

Collaborative Craft Laboratory in Euljiro, Seoul

by

Sae Jin Lim

Submitted in partial fulfilment of the requirements
for the degree of Master of Architecture

at

Dalhousie University
Halifax, Nova Scotia
March 2022

Dalhousie University is located in Mi'kmaq'i,
the ancestral and unceded territory of the Mi'kmaq.
We are all Treaty people.

© Copyright by Sae Jin Lim, 2022

For our memories at Wilderness, Pohang

Contents

Abstract	v
Acknowledgements	vi
Chapter 1: Introduction	1
Urban Manufacturing District, Euljiro	1
Decline.....	2
History of Euljiro and Its Neighbourhoods	4
Juxtaposition and Disconnection	7
Redevelopment	9
Thesis Question.....	10
Chapter 2: Korean Notion, Mahk.....	11
Mahk and Craft Making	11
Mahk in Traditional Architecture, Hanok.....	12
Madang.....	13
Maru.....	15
Door and Window	16
Chapter 3: Mahk in Euljiro	17
Reinterpretation of the History.....	17
Street.....	18
Madang.....	20
Door and Awning	22
Chapter 4: Connection.....	25
Collective Memory of Lived Experience	25
Lived Experience of Working Together	26
Collective Memory of Working Together	28
Enhancing Collaborative Experience.....	28
Liminality.....	31
Chapter 5: Craft Laboratory	34
Test Sites	34
Aim and Strategy	35
Site 1: Craft Laboratory	41

Merger	41
Overlap	45
Spontaneity	48
Interweave	55
Site 2: Experience Laboratory	56
Merger, Overlap, Spontaneity, Interweave.....	56
Site 3: Field Test	58
Merge, Overlap, Spontaneity	58
Chapter 6: Conclusion	60
References	62

Abstract

The small-scale craft-based manufacturing district, Euljiro, in the historic area of Seoul, South Korea, is facing insensitive redevelopment and gentrification. Despite the multiple attempts to revive the industry, the craft makers and suppliers are on the verge of losing their workplaces and collaborative culture.

The thesis aims to revitalize Euljiro to improve appreciation and acknowledgement of its historical and cultural significance by creating Collaborative Craft Laboratory. The Korean notion, Mahk, that values the process, accumulated traces, spontaneity, and harmony, shapes a significant part of the Korean culture. The thesis implements Mahk as a design strategy to maintain the authenticity of the Euljiro area. Merger, Overlap, Spontaneity, and Interweave are the strategies to design multi-level craft workshops, learning spaces, and public amenities. This design approach aims to respect the inherent identity of the area and enhance collaboration among craftspeople and interactions with visitors from the city at large.

Acknowledgements

I would like to thank Sarah Bonnemaïson, Catherine Vernart, and Christina Verissimo for your invaluable guidance and support. It has been a true joy for me to work with you and learn from you during my thesis terms. This could not be done without you.

Many thanks to my family for sharing this sweet journey with me. June, for your incredible food and all your love. Countless cute letters and drawings that I had almost every day from Hugo and Leanne have been amazing inspirations to me.

My lovely friends and family all around the world, thank you for your warm words and encouragement. I hope this Craft Laboratory reminds you of our precious memories at our old craft workshop, Wilderness in Pohang because this thesis is all about things we shared together there. June and I have imagined you all in every little corner of this design, and I know you will too.

It has been a beautiful wilderness detour. Thank You.

Chapter 1: Introduction

Urban Manufacturing District, Euljiro



Map of Euljiro in Seoul, South Korea. (base map from Kakaomap 2021; NGII 2020)

Located in the historic centre of Seoul, the capital city of South Korea with a population of 9.7 million (Seoul Metropolitan Government 2021), the Euljiro district has been known for its unique small-scale craftsmanship-based urban manufacturing since the late 1960s. The development of the manufacturing industry in Euljiro was first triggered by Sewoon Sangga, a series of commercial and residential high-rise buildings that the government of Seoul planned and constructed between 1966 and 1968. Sewoon Sangga was intended to resolve the problems aroused from the unauthorized shacks and buildings in the area that were disorderly built after Korean War. In the 1970s, Sewoon Sangga district became one of the significant landmarks of Seoul, resulting in thousands of small-scale workshops and supply shops that involved metal, glass, wood, electric, and printing rapidly establishing in the district of Euljiro. The size and the density of the small-scale businesses also stimulated them to form intense networks among the craftspeople and suppliers. While connected to one another within 1km, Euljiro operated as one huge laboratory (Park 2020, 13). The area significantly contributed to the country's rapidly growing manufacturing industry in the post-war era. During that time, Euljiro was at its peak as it flourished as the birthplace of the first automobile of the country, an active implementer of countless new technologies and inspiring inventions, and a strong supporter of artists and designers for their creative works.

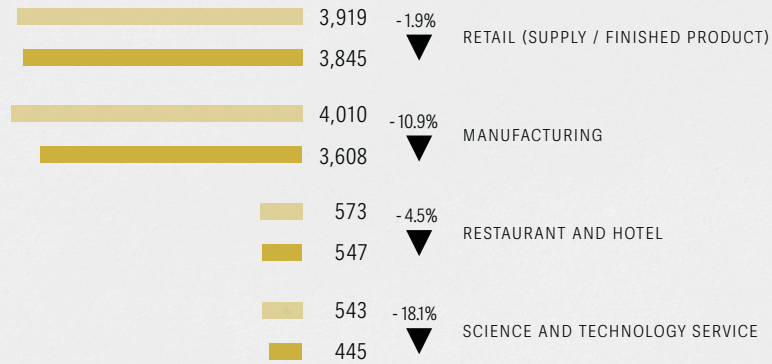


Craftspeople of Euljiro. (Listen to the City 2019)

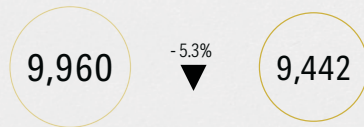
Decline

Despite Euljiro's extraordinary accomplishments, the glory of Euljiro began to fade away in the late 1980s. While the city of Seoul kept expanding, the spotlight shifted towards the other side of the city that had an exponential growth. Moreover, the development of the manufacturing industry, invested more in the cost-efficient mass production and advanced technology, moved the attention to larger-scale facilities far away from the centre of the city. Euljiro's small-scale craftsmanship-based manufacturing, which is much rather ideal for custom prototypes and small-quantity production, was not able to have a chance to be rightfully acknowledged during these transitions. Moreover, as the Euljiro's industry continuously declined, the conditions of many poorly maintained old buildings in the area, suffered through the war and remodelled improperly upon the informal settlements, further repel people from discovering its true value. Thus, Euljiro had long struggled to be recognized its importance as a sociocultural heritage.

NUMBER OF BUSINESS IN GREATER EULJIRO AREA IN 2005 & 2015



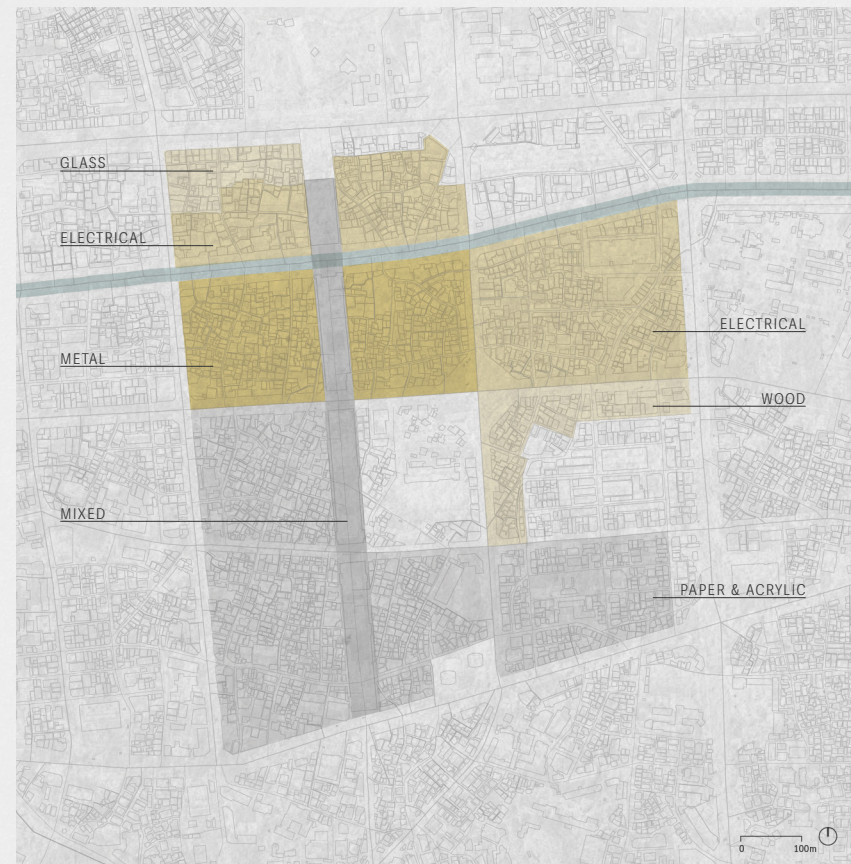
TOTAL NUMBER OF BUSINESS IN GREATER EULJIRO AREA IN 2005 & 2015



TOTAL NUMBER OF WORKER IN GREATER EULJIRO AREA IN 2005 & 2015



BLOCK BY MATERIAL TYPE



Statistics indicate the decline between 2005 and 2015 on the left, and the map of Euljiro shows blocks distinguishable by material types on the right. (data from Seoul Metropolitan Government 2019; base map from NGII 2020)

History of Euljiro and Its Neighbourhoods



Map of Hanyang in 1861. The royal palaces and the shrine are situated between Gyeongju (water stream) and the Buk-ak mountain (grey-coloured) and the upper-class neighbourhood were in the same area surrounding the royal buildings. The Euljiro (yellow-coloured) area with working-class people that served the city was naturally established on the unchosen land on the south of Gyeongju. (Seoul Museum of History 2006)

In the Joseon Dynasty era (1392–1897), the city of Hanyang (present-day Seoul) became the cultural, economic, and political centre of Korea after it was appointed the capital city in 1394. Within the Seoul City Wall boundary, constructed in 1396 to protect the city, the Royal Palaces and Shrines were built on the north side of the stream, called Gyeongju. Gyeongju, now called Chunggyecheon, flows west to east through the city to meet the Han River that continues out to the Yellow Sea. These waterways bear the significant importance in the city as they still serve as a substantial water source and cultural amenity. The choice of location for the royal architecture was to follow the guiding principle of Pungsu. Pungsu is a system of knowledge and values which advises that the location and orientation of a building should not conflict with nature (Jackson and Koehler 2015). It suggests a valuable dwelling to have the waterway in the front (south) and the mountain at its rear side (north) because it was believed to hold better promises for abundance and bring better harmony with its natural surroundings. Thus, the north side of the waterway was chosen by the royal and upper-class people in the society of Joseon for their dwellings, and the lower, working-class people naturally settled on the south side of the waterway, where Euljiro is currently located. It was the area presumed to be where craftspeople who served the city and the palace belonged (Urbanplay 2018, 128).

