinction has become increasingly evident in the past decade. With the understanding of the need to protect *hanok*s, actions have been made by members of the community, scholars, and various organizations.

There have been several approaches and actions taken to promote the awareness and knowledge about the current status of *hanok*s. Efforts are being made on the local, national, and international levels to support and sustain the life of *hanok*s. At the local level, scholars, members of the community, professionals, and local organizations have played a role in educating people and have contributed to the wide-spread awareness about *hanok*s. At the national level, the Korean government and Seoul Metropolitan government have developed laws and regulations for the protection of *hanok*s. Also to promote the knowledge of Korean culture and heritage, many government organizations were established. At the international level, organizations have taken the means to protect and preserve and to promote international awareness of *hanok*s.

The effort and dedication of those who have been protecting *hanok*s, make it possible for people to understand and appreciate the importance of what it means preserve a significant part of Korea's cultural heritage.

Local Efforts

The number of local scholars, individuals, and organizations who take part in the preservation and protection of *hanok*s have been increasing. There have been several Korean and foreign individuals who have, in their own ways, taken action to protect and preserve *hanok*s. In many cases *hanok* specialists have diverse backgrounds and approach the idea of preservation from different perspectives. Some Korean *hanok* specialists regarding include, but are not limited to, Young-hoon Shin, Junggoo Cho, and Doo-Jin Hwang. The specialists mentioned have contributed to the sharing of knowledge and preservation of *hanok*s. Several scholars, who have been promoting awareness of *hanok*s and Korean culture, include but are not limited to, Nam-chull Joo, Sang Hae Lee, In-ho Song, Bong-ryol Kim, Do Kyung Kim, and So-Hyun Park. Some notable individual foreign activists are David Kilburn nd James H. Grayson, whose experience with *hanok*s have led to their contributions to protect the traditional homes.

Young-hoon Shin is currently the principal and founder of Ji-Yong *Hanok* School. As a master carpenter, Shin designed the Korean gallery for the British Museum. Ji-Yong *Hanok* School was started by Young-hoon Shin and daughter and son-in-law Kim Do-Kyung, in order to promote education and awareness of *hanok*s for those interested.

The *hanok* school offers courses in carpentry for those interested in becoming *hanok* carpenters. In the summers the school offers a *hanok* camp, for those interested in a fast-track introduction to *hanok*s.

As a student of the Summer 2011 *Hanok* Camp, the experience was beneficial to the development and further understanding of traditional Korean homes. In the duration of a week, the camp consisted of lectures by professors and professionals, field studies of historical landmarks, group design projects, wood crafting workshop, and a final presentation of student works. In addition to the knowledge gained, having the opportunity to meet other students from all over Korea who had a shared interest in *hanok*s was inspiring and encouraging.

Inho Song is a professor at Seoul National University. His focus is on the typology and morphology of traditional Urban housing. Professor Song is working on Urban Issues Concerning traditional housing in Seoul and is Involved in major Initiative in the Design and Preservation of historical Seoul. He is the co-Author of Architectural History of Seoul and Seoul: Architecture and Urbanism. He also holds a Key Position at the Korean Association of Architectural History.

Junggoo Cho is the principal architect at Guga Urban Architects. The firm has had many *hanok* renovation and new construction projects in Seoul[89] Cho is constantly defining *hanok* in terms of a contemporary lifestyle in his work. In an interview by The Korea Herald, Cho stated that, "*Hanok* is not a difficult place to live in. It is just that we have a poor understanding of our cultural assets. We also need to incorporate new ideas and technologies to *hanok*." In addition to the *hanok* projects, Cho leads a Wednesday survey group, to investigate the housing typologies in different districts of Seoul.

Doo-jin Hwang is the principal architect at Doojin Hwang Architects in Seoul, Korea. Well-known for his publication, "Where is Your Seoul?" and "*Hanok* is Back", he is an advocate of the improvement of Seoul life and bettering urban spaces without losing the ambience.[90]

Sang Hae Lee is a professor of the Department of Architecture at Sung Kyun Kwan University in Korea. He was involved in the research and recording of *hanok*s of the Hahoe *Hanok* Village has been an advocate of *hanok*s.

Bong-ryol Kim is a professor of architecture at Korea National University of Arts. He has been teaching architecture for over 20 years. He has been a committee member of the Cultural Heritage Committee, and has been the director of the Korean Association of Architectural History (KAAH). He has also served as the Secretary General of the ICOMOS Korea branch. He is well-known for his book "Living in Korean House". He has also had over 30 research papers published by various

[89] Kim, Hoo-ran. Architect dispels myths about *hanok*s. The Korea Herald. May 5, 2011.

[90] Fouser, Robert. *Hwang Doo-jin's 'Rainbow Rice Cake' Architecture.* Koreana: A quarterly on Korea Art & Culture. The Korea Foundation: 2011. http://www.koreana.or.kr/months/news_view.asp?b_idx=1379&lang=en&page_type=list

publications.[91] Bong-ryol Kim contributes to *hanok* awareness and knowledge through lectures and written works that not only focus on the status of *hanok*s, but also involve outlooks on Korean traditional architecture, culture, and heritage.

So-Hyun Park is an Associate Professor of the Department of Architecture at Seoul National University. Her field of concentration deals with urban form and conservation and cultural resources and historic districts. Through urban planning, she is able to also include neighborhood planning and community design in her research topics. She currently leads the Urban Form and Conservation Lab at the university. She has been a member of the executive committee of the ICOMOS Korea. In her course, students are challenged with projects that concern broadening and recognizing cultural heritage, and conservation strategies. [92]

David Kilburn is a *hanok* owner of the Bukcheon area and founder of www.kahoidong.com. He had his first encounter with a *hanok* in 1988, when he was a journalist covering news for the 1988 Olympics. Currently he is a tea merchant, who has been called the "Guardian of the *Hanok* Housing". Kilburn has been a *hanok* preservation activist since 2004, when he had to battle with city officials to keep the *hanok*s in preservation zones protected. His efforts to increase awareness have become an international statement, as he has been featured in articles in the Los Angeles Times and KBS World Radio broadcasting. He continues to be an advocate for "the place where beauty gathers [Kahoi Dong]."

James H. Grayson is a professor emeritus of Korean studies at the University of Sheffield in South Yorkshire, England. He first arrived in Daegu, Korea in 1973 and stayed till 1980, teaching at various universities. He returned to Daegu, 30 years later to find that "most of the *hanok* had been demolished and replaced by parking garages." He took an active role in the preservation of *hanok*s by researching each *hanok* in the area. He catalogued his findings and submitted a report, which provided details about existing *hanok*s and his recommendations of the most worthy of preservation, to the city of Daegu. "I feel a pang of regret when I see old alleyways and houses with historical and cultural value disappear because of thoughtless development," he said, "I hope that they can be preserved." [93]

In addition to the supporters mentioned above, there are others who are involved in or advocate for *hanok* preservation such as Nam-chul Joo, Inho Song, and Do Kyung Kim, who are scholars with strong involvements in discussions regarding *hanok*s. There is a growing number of people who have an interest in the status and situation of *hanok*s.

Along with the individual advocates are the non-profit organizations such as The National Trust

[91] http://eng.karts.ac.kr:81/karts/main/html.jsp?c_no=003010002003

[92] http://ufc.snu.ac.kr/class_historicpreservation.htm

[93] *Song*, Yee-ho. *"Professor Contributes to Hanok Preservation,"JoongAng Daily,* July 27, 2010. http://joongangdaily.joins.com/article/view.asp?aid=2923731 (last accessed on December 10, 2010)

of Korea and Arumjigi Culture Keepers Foundation, who promote knowledge about *hanok* preservation and culture.

NGO Efforts

The **National Trust of Korea** is a nongovernmental organization that followed in the steps of the England-based National Trust organization. The NT of Korea was founded in January 2000. The National Trust strives to protect environmental and historical relics through civic efforts.. The organization is run by voluntary donations, contributions, and fundraising by citizens whose activities range from:

4.1 Monitoring of Environmental resources and historical relics we evaluate and monitor the conditions of the management of our natural and historical resources.

4.2 Environmental and historical education and campaigns we conduct various education programs with the support from the public, and campaigns for the public ownership of natural and cultural resources

4.3 Investigating, choosing, and managing the sites to be protected after investigation, we select the sites to be permanently protected and start preservation movements of those sites. In the year 2000 and 2001, we held the "100 Sites Web Contest" to induce the citizens' voluntary participation.

4.4 Site inspection and public relations we inspect our sites with the citizens and distribute brochures to them. A sites opening program is prepared for our members and the general public.

4.5 Site Sponsor System
We welcome sponsors for selected sites, and promote the One Company, One Site movement.

4.6 Petition Movement for National Nature Trust Legislation
This movement is aimed at securing a legal basis for our National Trust Movement.

4.7 International Alliance
We maintain horizontal cooperation and exchanges with National Trust movements in 26 other countries.

4.8 Participation in recommending sites for the NT The public can recommend sites for preservation through our homepage. Sites for preservation are additionally chosen during the year.[94]

Some of the future visions of the NT are to protect 20 National Trust properties in Korea and enlist 10,000 members and 1,000 volunteers by 2020. Currently, the organization has been responsible for the preservation and protection of several civic properties, including ecological habitats, *hanok*s, and a village.

Arumjigi Culture Keepers Foundation is a non-profit organization working towards promoting modernization of traditional aspects of culture. Founded in 2001, some of the activities the foundation takes part in involve:

1. Improvement of cultural heritage sites

[94] APEC-VC Korea. http://www.apec-vc.or.kr/?p_name=website&sort=WK5&gotopage=19&query=view&unique_num=WD2005000037

2. Academic/Educational programs
3. Arts and culture programs
4. Development of contents and consulting on traditional culture
5. Operation of *hanok*
6. Collaboration with other organizations

The Arumjigi Culture Keepers Foundation aims to educate and pass on the knowledge of Korean culture and traditions. The foundation is led by Chairwoman Yun Gyun Shin. [95]

National Efforts

Several national initiatives have been taken to protect cultural properties. The Cultural Property Protection Law (CPPL), the Cultural Properties Committee (CPC) and the Cultural Heritage Administration of Korea (CHA) are a few of the leading organizations that have been able to make laws and advocate for cultural properties.

The **Cultural Heritage Administration of Korea (CHA)** was established 1945. Their mission is to "safeguard the integrity of cultural traditions of Korea and enhance the cultural life of Korean people by preserving and promoting the use of cultural heritage." The mission for the CHA includes:

- designation and Registration of Cultural Heritage
- approval for Alteration and Excavation
- conservation of Cultural Heritage and Financial Support
- managing Royal Palaces, Tombs and Historic Sites of the Joseon Dynasty
- globalization of Cultural Heritage and Exchange with North Korea
- research and Investigation of Cultural Heritage and Training Specialists

The CHA plans to establish, enhance, and expand the quality of conservation of the cultural heritage of Korea.

The **Cultural Properties Committee (CPC)** was established by the Ministry of Culture and Sports under Article 3 of the Cultural Property Protection Law (CPPL). [96] The CPC focuses "to strive for the cultural improvement of the people and to contribute to the development of human culture, by inheriting the native culture through the preservation of cultural properties so as to ensure their utilization."[97]

The **Cultural Property Protection Law (CPPL)** was made on January 10, 1962 in order to promote and preserve tangible and intangible cultural properties. Under the CPPL, The Protection of Cultural Properties Act was established. This act is "to strive for the cultural improvement of the people and to contribute to the development of human culture, by inheriting the native culture through the preservation of

[95] Armjigi Culture Keepers. http://www.arumjigi.org/eng/introduce/intro.php

[96] http://www.unesco.org/culture/ich/index.php?pg=00311&cp=KR&topic=nat_measure#national-measures

[97] Laws for Protection of Intangible Cultural Properties. Act No. 6656, Feb 4, 2002. http://www.unesco.org/culture/ich/doc/src/00053-EN.pdf

cultural properties so as to ensure their utilization."[98]

Seoul City mayor Se-hoon Oh declared in 2008 that there would be an active role to preserve and expand *hanok* neighborhoods. He stated that he would support the preservation with $300 million (370 billion won) until 2018 to protect and preserve 4,500 *hanok* homes in Seoul. *Hanok* owners are provided up to $80,000 (90 million won) for renovations such as roofing upgrades.

The Seoul Metropolitan government has classified the different types of zones for *hanok* protection; however the methods for enforcing the plan have been questionable. The Bukchon Preservation Plan, which is discussed in further detail in Chapter 3.1: Regulations, defines the conditions required to designate an area for protection. *Hanok*s fall under one of two categories: ordinary protection area or special protection area.

An ordinary protection area (한옥일반관리구역) needs to have more than 20 *hanok*s. Some examples of ordinary protected areas would be Sam Cheong-dong, Gae-dong, and Anguk-dong to name a few. A special protection area (한옥특별관리구역) requires more than 50 *hanok*s. More than 50% of those *hanok*s need to function as a residence with the average *hanok* size of more than 1905 square feet (177 square meters). Kahoi-dong 31, Kahoi-dong 11, and Gae-dong Incheon Memorial Area are special protection areas.

According to data from the Seoul Development Institute, in 2005 there were approximately 20,000 *hanok*s in Seoul. In 2009 there was a 30% decrease, leaving about 14,000 *hanok*s standing.[99] While the government has taken the steps to make policies to preserve *hanok*s, the acts of enforcing those policies have been weak and not regulated. Professor James H. Grayson has stated that "Korea's city planning departments seem to have no interest in history. They keep putting up the same buildings," he said. "Since they have already achieved their goal of becoming a developed country to some degree, I hope they will turn their attention to their own culture and history, and transform Daegu's Eupseong into Korea's York. That's why I submitted the report." Grayson researched the *hanok*s in the city of Eupseong, to provide details about location, condition and features of the structures in a report he submitted to the city of Daegu and the Jung District Office in hopes that they seriously enforce *hanok* preservation in the Eupseong area and all over Korea. [100]

International Efforts

The United Nations Educational, Scientific and Cultural Organization (UNESCO) and the International Council

[98] Laws for Protection of Intangible Cultural Properties, Protection of Cultural Properties Act. Amended by Act No. 6656, Feb. 4, 2002. General Provisions. http://www.unesco.org/culture/ich/doc/src/00053-EN.pdf

[99] Kim, Ja*Son*, *"The Debate Over Hanok Heating Up," JoongAng Daily*, November 11, 2009. http://unkcs.org/wordpress/2009/11/11/the-debate-over-*hanok*-heating-up/

[100] *Son*g, Yee-ho. *"Professor Contributes to Hanok Preservation,"JoongAng Daily,* July 27, 2010. http://joongangdaily.joins.com/article/view.asp?aid=2923731

on Monuments and Sites (ICOMOS) have been strong advocates of promoting preservation and conservation techniques.

UNESCO World Heritage Committee has played a large role in preserving two *hanok* villages: Hahoe and Yangdong. The two historic clan villages are the most representative of the aristocratic Confucian culture of the early Joseon Dynasty (1392-1910). They fulfill Criterion (iii) and (iv) of the UNESCO World Heritage Criteria for Selection.

The two *hanok* villages have been inscribed by the UNESCO World Heritage Committee. Located in the south-eastern part of the Korean peninsula, Hahoe Folk Village is located in Andong and Yangdong Folk Village is located in Gyeongju. Hahoe and Yangdong are the most representive historic clan villages that have survived to this day since the Joseon Dynasty. Both villages have been under the protection of the National Heritage Protection Act since 1984. In 2010, both villages were inscribed as World Heritage Sites.[101]

UNESCO also promotes the Intangible Cultural Heritage which in 2003 proposed five domains:

- Oral traditions and expressions, including language as a vehicle of the intangible cultural heritage
- Performing arts
- Social practices, rituals and festive events
- Knowledge and practices concerning nature and the universe
- Traditional craftsmanship

These domains were made to set the agenda on how to identify intangible cultures.

The **International Council on Monuments and Sites (ICOMOS)** is an association that focuses on the conservation of cultural heritage. The policies and charters that have been adopted by ICOMOS and which can be applied to *hanok* conservation and protection are:

- The Venice Charter (also known as "The International Charter for the Conservation and Restoration of Monuments and Sites") was founded in 1964 in Venice, Italy during the Second International Congress of Architects and Technicians of Historical Monuments. The Venice Charter established the International Council on Monuments and Sites (ICOMOS). Article 1 of the Charter declares that there is more to heritage than famous buildings and artworks.

  "ARTICLE 1. The concept of an historic monument embraces not only the single architectural work but also the urban or rural setting in which is found the evidence o a particular civilization, a significant development or an historic event. This applies not only to great works of art but also to more

[101] Criterion (iii) to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared.
Criterion (iv) to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history.
United Nations Educational, Scientific and Cultural Organization (UNESCO).
http://whc.unesco.org/en/list/1324

modest works of the past which have acquired cultural significance with the passing of timel."

- The Charter on the Conservation of Historic Towns and Urban Areas was adopted by the ICOMOS General Assembly in Washington D.C. in October 1987.
- The Nara Document on Authenticity[102] was created at the Nara Conference on Authenticity in Relation to the World Heritage Convention in November 1994.
- The Charter on the Built Vernacular Heritage[103] was established by the ICOMOS 12th General Assembly in Mexico in October 1999.
- The Principles for the Preservation of Historic Timber Structures[104] was adopted by ICOMOS at the 12th General Assembly in Mexico in October 1999.
- The Principles for the Analysis, Conservation and Structural Restoration of Architectural Heritage[105], was established by the ICOMOS 14th General Assembly in Victoria Falls, Zimbabwe in October 2003.
- The International Scientific Committee of Vernacular Architecture (ICOMOS CIAV) [106] is an scientific committee of ICOMOS

These charters, principles and doctrines have laid the foundation for the methods on preservation and protection of cultural assets internationally and serve as guidelines to follow.

[102] ICOMOS, "The Nara Document on Authenticity," accessed November 8, 2011, http://www.international.icomos.org/charters/nara_e.htm

[103] ICOMOS, "Charter on the Built Vernacular Heritage," accessed November 8, 2011, http://www.international.icomos.org/charters/vernacular_e.htm

[104] ICOMOS, Principles for the Preservation of Historic Timber Structures," accessed November 8, 2011, http://www.international.icomos.org/charters/wood_e.htm

[105] ICOMOS, "**Principles for the Analysis, Conservation and Structural Restoration of Architectural Heritage," accessed November 8, 2011,** http://www.international.icomos.org/charters/structures_e.htm

[106] CIAV ICOMOS. Site last updated on October 23, 2009. http://ciav.icomos.org.

3.3 Conclusions

*Hanok*s are at a crossroad in Korea's past and future. While preservation policies and supporting organizations have been established, it takes local, national, and international efforts to understand the importance of maintaining the tangible and intangible heritage of a culture. The idea of preservation is met with challenges from *hanok* owners and land developers, but the tragedy of waiting till it is too late is an issue that will not have to be mentioned. Several activists have voiced their concerns and have been studying the current situation to find possible solutions on how to keep the tradition and heritage alive in an urban city context.

*Hanok*s are gaining acknowledgement for their significance in as a historical element. *Hanok* lifestyles are also becoming a trend, which promotes *hanok* education. With the efforts of those in local, national, NGO international levels, the preservation of hanoks are becoming a serious and real affair. Therefore, the focus of the following chapter deals with the different approaches to preservation for *hanok*s.

4

CONTEMPORARY *HANOK*S

The concept "contemporary *hanok*" suggests that time has been a significant element in the change from the typical traditional to present day *hanok*s. In this chapter, the issues regarding contemporary *hanok*s will be discussed, focusing on the different types of adaptive reuse and the changes of renovated residential *hanok*s. Through analysis and case studies, this chapter will provide a better understanding about *hanok*s in the present day and the different approaches that are being taken to preserve the structures.

In Seoul, Korea, there has been a growing concern for *hanok* preservation and maintaining the unique elements of Korean culture and heritage. Compared to the *hanok*s in Seoul, the traditional Korean homes in rural areas are less

likely to be in danger of being replaced. The *hanok*s in Seoul are threatened by high-rise apartment redevelopment plans. Due to the rapid growth of the city and the high demand for housing, many *hanok*s were demolished and replaced with high-rise apartments. While many *hanok*s continue to function as a residence, new uses for *hanok* structures have been adapted as a means of preservation. The adaptive reuse and renovations have made it possible for some old *hanok*s to find new life.[107]

4.1 Adaptive Reuse and Renovations

A *hanok* is intended for residential purposes. Recently, there have been many adaptive reuses and renovations of *hanok* spaces. *Hanok*s that continue to be used as a residence have been renovated to incorporate the traditional and contemporary styles of Korean culture. Renovations and adaptive reuses of *hanok*s are steadily becoming a type of trend in the *hanok* concentrated neighborhoods. With people becoming more aware of the cultural traditions of *hanok*s, it is important to recognize different ways to preserve a *hanok*.

Adaptive Reuse

Some of the adaptive reuses of *hanok*s may seem unusual, but the transition of the changing functions of a *hanok,* as a means to preserving a building, has innovative and inspiring notions. In traditional times, *hanok*s were used as a residence for an extended family. In recent days, the adaptive reuse of *hanok*s has become a favored development and trend in commercial and residential areas.

Some types of adaptive reuse of *hanok*s are homestay or guesthouses, dentist offices, business offices, culinary schools, restaurants and tea houses to name a few. *Hanok* homestays and guesthouses have become immensely popular for Koreans and foreigners. Often times, travelers who stay in *hanok* guesthouses are naturally introduced to a *hanok* lifestyle; from taking shoes off

[107] Korea Institute of Architects. *SEOUL, Architecture and Urbanism 2007*. Seoul: Seoul Metropolitan Government, 2007. P 184

before entering, to floor heating system when sleeping on the floor, to opening the room door to the *madang* in the morning. These gestures and mannerisms give visitors of a *hanok* a sense of understanding of how pleasant life in a *hanok* could be.

Figure 35 What was originally used as a home has becomes an office space[108]

Smaller businesses such as dental offices, architecture firms, and boutique, to name a few amongst many other types of businesses, have found a creative way to convert the spaces of a *hanok*. While the *hanok* often loses essential spatial qualities of a home, there remains a significant difference between an office building and a *hanok* space that make the adaptive reuse desirable. The small scale of the *hanok* building creates a friendly working environment for businesses.

Figure 36 Adaptive reuse of a *hanok* turned into a restaurant[109]

The adaptive reuse of a *hanok* turned restaurant, teahouse or café has been quite the trend in Seoul. The identity of a *hanok* café, teahouse, or restaurant is unique and draws the attention of people far and wide. Many Koreans and foreigners seek out these spaces to enjoy good company in a cozy memorable space and to absorb the ambience of a Korean space.

The adaptive reuses of *hanok*s require alterations of the interior space that completely change the essential spatial qualities of a *hanok*. Although the change is drastic, the idea of a *hanok* structure and space being reused in a creative and innovative approach is the start of a new vernacular identity in Korea.

[108] Lee,Sang-hae, et al. Hanok e Salulilada (한옥 에 살어리랏다 : 아름답게 되살린 한옥 이야기). Gyeonggi-do Paju-shi: DolBaeGae, 2007. p.356.