During the Japanese colonial period (1910–1945), Euljiro was predominantly occupied by the Japanese. It was the area right in the centre of the city close enough to be a threat to the dynasty, and the easier area for them to occupy than the area of the upper-class. It resulted in the loss of many

original street patterns and neighbourhoods, but at the same time, it led the development of westernized road systems, modern buildings, and the printing industry in the area. After the colonial period was over, Euljiro suffered again through Korean War (1950–1953). The area was terribly destroyed during the combats and almost completely emptied out thereafter to prevent the spread of fire in the city, which inevitably allowed unauthorized shacks to occur in the area soon after the end of the war.

About 70 years have passed after the war, most parts of the city of Seoul seem to have almost fully recovered from their traumatic experiences. Even though the wounds from the past might continue to remain in the heart of people, the well-recognized historical sites and the neighbourhoods of Joseon's upper-class society have been successfully restored and preserved through the tremendous effort to re-embrace the country's authentic culture and the heritages.

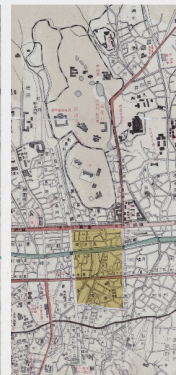
Today, the historic centre of Seoul once again prolongs to be an anchor point for the enrichment of the art and culture of the country. Yet, Euljiro, contrastingly, struggles to become a part of it.



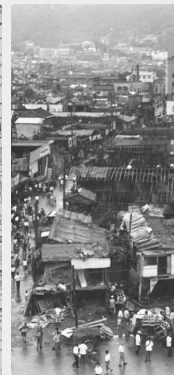
MAP OF SEOUL IN JOSEON ERA, 1780s.



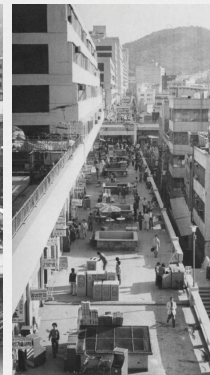
MAP OF SEOUL, 1861.



COLONIAL PERIOD, 1927.



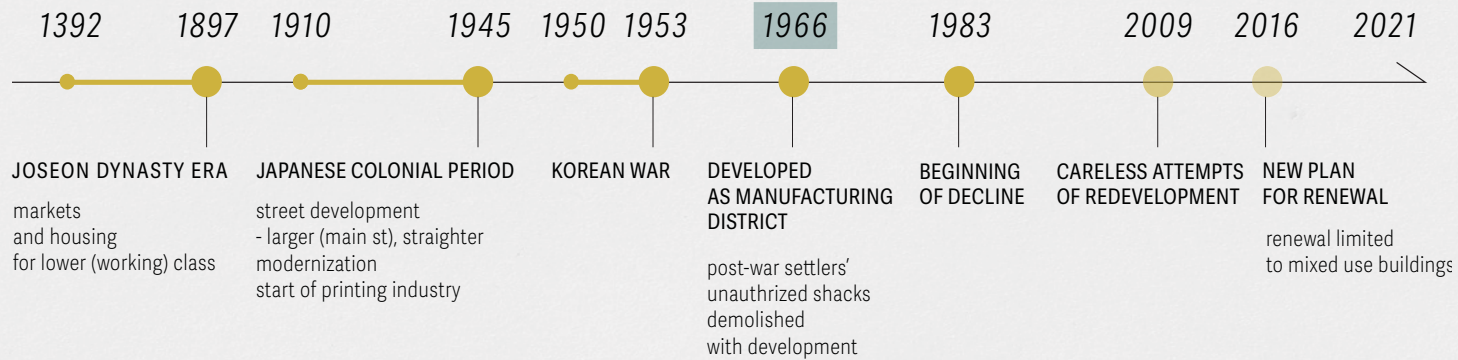
SHACK DEMOLITION, 1966.



SEWOON DEVELOPMENT, 1968.



WOODSHOP IN EULJIRO, 2018.



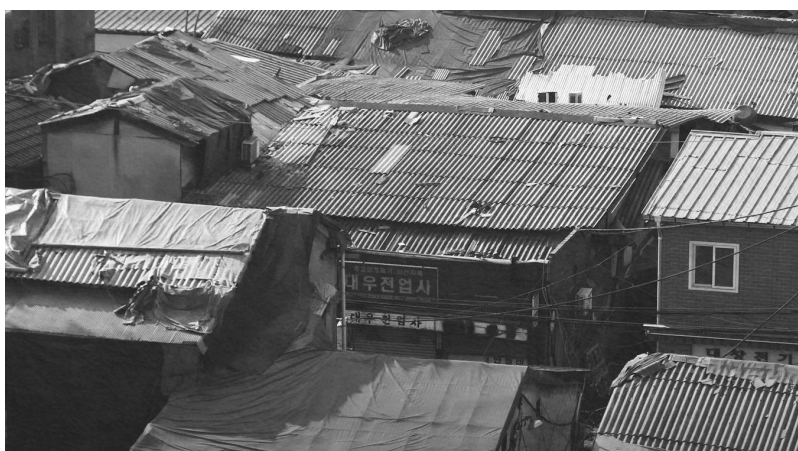
Timeline of Euljiro. (Park 2020; Seoul Museum of History 2006, 2010b; Shinhancard 2019)

Juxtaposition and Disconnection

The visual scenery of Euljiro's urban manufacturing industry is distinctly different from its prosperous neighbourhoods. The true value of Euljiro is difficult to be noticed as it is hidden behind its very rough and poorly maintained appearance. It has been viewed by the public as an unexpected juxtaposition to its neighbouring areas with the historical sites and the historical neighbourhoods inherited from the upper-class culture and society, as well as to the numerous new high-rise buildings and other popular areas where people like to gather for shopping and entertainment. Despite the physical proximity to the abundant cultural resources from Euljiro, the disconnection between Euljiro and its surrounding areas appears to be more and more definite. This juxtaposition and disconnection have caused the manufacturing industry of Euljiro to be considered less valuable, less desirable, and less attractive than others with more efficient automated technology and better-preserved historical heritage. The value of Euljiro seems only recognizable to its inhabitants and those who have truly experienced this place.



Neighbouring historic sites.
(Seoul Tourism Organization 2021; Modutour 2020)



Euljiro buildings and alleyway in a rough condition in comparison to the well-preserved heritages in the neighbouring area. (Lim 2020; Listen to the City 2019)

Redevelopment

There have been multiple attempts at both careless redevelopment and respectful renewal over the recent years by developers and the government of Seoul. However, the attempts were withdrawn or readjusted many times due to the complex political and social circumstances.

Yet, since a few years ago, some of the product developers, artists and designers who appreciate the true value of Euljiro have started to put their efforts to save the industry by moving into the area to establish fabrication laboratories, galleries, workshops and studios, and organize various protests with the activists. Their understanding of Euljiro inspires them to create better connections between Euljiro and the public, and the awareness of its significance. Their efforts have clearly confirmed the possibility for Euljiro to be reinterpreted and re-examined in a better way (Urbanplay 2018, 131).



Activists, developers and artists coming to Euljiro. (Cheonggyecheon Anti Gentrification Alliance 2019; Eulji Art Center 2021; Fab Lab Seoul 2018)



Musicians playing in the alley of Euljiro (Cheonggyecheon Anti Gentrification Alliance 2021)

Nonetheless, the issue has not been solved just yet. As long as the discussion for ambitious redevelopment is still valid among the developers, Euljiro will continue to suffer from anxiety and pressure. Moreover, throughout the years with COVID-19, even more small business owners



Euljiro people hopelessly watching demolition (Listen to the City 2019)

and craftspeople have decided leaving Euljiro and the redevelopment has started to speed up (Lim 2020). Today, as to reflect such situations, some parts of the district have already been demolished and the construction of some high-rise buildings has begun.

Euljiro needs to find an alternative way to reject insensitive redevelopment. It needs to revitalize its unique culture of craft making. We all admit that it requires improving the physical conditions to a certain degree to accommodate a better environment for its inhabitants. However, without a profound understanding of Euljiro's authenticity, the importance of Euljiro's craft production industry, and the acknowledgment of its sociocultural value, the craftspeople and the suppliers who have called Euljiro their home for about 50 years are about to lose their beloved place.



Demolition happening in Euljiro (Listen to the City 2019)

Thesis Question

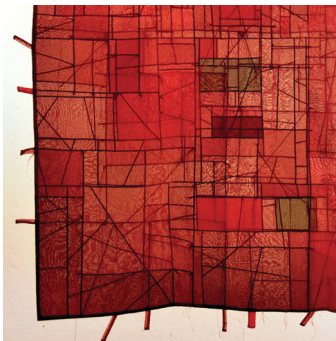
What if the Korean notion, Mahk was used to revitalize craft-based manufacturing culture in Euljiro, Seoul?

Chapter 2: Korean Notion, Mahk

Mahk and Craft Making



Mahk Sabal (bowl) made with leftover clay, 1800s. (Cho 2018)



Jogakbo was traditionally made with abandoned scraps of fabrics and used for everyday living. Close-up of Korean quilt, Jogakbo made by Chunghie Lee, 2005. (Studio Art Quilt Associates n.d.)

The Korean aesthetics, *Mahk* is a deeply embedded notion in Korean history and culture. Mahk is the way of thinking and the attitude hidden in many things from food to art and even to the understanding of the city. Mahk is described as “sensual and intuitive, celebrating the act of creation instead of adhering strictly to dogmatic principles” (Cho 2018). It better values humility found in the liveliness and rawness of the act and the process of creation. Mahk, connecting craft and emotion emphasizes the innate beauty of imperfection and irregularities within crafted object. Imperfection is the trace from the intuitive movement of maker’s hands and engraved memory from the act of craft making. It is the



Dalhangari (moon jar), “Sculpted from two hemispherical bowls joined at the middle, their lopsided profiles approach near abstraction” (Cho 2018), 1750–1800. (The Metropolitan Museum of Art 2012, 111)

unique quality appreciated in craft that cannot be found in by-product of mass production. David Pye also describes craft similar to this notion as follow.

In free workmanship the flat surface is not quite flat but, when seen from close by, shows a faint pattern of tool marks. . . . The effect of such approximations is to contribute very much to the aesthetic quality in workmanship which I shall call diversity. (Pye 1968, 19)



Seungmu dance by Buddhist monks, in which the choreography spontaneously improvised. (Cho 2018)

This diversity “holds little regard for straightforward perfection” (Cho 2018), refinement, and completeness of an artwork. Overlapping this idea, another significant aspect of Mahk is spontaneity; it embraces understanding the harmony and the balance in the context where the object is adaptable to each changing moment and flexible to attain affinity to own surroundings. It continuously improvises while not valuing a “prearranged aesthetic ideal, but rather emphasizes an excitedly spontaneous derivative of their creation” (Cho 2018). Mahk reflecting the Korean culture that embraces such balance, diversity and imperfection is “life affirming, humane, and full of life” (Leeum, Samsöng Misulgwan, and Samsöng Munhwa Chaedan 2015, 8).

Mahk in Traditional Architecture, Hanok

Mahk in traditional Korean architecture *Hanok* is reflected through various aspects. From the choice of material and the way of expressing them to the arrangement of the structural grid and the composition of space, Mahk is easily noticed in Hanok. Among them, this thesis particularly focuses on the composition of space, analyzing how the notion of Mahk is embedded in the space of Hanok throughout two transitional spaces called *Madang* and *Maru*.