[109] Lee,Sang-hae, et al. Hanok e Salulilada (한옥 에 살어리랏다 : 아름답게 되살린 한옥 이야기). Gyeonggi-do Paju-shi: DolBaeGae, 2007. p.180

Renovations

Figure 37 Interior space arrangements of a contemporary *hanok*[110]

Figure 38 Contemporary kitchen of a *hanok*[111]

Seen in the images above, having certain elements exposed in a renovated *hanok* captures the space in a modern light without having completely changed the structure. Although more furniture and accessories, such as art pieces, have been incorporated, the presence of the exposed roof structure system becomes one of the highlights of the room. Similarly, in the renovated kitchen image, the color of the wood brings a natural glow to the space that traditional *hanok*s may have shared. Although there is an abundance of additional appliances and countertop spaces, there is something about the natural element that may capture more of the essence of traditional space, than if there were no wood surfaces. In the image below of the kitchen, a contemporary kitchen setting has been placed, with kitchen appliances and food preparation spaces. The space may be no different from the layout of an apartment kitchen. However, the exposed wooden columns signify more than structure. They represent the modular system of a *hanok* and the extents of the space.

In recent day, living in a *hanok* has become a desirable lifestyle for many contemporary Korean people.[112] Living in a *hanok* means being closer to natural elements and allows a family to have indoor and outdoor experiences within the home. There are interesting observations to be made when examining a *hanok* that has changed from traditional to contemporary.

[110] Lee,Sang-hae, et al. Hanok e Salulilada (한옥 에 살어리랏다 : 아름답게 되살린 한옥 이야기). Gyeonggi-do Paju-shi: DolBaeGae, 2007. p. 80

[111] Lee,Sang-hae, et al. Hanok e Salulilada (한옥 에 살어리랏다 : 아름답게 되살린 한옥 이야기). Gyeonggi-do Paju-shi: DolBaeGae, 2007. p.68

[112] Yi, Song-mi. My Experience with *Hanok* and the First *Hanok* Exhibition of the National Trust of Korea. P 123.

4.2 Case Studies

By using case studies to investigate how traditional *hanok*s have been adaptively reused, it is possible to analyze the changes that have been made. The three adaptive reuse cases are the Choi Sunu House, Yeon Café, and e-Mideum Dental office. The case studies have unique variations on how a residential *hanok* could transform into a public space without compromising the integrity and significance of the vernacular heritage.

When discussing *hanok*s in Seoul, the area of Bukchon is most likely to be mentioned as one of the high density *hanok* neighborhoods that remain intact. Bukchon has been a residential area since the early 1900s. The term Bukchon is defined as northern village (due to its location in the northern part of Seoul) and consists of the districts of Gahoe-dong, Gye-dong, Wonseo-dong, Jae-dong, Palpan-ong and Samcheong-dong. [113] According to pungsu, which evaluates land, mountain and water and connects these aspects to human fortune/misfortune, peace/calamity, and advancement/decline Bukchon is the ideal location for living with mountains to the north and the river to the south. Bukchon is also surrounded by prominent landmarks of Korea: Gyeongbok Palace (to the left) and Changdeok Palace (to the right).

In Bukchon, some types of adaptive reuse of *hanok*s are homestay or guesthouses, dentist offices, business offices, culinary schools, restaurants and tea houses to name a few. What once was a residential structure has now become a place of business and commercial venue. Having a business in a *hanok* structure, allows clients, customers, and visitors to feel comfortable and warm, with the natural materials and human scale spaces. The space is also reminiscent and symbolic of Korean culture and heritage.

In order to understand the transitions, the focus of this research will deal with three issues. To begin with, it is important to acknowledge how the rooms have changed, in terms of expansions, additions, or removals. Then it is significant to know how the spatial changes effect the interactions of those who live and visit the home. And finally, by analyzing the spatial changes and the interactions, it is possible to understand how those changes apply to the contemporary family lifestyle. The changes made reflect how the family has developed over time and which spaces have remained significant and which spaces may have become irrelevant. The analysis of these issues will be presented within the context of the following three case studies, so as to connect the changes made with the renovations. Following the analysis of the case studies will be the proposed redesign of the Seon Eum Jae *hanok*.

[113] Bukchon Traditional Culture Center. http://bukchon.seoul.go.kr/eng/intro/history.jsp

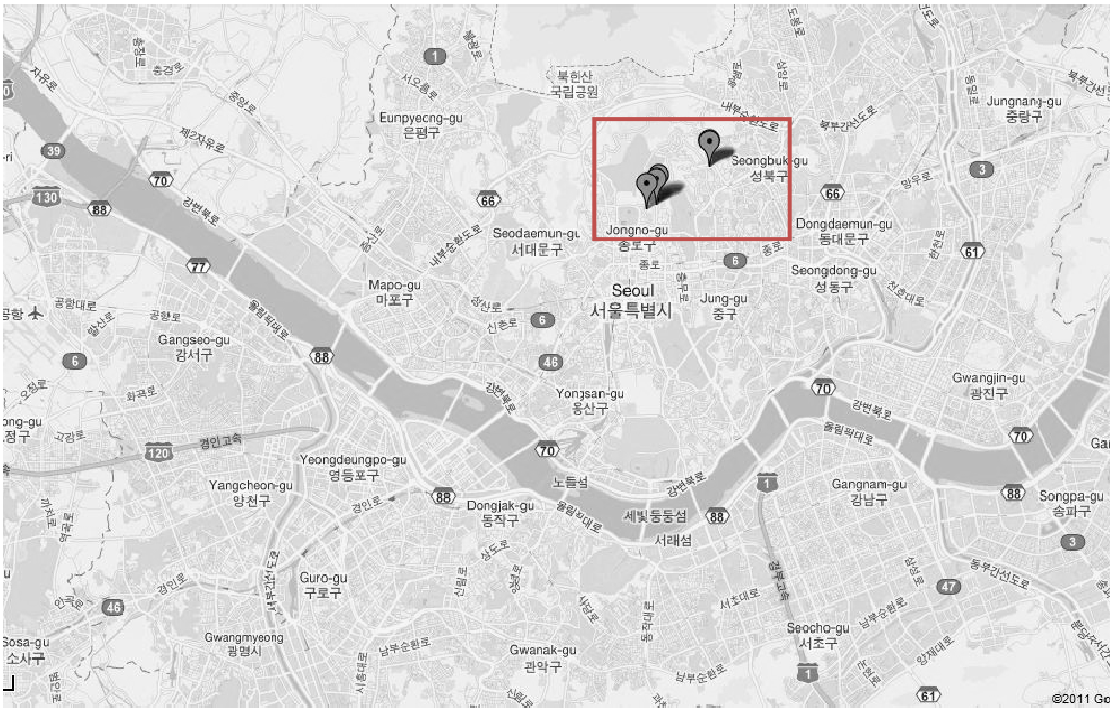


Figure 40 Map of Seoul area. Jongo-gu and Seongbuk-gu are the areas in Seoul that still have concentrated areas of *hanok*s. The two districts are also where the case study *hanok*s are located.
Image created by Janice Shon

Figure 39 Map of northern Seoul (Jongno and Seongbuk districts), pin pointing the location of the case study *hanok*s The *hanok*s are located in Samcheong area, Bukchon area, and Seongbuk area.
Image created by Janice Shon

Choi Sunu House

title:	CHOI SUNU HOUSE
dates:	1930s (first built)
	2002 (restored)
location:	Seoul, Seongbuk-gu,
	Seongbuk-dong 126-20
current use:	museum
site area:	120 pyeong = 4270 sq ft
building area:	31 pyeong = 1103 sq ft

Building and Site Description

The Choi Sunu House is located in the Seongbuk district of Seoul. Seongbuk district is a residential area in the mid-northern part of Seoul. The Seongbuk district is one of the older districts and contains many historic sites of Seoul such as the parts of the Seoul Fortress, Mount Bugak, and Seonjamdanji.

The events surrounding the preservation of the Choi Sunu *hanok* represents the start of Korean people's growing interest and appreciation in the heritage and culture of their past. Unlike the temples and palaces in Korea that are protected and maintained by the government, the Choi Sunu house is regulated by a non-governmental organization that was established by a civic group.[114] Donations were made by about 30 people to save the house from being demolished and adapted into a museum.

Figure 41 A macro map view of the Choi Sunu House in Seongbuk district 200 ft
Image created by Janice Shon

Figure 42 A map view of the Choi Sunu House in relation to Seongbuk Street 50 ft
Image created by Janice Shon

The *hanok* was built in the 1930s and functioned as a home until 2002.[115] The house was in dire need of repair when it was purchased by the National Trust of Korea in 2002. In 2004, after the house underwent heavy restoration, the doors were open to the public. The house functions as a museum in memory of Sunu Choi and his contribution to and appreciation of Korean traditional art and architecture.

The Choi Sunu House is in the shape of the Korean alphabet

[114] Kim, Hongnam. "The Choi Sunu House: A Preservation Effort of the National Trust of Korea." *Heritage Asia*, July-September 2009.

[115] Lee, Sang-hae, Kim Young-Sup, kim, Bong-Lyul, Min, Sun-ju, Hwang, Doojin, Choi, Uk, Kim, Suk Yoon, Song, In-ho, and Cho, Jeong-gu. *Hanok* e Salulilada (한옥 에 살어리랏다 : 아름답게 되살린 한옥 이야기). Gyeonggi-do Paju-shi: DolBaeGae, 2007. p 247-257.

character ㄱ (the name of the character is 기역, in Korean is pronounced gi-yeog) and ㄴ (the name of the character is 니은, in Korean is pronounced ni-eun). The ㄱ shaped side of the *hanok* was the *anchae* and the ㄴ shaped side was the outer *chae*. The two shapes together form a ㅁ shape (the name of the character is 미음, in Korean is pronounced mi-eum).

Figure 43 An image of Choi Sunu in his *hanok*.[116]

Who is Sunu Choi ?

The Choi Sunu house was named after a prominent art historian who lived in the *hanok* from 1976 to 1984, when he passed away. Sunu Choi served as the director of the National Museum of Korea from 1974~1984 and has made many contributions to the exploration of Korean ceramics and tradition, wood arts, and art history. He was well known for his efforts to discover, preserve, and revive Korean traditional art. His dedication to developing Korean museums, and sharing Korean beauty internationally was his lifelong goal. Choi's publications and studies of Korean traditional art continue to play a role in the understanding of Korean traditional art.

The house became the largest addition to Sunu Choi's collection of Korean traditional art when he moved into the *hanok*. Along with his personal collection, he was able to put on display his knowledge of Korean traditional art into the design of his home. The preservation of the house is also significant by association to Choi Sunu's renowned books, due to the face that the home is where he wrote about art and art history.

While exploring the Choi Sunu *hanok*, I was reminded of my visit to the Kawai Kanjiro House in Kyoto, Japan. Kawai Kanjiro was a Japanese potter well known for his ceramic art works. His residence, which was also where his studio and kiln were, was converted into a museum to exhibit his life's work and lifestyle. To physically be in the space where Kawai Kanjiro had once worked, slept and ate was an intimate and profound experience that helped to better understand the man behind the works of art.[117] In similar context, the Choi Sunu House became a museum to honor the man and his collection in a setting that he had personally put together. At the Choi Sunu House I was able to appreciate the sensitivity of the sequence of spaces that were arranged and the placement of art pieces that were a part of Choi Sunu's collection. He was able to capture the essence of Korean traditional art in a light that perhaps only

[116] Hanyang University Department of Architecture. *Choi Sunu House Research and Records Report*. Cultural Heritage Administration of Korea. Seoul: 2008.

[117] Onmark Productions, "Kawai Kanjiro's House", accessed November 1, 2011, http://www.e-yakimono.net/html/kawaikanjiro.html

a lifetime of knowledge of Korean traditional art and architecture could bestow.

An example of Choi Sunu's display of Korean tradition and style is present in his arrangement of one of his art collection piece. Choi Sunu used to put a white porcelain jar in front of the bamboo so that its shadows would fall across the jar on bright moonlit nights. As he enjoyed the shadows on the jar, he said, "Where could I find a more beautiful Oriental painting than this."[118]

had resided in the *hanok*, there have been several changes that are beneficial, as well as disadvantageous, to the *hanok*. Part of the restoration called for modifications to some of the existing areas in order to convert the home into a museum. Due to the lack of proper maintenance of the *hanok*, many of the timber beams and roof-tiles were found damaged or decaying, and were replaced. The garden and courtyard spaces were also disarrayed.[119]

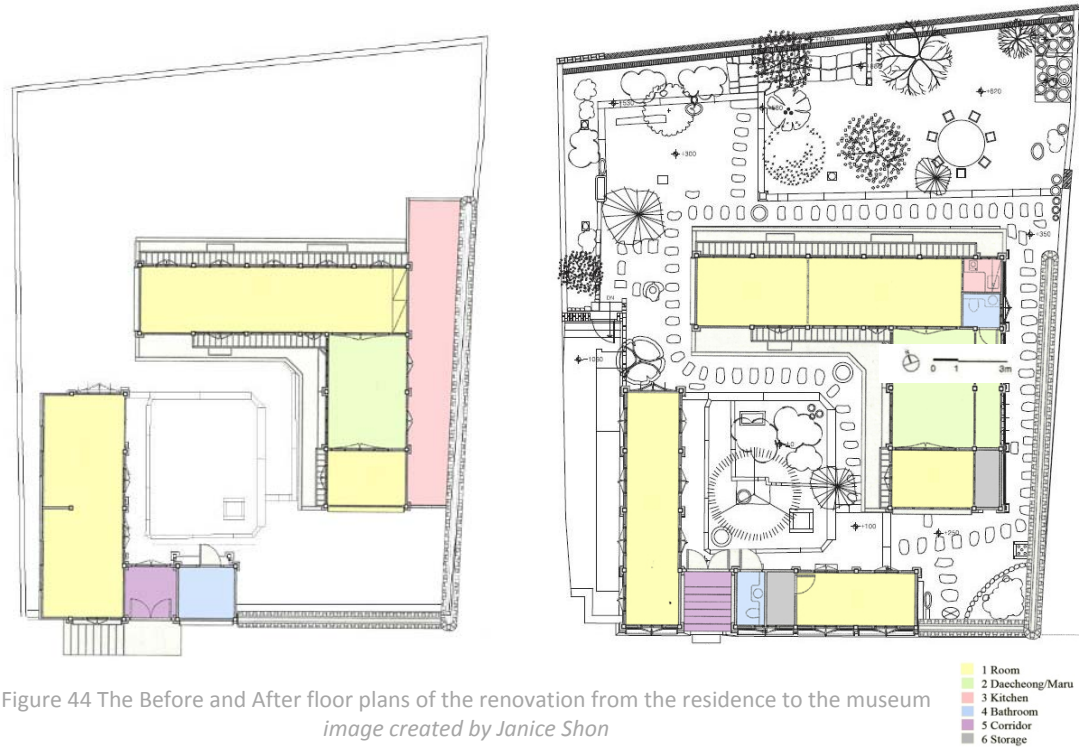


Figure 44 The Before and After floor plans of the renovation from the residence to the museum
image created by Janice Shon

Analysis

The Choi Sunu House has been an important restoration project in the eyes of the people. In the process of restoring the house to the days when Choi Sunu

The restoration project consisted of several changes throughout the *hanok*. From removals to additions and the rearranging of spaces, there were major and minor changes made throughout the

[118] Lee, Sin-hwa. "Seongbuk-dong Over Flows with Tradition", *The Korean Herald*. July 14, 2010, accessed by August 24, 2011, http://www.koreaherald.com/lifestyle/Detail.jsp?newsMLId=20100701000592.

[119] Hanyang University Department of Architecture. *Choi Sunu House Research and Records Report*. Cultural Heritage Administration of Korea. Seoul: 2008.

residential *hanok* in order to convert it into a living museum space. Some of the major changes made include, but are not limited to, the removal of the detached entrance stairs that was in the alley way, the boiler room, and the kitchen area. The changes in the new construction included parts of the outer *chae* and some storage areas. Spatial divisions were made to the rooms of the *anchae* according to the new needs of the museum.

The outer *chae*, which consisted of the entrance gateway, an office space, a *bang*, and a restroom, was the first space one would experience when entering the house. In the renovated *hanok*, the entrance gateway was setback into the *hanok* to allow for the new stairs to be integrated with the entrance and allow for a clear alleyway. The rooms of the outer *chae* were enlarged to provide an office space and an exhibition area for the National Trust of Korea.

When Sunu Choi was living in the *hanok*, the spaces of the *anchae* were divided into four: one *sarangbang*, one bedroom, one *anbang*, and one kitchen. These spaces were the primary living quarters during Choi Sunu's time. To recreate the interior spaces during Choi Sunu's time, photos were used as reference for the placement of furniture pieces and artworks. However many of the spaces were either removed or rearranged to accommodate for displays and public viewing.

The boiler room, which was located on the northeastern end of the house, was demolished to create an open pathway that allows visitors to walk around the entire an*chae* and also to bring back the curving gesture of the roof, where the boiler room had once been. The removal of the boiler room and kitchen was a well executed part of the renovation, not only because the boiler and kitchen spaces were no longer needed, but because the new pathway allows the outdoor and indoor spaces of the house to complement each other. The pathway is an important element of the *hanok* because of the different views of the *hanok* and *madang* that are captured and experienced as one takes the short course around the anchae. The pathway offers views of the interstitial space between the an*chae* and outer *chae*. The redesign of the circulation path works well with the new adaptive reuse of the *hanok* as a museum. Typically in museums, the flow and sequence of spaces that visitors will follow are important to consider when designing an exhibition space. The stepping stones that surround the an*chae* create a playful yet careful setting to the walk, as the stones are misshapen and are not particularly aligned to each other.[120]

Figure 45 The small garden space located between the an*chae* and the outer *chae*, when walking around the an*chae*. Photo taken by Janice Shon

Some of the changes to the *hanok* will be analyzed in order to understand the effects of the modifications on the

[120] Hanyang University Department of Architecture. *Choi Sunu House Research and Records Report*. Cultural Heritage Administration of Korea. Seoul: 2008.

space and usage. By taking a closer look at the Choi Sunu House project, it is possible to analyze the quality of space in terms of what has been gained and lost in the adaptive reuse renovation. The analysis will focus on the entrance, kitchen, an*chae*, and outer *chae*, as these spaces affect the current state of the *hanok*.

Figure 46 Before: Prior to the renovations, the stairs going up the the gateway of the Choi Sunu *hanok* protruded out onto the street.[121]

Figure 7 After: After the renovations, the stairs is no longer visible from the street *Photo taken by Janice Shon*

Figure 8 View of the renovated entrance from the street. *Photo taken by Janice Shon*

ENTRANCE

The first recognizable physical change, in terms of entrance sequence, would be the renovation of the Choi Sunu *Hanok* would have to be the entrance. The change reflects how the traditional sense of entrance has been modified and redefined. The renovated entrance affects the neighborhood and sense of entryway.

Prior to the renovation a set of stairs which protruded from the envelope of the *hanok* was constructed. The eight steps leading up to the gateway of the *hanok* jutted out into the road looking like a big block of concrete which is placed in front of the home. However odd the appearance from the street, the position of the stairs kept to the traditional formality of an entryway, where the gate was typically constructed in an area with a steep slope.[122] The protruding stairs to the gateway also provided an indirect passage through the threshold, where those entering the home would climb up the stairs and make a sharp left turn to face the front gate before entering.

In the new entrance way the protruding stairs are removed from the street and relocated into the *hanok* structure. The location of the entrance remains the same, but the stairway has been turned in, so that those entering no longer go up the stairs and turn left, but instead just walk up the stairs and into the *madang*. The new method of entry is more direct and creates a less disconnect

[121] Hanyang University Department of Architecture. *Choi Sunu House Research and Records Report*. Cultural Heritage Administration of Korea. Seoul: 2008.

[122] Yim, Seock Jae. *Windows and Doors*. Seoul: Ewha Womans University Press, 2005

of the home to the road. By removing the stairs at the front of the *hanok*, the entrance looks integrated with the *hanok* and the separation of street and home are clearer. Also, important to note would be the improved vehicular and pedestrian circulation of the street. The stairs before the renovation were an obstruction to the neighborhood.

The quality of space of the entrance has been weakened by the redesign. From the main street, the entryway is not easily visible. Upon walking up the stairs the reduced platform area makes it difficult for visitors to perceive a sense of distinction between the outside and inside crossing of the threshold. Often times, the entrance sequence into a *hanok* would require a sharp turn into the home, which was made possible in the original layout with the protruding strairs. However, one important issue that has been improved deals with the safety of visitors. The previous stairway had no guard rail or handrail to prevent people from falling. In the new renovation, while rails were not added, the walls leading up to the gateway provide support and balance for those who require assistance. [123]

Figure 47 View of the central courtyard from the outer *chae*
Photo taken by Janice Shon

OUTER *CHAE* (outer quarters)

The outer *chae*, which was also known as the gateway quarter for its location and function as the entrance to the *hanok*, underwent several changes in the process of renovation. The changes reflect how the *hanok* has gone from a home to a museum and the spatial changes that were essential to keeping the essence of the home, all while creating a new use.

Before the renovation, the outer *chae* consisted of a room, an entrance gateway, and a bathroom. The room was used as a library during the time Choi Sunu resided in the *hanok*. The library was not used often and the entrance way was a pathway from the street to the *anchae*. The area was a temporary space that was not frequently used.

[123] Hanyang University Department of Architecture. *Choi Sunu House Research and Records Report*. Cultural Heritage Administration of Korea. Seoul: 2008. P.48.

Figure 48 View of the National Trust of Korea office (outer *chae*)
Photo taken by Janice Shon

The changes from the renovation include an additional room and storage space, a new entrance sequence (which was discussed above), and a resizing of the existing room. The expansion of the outer *chae* was made to improve the visitor's experience and understanding.

The space, which once consisted of a library, was converted into the head office for the National Trust of Korea. In the process of conversion, the back wall of the new office was relocated and the space was made narrower. The wall was brought in to make space for the back storage area and pathway.[124]

The expansion of the outer chae was a necessary addition to the *hanok* in order to house the exhibition of the Choi Sunu House. The exhibition has on display some of Choi Sunu's art collection, along with information about the house and life of Choi Sunu.

In addition to creating more space, the extension of the outer chae defines the central courtyard. Prior to the renovation the central courtyard space was a more organic shape, whereas the current layout emphasizes the centrality and creates a kind of art work of nature. The original organic shape of the central courtyard was turned into a rounded square form that fits in well between the outer chae and the anchae.

Figure 49 View of outer *chae* from the new pathway behind the an*chae*
Photo taken by Janice Shon

Figure 50 Before: in the background, the protruding kitchen/boiler room can be seen.[125]

KITCHEN

The kitchen was minimized and relocated to accommodate for a contemporary lifestyle. When Choi Sunu

[124] Hanyang University Department of Architecture. *Choi Sunu House Research and Records Report*. Cultural Heritage Administration of Korea. Seoul: 2008. P65.

[125] Ibid. p 65.

resided in the house, the full kitchen was no longer necessary, so changes were made to rearrange the *hanok* spaces.