Hanok employs a simple spatial module called *Kan*, a standard spatial and structural unit to form each space in



Kan system in Hanok. (Leeum, Samsöng Misulgwan, and Samsöng Munhwa Chaedan 2015, 251)

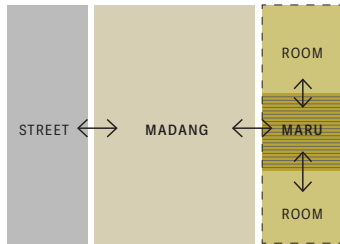
architecture with particular functions and characteristics (Kim 2012). While Kan provides fundamental order and system to the architecture, Mahk allows flexibility and humanistic aspects. The balance between order (Kan) and creativity (Mahk) is conveyed in the design of Hanok. In respect to this balance, every space in Hanok is defined and composed around the two significant spaces, Madang and Maru.



Madang and maru in the site plan of Hanok, Yeongyeongdang. (Shin and Kim 2005, 233)

Madang

Madang is an outdoor space that focuses on “qualities of emptiness” (Cho 2018). It is an emptied space located on the front side of a building or enclosed with a series of Hanok buildings. Its closest translation is courtyard, but it is



The spatial composition diagram of Madang and Maru in Hanok.

“actually the inverse of the courtyard,” as it is not resulted from the position of the buildings “but rather the condition for the buildings to appear” (Leeum, Samsöng Misulgwan, and Samsöng Munhwa Chaedan 2015, 325). Madang is intended to be left empty to flexibly accommodate a variety of activities that are preferred to be done outdoor. It is perceived to be in-between indoor and outdoor space because it holds full of possibilities for everyday life, ritual and occupation. It serves to work, make, cook, store, wash, eat, chat, gather, share and play. When it is emptied after an activity is finished, the tranquil emptiness of Madang silently fills the light of the sun, reflecting the soft warmth into the building. Mahk in Madang has life adapting changeability. Madang is the outside room, a liminal space that connects space and people in the two different realms of public and private, establishing continuous circulation throughout the buildings. It nourishes everyday living and working, social interactions of the neighbourhood community and inhabitants’ emotional enrichment (Encyclopedia of Korean Folk Culture 2021a).



Madang in Hanok, Yeongyeongdang. (Shin and Kim 2005, 244)

Maru

Open to overlooking Madang, Maru is a “thin plane between the outside ground (Madang) and the inside floor,” and “a transitional space that marks the domains between public and private” (Leeum, Samsöng Misulgwan, and Samsöng Munhwa Chaedan 2015, 326). While Madang represents the space of the ground, Maru is the affirmation of the building’s presence. Thus, Maru is more private space comparing to Madang, dedicated to the inhabitants, while occasionally serving visitors if required. It is a primary living space of Hanok that connects and also separates two different realms of public and private. Maru is similar to living room in western architecture. It is the central space for circulation within the building as well, accommodating various everyday living activities and social interactions for the inhabitants. It is the space for eat, play, study, work, gather and share. Maru creates humanistic balance between space, people and surroundings with adaptability. The adaptable characteristics of Maru clearly indicates the notion of Mahk.



Maru in Hanok, Yeongyeongdang. (Shin and Kim 2005, 244)

Door and Window

The distinguishing characteristics of Maru is achievable by the architectural elements that define the spatial boundaries. These elements are door and window. They are designed to react differently to various circumstances, such as when Maru performs as a room that openly connect the rooms and Madang, and when Maru serves as an extended enclosed space to the adjoining smaller room. Door and window of Hanok are with wooden lattice frames composed with mulberry paper that slide to the side, swing out and lift up to open. Sometimes the screens made of light fabric that rolls up and down are added as a second layer to extend the variety of options. These doors, windows and screens do not make any heavy and permanent marks in architecture as they draw light, flexible, and sometimes transparent boundaries between the rooms inside and the outside. They sensitively adjust the different levels of transparency, the qualities of light, sense of space, and connectivity with a number of different opening techniques and multiple layers. Doors and windows are the important activators of Mahk.



Doors and windows creating the sense of space for Maru to become a changeable space. (Encyclopedia of Korean Folk Culture 2021b)

Chapter 3: Mahk in Euljiro

Reinterpretation of the History

The thesis re-examines the history of Euljiro through the lens of Mahk for the better understanding of the area. In the Joseon dynasty era, the area of Euljiro was first established from the unclaimed land that upper-class society understood as less valuable. But, situated in the centre of the city close to the palace and the water source, it could well serve the city as a lively humanistic space for exchanging, making, gathering and living. The area was not intentionally planned but rather organically and naturally established in response to the everyday lives of the inhabitants, their requirements, and the surrounding environment. It continued throughout the critical historical events, such as Japanese occupation and Korean War; even when the area had to bear major changes, it endured with adaptability fulfilling the needs of the inhabitant as it continuously resisted by transforming with people. When it first became home for the craft-based manufacturing industry, it was also to consequently follow the development of the Sewoon Sannga. The area has been intuitively evolved, restored and improvised spontaneously throughout the history, appearing as open phenomenon, a process of continuous transformation (Gülgönen and Laisnet 1977) to seek harmony with people. During the process, the authentic traces and marks are saved and accumulated in the architecture and urban fabric with the memories, culture, and history of its own (Zumthor and Lending 2018). The notion of Mahk confirms the significance in such a way that the historic area, Euljiro was established and transformed while storing traces; the spontaneity and adaptability of Mahk is the authentic nature embedded within Euljiro.

Therefore, the thesis directs the attention to this particular quality, and aims to develop the design strategies from the analysis of the urban fabric of Euljiro—the existing streets, gathering spaces, and architectural elements in the context of the notion, Mahk—to draw out the inherent identity and homogeneity in the character of the area for renewal, in order to respect the place-ness of Euljiro and maintain continuity of its authenticity (Lynch 1960).

Street

The authentic marks and traces are stored and embedded in streets. Streets are arranged, rearranged and evolved with the history of everyday living of the inhabitants, in addition to any significant events that have great impact on people's lives. The streets of Euljiro were established and improvised in such way, responsively to the needs of the many groups of people who occupied the area throughout the past years.

The urban fabric of Euljiro are composed of three different scales of streets. The first is Main Street; it is the primal street, mostly preserved in its original place from the Joseon dynasty era. This scale of street is wide enough (avg. 4.5-6 metre) to allow trucks (max. four-tonne) and other automobiles to pass; it is where the finished product is loaded to be shipped out and the most public street scale inside of the Euljiro area. The second largest street scale is Small Alleyway (avg. 3-4 metre), where only the scooter and mini-truck operated by scooters may only pass, therefore, products are transported by scooters, bicycle, hand dolly, or other types of cart operable by hand. It is humanistic, walker friendly scale of street, able to stimulate more social interaction. It is semi-public street, where people sometimes gather and use it as an outside room extended out from



Three scales of streets in Euljiro. (data from Kakaomap 2021)

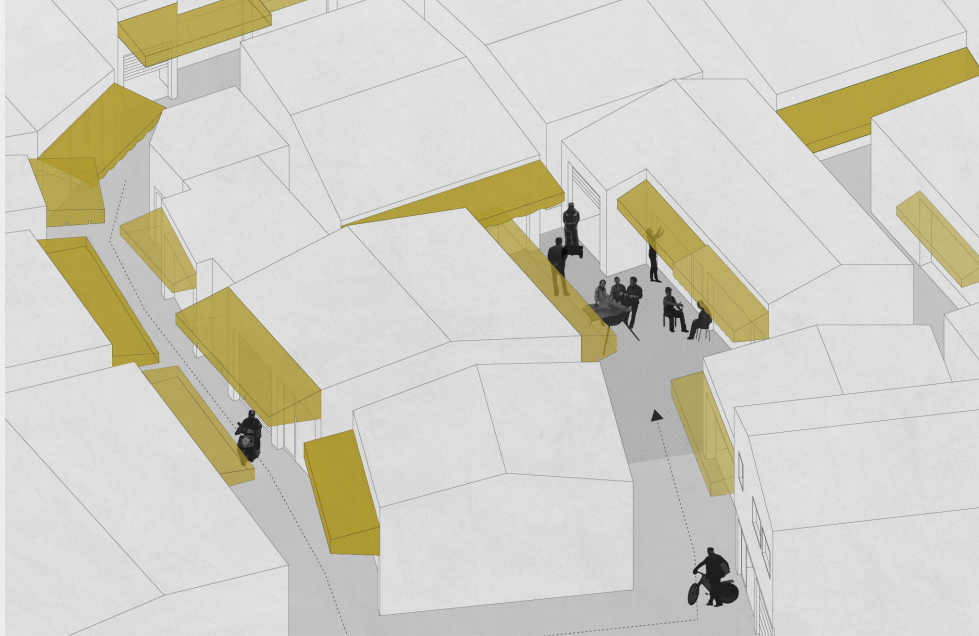
each unit. The last street scale in Euljiro is Connecting Corridor. It is the street scale hidden inside the building or narrow gap in-between buildings. These are the street not marked in the maps, but only known to the inhabitants. They are convenient and creative streets well-reflecting the circulation patterns of people in Euljiro.

Madang

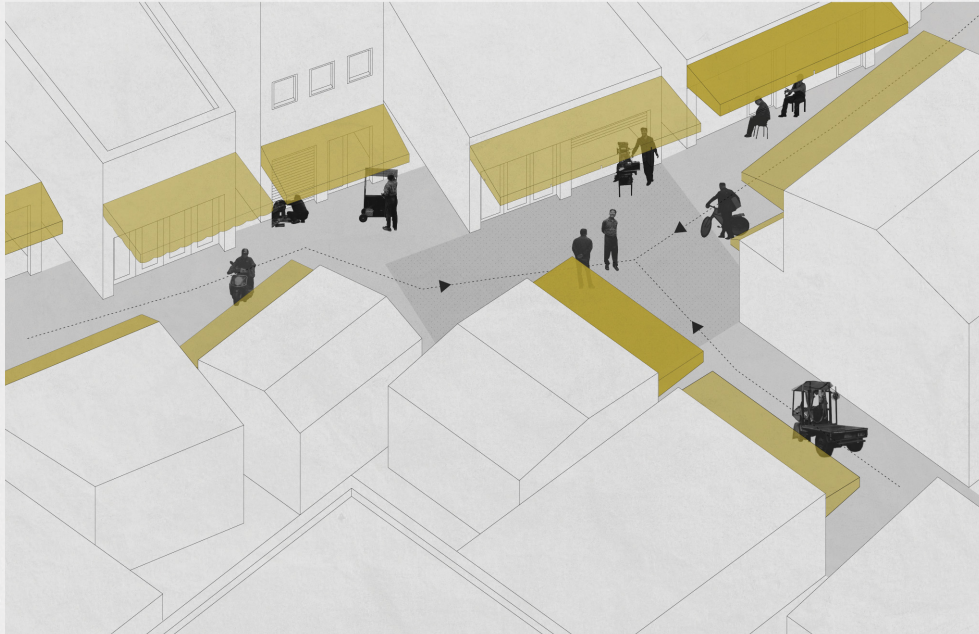
In the analysis of streets in Euljiro, the possible areas, presumed to be used as a gathering, transitional in-between space, Madang, have been marked. Madang in Hanok accommodates everyday living and working, as well as social interactions; Madang found in the streets are utilized in the same way, as in Hanok.