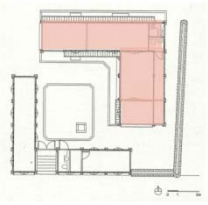
Prior to the renovations, the kitchen occupied a large portion of the *hanok*. Once located on the eastern end of the site, the original kitchen spanned as long as the backside of the *daecheong* and *konnonbang* (almost half the length of the entire eastern wall of the site). The boiler room, which is connected to the kitchen, protrudes into the *anmadang*. The obstruction does little to compliment the *anmadang* space and almost looks as though the protrusion was possibly a last minute decision due to the need for more space.

In the adaptive reuse from residence to museum, the area which the kitchen once occupied became part of the circulation of the *hanok*. Opening up this pathway allows visitors to have a full experience and creates a nice flow around the home and courtyards.

Figure 51 After: in the background, the larger kitchen/boiler room was demolished in order to create a better circulation path for visitors
Photo taken by Janice Shon

The kitchen space has been drastically reduced allowing room for other parts of the *hanok* to expand. Oddly enough the minimized kitchen functions in similar context to the traditional kitchens of a *hanok*, where food preparation and cooking were done and taken to another room to be served and eaten. The renovated kitchen space for the museum is used to make tea or coffee, which is brought out for visitors of the *hanok*.

Figure 52 Left: A view of the kitchen from the *bang* Right: A view of the new pathway that was created when the kitchen and boiler rooms were removed.
Photo taken by Janice Shon



ANCHAE (inner quarters)

The *anchae* has undergone several changes with respect to the original state of the *hanok*. Some parts of the *anchae* have been altered drastically, while some areas have remained intact since the days when Sunu Choi occupied the home. With respect to the original layout of the *hanok*, many of the new spaces can be opened or closed according to when needed. While the physical changes have made a difference in the

manner in which the *hanok* is perceived by visitors, the restrictions of the organization that limit the experience to only the exterior spaces is rather disappointing.

The original *hanok* layout was simple with less defined rooms and a much larger kitchen. In the renovation it is possible to see what the program requirements were through the changes that were made. The large kitchen and boiler room were no longer needed, so the spaces were demolished. A kind of corridor space was created in to connect the restroom, *daecheong*, and storage spaces together. The corridor was a nice addition to the an*chae* because the space could be open to or closed off from the *daecheong*. The corridor space is hidden behind the sliding doors, to offer a separation from the public *daecheong* space and privacy for the restroom space.

Figure 53 After: the *daecheong* space can be opened or closed depending on the sliding doors, which are closed in the image above
Photo taken by Janice Shon

The *daecheong* is one space that has not undergone much, if any, change in the layout. The location remains the same, but the space has been enlarged, due to the demolished kitchen, to include an access way to the restroom. The *anchae daecheong* space is where many of Choi Sunu's collection is presented in display cases.[126]

Currently the interior space of the *anchae* is not physically accessible to the public, which in turn affects the way the house is experienced and understood. Although the demolition of the kitchen allows visitors to circle around the *anchae* and see different perspectives through the windows, to actually be in the space would be a complete experience. Briefly mentioned earlier, when discussing about Sunu Choi, the Kawai Kanjiro House in Kyoto successfully allows visitors to have a total experience by walking around the house and roaming from room to room to see how the space was planned and getting a hint of the life of Kawai Kanjiro. In the same manner, it would make sense for the *anchae* of the Choi Sunu House to have open doors and allow visitors to walk through the space for the experience and to be able to see up close the contents of the display cases. The display cases in the *daecheong* space that have been set out for visitors are not visible from the central courtyard space looking into the *daecheong* space. The distance and angle of the display cases make it difficult to appreciate the items that are exhibited, such as Choi Sunu's camera and other objects that were either part of his collection or helped to further his studies.

[126] Lee, Sang-hae, Kim Young-Sup, kim, Bong-Lyul, Min, Sun-ju, Hwang, Doojin, Choi, Uk, Kim, Suk Yoon, Song, In-ho, and Cho, Jeong-gu. *Hanok* e Salulilada (한옥 에 살어리랏다 : 아름답게 되살린 한옥 이야기). Gyeonggi-do Paju-shi: DolBaeGae, 2007. p 247-257.

As important as it is to view the house from the outside in, the inside looking out perspective is also part of the essential qualities of a *hanok*. Sunu Choi spent many of his days indoors looking out and being inspired by the beauty he was able to experience. Therefore as a part of the museum experience, the anchae should be made accessible to visitors for the full *hanok* experience.

Figure 54 After: view of the an*chae from the central courtyard space*
Photo taken by Janice Shon

Yeon Café

title:	**YEON CAFÉ**
dates:	1941 (first built)
	2004 (restored)
location:	Seoul, Jongno-gu,
	Samcheong-dong 63-20
current use:	café
site area:	25 pyeong=82.6 m2
building area:	15 pyeong =51.72 m2

Building and Site Description

Café Yeon is located in the district of Samcheong-dong in Seoul. Samcheong-dong is a popular neighborhood, well known for the Samcheong-dong Walkway, a street filled with art galleries, cafes, boutiques and restaurants. Yeon is located in the central area of the walkway, up a steep alleyway.[127]

Figure 56 A macro map view of the Yeon Cafe in Seongbuk district 200 ft
Image created by Janice Shon

[127] Lee, Sang-hae, Kim Young-Sup, kim, Bong-Lyul, Min, Sun-ju, Hwang, Doojin, Choi, Uk, Kim, Suk Yoon, Song, In-ho, and Cho, Jeong-gu. *Hanok* e Salulilada (한옥 에 살어리랏다 : 아름답게 되살린 한옥 이야기). Gyeonggi-do Paju-shi: DolBaeGae, 2007. p 153.

Figure 57 A micro map view of the Yeon Café in relation to Samcheong Street (also known as the Samcheong-dong Walkway) 50 ft
Image created by Janice Shon

Yeon 缘

The term *yeon* means open, which was the basic in order to create the traveler's hangout. The café has become a hotspot for people all over the world who stop to have a refreshment or stay to hang out.

Figure 55 Left: view from the entrance down to the main Samcheong Street Right: view from the street to Yeon café
Photo taken by Song, Inho

The Yeon café *hanok* is in the shape of the Korean alphabet character ㄱ (the name of the character is gi yeok) with a connected outer *chae* that together forms the shape of the charater ㄷ (the name of the character is di geut).

Figure 58 The Before and After floor plans of the Yeon Cafe renovation from the residence to a cafe

Analysis

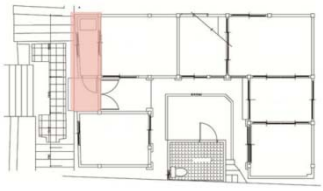
Considering the compact size of the Yeon café *hanok*, the delightful spaces that are contained in the café come as a surprise. From the entryway the balcony feature, which was added in the renovation, presents a welcoming and open ambiance for customers who venture to the café. Upon entering, one passes through the gateway and is exposed to the cozy *madang* space. Considering the original condition of the *madang*, the after renovation version is a drastic improvement.

An interesting fact about the Yeon café *hanok* is that the location of the structural elements were hardly modified from the original, aside from the lower kitchen addition. The spatial functions have changed to accommodate for the café, yet the changeswere made with considerations of the extent of the existing conditions.[128]

[128] Lee, Sang-hae, Kim Young-Sup, kim, Bong-Lyul, Min, Sun-ju, Hwang, Doojin, Choi, Uk, Kim, Suk Yoon, Song, In-ho, and Cho, Jeong-gu. *Hanok* e Salulilada (한옥 에 살어리랏다 : 아름답게 되살린 한옥 이야기). P154-163.

Figure 59 Before: view from the alley way looking to Yeon prior to renovations

Figure 60 After: view from alley way to main street and entrance, after renovations



ENTRANCE

Looking at the image of the façade before the renovation, it is evident to see how private and unrecognizable the entrance way was when the *hanok* functioned as a residence. The concrete wall does little to identify the home as a *hanok*, but instead barricades the home and cuts off any interaction with the alley way. In the photo, the space to the left of the entrance is the boiler room, which might explain why the wall seems so solid and typical, as the room is not used as a space for people, but more for utilities. The windows to the boiler room look as though they were used for ventilation, especially if there is a boiler in the room. Also seen in the photo is the pipe that is attached to the wall right before the entrance way. The pipe was most likely placed as an afterthought with the advancement of technology, such as a boiler to heat the rooms, in place of the *ondol*.

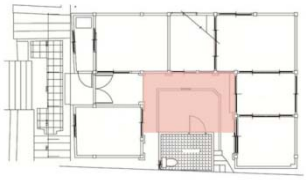
The renovation of the entrance was an excellent change with the intended adaptive reuse of the *hanok*. While the *hanok* is going from a residence to a café, the new entrance façade would look fitting in both the home and café setting. The removal of the boiler room to create a small balcony area was a welcoming change from the solid concrete wall. The new balcony space is a nice transition from the alley way to the front of the *hanok*, which then leads to the entrance and into the café. The boiler room was removed to enlarge the area for visitors to lounge and meet. With modern heating systems, boilers have become smaller in size and integrated into the design of the *hanok*. The heating systems no longer require large amounts of space. The window of the new balcony opens up to the café's floor seating tea room space.

By creating the little balcony area, the *hanok* feels more open and inviting. The balcony sets back the wall from the alley to create a relief from the street to the house. By doing so, the balcony successfully buffers the street and the house and establishes an indirect connection between the house, alley and street. From the main street, the Yeon café may not be the most visible, but for those who make it to the café, the

experience is worth the walk up, especially with the delightful appearance of the front façade and the unexpected interior.

The pattern of the brick and the stone fencing was a nice addition to creating the feel of entering a *hanok* at the entrance. Traditionally when entering a *hanok*, the entrance sequence involved a sense of revealing the hidden, by making turns into a space from the entry. The processional up the stairs leads one along the balcony, and then requires a sharp left turn into the *madang* space. The indirect methods of entering the *hanok* is common design practice in traditional *hanok* layout.

Figure 61 Before: the *madang* space was smaller and looked to be used for circulation more than the typical functions of a *madang*.



MADANG (courtyard)

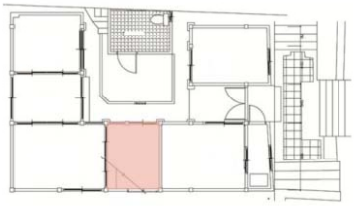
In the original layout of the Yeon *hanok*, the *madang* was poorly handled and planned in terms of how the space was utilized. With the restroom door opening out towards the *madang*, the area seemed to serve as an interstitial space that allowed people to get from the living quarters of the *hanok* to the restroom. The space could also be described as an outdoor corridor, in place of *madang*, because the area had the characteristics of a corridor, with the connection to the outdoors. Although the *madang* space was limited in size, it was possible to create the ambiance of a *madang* without jeopardizing the quality of the space. One area that was reminiscent of a *madang* space was the area above the bathroom where the *jangdok*s were stored. In many traditional *hanok*s, *jangdok*s are placed and stored in the *madang* area. While *jangdok*s are primarily used to store fermented foods, there is an aesthetic quality that represents and identifies with Korean culture.

Figure 62 After: in the renovation, more space was made for the *madang* to include a small performance area

The renovation of the *hanok* did not affect the *madang* directly; however changing the surrounding areas improved the quality of the *madang* space. The restroom size was reduced, making the *madang* large enough to include a low performance area for guest performances or just to use as a seating space for customers who prefer to sit outdoors. The door was relocated to the side, so that the wall facing the *madang* could be free of obstruction. The

minimized size and relocation of the restroom door of the renovated *madang* was able to acquire a sense of space, with four enclosed walls defining the extent of the *madang*. Although the *madang* was still used as the circulation space and the restroom remains at the center, the different functions and uses seem to share the space.

Figure 63 Before: the exterior of the kitchen space



KITCHEN

The kitchen space prior to the renovation was on one level, and used by one household.

For the adaptive reuse of the *hanok*, the kitchen had to be able to manage the necessities of a café. In order to do so, without affecting the other parts of the *hanok* drastically, the renovation included a lower level room for washing dishes, storage, and other food preparation activities. The original kitchen space exists, and functions as the main cooking area.

The addition to the kitchen on the lower level was a good solution to the problem of expanding the kitchen space to have the proper food service equipment and preparation space. Not only did the lower kitchen level provide more space, but it allowed for the opportunity to add a level above for an attic type of hang out space, above the

Figure 64 Before: the interior of the kitchen space

Figure 65 After: the new interior of the ground level kitchen space

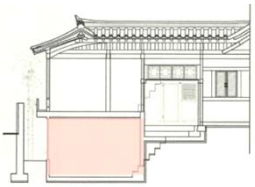
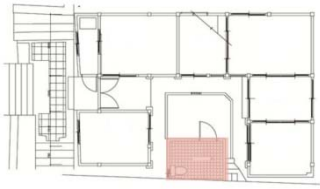


Figure 66 Section of the Yeon cafe *hanok*. The shaded area is the underground kitchen space.

Figure 67 After: the new underground kitchen space

Figure 68 Before: image of restroom prior to renovation



RESTROOM

Prior to the renovations, the restroom was a functioning utility without aesthetic considerations. In terms of location, the restroom looks like the most distinguished space as it is situated in the center of the *madang* within view from any of the indoor spaces. With that in mind, the appearance of the restroom is not a desirable or appealing sight. With not much thought to the exterior appearance, the restroom looks massive and disproportional to the compact space. Typically the restroom would be considered a private space in a home, so it is quite odd to see how public and open this restroom is in terms of the central location and the doorway facing into the *madang*.

Figure 69 After: image of the interior and exterior restroom after renovations,

While the location has not changed in the renovation process, the redesign of the exterior and repositioning of the door changes the ambiance of the space. The thoughtful consideration of the patterns on the exterior bathroom wall, that faces the *madang*, makes the space more presentable and approachable. By relocating the door, a sense of privacy is restored for the restroom users. The patterning helps to alleviate the mass of the restroom. The new wall also serves as a backdrop to the *madang* space where visitors can appreciate an outdoor space.

The renovation is a successful approach to improving the area. No longer recognizable as a restroom, the renovation offers a sense of privacy for users and a delightful aesthetic visual for guests and customers who happen to glance at the *madang* from time to time. The relocation of the door was a wonderful enhancement for the *madang* and for the restroom. With the door removed from direct view, the *madang* becomes a defined space that is

approachable by guests, and not just people who need to use the restroom. The *madang* can be used as it was intended, as an outdoor gathering space or to do simple chores, such as drying or dusting off clothes. The size of the restroom has become smaller, but the treatment of the exterior wall allows the restroom to have a unique façade without being overbearing or unwelcoming.

In addition to the exterior improvement, the interior of the restroom has enhanced from the original state. In the before image, one could see the thickness of the roof slab and the jangdoks pots that were placed on the roof to store foods for long periods of time, shows the type of load that was bearable for the roof. In the renovation, the thick solid roof is replaced with a glass brick roof, which allows natural light in to the restroom. Though the restroom is small in size, there is a pleasant, light, and comfortable feeling when using the space. While the roof can no longer be used as a storage space to hold jangdoks or other objects, the glass brick roof offers an innovative way to bring natural light in and create a light and open space.

e-Mideum Dental Office

title:	e-MIDEUM DENTIST
dates:	1940s (first built)
	1998 (restored)
location:	Seoul, Jongno-gu,
	Gahoe-dong 1-17
current use:	dentist office
size:	24 pyeong =854 sq ft,
	14 pyeong =498 sq ft

Building and Site Description

E-Mideum Dental Office can be found on the main road of Gahoe district in Seoul, Korea. Located in a *hanok*-concentrated area of Bukchon, the office has become a landmark for the rare type of business in a *hanok*. In the area of Gahoe-dong, many *hanok*s that have been converted into businesses, art galleries, coffee shops, boutiques, etc. can be found along the main street.

Figure 70 A map of e-Mideum Dental Office 200 ft
Image created by Janice Shon

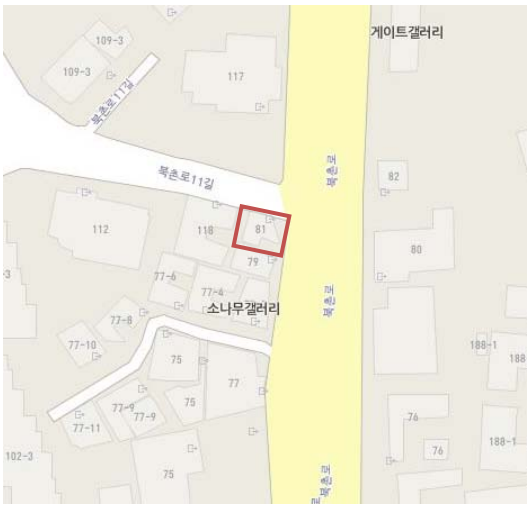


Figure 71 Map showing e-Mideum Dental Office in relation to Bukchon Street 50 ft
Image created by Janice Shon

Prior to becoming a dental office, the *hanok* of the e-Mideum Dental Office was originally two separate ㄴ-shaped *hanok*s (the name of the character is 니은, in Korean is pronounced ni-eun) and connected the homes. With as little reconstruction and restructuring of the original two *hanok*s, the e-Mideum Dental Office was formed.[129]

[129] Lee,Sang-hae, Kim Young-Sup, kim, Bong-Lyul, Min, Sun-ju, Hwang, Doojin, Choi, Uk, Kim, Suk Yoon, Song, In-ho, and Cho, Jeong-gu. *Hanok* e Salulilada (한옥 에 살어리랏다 : 아름답게 되살린 한옥 이야기). Gyeonggi-do Paju-shi: DolBaeGae, 2007. p166.

Figure 72 The Before and After floor plans of the e-Mideum Dental Office

Analysis

By comparing the before and after renovation floor plans, it is possible to understand how the change from home to dentist office was proceeded and what was needed to meet the needs of a dental office. Interestingly, the dental office has managed to maintain most of the structural members, with the exception of badly deteriorated components. While the structure was kept as much intact as possible, the spatial layout was adapted to better fit the dental office.

The result of the adaptive reuse is the joining of two *hanok*s. Even with the renovation, there has been little or no change in the layout of the indoor spaces to create a direct connection. Instead, the *daecheong* space, located centrally in the new layout, has been shifted to align with the "indoor *madang*". This allows the *daecheong* to function as the interstitial space for the new reuse. When the doors of the *daecheong* are opened there is a strong visual connection of the whole *hanok*. When the doors are closed, it would seem as if the two *hanok*s were separate *chae*s or living quarters. Even with the renovation, none of the spaces physically connect or overlap to create any direct indoor connections. This could be due to the reuse of the *hanok*, as a public space, where the circulation space is limited to the outdoors.

No longer functioning as a home where meals were prepared regularly, the kitchen spaces were reduced to accommodate for the new use. Although the *hanok* is under one roof, the two kitchens remain, indicating that the kitchen spaces may be set-up as a kitchen, but used as a preparation area for sterilizing tools and other uses.[130]

[130] Lee, Sang-hae, Kim Young-Sup, kim, Bong-Lyul, Min, Sun-ju, Hwang, Doojin, Choi, Uk, Kim, Suk Yoon, Song, In-ho, and Cho, Jeong-gu. *Hanok* e Salulilada (한옥 에 살어리랏다 : 아름답게 되살린 한옥 이야기). P 165-167.

Figure 73 Before: A view of the original building envelope of the *hanok*[131]

BUILDING ENVELOPE

Prior to the renovations of the adaptive reuse, there were two separate *hanok*s in what is currently the dental office space. The image above shows the original façade of the two *hanok*s. The *hanok* along the corner appears to have been a place of business, with the colorful roll-up door in front. The building envelope seems to be constructed with an assortment of materials ranging from brick, stone, and steel. Interesting to note would be the different types and colors of brick that were used, which dates the construction sequence of the different parts of the building. The stone and brick wall in the back was most likely the first constructed component of the *hanok*. The two walls on the opposite sides of the roll-up door are constructed of two different shades of red bricks, which is an indication that the two parts were constructed at different time periods. The red brick wall in the front of the home looks like the latest addition that was made, possibly when the roll-up door was added, to support the green shading device which is located in the front. At the street level the shading device hides the curvilinear roof line of the *hanok* and does little to improve the appearance of the front facade. While the two *hanok*s are spatially individual homes, by looking at the building envelope, it is difficult to specify where one *hanok* ends and the neighboring *hanok* begins.

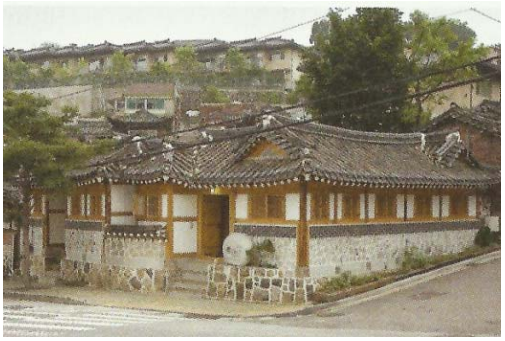


Figure 74 After: A view of the renovated building envelope[132]

In the renovation, the building envelope was drastically improved to accentuate the unique qualities of a *hanok*. Although the building is a dental office, the façade has taken on a stronger *hanok* identity. The building envelope was completely reconstructed using wood, brick, stone and mortar. By having a consistent façade design, the perimeter of the *hanok* becomes evident from the street level. The red brick walls have been replaced with lighter colored materials that complement the tones of the wood and stone. By removing the

[131] Lee,Sang-hae, Kim Young-Sup, kim, Bong-Lyul, Min, Sun-ju, Hwang, Doojin, Choi, Uk, Kim, Suk Yoon, Song, In-ho, and Cho, Jeong-gu. *Hanok* e Salulilada (한옥 에 살어리랏다 : 아름답게 되살린 한옥 이야기). Gyeonggi-do Paju-shi: DolBaeGae, 2007. P166.

[132] Ibid. p166.

green shading device, the curvilinear roof line, which is unique to Korean architecture, becomes visible and provides a stable appearance to the whole house. A large stone sign at the entrance indicates that the *hanok* is a dentist office. The renovation of the building envelope was done with careful attention to relate to the neighborhood of *hanok*s. Compared to the previous, there is a pleasant and welcoming ambience to the exterior, even as a dental office.

Figure 75 a view of the dental room[133]

DENTAL TREATMENT *BANG* (room)

The dental treatment rooms have occupied the main rooms of the *hanok*. With all the equipment required for dental operations, the walls were removed to enlarge the treatment rooms. The treatment rooms have become open spaces, with no obstructions from columns. While a *bang* is typically a private space, the new function of the treatment room has changed the space to semi-public areas.

The large dental equipment is well-proportioned with the enlarged rooms, which gives the overall space a nice ambience.

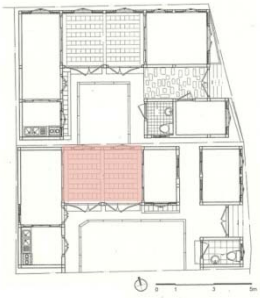
Another success of the reuse of the dental office in a *hanok* deals with the environmental relief of the patients. Unlike a regular office building with typical tile ceilings, the *hanok* space has the natural exposed roof structure. The warm colors of the exposed wood of the roof structure create a comfortable and relaxing feeling for patients, when one is lying in the chair.

Figure 76 A view of the dental room[134]

[133] Ibid., p168.

[134] Ibid., p 169.