There are two types of Madang found in Euljiro. First is *Enclosed Madang* and the second is *Through Street Madang*. Enclosed Madang occurs at the dead-end of a street, mainly in the street with a small alleyway scale. Enclosed Madang in Euljiro has the potential to be used as a space for gathering, discussions and collaborations; eating, playing, and other shared activities are also possible in Enclosed Madang. It exists in the public realm, but serves as semi-public space when used as Madang. The next type is Through Street Madang found at the intersections of multiple streets. It occurs when two or more of different street scales intersect or two same scales of streets meet. Since Through Street Madang is basically in the middle of the road, allowing automobile traffics, the space cannot be occupied entirely and utilized as one whole Madang space. However, it is still where craftspeople use as their working space and social interactions happen naturally, when multiple people from different directions come together.

ENCLOSED MADANG



THROUGH STREET MADANG



Enclosed Madang, illustrated on the top image, is utilized as gathering, working and collaborating space. Through Street Madang, on the bottom, is utilized as working and interacting space.

Door and Awning



Doors in Hanok and Euljiro.
(Encyclopedia of Korean Folk Culture 2021; Park, Chun, and Seo 2020)

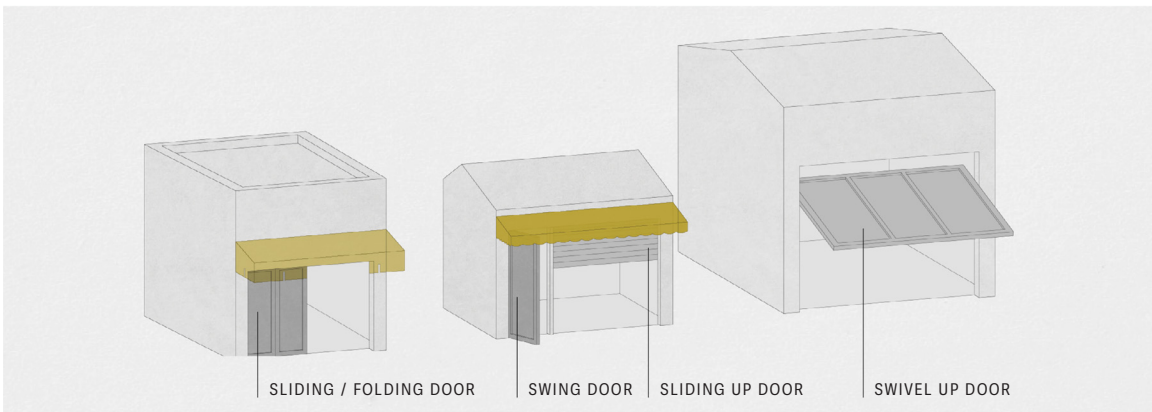
In the Madang space observed in the street analysis, the architectural elements, door and awning, are engaged to activate each Madang to be functionally utilized. They work in the same way as door and window in Hanok.

There are four existing types of door recognized in Euljiro. They are sliding/folding door operating horizontally, swing door, sliding-up door, and swivel-up door. These door types are adopted to function responsively to any circumstance and need, spontaneously changeable to create different levels of connectivity to indoor space and adjoined outdoor space. Door is a crucial architectural element to Madang; depending on how doors are set up, Madang space performs differently.

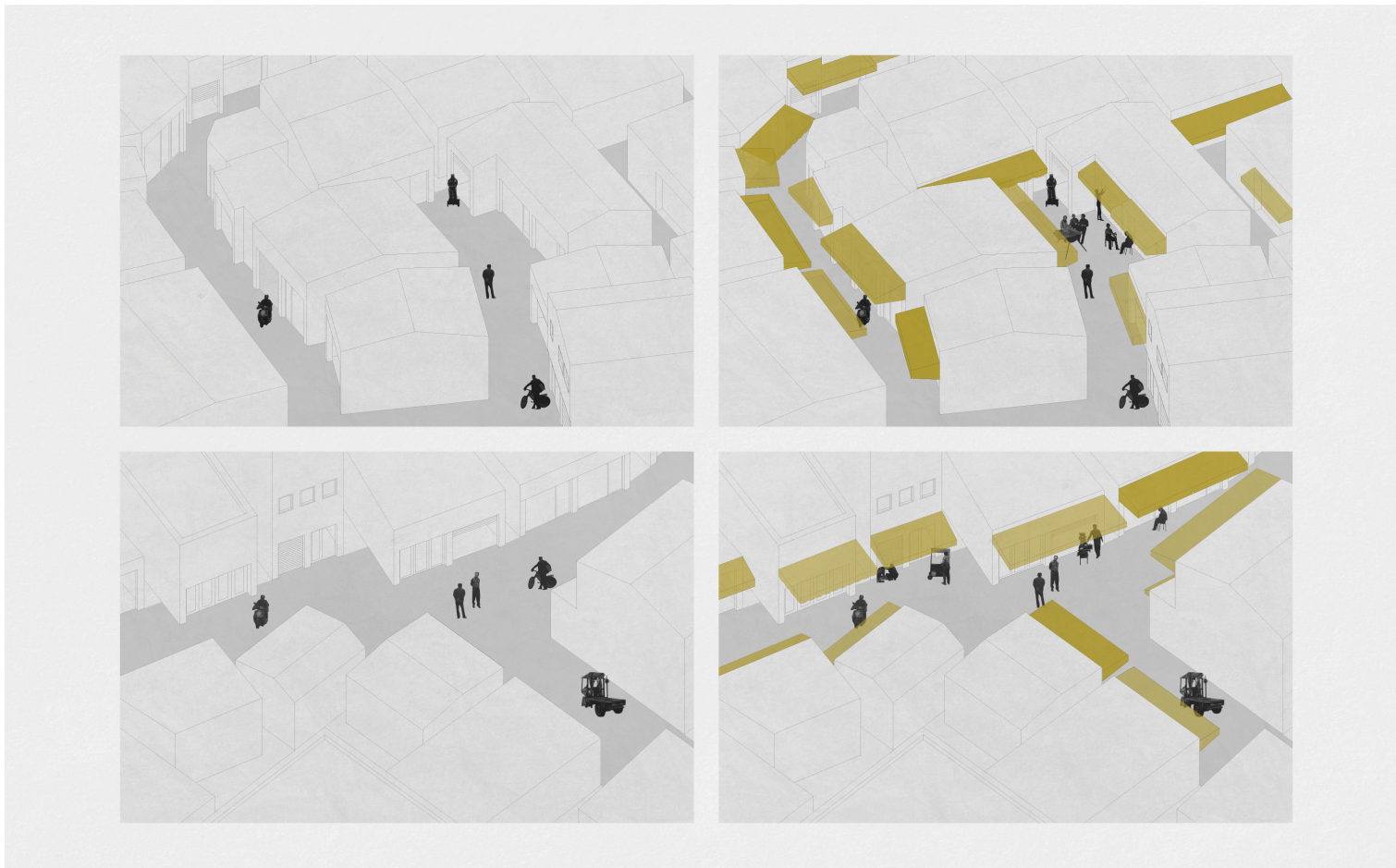


Awnings in Euljiro.
(Kakaomap 2021)

In addition to door, awning is another architectural element in Euljiro, significant to its authentic image of space. In the streets and Madang, awning is used to shape diverse space settings according to a situation. They are changeable to provide full to no coverage; transparency level may also be flexibly adjusted. Awning is used to claim boundaries for outdoor space; Madang engages awning to offer suitable space for each occasion.

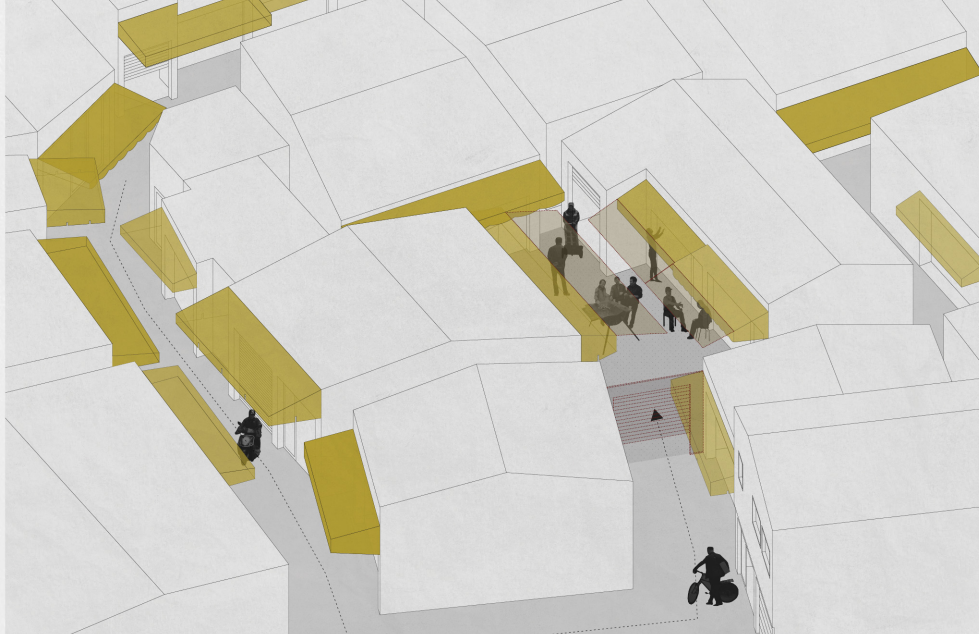


Four existing types of door in Euljiro. Doors enable spaces to function responsively to needs of inhabitants, as they are spontaneously changeable to each circumstance.

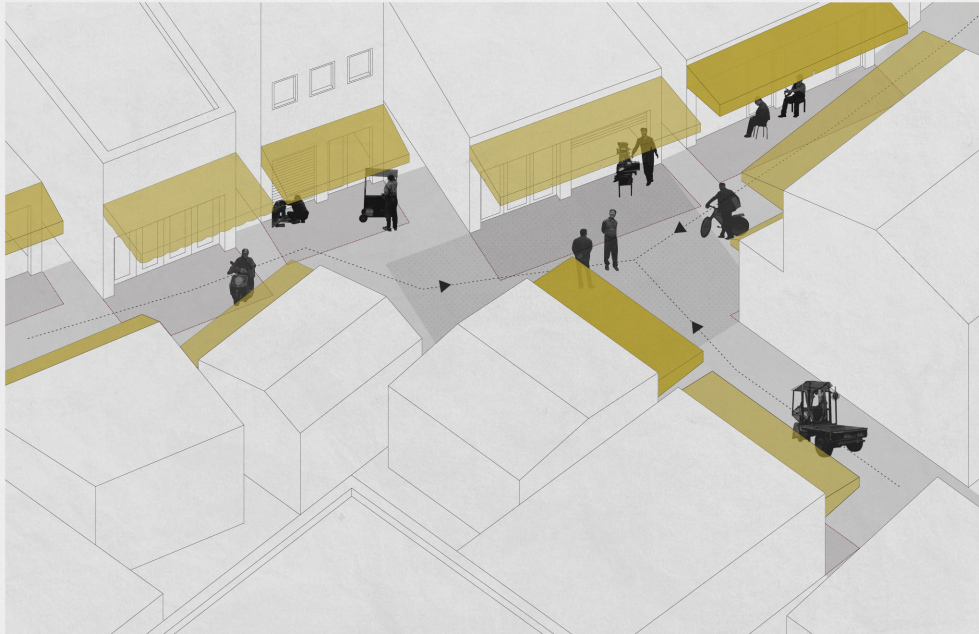


The comparison between streets with awnings and without awnings, demonstrates how different variations of doors and awnings create different atmosphere.

ENCLOSED MADANG



THROUGH STREET MADANG



Enclosed Madang on top and Through Street Madang on bottom demonstrate how different variations of doors and awnings create different atmosphere.

Chapter 4: Connection

Collective Memory of Lived Experience

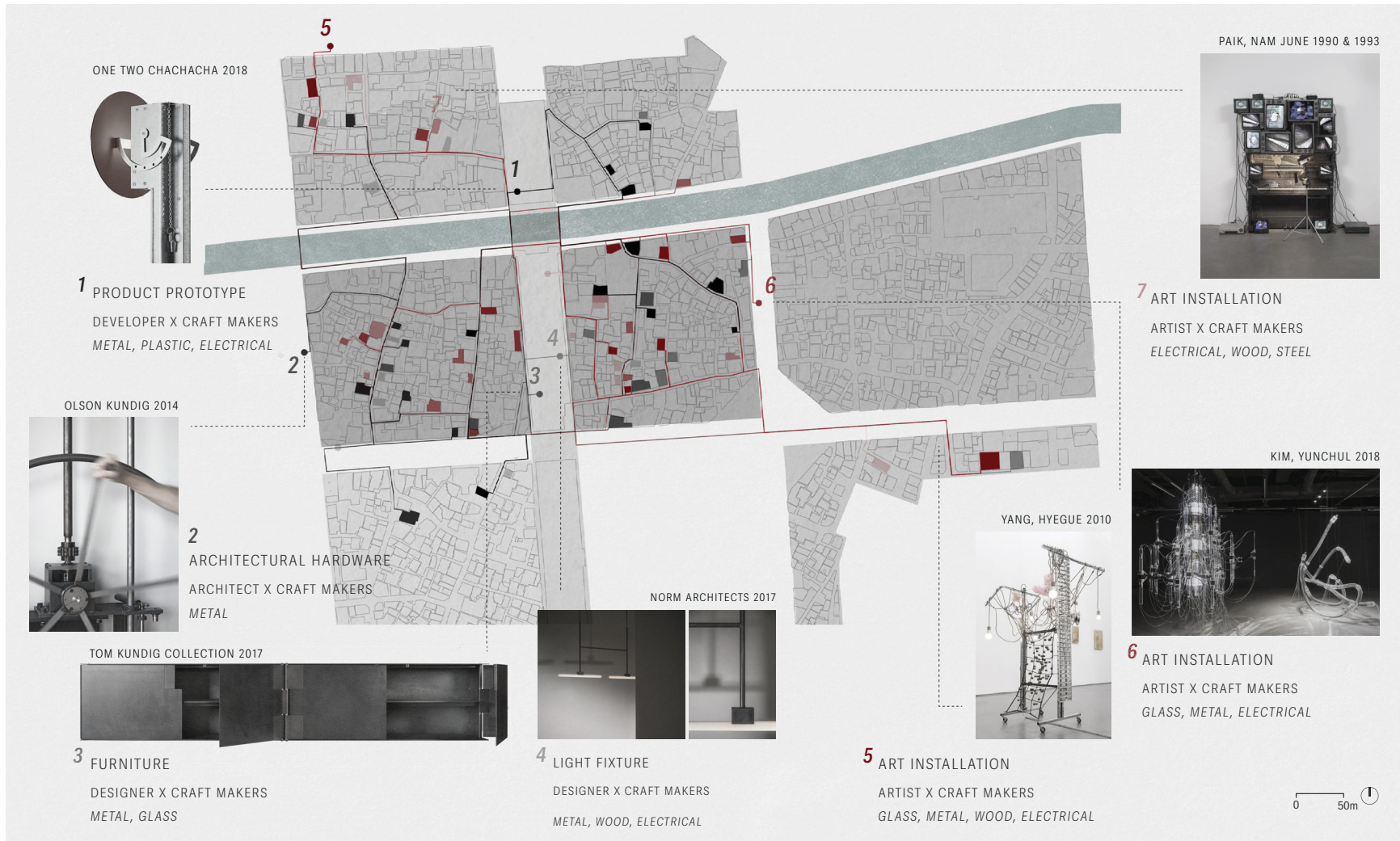
The Joseon dynasty (1392–1910), governed by Yangban, an elite class group that followed the Neo-Confucian doctrine and enjoyed many exclusive privileges, shaped the Joseon era to be centred around the upper-class (Yangban) society. Compared to the neighbouring areas inherited from the upper-class of Joseon, there is less chance to encounter the well-detailed record of history about the Euljiro area; this indicates the lack of attention and recognition in certain realms of the history. Similarly, M. Christine Boyer explains the paradox of curated history in the nineteenth century by mentioning modern historiography, which only emphasizes elevated values and high art, being “devoid of authentic memories reflecting the collective life and time of a people” (Boyer 1996, 142).

To discover another significant aspect in the history of Euljiro and its culture, the exploration of the thesis examines the rememberer’s authentic memory of the place, looking for the detail of its invisible and unconscious trace. In this case, the rememberers are craftspeople, suppliers, and clients, such as product developers, artists, and designers. Thus, the particular memory that needs to be observed is the shared memory of these groups of people, their collective memory. According to Maurice Halbwachs, “collective memory was rooted in concrete social experiences and associated with temporal and spatial frameworks” (Boyer 1996, 26). For Halbwach, memory is “essentially social”; therefore, it is “based on lived experience,” linked to a group’s particular tradition, customs, beliefs, or social spaces (Boyer 1996, 26). It is through experience, the history of the place comes

alive. Thus, architecture may find the connection to the history stored in a place through experience (Zumthor and Lending 2018, 20–21).

Lived Experience of Working Together

The unique collective experience that has characterized Euljiro is their collaborative way of working. In the late 1960s, when the manufacturing industry in Euljiro was first established and the individual craft makers and specialized suppliers began to come to the area to start their small businesses, craft makers and suppliers did not require multiple specialties because they could easily find someone with different necessary skills or supplies, all within walking distance of 1 km. The small number of workers in each shop and each worker having their own specialty motivated them to form extensive networks. They work as if in one huge laboratory (Park 2020, 13). Almost every project fabricated in Euljiro is a collaborative project. Craft workers and suppliers have a profound understanding of the skill sets and the resources that each other can provide; they can easily find the right colleagues to carry out their assigned work collaboratively together. The support and respect they have for each other are of great sociocultural importance. Their collaborations spontaneously reveal synergy. Such social interactions created through their long-established relationships make the community of Euljiro truly valuable.



Collaborative working map illustrates how product is fabricated through the network connections formed among the craftspeople and suppliers. (Blower 2018; Estate of Nam June Paik 2020; Lighting Bespoke Design 2017; Olson Kundig 2014, 2017; One Two Chachacha 2018; UCCA Center for Contemporary Art n.d.; base map from NGII 2020)

Collective Memory of Working Together

Through this unique collaborative experience, a series of ephemeral moments of Euljiro are captured in people's memory (Boyer 1996, 130). The memory of particular images and feelings of people, streets, working spaces, materials and suchlike in Euljiro's 'spatial frameworks' are shared and stored as the collective memory of Euljiro in the minds of the rememberers.

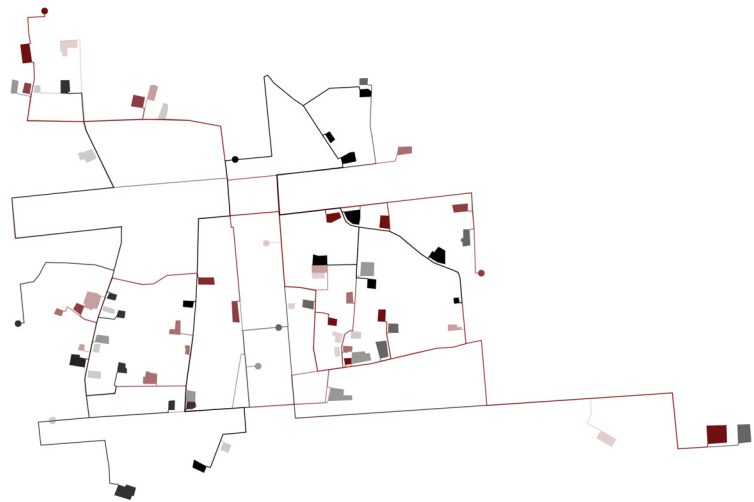
This collective memory of the lived experience is a key to merging Euljiro's present and its unrecognized history in the design of architecture. Peter Zumthor believes that the experience in the new context of a particular moment is able to recall the memory of the old moments experienced in the past and bring the feeling of history rooted deeply in the experience. The moment of experience becomes a moment that "the old and new sensation intermingle" (Zumthor and Lending 2018, 20–21). The memories from the different moments in time are aligned and connected at that very present moment of experience and these memories become the irreplaceable image of the place.

Enhancing Collaborative Experience

The study, which aimed to trace the collaborative working experience of Euljiro, evidently revealed the strong connection between the craftspeople. However, it also identified some disconnections and gaps existing in the networks at the same time. The disconnection is first noticeable between each block, which has clear distinction by type of material. Inside the blocks, adopted from the city's older fabric, the streets and buildings are densely placed, whereas in between blocks, there are streets wide as six lanes, tall mixed-use buildings, and the waterway

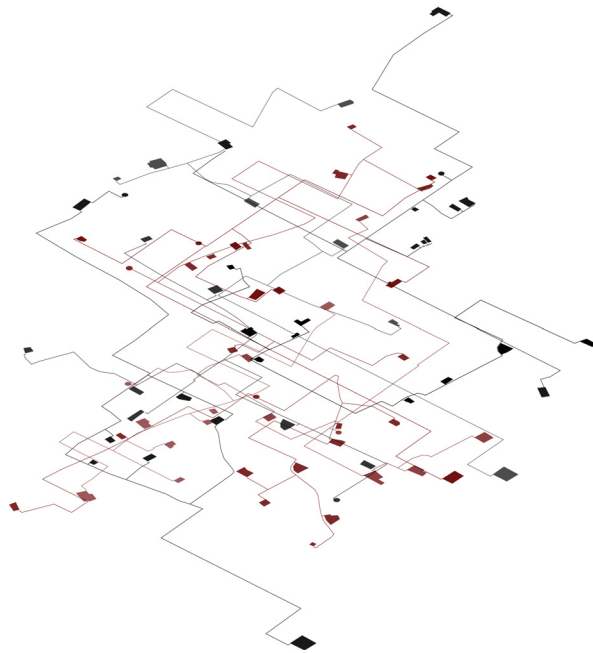
that interrupt the connection from one block to another. In addition, due to how the material distinguishes each block, multiple inconvenient trips to the other blocks are unavoidable during the fabrication process, disturbing the ease of connections and weakening the advantage of being within walking distance of each other.

Another notable disconnection found in the study is the disconnection to the outside of the community of Euljiro. Euljiro is a relatively isolated neighbourhood compared to the surrounding area, as it only exclusively provides manufacturing or art-and-design-related services. However, their clients who play vital roles in Euljiro's new enhanced collaborative networks can be active mediators making new connections between Euljiro and the broader public. With the mediators, the possibility of a better connection to the city is promising.



The existing Euljiro's connections, enabling collaborative working.