Figure 77 View of the *daecheong* and outdoor *madang* from the "indoor *madang*"[135]



DAECHEONG

The central *daecheong* space plays an important role in the layout of the renovated *hanok*. The *daecheong* functions as an circulation space to go from the inner *madang* to the outer *madang* and connects the rooms together. When the doors of the *daecheong* are opened, the space becomes an open area with no walls, a feature that is an essential part of the intangible qualities as mentioned in Chapter 2.2 Inside a *Hanok* section. The *daecheong* serves as the connecting space for the two *madang*s, as well as the treatment rooms that are able to open up to the central space.

Typically in a traditional *hanok*, the *daecheong* space was used for family gatherings and as a reasting area. In the new use, the space is utilized as a public transitional space for patients to get from room to room or room to *madang*.

Figure 78 View of the daecheong with the doors open, looking towards the entrance [136]

Figure 79 View of the "indoor *madang*"[137]

MADANG (courtyard)

In the process of renovation, when the two *hanok*s were combined into one building, the two *madang*s were kept intact, with different functions.

[135] Ibid. p. 173.

[136] Ibid. p168.

[137] Ibid. p170-171.

The "indoor *madang*" is the space which was originally the *madang* for one of the two original *hanok*s. The area was converted into an indoor, naturally lit waiting area for patients. Although the space is no longer directly connected to the outdoor, it has been designed to offer a sheltered outdoor experience, with indirect sunlight and protection from bad weather conditions, such as rain and snow. Although the space offers a comfortable and relaxing experience, the furniture is a damper to the ambience of the *madang* and *hanok*. *Madang*s are typically kept simple with little to no furniture. The choice of furniture in this case does very little to complement the *hanok* and seems to have a life of their own in the space. Although a waiting area for a dental office is necessary to have, there could have been a more sensitive approach to creating a seating area for patients. However, the waiting room space is an innovative idea for creating an "indoor *madang*" experience. This system, although not technically perfected, is becoming a popular trend for adaptive reuse *hanok*s.

Figure 80 Left: the view of the madang from the fence Right: the view of the "indoor madang"

After the renovation, the barrier that existed between the *madang* and the *daecheong* space was removed to connect the two *hanok*s together. The *madang* space, located in the southern part of the *hanok*, provides ventilation for the connecting *daecheong* space. The *madang* is more private and separate from the main building. Unlike the "indoor *madang*" this space would seem to be peaceful and calm.

Seon Eum Jae *Hanok*

title:	SEON-EUM JAE
dates:	1934 (first built) 2006 (renovated)
location:	Seoul, Jongno-gu, Gahoe-dong 1-75
current use:	residential

Building and Site Description

The *Seon-Eum Jae hanok* is located in the district of Gahoe-dong in Bukchon, Seoul, Korea. In present day, Gahoe-dong is one of the few remaining *hanok*-concentrated areas in Seoul that have remained intact. While there are many *hanok*s that have become commercialized, there are still some, like *Seon-Eum Jae*, that remains as a residential structure.

Figure 81 Map of Seon Eum Jae *hanok* in relation to Bukchon Street and Samcheong Street 200 ft.
Image created by Janice Shon

The *hanok* was built in 1934 and has remained in use as a residence since. The original homeowner lived in the *Seon-Eum Jae hanok* from 1934 to 2006. In 2006 the *hanok* was sold to a family of four, who repaired and updated the living spaces to meet the needs of a contemporary lifestyle. The construction of the renovation was completed in 2007.

Figure 82 Map showing Seon Eum Jae and Bukchon Street 50 ft.
Image created by Janice Shon

The *Seon-Eum Jae hanok* is in the shape of the Korean alphabet character ㄱ (gi-yeok or 기역) and ㅡ (eu or 으). *Seon-Eum Jae* consists of two ㄱ shaped living quarters combined into one home. The two ㄱ shaped living quarters consist of the *anchae*[138] and the *sarangchae*[139]. The ㅡ shape is the entrance quarter.[140] The

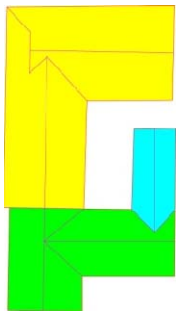


Figure 83 Roof Plan of Seon-Eum Jae *hanok*
yellow – an*chae*
green – sarang*chae*
blue – entrance
Image created by Janice Shon

[138] *Anchae* (안채)- the women's living quarters of a *hanok* during the Joseon period

[139] *Sarangchae* (사랑채) – the men's living quarters of a *hanok* during the Joseon period

[140] Sarvimaki, Marja. "Layouts and Layers: Spatial Arrangements in Japan and Korea." Sungkyun

combination of the living quarters and entrance form the Seon Eum Jae *hanok*.[141]

Seon-Eum Jae

善音齋, 선음재, *Seon-Eum Jae*
善 – 착할 선/선한, seon han – nice/ good
音 – 음악/소리 음, eum ag – music/ sound
齋 – 집 재, jae – house

The name of the *hanok*, *Seon-Eum Jae*, derives from the Chinese characters 善音齋. 善, in the Korean language, is pronounced *seon-ha (*선한), can be defined as good or nice. 音 is pronounced *eum-ag* (음악) can be defined as song or sound. 齋 is pronounced *jae* (재/집) can be defined as house or home. Taking the first characters of the Korean pronunciation, the name *Seon-Eum Jae*, house of good sounds, was given to the *hanok*. The story of the name goes back to when the mother of the *hanok* had her first son. While her son was in her belly, the family members thought about a name to give to the child and the *hanok*. They hoped their child would be "someone who spreads the good sound", whether it be the sound of laughter, music or the wind and so the name Seon-Eum was derived.

Program for Renovated Seon Eun Jae:
- minimum of 3 bangs (bedrooms)
- 2 bathrooms
- 1 large kitchen
- connecting corridor
- central and inner courtyard

Preserved Areas:
- 3 maru spaces (existing)
- meoleum (armrest) window space

Journal of East Asian Studies Vol. 3, No. 2 (2003). http://sjeas.skku.edu/upload/200605/05_Sarvimaki%20Marja.pdf (accessed August 25, 2010).

[141] Interview with Cho, Junggoo (principal of Guga Urban Architecture) on July 1, 2011.

Figure 84 Diagram of the before and after floor plan of Seon-Eum Jae

Analysis

In the process of renovation, many factors were taken into consideration to meet the needs of the family. By comparing the before and after renovation of the *Seon-Eum Jae hanok,* it is possible to understand the transition into a contemporary *hanok*. Important to identify is how the changing of rooms and spaces reflect the change in social interactions as well as the spatial qualities.

In 2006, before the new owners moved in, the *hanok* was renovated to meet the needs for a family of four: the parents, in their late 30s, and their two young children. With respect to the existing, the renovations made were

modest. Many of the changes dealt with the spatial organization of the existing spaces. Some of the significant changes made were in the entrance, corridor, new rooms, kitchen expansion and an additional cellar. These areas, while remaining within the extent of the existing columns, have transformed the sense of traditional to contemporary.

While the physical changes of the spaces are more apparent and easy to assess, the changes in the quality of the space takes a step further into the lifestyle of the family. In the following analyses of the different areas of the *hanok* that has changed, there are several factors to consider when discussing how the quality of space has been altered. The change in family formation, need for more privacy, and more permanent spaces are a few of the effects of a contemporary lifestyle.

In traditional Korean lifestyle, extended families resided in *hanok*. Often times extended families included three generations of members under one roof. This type of family system involved a hierarchy in spatial arrangement. For instance, the oldest members of the family would sleep in the warmest area of an *ondol* room, while the youngest members would sleep further from the warmest spot, according to the hierarchy.

Privacy was seldom experienced in the traditional lifestyle. With an extended family, it was uncommon to have a room to oneself without the company of another member of the family. In a contemporary household, typically consisting of the immediate family, members are able to have their own personal space that is separate from the family gathering space.

Another difference in the past and present lifestyles would be the sense of permanence of a space. In the past when families were larger and space was limited, many of the rooms were multifunctional and utilized for several different activities. During the day the room may be used to do chores, while in the evening the rooms would become a place to sleep. With the family sizes becoming smaller, more space has been available for the family so as not to use a space for more than one reason. There are separate rooms for sleeping and a separate room for activities. The transition of having multifunctional rooms to having more permanent rooms has reorganized the layout of the spaces.

Although many of the spaces may not be experienced in the same way as they once were, it is possible to maintain certain qualities of the space, regardless of the changing times. In the case of the *madang*, or courtyard, the quality of space has gradually transitioned from an outdoor family space to a circulation space. The courtyard space had a natural quality which was lost in the renovation with granite stone flooring. The issue of the lost quality of space will be further discussed in the chapter when comparing the before and after situations of the Seon Eum Jae *hanok*.

Figure 85 Before: the entrance was a small and formal space, more private and subtle
Photo provided by guga UA

***DAE MUN* (entrance)**

Prior to the renovation, the *hanok* had a double entrance processional: one entrance from the sidewalk, followed by one that led to the *hanok* courtyard. There was a third threshold that was visible from the first entrance, which led to the back courtyard of the *hanok* space. The threshold that leads to the backyard could easily be mistaken as the entrance which would lead the living quarters of the *hanok*. The entrance processional functioned more like a corridor space due to the high walls which direct visitors to move through like a passageway. The previous entrance into the *hanok* was cramped, enclosed, and unidentifiable. Considering the narrow opening of the pathway of the entrance, it was uninviting and easy to overlook.

The new entrance is defined and inviting. The lowered stone partition at the new entrance way connects to the exterior stone fencing of the neighboring *hanok*. The stone partition provides the separation needed between the entrance of the *hanok* and the processional. The smaller scale of the partition allows the space to be considerably open, yet slightly closed off. The scale of the partition is comfortable for people who enter the house. Compared to the high stone fence that clearly demarcates where the border of neighboring house begins, the lower stone partition is less from the overwhelming scale of the neighboring fence.

Figure 86 After: the new entrance is larger comfortable and more inviting
Photo provided by guga UA

After the renovation, a new larger stepping stone was moved to align with the stone partition. The relocation of the entrance way allows for a larger courtyard and more of a natural path to the *hanok*, whereas before the path to the *hanok* was direct and immediate upon entering the threshold into the courtyard. One of the unique characteristics of a *hanok* is the procession to the main room, which allows for the guest to admire the details of the *hanok* before entering. With the new entrance, there is a new approach to the house that seems more considerate for those who value the *hanok* lifestyle.

Figure 87 Before: the central courtyard space appears more natural due to the various activities that took place in the traditional *hanok* lifestyle
Photo provided by guga UA

***MADANG* (courtyard)**

Before the renovation, the *madang* or courtyard area was a rectangular shape with a protruding area for storage of the *jangdok* or traditional ceramic pots. Although the *madang* is an exterior space, some of the events that took place in the *madang* could be considered indoor activities, such as food preparation, family gatherings, and showers. When the *hanok* was first built, making the *madang* smaller could have been a technique to keeping the area cozy and less public. The *madang* was also kept natural, with dirt paths and free formed rocks. After the renovations, the *madang* space has become larger and more open with the relocation of the entrance. The area has become less filled with activities and more of a pathway, which could be a result of the extended corridor of the *hanok*. The area for storage of the *jangdok* has been replaced by the entrance and has not been relocated elsewhere. Interesting to note is what the removal of the food storage area (with the *jangdok*s) does to the space and what it means in terms of the transition from traditional to contemporary. Mentioned previously, the *jangdok*s or ceramic pots that were placed alongside the previous entrance were used to preserve and ferment sauces, miso, pepper, kimchee, etc.

In many of the older *hanok*s, it is possible to see *jangdok*s. Many of the older generation of Koreans, who still prepare and cook meals from scratch, still use *jangdok*s to store and preserve foods. An indication that the renovation is for a contemporary family, is the removal of the *jangdok* storage area. In contemporary times, storing of large amounts of foods is neither common nor necessary due to the decrease in the number of family members and the busy lifestyle of the family.

Figure 88 After: the renovated central courtyard function as more of a circulation space in the contemporary lifestyle
Photo provided by guga UA

Figure 89 Before: the inner courtyard before the renovation consisted of an outhouse type of bathroom to the left
Photo provided by guga UA

***AN MADANG* (inner courtyard)**

The *anmadang*, or inner courtyard is located at the back of the *hanok*. Prior to the renovation the inner courtyard space was shared with a outhouse type bathroom. In the traditional *hanok*, bathrooms were usually on the exterior of the home, due to smells from less developed facilities. The bathroom was like an attachment to the home. There was one full bathroom (on the outside of the *hanok*) and two half bathrooms (on the inside of the *hanok*).

In the renovated inner courtyard, the bathroom was removed in order to open up the *madang* space and to give more spatial depth to the *madang*. One of the essential elements of the renovated *madang* is how natural light enters from the area that was the bathroom.

Figure 90 After: with the removal of the bathroom, the renovated inner courtyard opens up the space and brings in more light to the space
Photo provided by guga UA

Ventilation is also improved with the removal of bathroom. The sense of a Korean courtyard is better captured in the renovation of the inner courtyard with the natural approach of the use of materials and arrangement. Compared to the original layout of the *hanok*, there is a stronger connection between the interior and exterior spaces in the renovated layout. The significance of the inner courtyard, compared to the sarang *madang* would be the stronger sense of privacy and enclosure. The an*chae*, or inner quarters, were typically reserved for the women of the home. This meant that the inner courtyard was a space for women of the household.

Prior to the renovation, the outdoor space was not particularly celebrated or maintained. The space was enclosed by three walls: the fence, the bathroom wall and the *hanok* wall. The enclosure prevented the space from suggesting a sense of outdoor area where one could feel nature within the home.

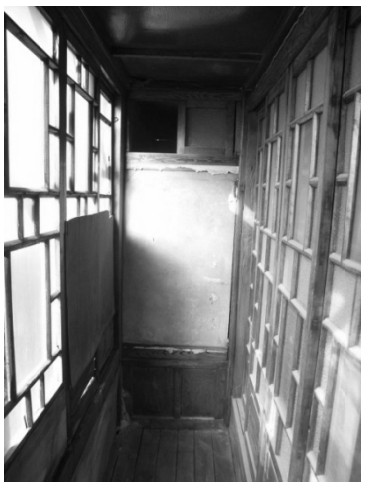


Figure 91 Before: the short and narrow corridor space
Photo provided by guga UA

CORRIDOR

One of the most recognizable changes made for the interior of the *hanok* would be the corridor space. In addition to the existing corridor, which connected the rooms of the *anchae* side of the *hanok*, the new corridor connects the *anchae* and *sarangchae*, or rooms of three of the four courtyard facing walls.

The extension of the courtyard shows how the lifestyle transition from traditional to contemporary calls for more direct connections. Prior to the renovation, the rooms were indirectly connected by the *pyeongnangan*, or exterior walkway, and courtyard space. In order to go from the room to the room, one had to go outside into the exterior courtyard space then back inside into an interior space. Doors to the rooms were opened and closed with each change of room. In the traditional *hanok*, the entering and exiting of a certain space was more defined. The relationships and interactions between family members were segregated. While a family may have lived together under one roof, there were boundaries, such as hierarchy and gender that created separations in physical and mental connections. [142]

Figure 92 After: the extension of the corridor visually connects the spaces
Photo provided by guga UA

After the renovation, the *hanok* became one connected household. All the rooms could be accessed without having to go outside. It was no longer necessary to go through the formality and difficulty of physically unconnected spaces. The connected rooms characterize the difference between a traditional and contemporary family lifestyle. The contemporary lifestyle of a family favors more direct interaction between

[142] Knapp, Ronald G. and Sang-hae Lee. *Asia's Old Dwellings: Tradition, Resilience, and Change*. Hong Kong: Oxford University Press (China) Ltd., 2003. P383.

members and prefers to be more easily accessible. Being able to see one another from different rooms, and seeing the rooms under one roof creates an open and comfortable atmosphere in the home.

Figure 93 Before: the side view of the old entrance way into the *hanok*
Photo provided by guga UA

MARU

The removal of the existing entrance way made room for a leisure outdoor *maru*, or a space with wood-floor laid with thin flooring boards. The function of the area changes completely to accommodate a different lifestyle. The existing entrance way was closed off and not aesthetically pleasing with the clutter of the storage pots. In traditional context, it was important to pass through a formal obvious threshold, and also to be able to close the entrance doors. The *daecheong*, or a large wood floored *maru*, also served the purpose of an open outdoor space (although the actual space was a room in the *hanok*, when the doors were opened, the connection to the *madang* created an outdoor ambiance for the space).

The openness of the new space expresses the transition from a private to public perspective of a home. Where the entrance used to stand has been replaced with a small *maru*. The *maru* also serves as a storage space for outdoor activity equipment (such as the bike that is hanging in the image). The *maru* is a semi-open space that creates a smooth transition from outdoor to indoor, as one enters the *hanok*. This area is for recreational purposes.

Figure 94 After: the new *maru* space connects the outdoor and indoor spaces
Photo provided by guga UA

By converting the old entrance way into a *maru*, there is a new type of relationship created in a contemporary lifestyle. One of the benefits of living in a *hanok* is being able to be outdoors in the comfort of one's own home. The recreational *maru* represents the change in what it means to be outdoors. Often times, in a traditional lifestyle, one went indoors to eat or rest and went outdoors to work or exercise. In a contemporary lifestyle, the border between activites done indoor and outdoor are blurred, especially in this case, where one may take a nap in the *maru* space on a hot summer day. The new *maru* becomes an

ambiguous space for family members to casually enjoy without the pressures of having to have a function.

Figure 95 Before: the kitchen was a small space that was disconnected from the spaces of the home
Photo provided by guga UA

***BUEOK* (kitchen)**

Before the renovation, the kitchen was a separate room. Traditionally a kitchen usually consisted of an *agungi*, or fireplace, and a *gamasot*, or cauldron, which was low to the ground. With the renovation, the location, size, and function of the kitchen were completely transformed. The kitchen was moved to a central area in the *hanok* and almost doubled in size. The corridor, cuts through the kitchen, creating an overlapping of spaces to integrate the kitchen with the home. In a contemporary kitchen, equipments (such as a stove and refrigerator) are basic needs that require more space than traditional needs.

Figure 96 After: the renovated kitchen has become larger to accommodate for the contemporary lifestyle
Photo provided by guga UA

In the traditional *hanok*, the kitchen was a room where meals were prepared. The meals were then taken to the rooms to be eaten, once again requiring to go outdoors with a tray of food. Often times, family members ate in separate rooms while seated on the floors. There was no arranged area just for eating. The rooms were more multi-functional with no dining tables and chairs. Instead foldable tables were brought out during meals and family members sat around the table. The kitchen was also essential to provide warmth for the adjacent rooms. The idea of a kitchen space has changed in the transition process. Traditionally the kitchen was not a place for all members of the family to go to. In contemporary life, the kitchen has become a gathering

place for the family. When a family has a meal together, they sit at a table with chairs (typically near the kitchen) and have a conversation over a nice meal.

Figure 97 After: the cellar was created to accommodate for storage needs and also functions as a den
Photo provided by guga UA

CELLAR

Prior to the construction of a cellar, storage spaces were scattered throughout the *hanok*. Traditionally, the idea of storage was different from contemporary life. Objects were stored for long durations of time and were typically essential things (such as food that needed fermenting or clothing for different climates).

In contemporary lifestyle, storage is not as essential, but often times a matter of leisure needs. In such a commercial society, the values and ideals of storage space means more than just preserving objects. Storage space could become a room for a private collection or a small library. The cellar was created to accommodate for storage and also functions as kind of den or private space.

4.3 Design Proposal

Proposed Redesign

The observations of the changes made of the *Seon-Eum Jae hanok* express what it means to transition from traditional to contemporary, both physically and mentally. Many of the changes affected not only the space, but the interactions and functions as well. Traditionally, many of the spaces of a *hanok* were multifunctional; the rooms became dining spaces during meal times, the *madang* was used for a variety of activities, and the kitchen was not only served the purpose of preparing food, but heated the adjacent rooms as well. However the contemporary lifestyle changes seem to have lost some of the ability to create a space multifunctional. Some of the activities of a family seem to have a designated space in the home; for example the new dining table in the kitchen means meals will be had in the kitchen. In the case of the kitchen

The *Seon-Eum Jae hanok* may have physically undergone a renovation, but the essence of the *hanok* remains intact. The *hanok* was first built in 1934 to house a family. At that time, the family brought to the *hanok* their standard way of living. The memories of their elders, the dishes cooked for loved ones, and the interactions that made the family were all captured in the *hanok*. This ideal is carried on to the 2007 renovated *hanok*. While the family may have changed, the lifestyle reflects their recollection of what it means to be a family. The physical changes are visibly evident, but it would not be made possible without the understanding of the Korean culture and heritage that exists in the lifestyle of a family.

The *hanok* is more than just a physical representation of the Korean home. The collective memories and interactions that have occurred over generations are also what create the identity of a Korean home. While the rooms and functions may change, there are certain qualities that remain constant and define a Korean space, regardless of the transition of time.