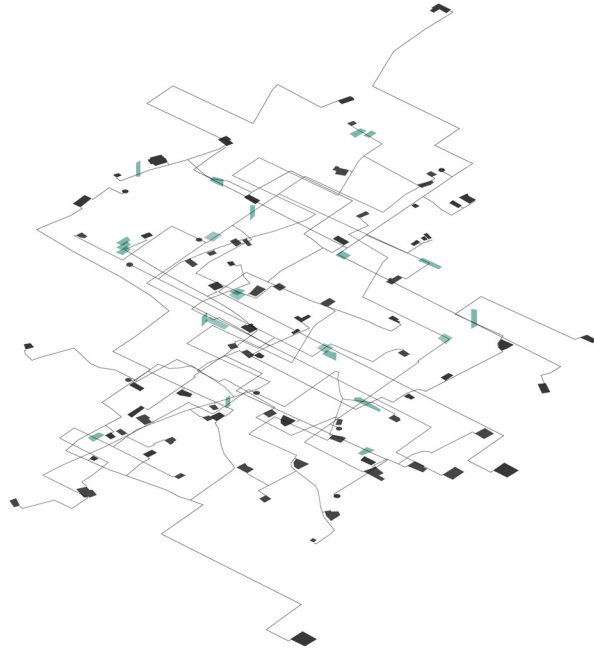
The design of architecture in this thesis begins with enhancing the connections that compose the network for collaborative experience in Euljiro by increasing proximity to one another and adding verticality. It intends to reduce the gaps in connections by reassembling and rearranging the architectural fabric and architectural composition with careful respect to its existing context.



Euljiro's collaborative connections are merged with verticality to attain close proximity to one another.

During this process of strengthening the existing connections, the new layers and nodes are merged throughout the networks to embrace broader groups in the city. They are weaved, integrated, overlaid, or absorbed with the existing trace of collaborative working that represents the continuation of the memory, and the merger highlights and enhances Euljiro's significance and value (Zumthor and Lending 2018, 25). The merger primarily includes the client groups, such as artists, designers and product developers to promote their active engagement, and the connections continue to extend further out to the broader public, offering

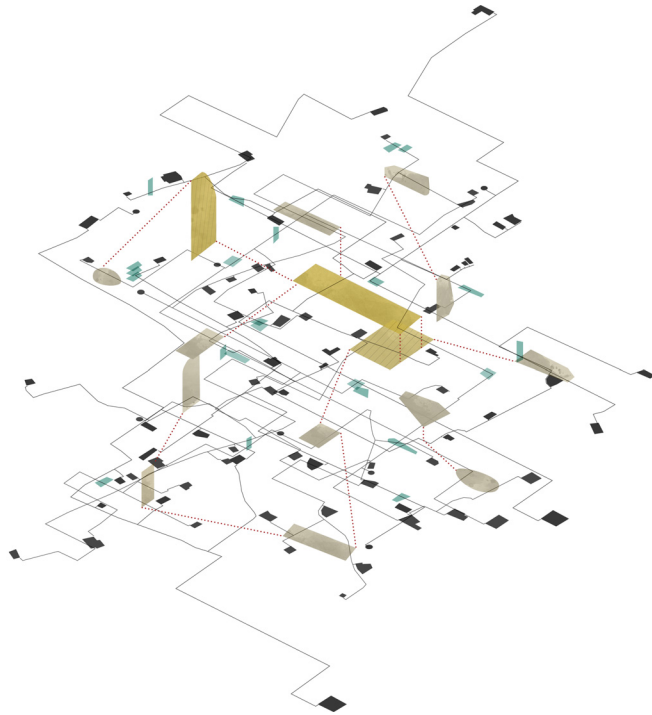
open opportunities to more people to experience the essence of Euljiro. The architecture design transforms a passive observer to a participant, allowing to recognize a potential wholeness through experience (Holl 1996, 9).



New groups are added to the existing connections to enhance the connections.

Liminality

The enhanced connections activate greater interactions. Interaction requires space for it to happen for a moment of interaction to have social and cultural significance. When the complex layers of connections are overlapped, they create flexible transitional 'liminal' space in-between the nodes. To better enrich Euljiro's enhanced networks and collaborative experience, the liminal space, "neither one place nor another, but a third space in between" (Maric 2011, 2), is implemented to witness creative moments spurred out from new interactions. The design of the thesis reserves liminal space for unexpected but exciting new collaborations,



Liminal spaces are created in between to further enrich the connections. Liminal spaces provide shared spaces that activate better interactions and collaborations.

innovative ideas and inspirational interactions, which can be exhibited and shared with many.

To Victor Turner, *liminality*, “a betwixt-and-between condition,” in the spatial context, is “privileged space(s) where people are allowed to think about how they think, about the terms in which they conduct their thinking” (Boyer 1996, 211). Liminal space is able to provide the space to reflect “the cultural significance of its architectural passage and transformations” (Boyer 1996, 211). The thesis integrates this theoretical idea in the liminal space of Euljiro to reflect and redefine the significance and the deeper meaning of Euljiro’s experience and its craft production.



Wish image, envisioning better connections and recognitions.

Chapter 5: Craft Laboratory

Test Sites

The metal manufacturing blocks are exclusively examined for selecting the test sites in the area. These blocks show the least invasion of non-craft-manufacturing-related units, due to its confined location in the cityscape, enclosed by the waterway on the north, the broad six-lane street on the south and Sewoon Sangga at one side. The difficulty of relocating heavy equipment associated with the metal craft also affected the metal manufacturing blocks to be less influenced by other types of businesses.

To begin the analysis, the streets in the metal manufacturing blocks from the six maps produced from 1861 to 1968 were compared with the current map. The purpose of this analysis is to follow the historical traces in the existing streets and understand how they were first arranged and evolved together before and after they were affected by the major historic events and the Sewoon Sangga development. The streets store the authentic traces of the past, memories of the place with the underlying principle of Mahk. The aim for this analysis is to determine the significant paths, organically generated and improvised with people's everyday activities and history, and strengthen them by overlaying the new narrative of the new architecture onto them.

The second layer of analysis is the street connections to the neighbouring sites, art and craft-related galleries, museums and retail shops. It guides to determine possible routes that visitors may take from these neighbouring amenities to find their way to Euljiro. It signifies the spots where the guiding

structures to Euljiro require to be placed, and also highlights the critical streets and paths needed to be emphasized.

Thirdly, the analysis of the existing street is examined. It is to understand the composition and configuration of the various scales of streets in the urban fabric; how the different the scales of street, such as Main Street, Small Alleyway, and Connecting Corridor meet together, form potential gathering spaces (Madang) at enclosed streets and through streets, and connect Sewoon Sangga and the Euljiro area. It intends to determine the sites with the potential to test the different street scales and their compositions and configurations, to apply the Euljiro's unique street scales in the design of architecture as well. It is also used to indicate where the authentic visual cognitive images of Euljiro's streets are anchored in.

By analyzing the existing streets and gathering spaces in the context of the notion, Mahk, it draws out the inherent identity and authenticity in the character of the area, to respect the place-ness of Euljiro. These layers of analysis are overlapped to determine three test sites.

Aim and Strategy

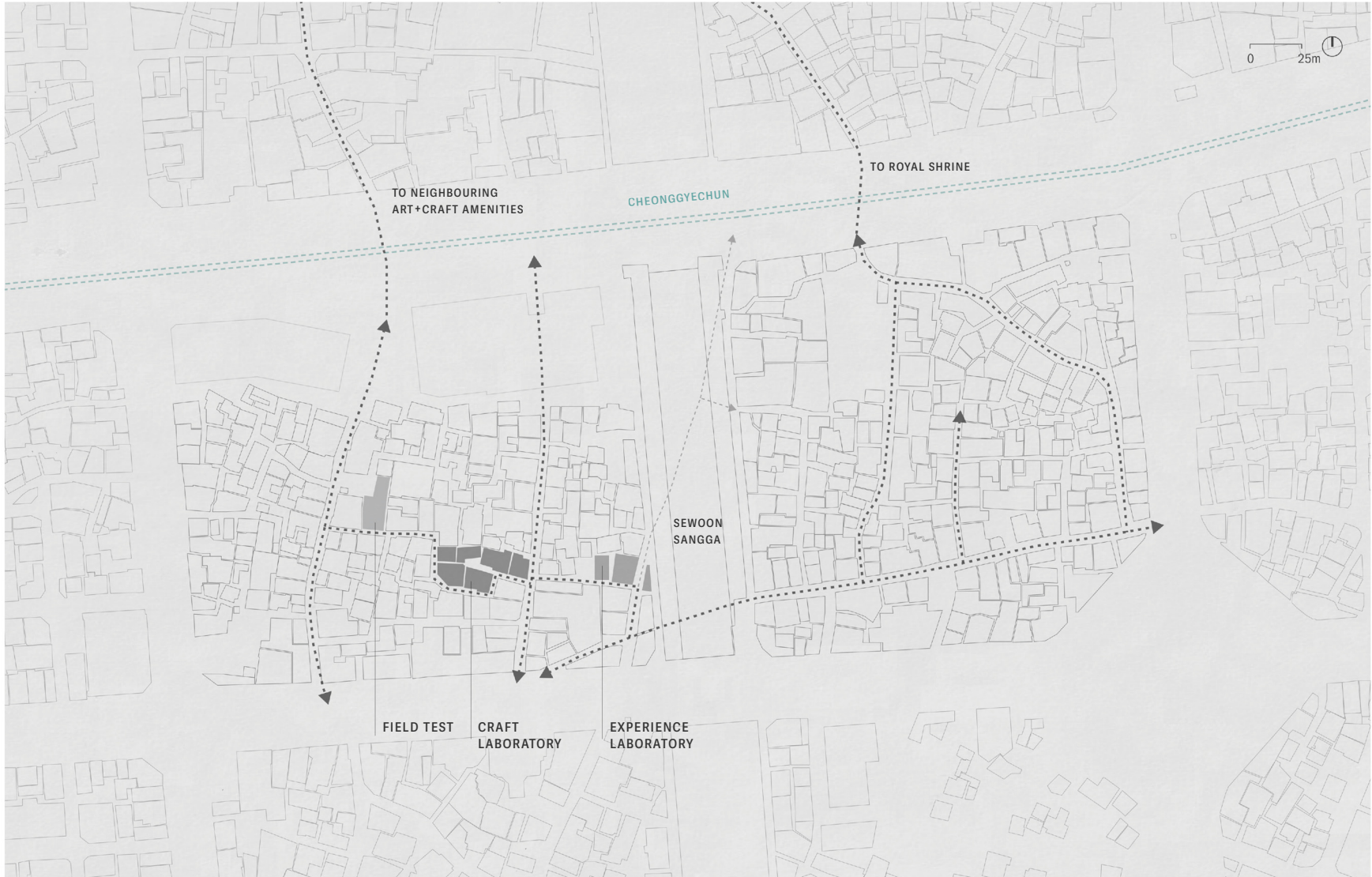
The design of the thesis demonstrates Euljiro as Craft Laboratory. This is to provide better functioning, comfortable working environment for craftspeople and enhance collaborative connections and interactions both inwardly and outwardly. Through the design, the thesis envisions to preserve the authenticity of the area, while restoring deeper appreciation and acknowledgement of Euljiro's craft making and revalue the embedded beauty and the significance of Euljiro.