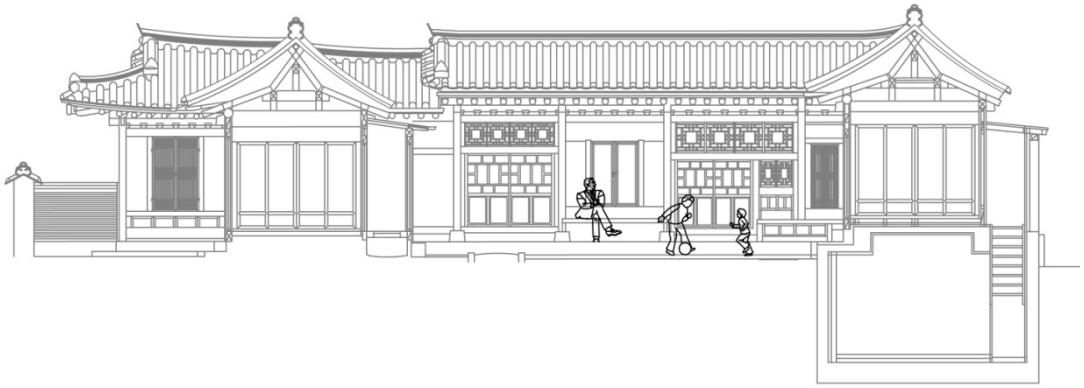


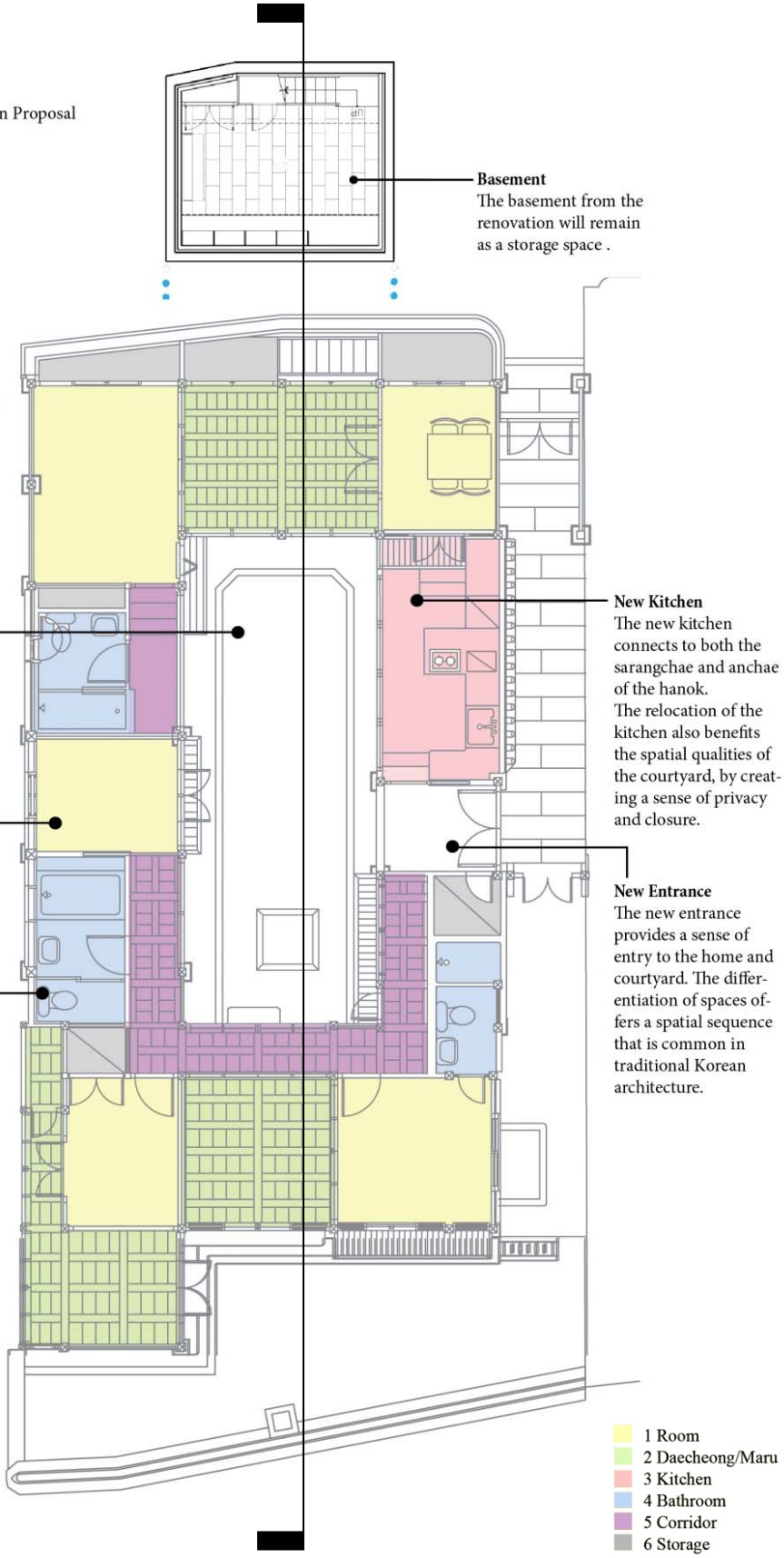
Figure 98 Section drawing of the Redesign of Seon Eum Jae. The elevation shows the use of the armrest space from the center of the *madang*.
Image created by Janice Shon

Redesign Proposal

Program Changes for Redesign Proposal (after to new)

- Defined entryway with gate
- Kitchen relocated
- Added living/ dining room
- Spaces rearranged to create separation of public/rivate
- *Madang* made uses softer surface material, cozy

The preserved areas, such as the *meoleum* (armrest) and the *marus* have been included with respect to the original function.



Features of the Proposed Design of the Dae Mun (gateway)

Figure 99 Before: the entrance was a small and formal space, more private and
Photo provided by guga UA

Figure 101 After: the new entrance is larger comfortable and more inviting
Photo provided by guga UA

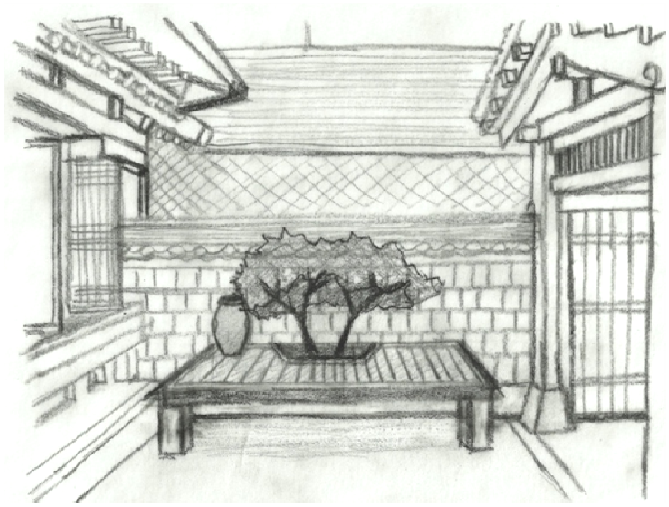


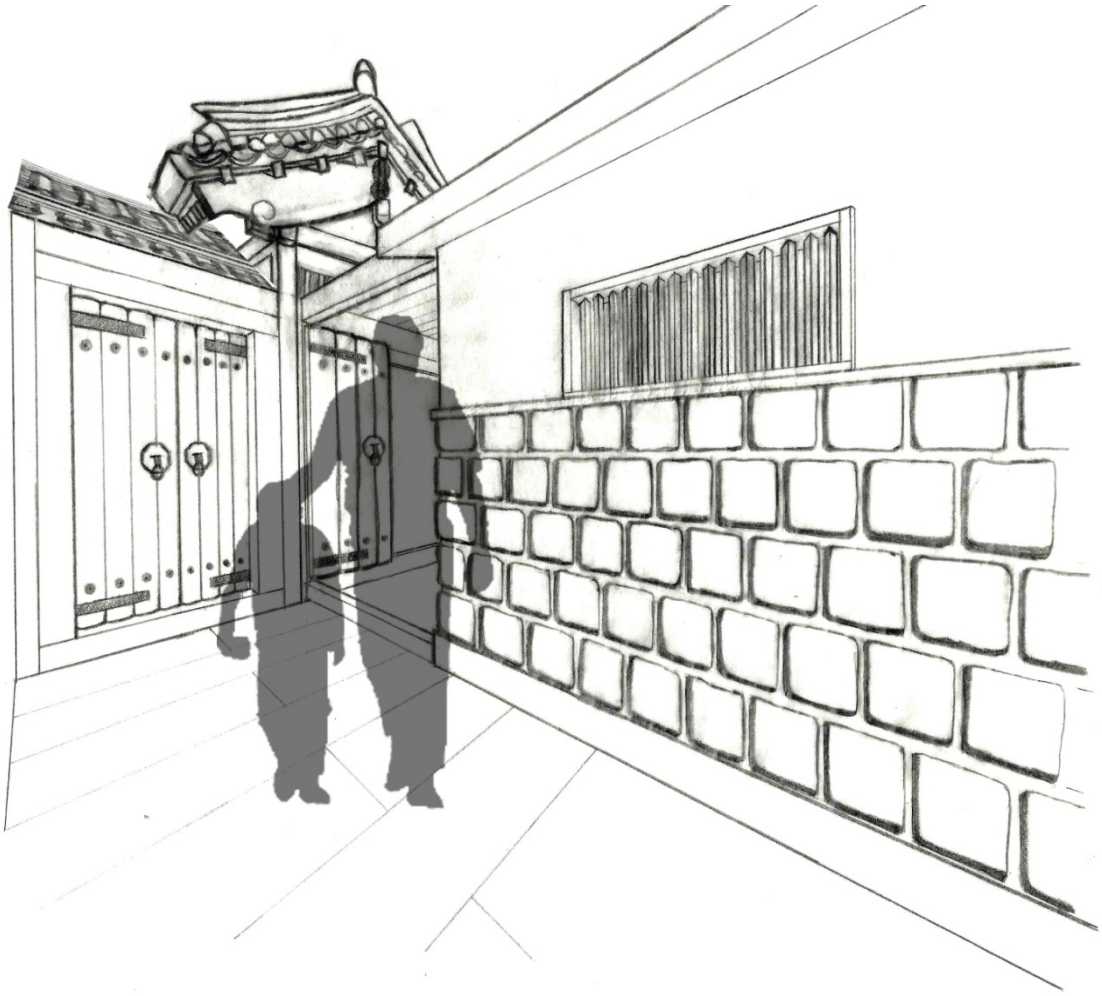
Figure 100 A process drawing of the possible change of the front entrance space.

In the renovation, the dae mun was replaced with an opening. This was not favorable to *hanok* design where a proper entry sequence was part of the experience.

The room directly across from the after entrance opening is the bathroom. In order to provide a sense of division between the entrance way and rooms, the shrub was relocated.

In the proposed entrance, there is a defined space from the front gateway to the *hanok* entryway. The sense of entryway was lost in the renovation. In the proposed entrance, there is a distinct entry sequence that crosses the entrance threshold and into the *madang*.

The proposed entrance goes from the street gateway to the entry way into the *hanok* living space. The processional to the entryway creates a sense of curiosity as the one goes pass the doors and through the interstitial space and then to the center of the *madang*.



Perspective Drawing of Redesign:
DAE MUN (gateway)

Features of the Proposed Design of the *MADANG* (courtyard)

Figure 103 Top: image of the before renovation of the madang Above: image of the renovated madang
Photo provided by guga UA

Figure 102 Perspective sketch of proposed central coutyard

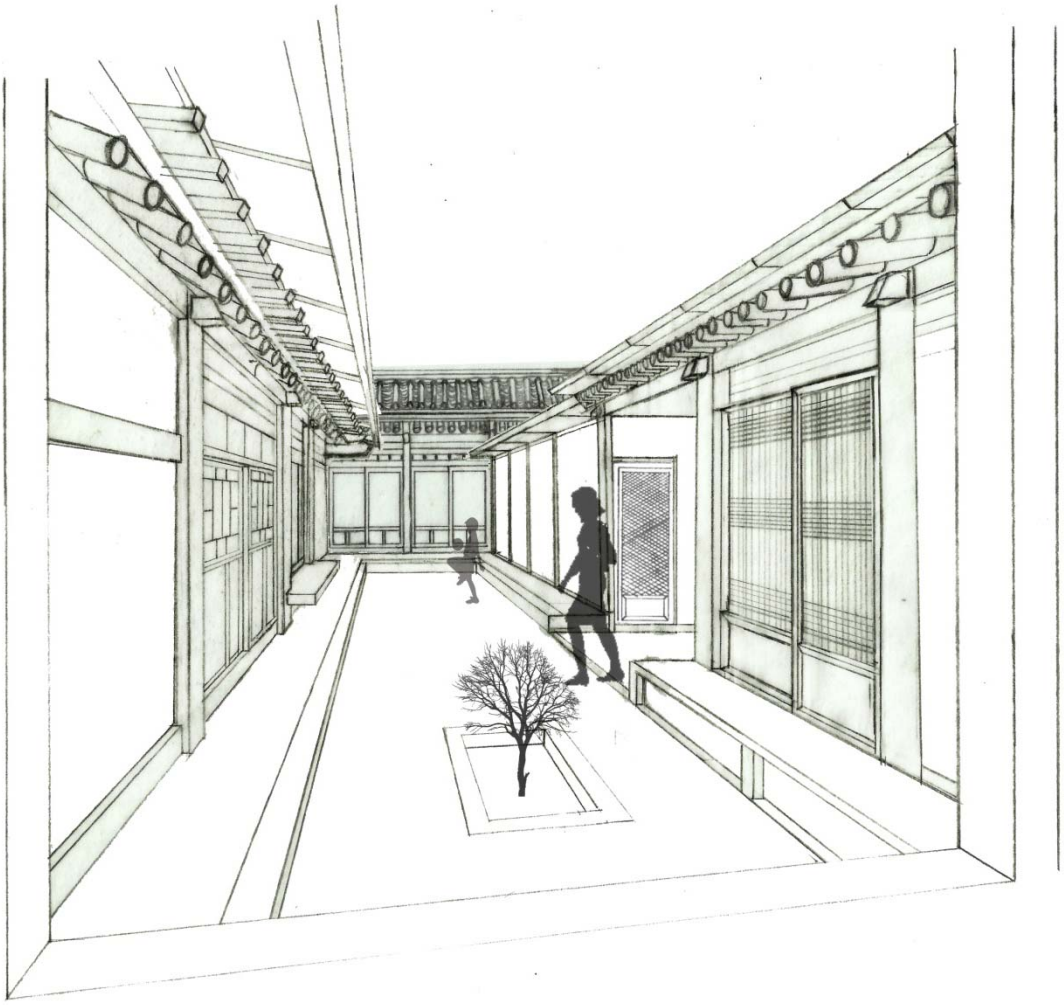
The qualities of space that have been lost in the renovation of the Seon Eum Jae *hanok* can be recognized by comparing the past and present situations. Often times, the manner in which the materials are

In order to maintain the essence of the traditional space in contemporary settings, the granite tiles were replaced with a softer permeable material. Stepping stones were added to provide a sense of direction. The room directly across from the entrance opening is the bathroom. In order to provide a sense of division between the entrance way and rooms, the shrub was relocated.

Prior to the renovation the central courtyard remained unfinished with natural elements, such as soil and an outgrown shrub. In the before image, the space was barren and

After the renovation, the central courtyard was finished with granite tiles. The flat and defined granite tiles make the courtyard feel too solid. The granite has a larger thermal mass, which defeats the purpose of a *madang*, which was used for ventilation and cooling.

Traditionally *madang*s functioned as an outdoor gathering space for family members. In this case, the *madang* has lost the original identity, by having an open, rather unfriendly-looking space.



Perspective Drawing of Redesign:
MADANG (courtyard)

Features of the Proposed Design of the BUEOK (kitchen)

Figure 105 Before and After photos ofthe kitchen space
Photo provided by guga UA

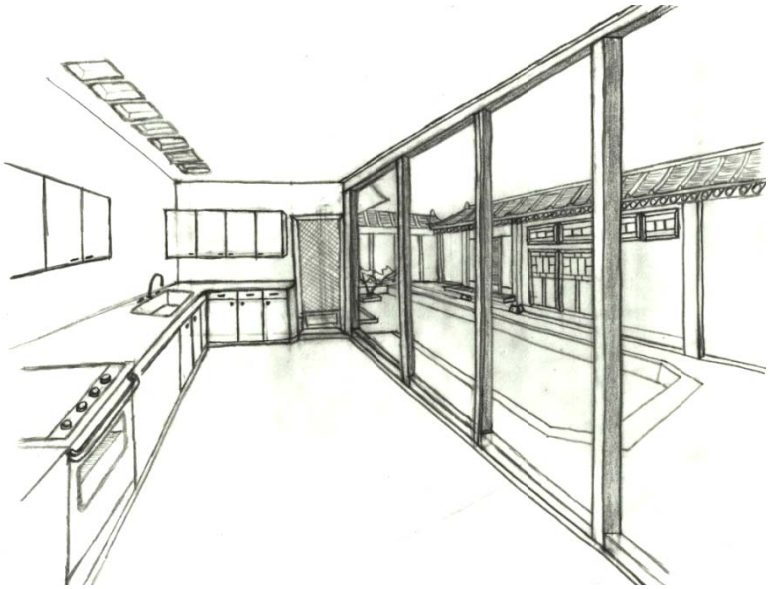


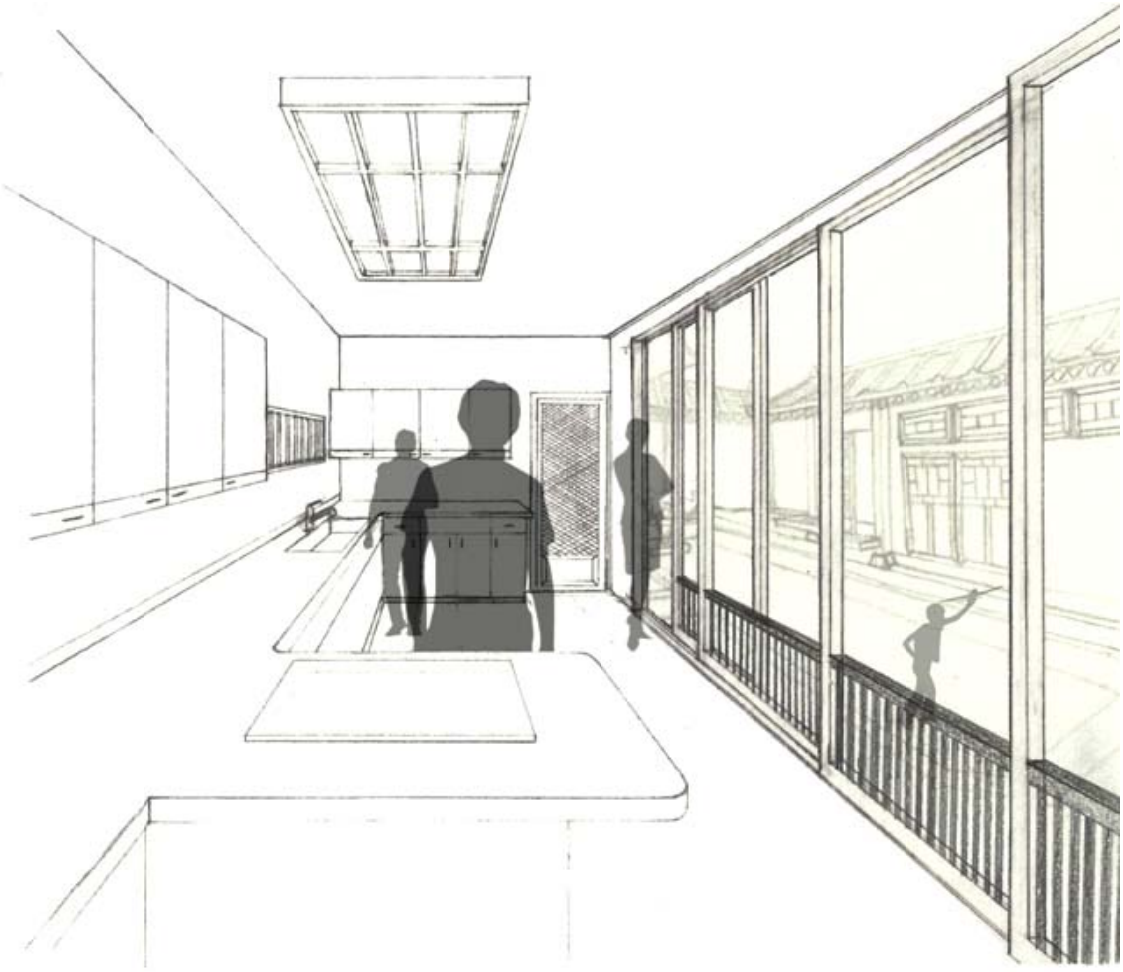
Figure 104 Perspective of proposed kitchen space
Image by Janice Shon

The new kitchen space can be used as an indoor and outdoor area, which connects to the *madang*.
An important design consideration to preservation projects would be to not hide the elements of new construction. The relocated kitchen has steel and glass sliding doors that clearly stand apart from the original *hanok*.
Keeping true to the program requirements for an overall indoor circulation path, the kitchen connects to the dae mun (entrance) which in turns provides a sheltered access way to the an*chae*.

The new kitchen is connected to the *bang*/dining room. In the previous layout, a family dining space was in the kitchen, which may have been comfortable, but seemed to be too compact and takes away from the preparation space.

The new kitchen allows has installed windows to the wall leading to the entrance/exit to provide better ventilation.
The new kitchen suits the traditional ideals of a kitchen, where food preparation was done in a separate place from where meals were had.

Figure 106 View of renovated kitchen
Photo provided by guga UA



Perspective Drawing of Redesign:
BUEOK (kitchen)

Features of the Proposed Design of the *BANG* with Meoleum **(room with armrest)**

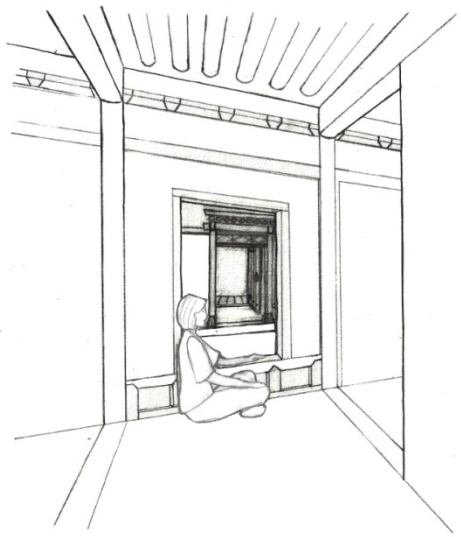


Figure 107 Proposed design of the meoleum space
Image by Janice Shon

By relocating the kitchen space to a different area of the *hanok*, it is possible to use the meoleum, or under window threshold (which was utilized as an armrest when seated near the window). This feature of a *hanok* was particularly significant in traditional days, where the meoleum was used as not only a armrest, but as a means to hide oneself when taking a nap by the window.[143] The height of the meoleum differentiates a window from a door, although the meoleum height is low enough to step over.

In the renovation, the meoleum was preserved, but the space was transformed into a kitchen which defeated the function and purpose of preserving the meoleum. Another benefit to moving the kitchen was the additional space acquired.