Street analysis for test site selection. (base map from NGII 2020)



Selected areas for three test sites. (base map from NGII 2020)



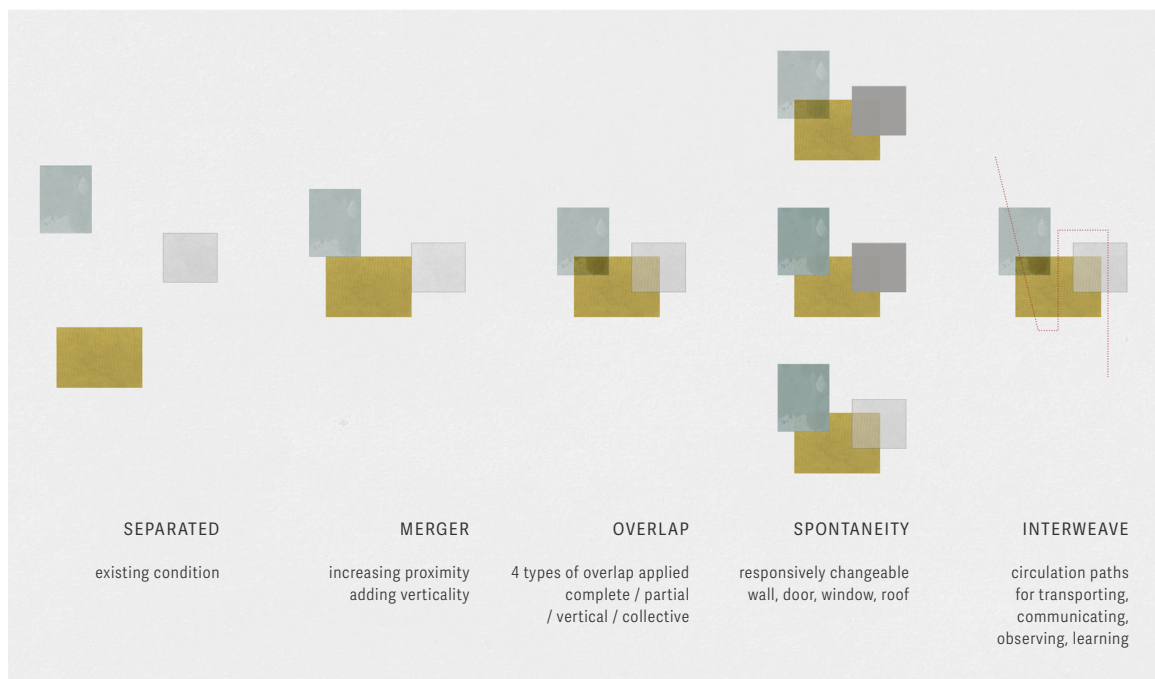
Selected three test sites. (base map from NGII 2020)



Site plan with the rendered roof plan, emphasizing the connections to each other and surroundings. (base map from NGII 2020)

The selected sites are tested with the design of Craft Laboratory, Experience Laboratory and Field Test. The first site, Craft Laboratory, is for diverse craft workshops, intermingled and interweaved through the paths. The second site, Experience Laboratory, is for shared workshops and public learning spaces, connected to the Sewoon Sangga, promoting public engagement in craft making. Lastly, the third site, Field Test, aims to provide art and craft shop, exhibition, and café space, inviting the general public to be exposed to Euljiro's craft and culture.

The design strategies integrate two approaches for renewal to improve the existing conditions and maintain the authentic characteristics: reconstruction of the new buildings in place of those showing severe deterioration without preservation value and rehabilitation of the existing buildings with structurally sound conditions or authentic aesthetic value. Four design strategies *Merger*, *Overlap*, *Spontaneity*, and *Interweave*, are tested on three sites.



Four design strategies developed from Mahk and collaborative working.

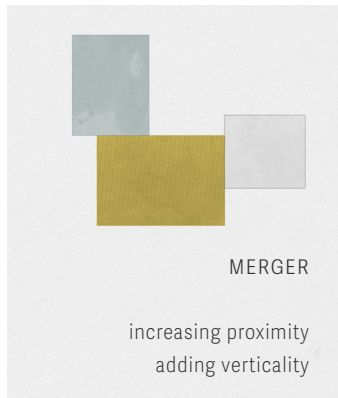
Site 1: Craft Laboratory

The first site, Craft Laboratory, consists of craft workshops and gathering spaces intermingled and interweaved for collaborative working. It is located in the metal block on the west side of the Sewoon Sangga. This is on one of the oldest streets, with the Small Alleyway scale; it is presumed that many social interactions occur along this human-scale street. The alleyway extends out to the main streets of Euljiro on either side; one side connects the neighbouring art-and-craft amenities, and the other continues to the second test site, Experience Laboratory and Sewoon Sangga. There is organically generated Madang at one end of the alleyway, a space enclosed with building footprints.

The architecture carefully stitches the traced pieces of the existing building footprint together. As in Jogakbo (Korean quilt, rooted in Mahk, page 11) making (Diaz 2021), which uses abandoned fabric scraps to create a patchwork, these old pieces storing memories are preserved to create new architecture (Zumthor and Lending 2018, 21). The traces become the basis for the new architecture. The new steel structure respects the angles and orientation of the existing; only minimal parts in the structural grid are adjusted for better function and fluent connection.

Merger

The metal welding workshop that opened in the 1980s is still in its original place. The workshop space is expanded and heightened with a new supporting steel structure. The new space works more functionally now with extra space to conveniently work on a larger craft object and organize materials and tools. Because of the new structure, some of the old damaged walls and other walls interfering



Merger.

connections were also able to be removed, but some of the authentic concrete wall and brick wall could remain. The colour, texture, scratch marks and scribbled writing on the wall evoke feelings from the old memories; the craftsman likes sharing the old stories with other craftspeople and visitors (Zumthor and Lending 2018, 32). Next to the metal workshops, there is a wood shop moved in from the furniture manufacturing block of Euljiro. When working on a furniture product in the past, the craft maker at the metal workshop had to send the piece to the wood shop down the block, but now it does not have to be delivered back and forth anymore. On the upper level from the metal workshops, there is another metal workshop for a young artist. The artist mainly uses her hand tools to make smaller objects for everyday living; she sometimes discusses her works with the craftspeople at the metal workshops below, exchanging inspirations. For the next project requested from the architecture design office, the artist and craftsman plan to work collaboratively. The textile artist on the upper studio is interested in making electronic textiles. He has a meeting every week with the craftswomen at the electronic workshop in the lower studio. Before the next meeting, he plans to visit the craft museum in the neighbourhood with his colleague from the metal welding workshop.

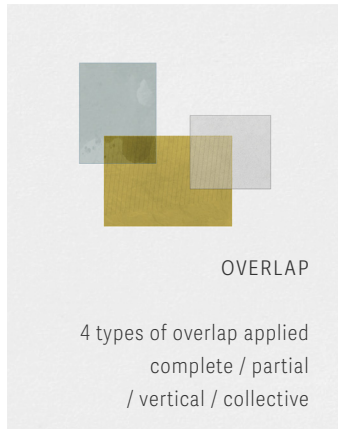
Craft Laboratory composes spaces for craftspeople working with different materials to merge. It aims to create social interactions and further extend them to impact on their collaborative making. The merger now requires space for them to share together; space to interact, discuss, work, produce and share is created in the next strategy, overlap.



Hybrid drawing of the floor plans and perspective drawing of the entire units, illustrating merger strategy. (base map from NGII 2020)



Axonometric view of Craft Laboratory.



Overlap.

Overlap

Craft Laboratory implements four overlap strategies to arrange merged workshops in architecture: *Complete Overlap*, *Partial Overlap*, *Vertical Overlap* and *Collective Overlap*.

Through the strategy of complete overlap, two different workshops worked individually now can share one combined space. The existing solid walls confining each unit are transformed into doors, and the doors open to join two units. The workshops for metal cutting and metal forging are engaged in one entirely overlapped space together. Thus, the metal cutting and forging fluently continue in the production process; the discussions between craftspeople in the process also flow smoothly.

In addition to completely overlapped space, ceramic and two glass workshops are partially overlapped to create their shared gathering space. The craftspeople from three different workshops gather in this common area to discuss, play, eat, and exchange their creative ideas. It is their transitional Maru space. This Maru temporarily draws craftspeople out from the liveliness in the glasswork in front of the hot furnace and fire and the intensity in the sensitive ceramic making, providing contrasting spatial environment for them to pause for a moment and reflect on their work in this in-between space (Boyer 1996).

The vertically overlapped space is designed with the shared assembly and kinetic art workshop on the ground floor, overlooked from the electric workshop on the second floor. Then the overlap continues to connect the designer's office, and then to the textile workshop. These spaces are visually open to each other, allowing them to effortlessly

experience each other's inspirational works during the process of making, enabling them to exchange ideas and discuss spontaneously. Same strategy is applied in the metal welding workshop, with the design of the mezzanine level. The level of privacy is also adjustable responsively to the needs with moving partitions and doors.

The last overlap strategy is collective overlap. Collective overlap occurs when multiple workshops face the same direction and collectively surround one space. It parallels with the principle of Madang. On the ground level, this particular space exists already, evolved from the past. This Madang serves all craftspeople working nearby and the visitors as well. It is the open space that leads to the main entrance of the complex on an ordinary day; then, it transforms into a



Section through workshops, revealing vertical overlap that enables craftspeople to exchange ideas and inspiration.



Existing Madang in Euljiro
(Seoul Museum of History
2010a)

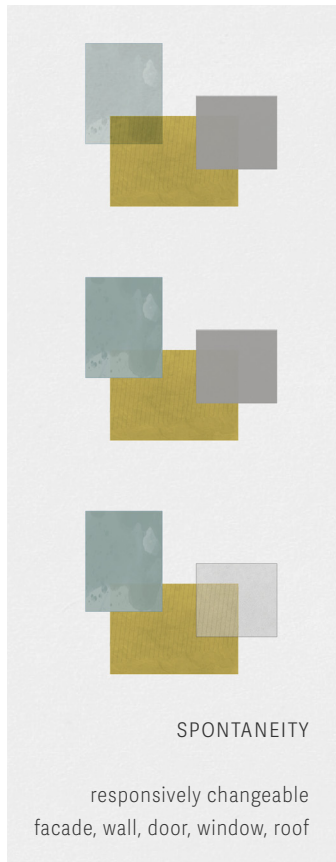
gathering space for special events such as craft exhibition, temporary market, art performance, craft seminar and more.

Entering the main entrance, the strategy, collective overlap continues to the inside. In this case, the overlap follows the principle of Maru. The Maru space is another gathering space placed inside. It is the centre of the connections to all workshops, a guiding space for collaborative working. There is an open office for the project coordinators in this overlap; the visitors may find information about all workshops in Euljiro and receive support to plan the collaborative production for their projects.

The atmosphere and connectivity can be improvised by the awnings and doors, which are designed with the next strategy, spontaneity.



The collective overlap space, Madang for craft exhibition, temporary market, art performance, craft seminar and more.



Spontaneity.