In the redesign, the room with the meoleum was designed as an smaller common room or guest room, depending on the need of the family. Rearranging the spaces allowed for rooms to be

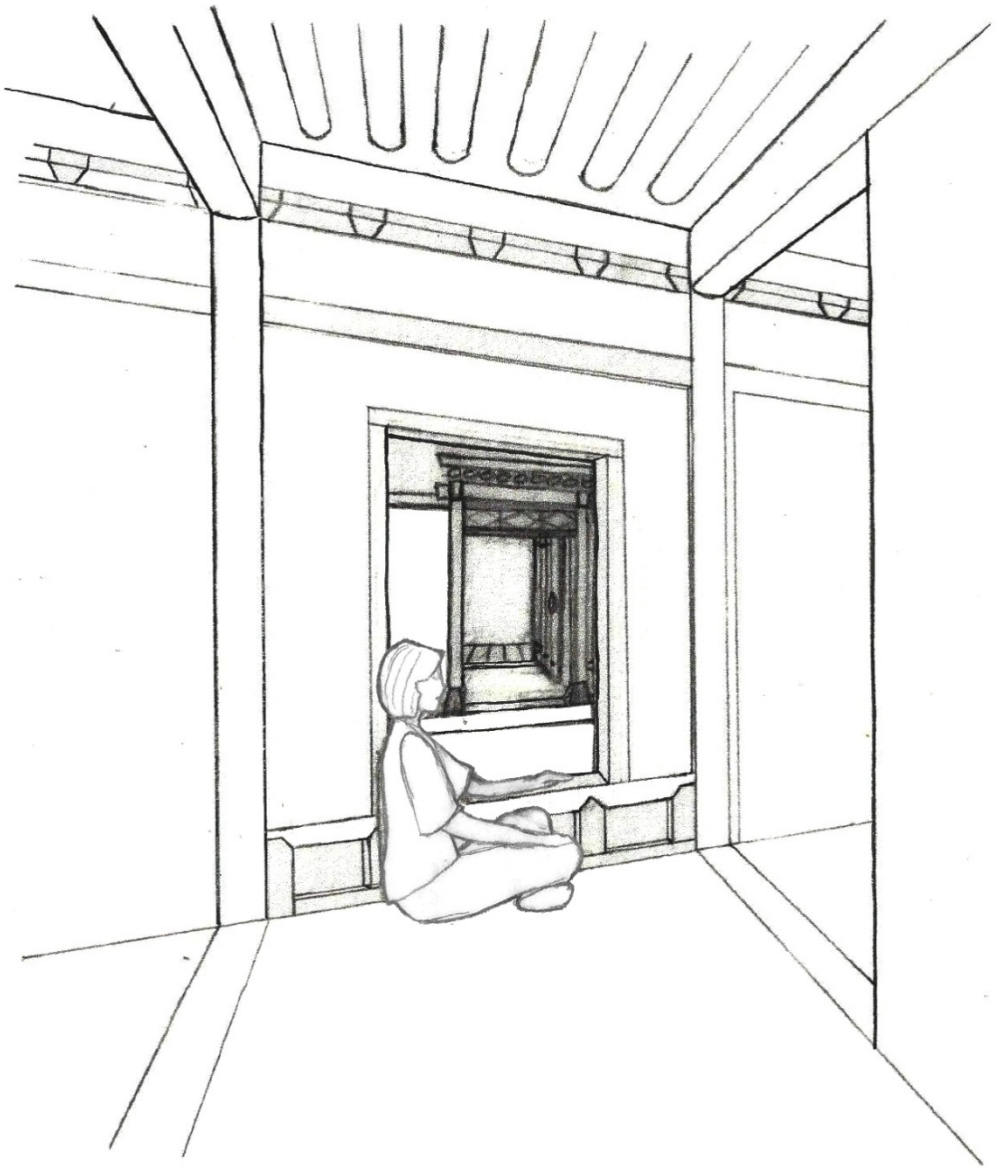
The meoleum space captures the traditional element of a *hanok* that is often lost in renovations, due to misuse or demolition

When seated by the meoleum, one is able to observe the best views of the *madang*

The height of the meoleum was considered to be the most comfortable level to rest one's arm. In addition to the function as an armrest, the meoleum was also intended to hide from view the body of someone who would nap in the *bang*. The significance of the height can be identified as a cultural entity of a *hanok*.

There is a direct visual connection from the *bang* with the meoleum to the entryway and beyond, which show the layers of thresholds of a *hanok*.

[143] Kim, Kyong Ran. How was a Meoleum Made?. Nonsan Focus: Internet Newspaper. (last accessed November 14, 2011). http://www.nsf.kr/news/view.asp?idx=48&msection=5&ssection=16



Perspective Drawing of Redesign:
BANG (room)

4.4 Conclusions

Investigating contemporary *hanok*s through the analysis of case studies provided a method to understanding the changes a *hanok* undergoes when transitioning from traditional to contemporary. By studying different types of contemporary *hanok*s, I was able to formulate ideas on certain aspects and needs according to the adaptive reuses and residential renovations. For instance, adaptive reuse projects typically required consideration for public use and spaces, while renovation remained for private use, so the spatial context would have to consider the function of the *hanok* user.

The adaptive reuses of *hanok*s seem to still be evolving with different possibilities. During my time in Seoul, I was fascinated by the variety of adaptive reuse *hanok*s. In many cases, *hanok*s were reused as cafes, shops, restaurants, or homestay, each with their own identity and character.

In the case of renovated *hanok*s, being able to compare the before and after was beneficial to understanding the changes in family lifestyle and spatial needs, in addition to the necessary physical changes for standard living. One of the major distinguishable changes in a contemporary *hanok* would be the forgotten use of certain elements. A good example would be the meoleum, an area under a window used as an armrest, and how the original purpose has been lost in the Seon Eum Jae *hanok*.

The issue regarding the lost qualities of contemporary *hanok* space was challenging, yet intriguing to research. Often times, the qualities of space are sacrificed due to the needs of a contemporary lifestyle.

5

Proposed Principles for *Hanok* Intervention

5.1 ICOMOS Charters

The International Council on Monuments and Sites (ICOMOS) approved a Charter on the Built Vernacular Heritage in 1999. Established by the ICOMOS 12th General Assembly in Mexico, the principles were created as recommendations to be used in situations that involve the built vernacular heritage.

The five points of the Principles of the Built Vernacular Heritage can be generally explained as:

- A multidisciplinary approach is necessary to assess architectural heritage.

- The physical heritage should be considered in relationship to the cultural context.
- The significance and integrity of architectural heritage should be evident throughout the building, not only in the façade or appearance.
- Conservation requirements and safety conditions should be followed properly.
- Structural restoration should be a method to attain the result of a whole building, and not the final product. [144]

In addition to the Principles for the Analysis, Conservation and Structural Restoration of Architectural Heritage offers points that relate to the issue at hand. Two proposed principles have developed from the Principles for the Analysis, Conservation and Structural Restoration of Architectural Heritage. The two principles support the needs for *Hanok* Interventions due to their focus on physical conditions of the structure.

The two points of the Principles for the Analysis, Conservation and Structural Restoration of Architectural Heritage can be generally explained as:
- An investigation of the conditions of the existing structure is required, prior to any interventions.
- The advantages and disadvantages to the architectural heritage should be determined prior to any action taken.

By referring to the ICOMOS Charters, the interventions look at the bigger picture on how to protect and preserve *hanok*s. Compared to policies that benefit individual *hanok*s, this thesis takes into consideration the relationship of the cultural identity of the broader community and region.

Based on the Principles of Conservation for the Built Vernacular Heritage, the Principles of *Hanok* Interventions should be followed when dealing with *hanok*s that are in the midst of changing from traditional to contemporary, whether it is in terms of adaptive reuse or renovation.

The seven points for the *Hanok* Interventions can be explained as:
- A multidisciplinary approach should be required to evaluate the vernacular heritage of a *hanok*.
- The cultural context, existing conditions, and surroundings should be considered when altering a *hanok*.
- The community or surroundings of a *hanok* should add cultural value and offer a sense of place.
- The new use or function of a *hanok* must meet the proper conditional requirements and should be treated as part of a whole.
- The intangible traditions should be maintained with consideration of physical extents of a *hanok*.
- An investigation of the existing structure is required, prior to any interventions.
- The gains and losses for *hanok* interventions should be considered before any action.

[144] ICOMOS Charter. "Charter on the Built Vernacular Heritage," last updated November 3, 2011, http://www.international.icomos.org/charters/vernacular_e.htm

5.2 Proposed Principles for *Hanok* Interventions

Using the current Principles of Conservation for the Built Vernacular Heritage as a model, the Principles for *Hanok* Interventions were derived. The principles for *hanok* interventions are significantly different from the Principles of Conservation for the Built Vernacular Heritage. While conservation and restoration focus on how to preserve the original state of a historic building, interventions combine necessary new conditions with careful considerations of the historic elements. The Principles for *Hanok* Interventions are specifically intended for Korean traditional homes, regardless of the use of the space.

The Principles of Conservation for the Built Vernacular Heritage can be used as a model due to the focus on the vernacular heritage of a place. These principles are broad and adaptable approaches on how to maintain a vernacular heritage within the means of conservation. *Hanok*s are a vernacular heritage to Korean tradition and culture. As a symbol of Korean heritage and culture, *hanok*s have been

Based on the Principles of Conservation for the Built Vernacular Heritage, the Principles of *Hanok* Interventions should be followed when dealing with *hanok*s that are in the midst of changing from traditional to contemporary, whether it is in terms of adaptive reuse or renovation.

The case studies in section 4.2 Case Studies will be used to show how the principles would be implemented when preserving a hanok. The case studies are as follows:

Case #1: Choi Sunu House
Case #2: Yeon Café
Case #3: e-Mideum Dentist Office
Case #4: Seon Eum Jae

Principle of Conservation of the Built Vernacular Heritage:

1. The conservation of the built vernacular heritage must be carried out by multidisciplinary expertise while recognising the inevitability of change and development, and the need to respect the community's established cultural identity.[145]

Principle for *Hanok* Intervention:

1. A multidisciplinary approach is necessary to assess the vernacular heritage of a *hanok*. An intervention will not be limited to the expertise of the field of architecture, but rather involve several other specialized disciplines, especially when regarding Korean traditions and cultures.

Observations from Case Studies

Propose expertise from other disciplines to participate in the arrangement of spaces, interior designs, and other areas that pertain to a certain time periods.

Case #1: The Choi Sunu House was restored to the period when Sunu Choi resided in the *hanok*. As a Korean traditional art historian, Sunu Choi was able to practice his esthetic sense using his home as a canvas, and his collection of art pieces as a medium. The Choi Sunu House was chosen for restoration because of the man who once lived in the home, and also for the representation of Korean culture and heritage that was carefully arranged.[146]

In addition to Sunu Choi's expertise, many scholars have participated in studies and investigations regarding the house, such as Dr. Hongnam Kim, an art historian, professor, and museum director with a focus in Asian arts.

[145] ICOMOS Charter. "Charter on the Built Vernacular Heritage," last updated November 3, 2011, http://www.international.icomos.org/charters/vernacular_e.htm

[146] Hanyang University Department of Architecture. *Choi Sunu House Research and Records Report*. Cultural Heritage Administration of Korea. Seoul: 2008. P 162.

Case #2: The Yeon café *hanok* was a redesign project of a *hanok* done by Professor Inho Song, a professor at the University of Seoul who is known for speaking about urban planning issues. By including a professor of urban planning into the design, it is possible for the intent of the project to be better met. The entrance to Yeon is on a steep incline of stairs, yet people are able to find their way to the café. The project was part of the *Hanok* Asset Upward Portfolio collection. The redesign process of the Yeon café *hanok* was recorded and photographed.

Principle of Conservation of the Built Vernacular Heritage:

2. Contemporary work on vernacular buildings, groups and settlements should respect their cultural values and their traditional character.[147]

Principle for *Hanok* Intervention:

2. The cultural context of Korean tradition should be considered in respect to the existing conditions of the *hanok* and surroundings when making a change.

Observations from Case Studies

Propose an adaptive reuse of a *hanok* in an area that can relate and adjust to the surrounding.

Case #3: The e-Mideum Dental Office is located in a residential district with other *hanok*s that are becoming reused as art galleries, guesthouses, boutiques, coffee shops, etc. This has become a popular trend that attracts locals and foreigners to visit Bukchon.

[147] ICOMOS Charter. "Charter on the Built Vernacular Heritage," last updated November 3, 2011, http://www.international.icomos.org/charters/vernacular_e.htm

Principle of Conservation of the Built Vernacular Heritage:

3. The vernacular is only seldom represented by single structures, and it is best conserved by maintaining and preserving groups and settlements of a representative character, region by region.[148]

Principle for *Hanok* Intervention:

3. The community or surroundings of a *hanok* should add cultural value and offer a sense of place.

Observations from Case Studies

Repair deteriorated structural elements should all be repaired and/or replaced accordingly.

Case #1: The Choi Sunu House has an exhibition room that displays the restoration process of the *hanok*. There are also guided tours that explain certain features of the home in depth and highlight scenic views from various locations around the house and *madang*. . These approaches to educating the public ignore the function of the preserved features.

Case #2: The Yeon café was in terrible condition prior to renovations. The structural elements were all deteriorated, decayed, or in questionable state.

Case #1, 2, and 3: The Bukchon neighborhood was able to come together to demand conditions on individual *hanok* preservation regulations.

[148] ICOMOS Charter. "Charter on the Built Vernacular Heritage," last updated November 3, 2011, http://www.international.icomos.org/charters/vernacular_e.htm

Principle of Conservation of the Built Vernacular Heritage:

4. The built vernacular heritage is an integral part of the cultural landscape and this relationship must be taken into consideration in the development of conservation approaches.[149]

Principle for *Hanok* Intervention:

4. The relationship between *hanok*s and the cultural landscape must be considered for conservation approaches. The new use or function of a *hanok* must meet the proper conditional requirements to maintain the title of being a Korean traditional home. The intervention should allow for scope of future preservation work to be possible. The intervention should not be treated as the final product, but rather a part of a whole.

Observations from Case Studies

Retain as much of the structural components of the *hanok*.

Case #3: The e-Mideum Dental Office was able to keep most of the structural components of the original *hanok*s. Even with the adaptive reuse, the structural components were not compromised. The new front exterior was completely redesigned to complement the neighborhood and the interior hanok spaces.

Preserve cultural elements to carry on the heritage of a space.

[149] ICOMOS Charter. "Charter on the Built Vernacular Heritage," last updated November 3, 2011, http://www.international.icomos.org/charters/vernacular_e.htm

Principle of Conservation of the Built Vernacular Heritage:

5. The vernacular embraces not only the physical form and fabric of buildings, structures and spaces, but the ways in which they are used and understood, and the traditions and the intangible associations which attach to them.[150]

Principle for *Hanok* Intervention:

5. The tangible and intangible traditions should be continued regardless of physical extents of a *hanok*.

Observations from Case Studies

Heavy modifications which could potentially threaten the integrity and features of a *hanok* structure should be avoided.

Case #3: E-Mideum Dental Office has made little to no permanent modifications to the spatial layout of the *hanok* even though the adaptive reuse required large equipment to be utilized in the spaces. By keeping intact the structure, the spaces allow patients to experience a true *hanok* space and sets aside an opportunity for possible future changes.

The intangible qualities of a *hanok* is an important element of the vernacular language and should not be compromised in a renovation.

By reusing a *hanok* as a dental office, The e-Mideum Dental Office has provided a new appreciation for the intangible qualities of a *hanok*. When a patient lays in the treatment room chair, they are able to see the exposed roof structure of the *hanok*. This in turn triggers other sensorial activities, such as the awareness to the smell of wood, which has been known to promote relaxation to the muscles.

[150] ICOMOS Charter. "Charter on the Built Vernacular Heritage," last updated November 3, 2011, http://www.international.icomos.org/charters/vernacular_e.htm

Addition: Principle for the Analysis, Conservation and Structural Restoration of Architectural Heritage:

6. The peculiarity of heritage structures, with their complex history, requires the organization of studies and proposals in precise steps that are similar to those used in medicine. Anamnesis, diagnosis, therapy and controls, corresponding respectively to the searches for significant data and information, individuation of the causes of damage and decay, choice of the remedial measures and control of the efficiency of the interventions. In order to achieve cost effectiveness and minimal impact on architectural heritage using funds available in a rational way; it is usually necessary that the study repeats these steps in an iterative process.[151]

[151] ICOMOS Charter. "Charter on the Built Vernacular Heritage," last updated November 3, 2011, http://www.international.icomos.org/charters/vernacular_e.htm

Application: Principle for *Hanok* Intervention:

6. An investigation of the conditions of the existing structure is required, prior to any interventions. The conditions of the structure and components should be diagnosed, which will then be followed by proper physical inspection and analysis.

Observations from Case Studies

Conduct a thorough investigation of conditions and provide documentary evidence of the steps taken for intervention. Photographic recordings should be taken in the case of questionable structural integrity of the *hanok*.

Case #1: The investigation and diagnosis of the Choi Sunu House was documented by Hanyang University architecture students. The documentation included, but are not limited to, photos of before and after the renovation , architectural drawings, charts and tables of the restoration plan and cost analysis, and an analysis of the changes that were made.

Retain significant features such as windows and doors.

Case #4: In the Seon Eum Jae renovation, the meoleum, or low windowsill , which was used as an armrest, was preserved. This feature is unique to Korean architecture, because the low windowsill functions as an armrest when looking out into the *madang* from a *bang*.

In the Seon Eum Jae renovation, the armrest windowsill was preserved, but the space which used to be a room, was turned into a kitchen, which makes the armrest windowsill no longer function as it was intended.

Principle for the Analysis, Conservation and Structural Restoration of Architectural Heritage:

7. No action should be undertaken without having ascertained the achievable benefit and harm to the architectural heritage, except in cases where urgent safeguard measures are necessary to avoid the imminent collapse of the structures (e.g. after seismic damages); those urgent measures, however, should when possible avoid modifying the fabric in an irreversible way.[152]

Application: Principle for *Hanok* Intervention:

7. The advantages and disadvantages to *hanok* interventions should be determined prior to any action taken. The only exception would be in urgent cases where the structural integrity of the building is at risk, in which case careful considerations should be made to not cause irreversible modifications.

Observations from Case Studies

Diagnosis of an urgent case should be met with careful considerations in respect to the existing arrangements.

Case #2: The Yeon café was in terrible condition, where the structural integrity was compromised due to deterioration prior to the renovation. In order to preserve the *hanok*, the deteriorated members were replaced in order to keep the integrity of the remaining elements of the *hanok*.

Case #1: Many of the structural elements of the Choi Sunu House were in desperate condition when the house was first investigated. Prior to the restoration, the home was left empty with no maintenance . When plans for the restoration of the Choi Sunu House were made, many of the structural parts were replaced to restore the integrity and return the home to the days when the house was occupied by Sunu Choi.

[152] ICOMOS Charter. "Charter on the Built Vernacular Heritage," last updated November 3, 2011, http://www.international.icomos.org/charters/vernacular_e.htm

CONCLUSION STATEMENT

This study has provided an understanding of the different ways to approach *hanok* preservation and protection in a contemporary setting.

Based on my understanding of the preservation and conservation of *hanok*s, I have come to the conclusion that a basic set of standards, that considers traditional and contemporary *hanok*s, will help to strengthen and guide a design project. The Proposed Principles of *Hanok* Interventions can be considered appropriate when a *hanok* is undergoing major change in function and structure.

While the research itself was a critical component of the project, another element, that has been an important factor from the very start of the project, is the contribution made to the added body of knowledge about Korean traditional homes in the English language. Considering the cultural representation of a *hanok*, there are very few reliable resources that are written in English. The challenge of working bilingually has been quite an experience. My Korean language skills have improved greatly and although there were struggles to understanding and translating, there were also successes to realizing that my skills were enhancing.

Hanok preservation has already started to become a serious issue that will be met with many more challenges as the trend progresses. Although the end of the project is here, I can't help but feel that I have only scratched the surface of what I hope to contribute for the preservation and protection of *hanok*s.

GLOSSARY

anbang (안방) women's room located in the innermost part of the home

anchae (안채) women's living quarters; The ideogram an(안) means 'inner' is a Korean word and is not written by the Chinese ideogram an for 'safe,' 'peace,' etc. depicted by 'woman' under the 'roof,' although the etymology and connotation might lead to this concept.[153]

araebang (아래방) front room (Decorative Designs book)

bang (방) individual enclosed rooms

banga (반가) residences of Korean yangban gentry (the ban of ban-ga and yang-ban are the same ideogram for 'nobleman'

banghwajang (방화장) fire-resistant wall

bunhapmun (분합문) typically four-paneled doors installed between an enclosed room and an open space. In the summer, the doors could be lifted open and latched to the ceiling. In the winter, the doors could be closed and area becomes an indoor space to shelter from the weather.

bueok (부엌) kitchen

chae (채) living quarters

cheok (척) unit of measurement, also known as a *cha;* 1 *cheok* is ca. 11.8 in. or 30

chim*bang* (침방) bedrooms

choseok (초석) corner stone used for the foundation of a *hanok*

daecheong (대청) a large wood floored *maru*, the main hall

dancheong (단청) extremely ornate way of painting buildlings in five different, very birght colors; typically this type of decorations was reserved for the ceilings and eaves of temples, palaces, and official buildings.

dori (도리) girder

geonneon*bang* (건넌방) daughter-in-law's roomg

gyolan (교란) a railing featuring latticework between posts. Typical lattice designs include patterns of the Chinese characters *a*, *wan*, and a *pissal* design.

hanok (한옥) Korean traditional home

hwagong (화공) ornate carving technique of beams

jangdok (장독) ceramic jars used to store fermented foods

jangma (장마) summer monsoon

jangmaru (장마루) long planks of wood that span the length of the dori and are arranged in direction

jeongjugan (정주간) living room, where family has meals and do household work

jungin (정인) middle class

kan (칸)[154] to count the number of intervals between columns or walls, with one kan being a unit of measurement of length based on the distance between two columns; used to measure the number of spaces or rooms, which are enclosed by two directions of kan, or a structural unit formed by four columns and lintels that link them; one kan covered about 8x8 square feet enclosed by four columns

[153] Sarvimaki, Marja. "Layouts and Layers: Spatial Arrangements in Japan and Korea." Sungkyun Journal of East Asian Studies Vol. 3, No. 2 (2003). http://sjeas.skku.edu/upload/200605/05_Sarvimaki%20Marja.pdf (accessed August 25, 2010).

[154] Asia's Old Dwellings p 23

madang (마당) courtyard

maru (마루) a wood-floor laid with thin flooring boards

meoleum (머름) the threshold under the window, used as an armrest

min (민) lower class; occupations in agriculture, manufacture, or commerce

minga (민가) commoners or peoples 'houses'; the houses of the general populace, as compared to official structures, such as temples and palaces. A narrower definition referred to the houses of non-literati class

nu*maru* (누마루)

ondol (온돌) the smoke from a fireplace either in kitchen or outside is conducted into the under-floor flues, where the warm air heats the floor until passing out the chimney. The floor is made of clay and stones that are covered by several layers of oiled paper; a hypocaust heating system, heat from the fireplace flows through a flue and heats a room by warming the stones that form a sub-floor

sadangchae (사당채) ancestral shrine located separate from the living quarters

sangin (상인) commoners

sarangbang (사랑방) men's room

sarangchae (사랑채) the ideogram sa(사) means 'housing' and rang(랑) means ' ', *chae*(채) is a suffix indicating an independent building or group of buildings[155]; a room addition during early Joseon period, it later evolved into separate quarters for the heir and his son. The sarang began to take on symbolic significance as the place of authority and status for the man of the house and the heritage of the entire household.

sarang-madang (사랑마당) exterior courtyard space for men's quarters

simbyeok (심벽) a wall constructed by placing framing beams at the bottom, middle, and top portions, applying clay mixed with chopped straw, and plastering the surface

sooksuk (숙석) sculptured stones used for corner stones

toetmaru (툇마루) ledge or side maru area used as the corridor/circulation path

uitbang (윗방) back room, this room is as important as an*bang*; children of the family live in this room which is adjacent to the an*bang*; wife's wardrobe may be put in the room.

umulmaru (우물마루) square-shaped wood planks that are laid out in checkered pattern

yangban (양반) aristocrat or nobleman; upper class

[155] Sarvimaki, Marja. "Layouts and Layers: Spatial Arrangements in Japan and Korea." Sungkyun Journal of East Asian Studies Vol. 3, No. 2 (2003). http://sjeas.skku.edu/upload/200605/05_Sarvimaki%20Marja.pdf (accessed August 25, 2010).

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LIST AND SOURCES OF FIGURES

APPENDICES

United Nations Education, Scientific, and Cultural Organization (UNESCO): Transliteration Table

International Council on Monuments and Sites (ICOMOS): Charter on the Built Vernacular Heritage (1999)

International Council on Monuments and Sites (ICOMOS): Principle for the Analysis, Conservation and Structural Restoration of Architectural Heritage (2003)

United Nations
Educational, Scientific and
Cultural Organization

TRANSLITERATION TABLE

In the course of its history, Hangeul, the Korean alphabet, was transcribed and transliterated into roman writing following various methods.
In conformity with the rules of The National Library of Korea 국립중앙도소관, the Index Translationum chose the following transliteration system:

ㅏ	a	ㅑ	ya	ㅢ	ui	ㅈ	j
ㅓ	eo	ㅕ	yeo	ㄱ	g	ㅉ	jj
ㅗ	o	ㅛ	yo	ㄲ	kk	ㅊ	ch
ㅜ	u	ㅠ	yu	ㅋ	k	ㅅ	s
ㅡ	eu	ㅒ	yae	ㄷ	d	ㅆ	ss
ㅣ	i	ㅖ	ye	ㄸ	tt	ㅎ	h
ㅐ	ae	ㅘ	wa	ㅌ	t	ㄴ	n
ㅔ	e	ㅙ	wae	ㅂ	b	ㅁ	m
ㅚ	oe	ㅝ	wo	ㅃ	pp	ㅇ	ng
ㅟ	wi	ㅞ	we	ㅍ	p	ㄹ	l

According to article 8 of the National Institute of Korean Language's 국립국어원 Hangeul transliteration act, letters ㄱ,ㄷ,ㅂ,ㄹ are moved only by g, d, b, l graph not g,k d,t b,p r,l.

When the letter 'ㅇ' get a non-phonetic value in a word, it is symbolized by a hyphen.

Here are some examples of the transliteration system we use:

집	jib	짚	jip	밖	bakk
값	gabs	붓꽃	buskkoch	먹는	meogneun
독립	doglib	문리	munli	물엿	mul-yeos
굳이	gud-i	좋다	johda	이문열	i, mun-yeol
조랑말	jolangmal	없었습니다	eobs-eoss-seubnida	조세희	jo, se-hui

CHARTER ON THE BUILT VERNACULAR HERITAGE (1999)

Ratified by the ICOMOS 12th General Assembly, in Mexico, October 1999

INTRODUCTION

The built vernacular heritage occupies a central place in the affection and pride of all peoples. It has been accepted as a characteristic and attractive product of society. It appears informal, but nevertheless orderly. It is utilitarian and at the same time possesses interest and beauty. It is a focus of contemporary life and at the same time a record of the history of society. Although it is the work of man it is also the creation of time. It would be unworthy of the heritage of man if care were not taken to conserve these traditional harmonies which constitute the core of man's own existence.

The built vernacular heritage is important; it is the fundamental expression of the culture of a community, of its relationship with its territory and, at the same time, the expression of the world's cultural diversity.

Vernacular building is the traditional and natural way by which communities house themselves. It is a continuing process including necessary changes and continuous adaptation as a response to social and environmental constraints. The survival of this tradition is threatened world-wide by the forces of economic, cultural and architectural homogenisation. How these forces can be met is a fundamental problem that must be addressed by communities and also by governments, planners, architects, conservationists and by a multidisciplinary group of specialists.

Due to the homogenisation of culture and of global socio-economic transformation, vernacular structures all around the world are extremely vulnerable, facing serious problems of obsolescence, internal equilibrium and integration.

It is necessary, therefore, in addition to the Venice Charter, to establish principles for the care and protection of our built vernacular heritage.

GENERAL ISSUES

1. Examples of the vernacular may be recognised by:

a) A manner of building shared by the community;

b) A recognisable local or regional character responsive to the environment;

c) Coherence of style, form and appearance, or the use of traditionally established building types;

d) Traditional expertise in design and construction which is transmitted informally;

e) An effective response to functional, social and environmental constraints;

f) The effective application of traditional construction systems and crafts.

2. The appreciation and successful protection of the vernacular heritage depend on the involvement and support of the community, continuing use and maintenance.

3. Governments and responsible authorities must recognise the right of all communities to maintain their living traditions, to protect these through all available legislative, administrative and financial means and to hand

them down to future generations.

PRINCIPLES OF CONSERVATION

1. The conservation of the built vernacular heritage must be carried out by multidisciplinary expertise while recognising the inevitability of change and development, and the need to respect the community's established cultural identity.

2. Contemporary work on vernacular buildings, groups and settlements should respect their cultural values and their traditional character.

3. The vernacular is only seldom represented by single structures, and it is best conserved by maintaining and preserving groups and settlements of a representative character, region by region.

4. The built vernacular heritage is an integral part of the cultural landscape and this relationship must be taken into consideration in the development of conservation approaches.

5. The vernacular embraces not only the physical form and fabric of buildings, structures and spaces, but the ways in which they are used and understood, and the traditions and the intangible associations which attach to them.

GUIDELINES IN PRACTICE

1. Research and documentation

Any physical work on a vernacular structure should be cautious and should be preceded by a full analysis of its form and structure. This document should be lodged in a publicly accessible archive.

2. Siting, landscape and groups of buildings

Interventions to vernacular structures should be carried out in a manner which will respect and maintain the integrity of the siting, the relationship to the physical and cultural landscape, and of one structure to another.

3. Traditional building systems

The continuity of traditional building systems and craft skills associated with the vernacular is fundamental for vernacular expression, and essential for the repair and restoration of these structures. Such skills should be retained, recorded and passed on to new generations of craftsmen and builders in education and training.

4. Replacement of materials and parts

Alterations which legitimately respond to the demands of contemporary use should be effected by the introduction of materials which maintain a consistency of expression, appearance, texture and form throughout the structure and a consistency of building materials.

5. Adaptation

Adaptation and reuse of vernacular structures should be carried out in a manner which will respect the integrity of the structure, its character and form while being compatible with acceptable standards of living. Where there is no break in the continuous utilisation of vernacular forms, a code of ethics within the community can serve as a tool of intervention.

6. Changes and period restoration

Changes over time should be appreciated and understood as important aspects of vernacular architecture. Conformity of all parts of a building to a single period, will not normally be the goal of work on vernacular structures.

7. Training

In order to conserve the cultural values of vernacular expression, governments, responsible authorities, groups and organisations must place emphasis on the following:

a) Education programmes for conservators in the principles of the vernacular;

b) Training programmes to assist communities in maintaining traditional building systems, materials and craft skills;

c) Information programmes which improve public awareness of the vernacular especially amongst the younger generation.

d) Regional networks on vernacular architecture to exchange expertise and experiences.

CIAV:

Madrid, January 30, 1996,

Jerusalem, March 28, 1996

Mikkeli, February 26, 1998.

Santo Domingo, August 26, 1998.

ICOMOS: Stockholm, September 10, 1998.

ICOMOS CHARTER - PRINCIPLES FOR THE ANALYSIS, CONSERVATION AND STRUCTURAL RESTORATION OF ARCHITECTURAL HERITAGE (1999)

Ratified by the ICOMOS 14th General Assembly, in Vicoria Falls, Zimbabwe, October 2003

PRINCIPLES

PURPOSE OF THE DOCUMENT

Structures of architectural heritage, by their very nature and history (material and assembly), present a number of challenges in diagnosis and restoration that limit the application of modern legal codes and building standards. Recommendations are desirable and necessary to both ensure rational methods of analysis and repair methods appropriate to the cultural context.
These Recommendations are intended to be useful to all those involved in conservation and restoration problems, but cannot in anyway replace specific knowledge acquired from cultural and scientific texts.
The Recommendations presented in the complete document are in two sections: Principles, where the basic concepts of conservation are presented; Guidelines, where the rules and methodology that a designer should follow are discussed. Only the Principles have the status of an approved/ratified ICOMOS document.

The guidelines are available in English in a separate document. [Word - 164 Kb]

PRINCIPLES

1 General criteria

1.1 Conservation, reinforcement and restoration of architectural heritage requires a multi-disciplinary approach.

1.2 Value and authenticity of architectural heritage cannot be based on fixed criteria because the respect due to all cultures also requires that its physical heritage be considered within the cultural context to which it belongs.

1.3 The value of architectural heritage is not only in its appearance, but also in the integrity of all its components as a unique product of the specific building technology of its time. In particular the removal of the inner structures maintaining only the fa□ ades does not fit the conservation criteria.

1.4 When any change of use or function is proposed, all the conservation requirements and safety conditions have to be carefully taken into account.

1.5 Restoration of the structure in Architecture Heritage is not an end in itself but a means to an end, which is the building as a whole.

1.6 The peculiarity of heritage structures, with their complex history, requires the organisation of studies and proposals in precise steps that are similar to those used in medicine. Anamnesis, diagnosis, therapy and controls, corresponding respectively to the searches for significant data and information, individuation of the causes of damage and decay, choice of the remedial measures and control of the efficiency of the interventions. In order to achieve cost effectiveness and minimal impact on architectural heritage using funds available in a rational way; it is usually necessary that the study repeats these steps in an iterative process.

1.7 No action should be undertaken without having ascertained the achievable benefit and harm to the architectural heritage, except in cases where urgent safeguard measures are necessary to avoid the imminent collapse of the structures (e.g. after seismic damages); those urgent measures, however, should when possible avoid modifying the

fabric in an irreversible way.

2 Researches and diagnosis

2.1 Usually a multidisciplinary team, to be determined in relation to the type and the scale of the problem, should work together from the first steps of a study - as in the initial survey of the site and the preparation of the investigation programme.

2.2 Data and information should first be processed approximately, to establish a more comprehensive plan of activities in proportion to the real problems of the structures.

2.3 A full understanding of the structural and material characteristics is required in conservation practice. Information is essential on the structure in its original and earlier states, on the techniques that were used in the construction, on the alterations and their effects, on the phenomena that have occurred, and, finally, on its present state.

2.4 In archaeological sites specific problems may be posed because structures have to be stabilised during excavation when knowledge is not yet complete. The structural responses to a □ rediscovered□ building may be completely different from those to an □ exposed□ building. Urgent site-structural-solutions, required to stabilise the structure as it is being excavated, should not compromise the complete building□ s concept form and use.

2.5 Diagnosis is based on historical, qualitative and quantitative approaches; the qualitative approach being mainly based on direct observation of the structural damage and material decay as well as historical and archaeological research, and the quantitative approach mainly on material and structural tests, monitoring and structural analysis.

2.6 Before making a decision on structural intervention it is indispensable to determine first the causes of damage and decay, and then to evaluate the safety level of the structure.

2.7 The safety evaluation, which is the last step in the diagnosis, where the need for treatment measures is determined, should reconcile qualitative with quantitative analysis: direct observation, historical research, structural analysis and, if it is the case, experiments and tests.

2.8 Often the application of the same safety levels as in the design of new buildings requires excessive, if not impossible, measures. In these cases specific analyses and appropriate considerations may justify different approaches to safety.

2.9 All aspects related to the acquired information, the diagnosis including the safety evaluation, and the decision to intervene should be described in an □ explanatory report□ .

3 Remedial measures and controls

3.1 Therapy should address root causes rather than symptoms.

3.2 The best therapy is preventive maintenance

3.3 Safety evaluation and an understanding of the significance of the structure should be the basis for conservation and reinforcement measures.

3.4 No actions should be undertaken without demonstrating that they are indispensable.

3.5 Each intervention should be in proportion to the safety objectives set, thus keeping intervention to the minimum to guarantee safety and durability with the least harm to heritage values.

3.6 The design of intervention should be based on a clear understanding of the kinds of actions that were the cause of the damage and decay as well as those that are taken into account for the analysis of the structure after intervention; because the design will be dependent upon them.

3.7 The choice between □traditional□ and □innovative□ techniques should be weighed up on a case-by-case basis and preference given to those that are least invasive and most compatible with heritage values, bearing in mind safety and durability requirements.

3.8 At times the difficulty of evaluating the real safety levels and the possible benefits of interventions may suggest □an observational method□, i.e. an incremental approach, starting from a minimum level of intervention, with the possible subsequent adoption of a series of supplementary or corrective measures.

3.9 Where possible, any measures adopted should be □reversible□ so that they can be removed and replaced with more suitable measures when new knowledge is acquired. Where they are not completely reversible, interventions should not limit further interventions.

3.10 The characteristics of materials used in restoration work (in particular new materials) and their compatibility with existing materials should be fully established. This must include long-term impacts, so that undesirable side-effects are avoided.

3.11 The distinguishing qualities of the structure and its environment, in their original or earlier states, should not be destroyed.

3.12 Each intervention should, as far as possible, respect the concept, techniques and historical value of the original or earlier states of the structure and leaves evidence that can be recognised in the future.

3.13 Intervention should be the result of an overall integrated plan that gives due weight to the different aspects of architecture, structure, installations and functionality.

3.14 The removal or alteration of any historic material or distinctive architectural features should be avoided whenever possible.

3.15 Deteriorated structures whenever possible should be repaired rather than replaced.

3.16 Imperfections and alterations, when they have become part of the history of the structure, should be maintained so far so they do not compromise the safety requirements.

3.17 Dismantling and reassembly should only be undertaken as an optional measure required by the very nature of the materials and structure when conservation by other means impossible, or harmful.

3.18 Provisional safeguard systems used during the intervention should show their purpose and function without creating any harm to heritage values.

3.19 Any proposal for intervention must be accompanied by a programme of control to be carried out, as far as possible, while the work is in progress.

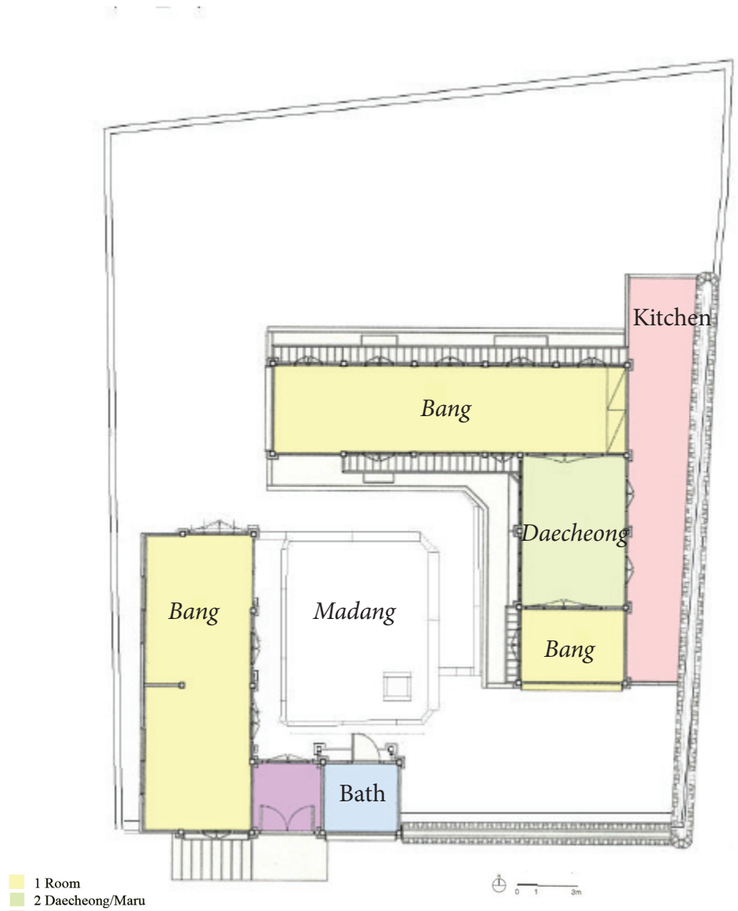
3.20 Measures that are impossible to control during execution should not be allowed.

3.21 Checks and monitoring during and after the intervention should be carried out to ascertain the efficacy of the results.

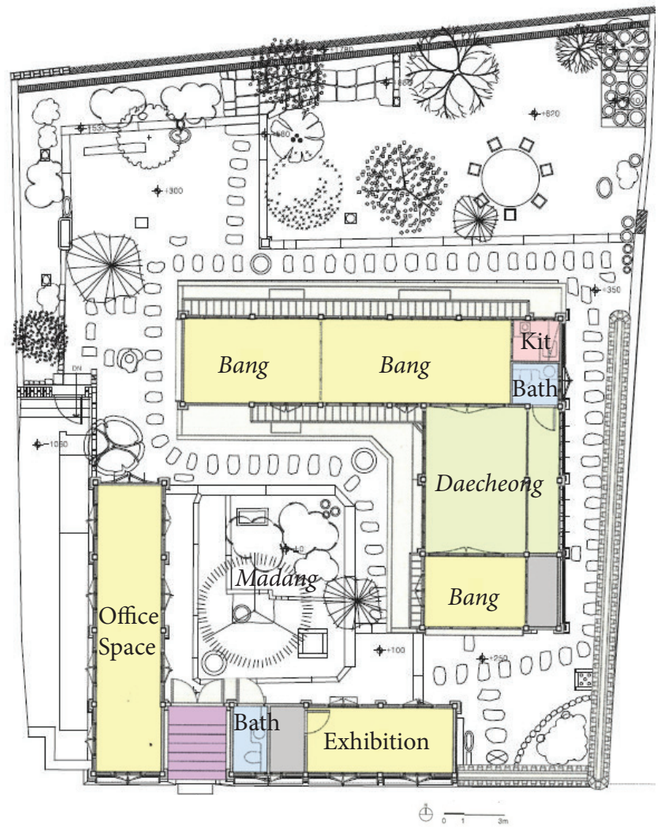
3.22 All the activities of checking and monitoring should be documented and kept as part of the history of the structure.

Floor Plans of Choi Sunu House

title: CHOI SUNU HOUSE • current use: museum • dates: 1930s (first built), 2002 (restored)
site area: 120 pyeong = 4270 sq ft, building area: 31 pyeong = 1103 sq ft
location: Seoul, Seongbuk-gu, Seongbuk-dong 126-20



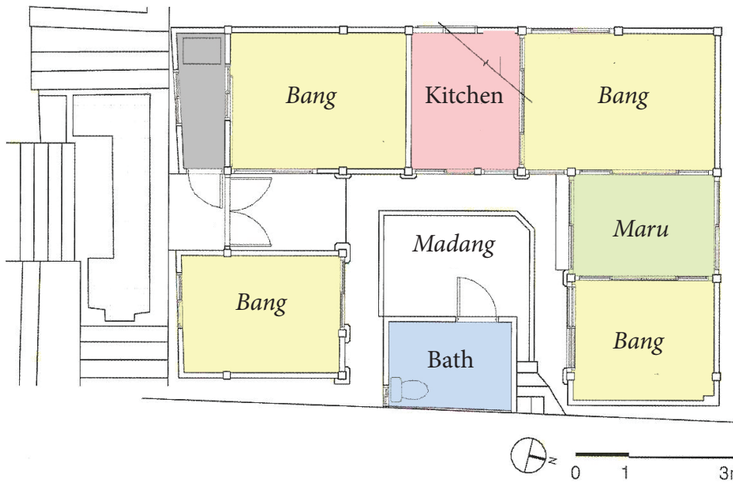
Before Renovations

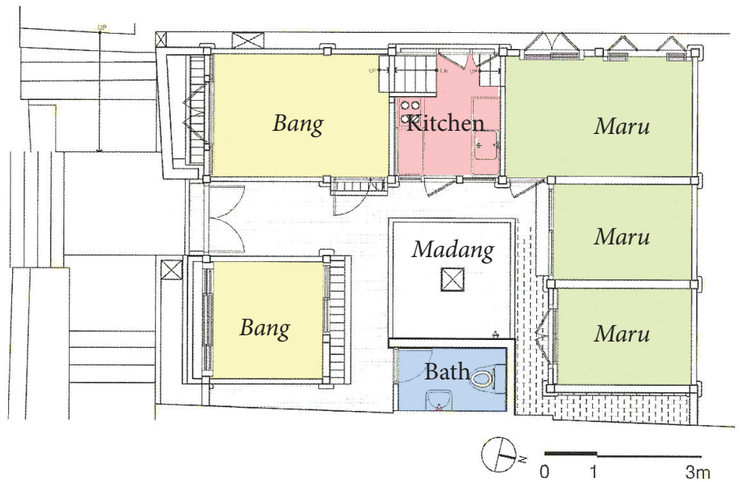


After Renovations

Floor Plans of Yeon Cafe

title: YEON CAFE • current use: cafe • dates: 1941 (first built), 2004 (restored)
site area: 25 pyeong=82.6 m2 , building area: 15 pyeong =51.72 m2
location: Seoul, Jongno-gu, Samcheong-dong 63-20





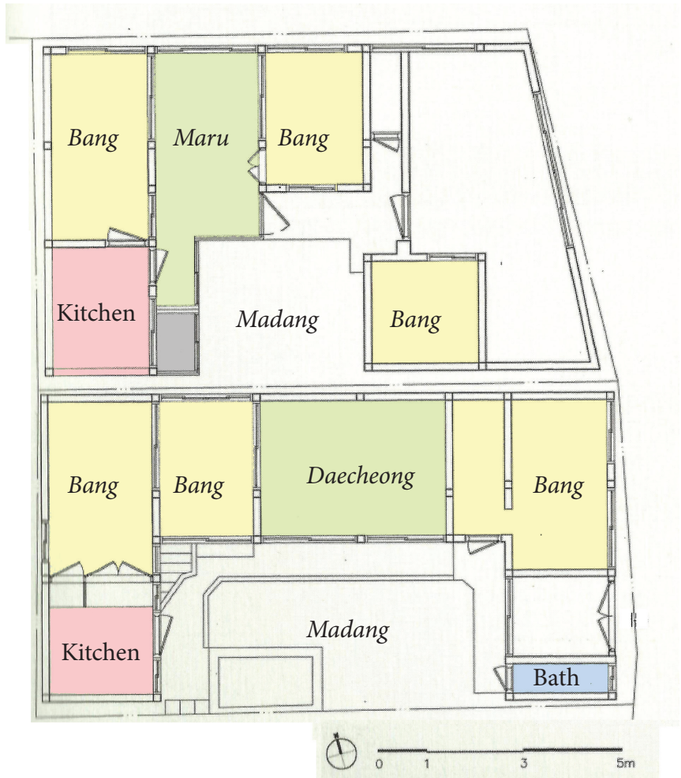
1 Room
2 Daecheong/Maru
3 Kitchen
4 Bathroom
5 Corridor
6 Storage

Before Renovations

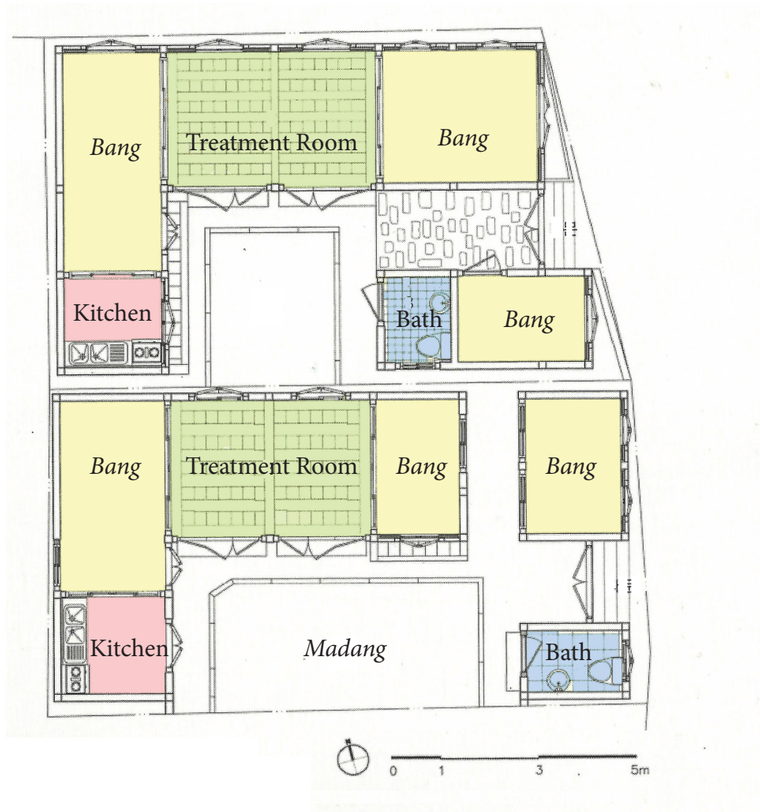
After Renovations

Floor Plans of e-Mideum Dentist Office

title: e-MIDEUM DENTIST • current use: dentist office • dates: 1940s (first built), 1998 (restored)
site area: 24 pyeong =854 sq ft, building area: 14 pyeong =498 sq ft
location: Seoul, Jongno-gu, Gahoe-dong 1-17



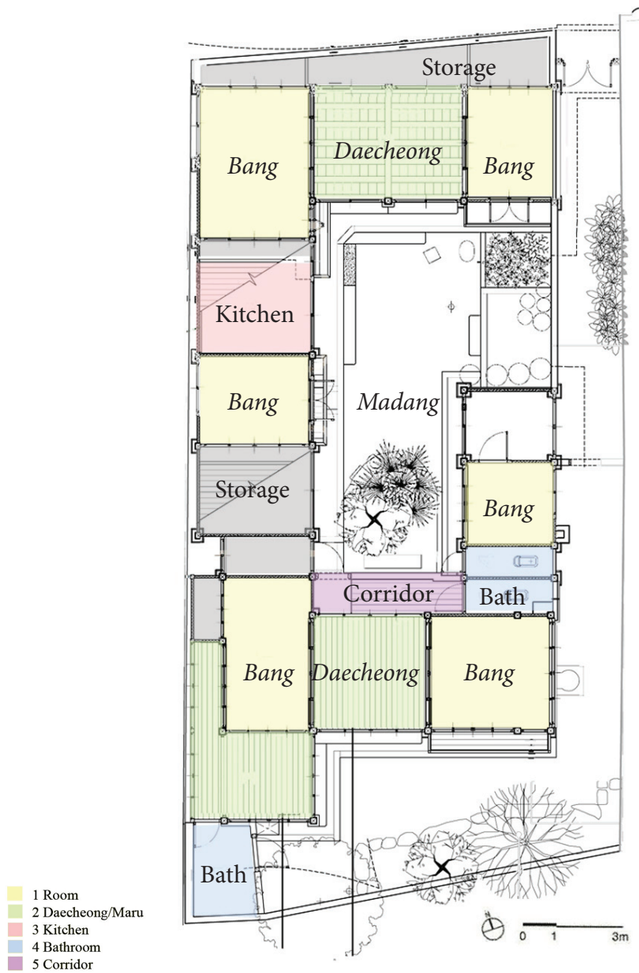
Before Renovations



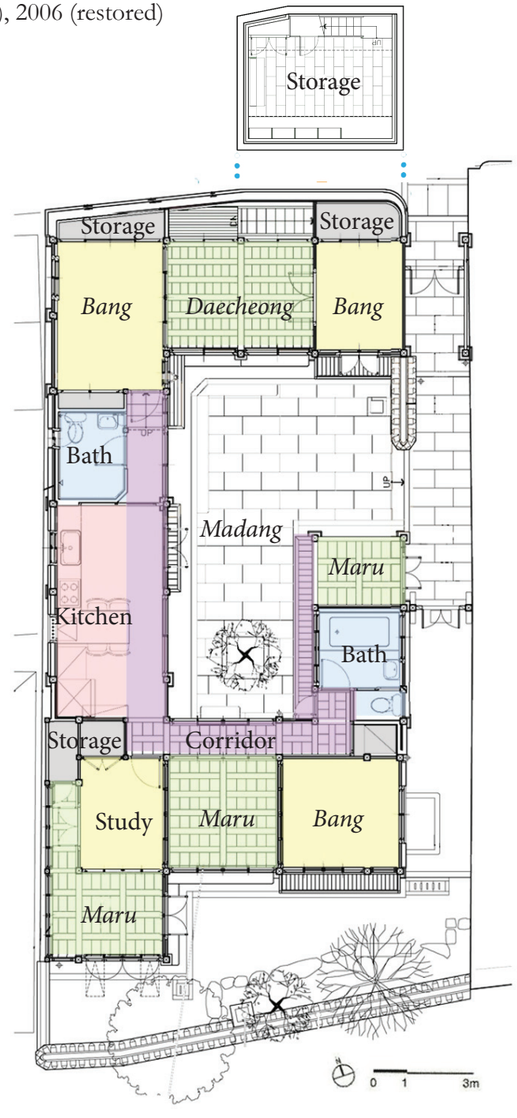
After Renovations

Floor Plans of Seon Eum Jae Hanok

title: SEON-EUM JAE • current use: residential • dates: 1934 (first built), 2006 (restored)
location: Seoul, Jongno-gu, Gahoe-dong 1-75



Before Renovations



After Renovations

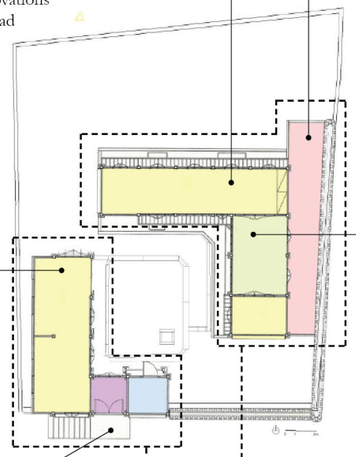
Choi Sunu House

Anchae (rear)

The windows and doors of the anchae, prior to the renovations were weathered and in bad condition.

Kitchen

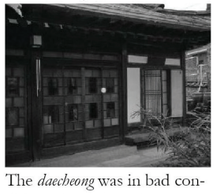
The kitchen space took up the whole back part of the anchae. The protruding area was made for the boiler room to heat the hanok.



Bang

The *bang*, which was part of the outer chae, served as a storage space for Choi Sunu's collection of books and artworks.

Daecheong



The *daecheong* was in bad condition with little maintenance of the sliding doors and glass treatment.

Entrance

Prior to the renovation the stairs to the entrance gateway protruded out from the house into the alley way.

ANCHAE

The anchae consisted of the *anbang*, *saranghang*, *daecheong*, and the kitchen and boiler room.

OUTER *CHAE*

The outer chae consisted of the entrance gateway, a *bang*, and a bathroom.

1 Room
2 Daecheong/Maru
3 Kitchen
4 Bathroom
5 Corridor
6 Storage

Before Renovations

Storage/Exit

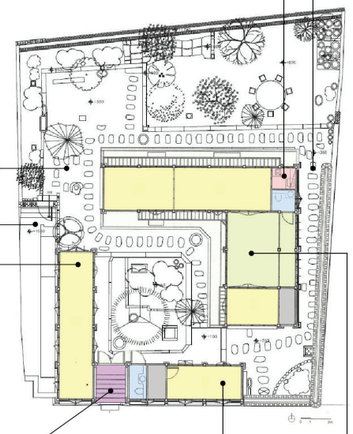
The office space was narrowed to make room for the back entry of the office.

Kitchen

The new kitchen was relocated and minimized.

Pathway

The new pathway allows visitors to circle around the hanok and enjoy the madang from all outdoor perspectives.



Office

The headquarters of the National Trust of Korea took the space of the bang in the renovation.

The ambience of the madang has been improved with the removal of the kitchen.

Entrance

The stairs leading to the entrance gateway was set into the house, allowing the alley way to be free of any obstructions.

New Bang

The added room of the outer chae was designed as an exhibit space for the National Trust of Korea.

Daecheong

The sliding doors of the anchae were replaced in the renovation.

After Renovations

Yeon Cafe

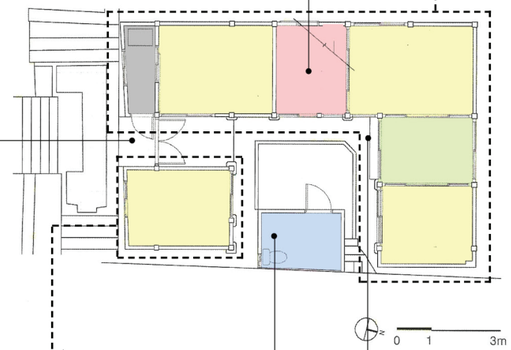
ANCHAE
The anchae consisted of the *anbang*, *daecheong*, *geonneonbang* and the kitchen.

Kitchen Exterior

A view of the entrance way of the kitchen.

Kitchen Interior

A view of the interior space of the original kitchen.



Entrance

The original entrance had a plain concrete facade that made the hanok look uninviting and private.

OUTER *CHAE*
The outer chae consisted of the entrance gateway and a *bang*.

Restroom

The original restroom was large and public, in terms of location.

Madang

The madang was smaller and lacked a sense of identity with the surrounding areas.

1 Room
2 Daecheong/Maru
3 Kitchen
4 Bathroom
5 Corridor
6 Storage

Before Renovations

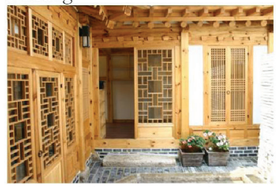
Lower Kitchen

The lower level kitchen space was an added feature of the renovation.

Kitchen

The renovated kitchen is livened up with wood work that gives the space a warm feeling.

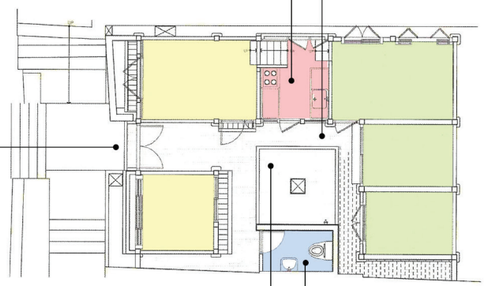
Anbang



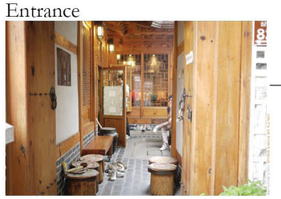
A view of the entrance to the anchae from the madang space.

Entrance

The view from the entrance looking down towards the street.



Entrance



The view from the entrance gateway looking into the madang and anchae.

Madang

The view of the madang looking out from the anchae.

Restroom

A view of the new exterior wall of the restroom from the madang space, which is constructed of sagoseok (square granite stone) and

Interior view of the restroom, which is naturally lit with glassbrick roofing.

After Renovations

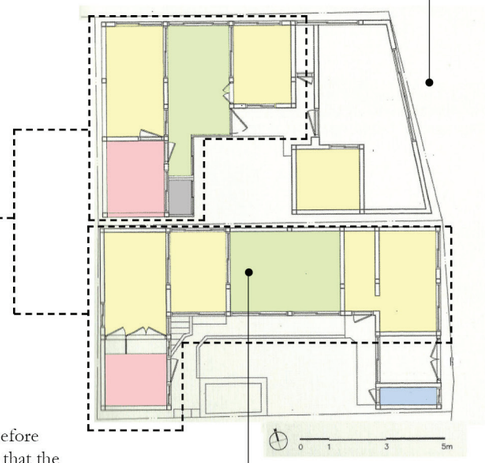
e-Mideum Dentist Office

A lack of research and record documentations on the conditions of the original state of the two hanoks have made it difficult to find images that could better

Entrance

A street view of the roll-up door entrance of one of the hanoks prior to the renovation.

CHAE
Prior to the renovation, the perimeter of the present day dental office, consisted of two neighboring chaes or living quarters.



Bangs
The spatial layout of the before and after renovation show that the number of bangs have remained the same, with slight changes in size.

Daecheong
Although the chaes are separated in the before floor plan, the daecheong space can clearly be seen as the connecting space of the two chaes.

Before Renovations

Outer Madang

The view of the covered madang, which serves as a waiting room.

Outer Madang

View of the roofed skylight space from the receptionist desk

Treatment Bang

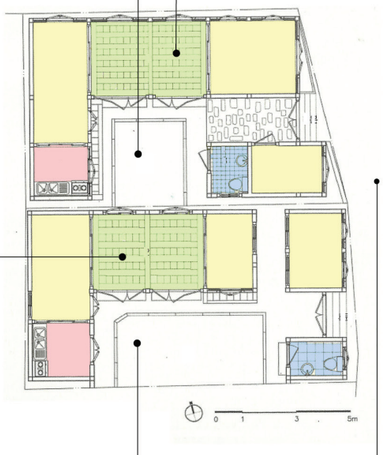
The treatment bang with the exposed roof evokes a comfortable feeling for patients during treatment

Daecheong

View of daecheong with open doors connecting to the madang

Daecheong

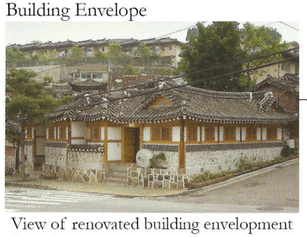
View of daecheong with open doors connecting to the madang



Anmadang

View of the anmadang

Building Envelope

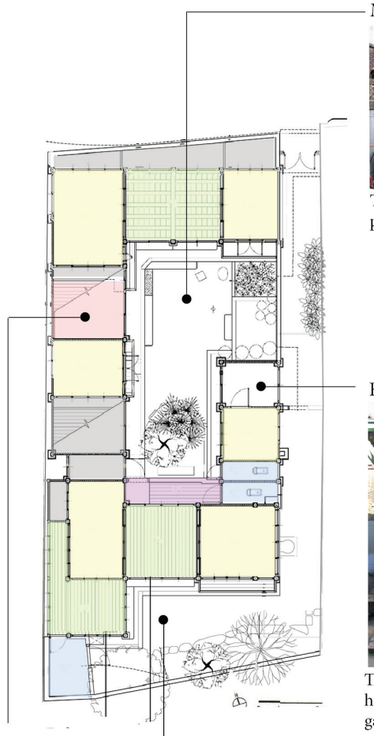


View of renovated building envelopment from the street with two entrance ways

1 Room
2 Daecheong/Maru
3 Kitchen
4 Bathroom
5 Corridor
6 Storage

After Renovations

Seon Eum Jae Hanok




The central couryard space functioned as a place for chores and storage.

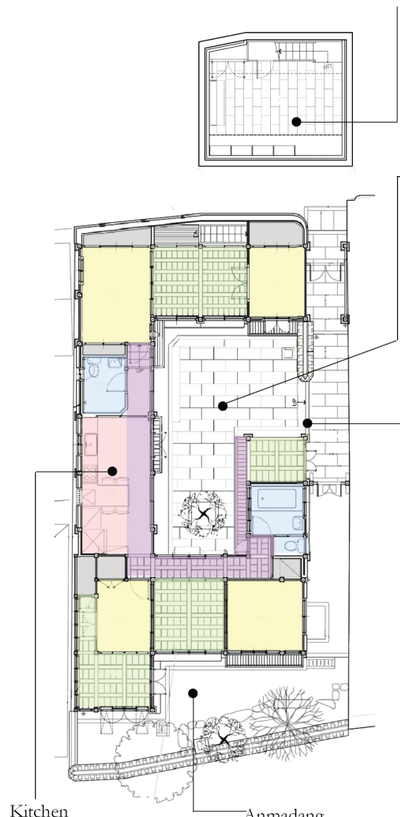

The entrance to the hanok was through a gateway.


Prior to the renovation, the kitchen was small and minimalistic .


Before the renovation, the an-madang consisted of the outhouse restroom,which compacted the ourdoor space and blocked out the sunlight.

1 Room
2 Daecheong/Maru
3 Kitchen
4 Bathroom
5 Corridor
6 Storage

Before Renovations




A new basement was added to allow for more storage space.


The central couryard space became larger with the new entry way.


The renovated entrance way has been relocated and is no longer confined by a gateway. Instead the entryway openly connects the processional to the central courtyard.

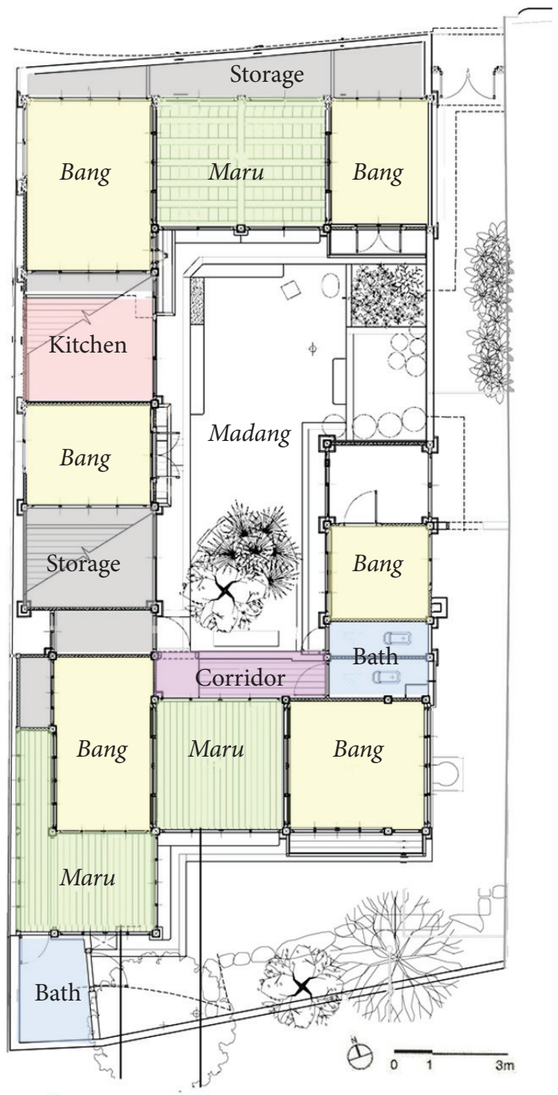

The kitchen space was enlarged and relocated to a central area of the hanok.


With the restroom no longer blocking the sunlight, the anmadang space feels more open and refreshing after the renovations.

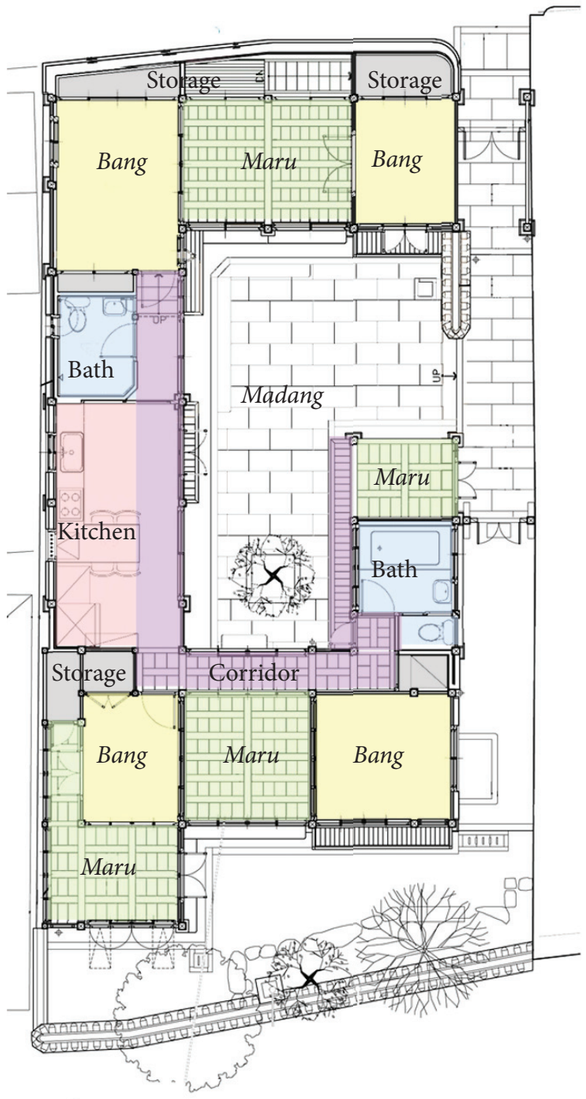
1 Room
2 Daecheong/Maru
3 Kitchen
4 Bathroom
5 Corridor
6 Storage

After Renovations

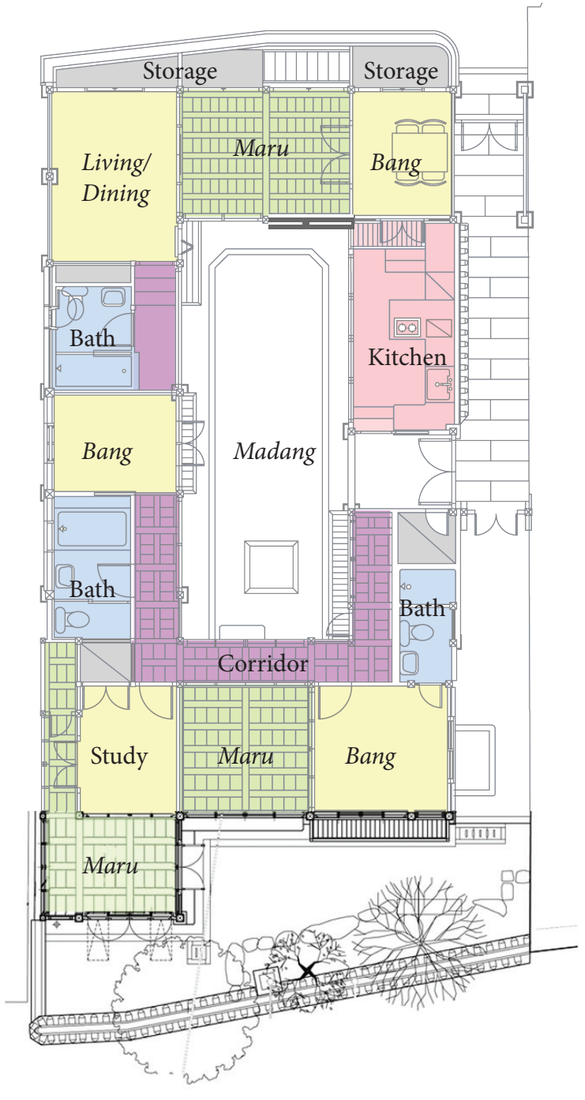
The Before, After and New Floor Plans of Seon Eum Jae *Hanok*



Before



After



New

1 Room
2 Daecheong/Maru
3 Kitchen
4 Bathroom
5 Corridor
6 Storage

Program for Renovated Seon Eun Jae:
- minimum of 3 bangs (bedrooms)
- 2 bathrooms
- 1 large kitchen
- connecting corridor
- central and inner courtyard

Preserved Areas:
- 3 maru spaces (existing)
- meuleum (armrest) window space

Changes in Program (from After to New)
- Defined entryway with gate
- Kitchen relocated
- Added living/ dining room
- Spaces rearranged to create separation of public/rivate
- *Madang* made uses softer surface material, cozy

The preserved areas, such as the *meureum* (armrest) and the *marus* have been included with respect to the original function,