Spontaneity

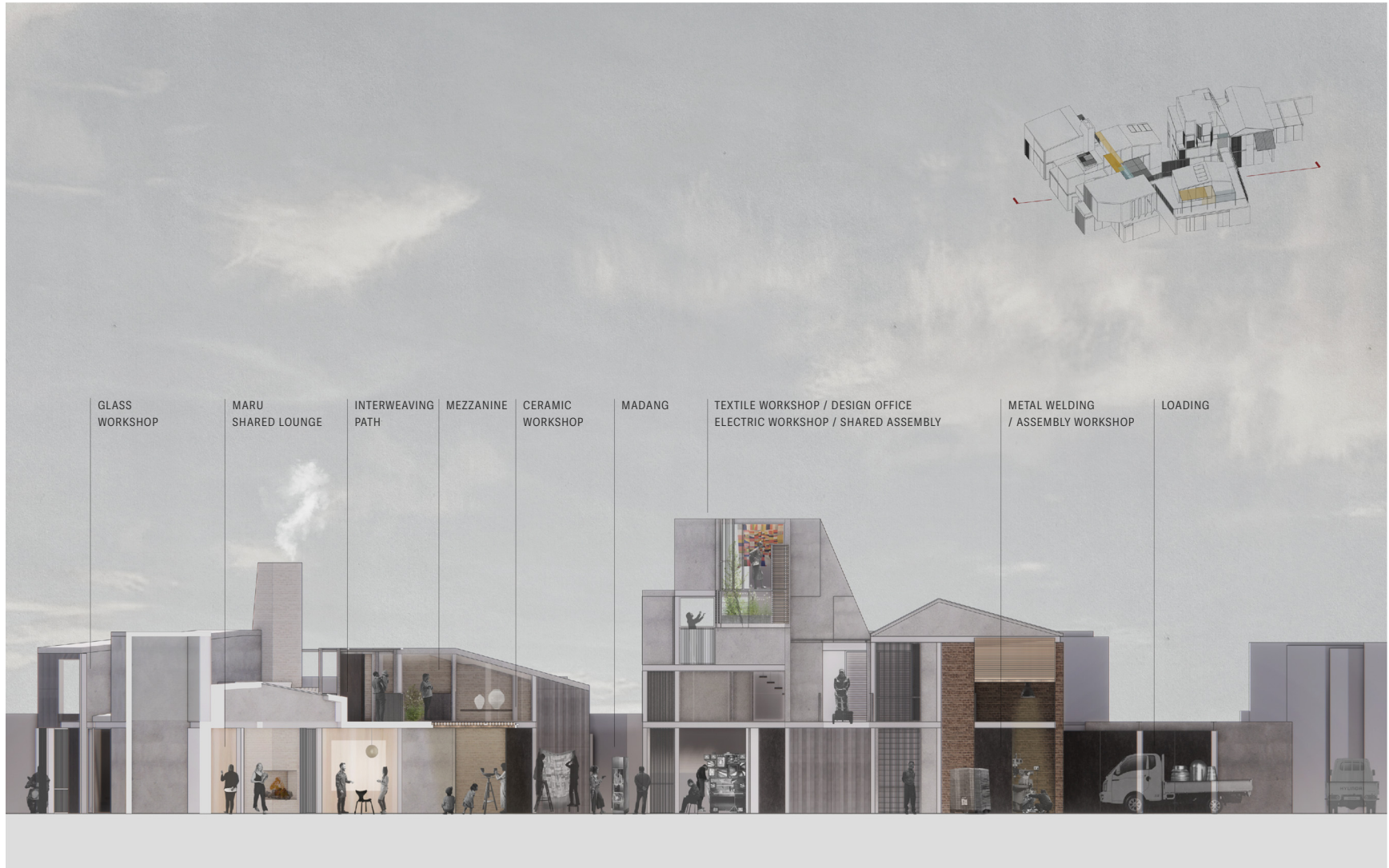
While the strategy of overlap blurs the boundary of each space to enhance the connections and interactions, spontaneity allows the spaces to transform responsively to the needs of craftspeople. Spontaneity implements the concepts of two critical architectural elements utilized in Euljiro, door and awning, to design wall, door, window and roof in Craft Laboratory. These architectural elements use various materials associated with each workshop, visually representing the types of each space, and enabling easy modifications by the craftspeople as they are made of the materials that they deal with every day.

Spontaneity allows these multiple layers of doors to activate in a variety of ways. The drawing below captures the serene Sunday afternoon scene at the site. Only some passer-by stop and look into the windows with curiosity, while the delivered materials are quietly waiting for the craftspeople.

Revisiting the Craft Laboratory again at 2pm next day, the craftspeople have adjusted their doors, awnings and windows to change the atmosphere for comfortableness of their own space. Each of them is carefully designed to support specific craft making activities, while enabling overlapped spaces to function effectively. The level of transparency and the amount of the natural light is adjustable with multiple layers. The combination of the multiple layers can create many variations of walls, doors, windows, and roof for craftspeople to use accordingly.



Quiet none working hour at Craft Laboratory.

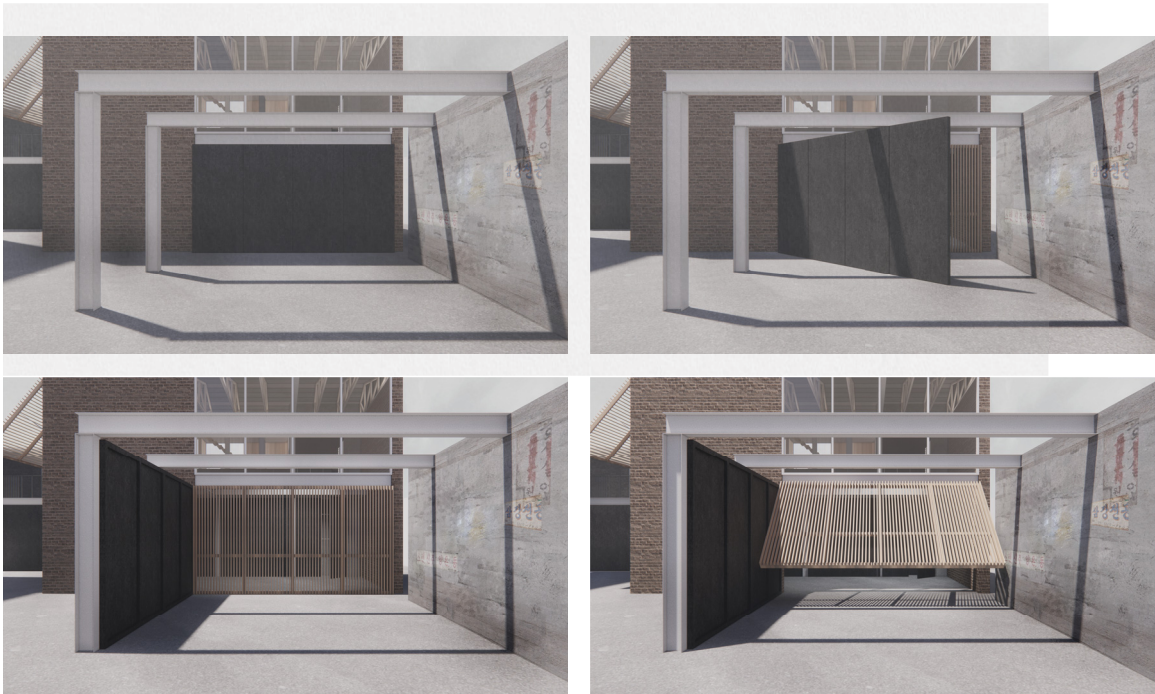


Section and elevation drawing, illustrating the active working hour to show windows, doors and roof improve the conditions for craft making.

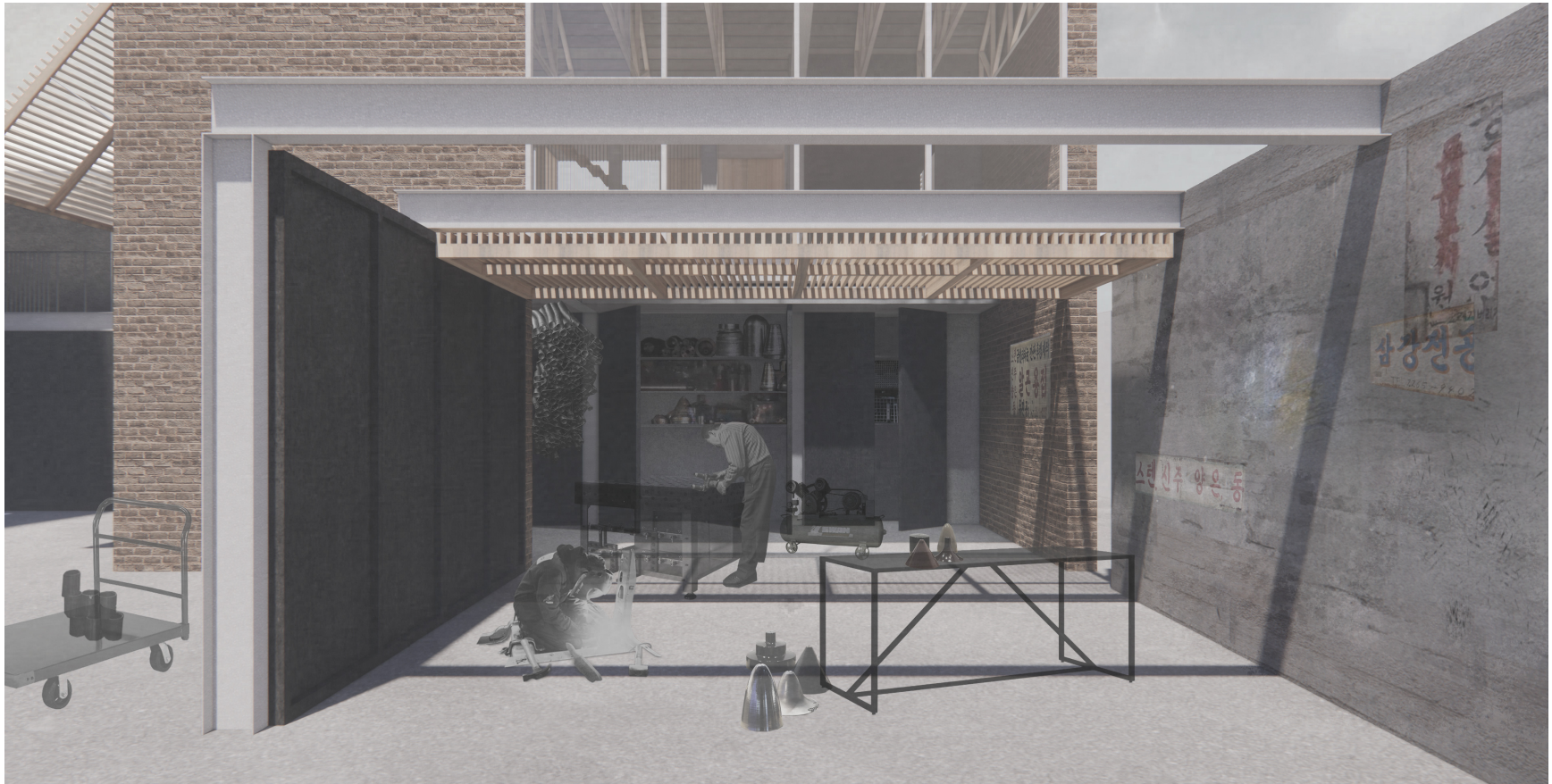


Existing use of outdoor working space. (Jung 2019)

Taking a closer look at the metal welding workshop in the rehabilitated existing building, the old wall in the front remained from the building is saved to evoke the feeling of history of the area with the rough texture and old marks left on the wall and maintain the existing street scale of the small alleyway behind it. This wall has gained the extra support from newly installed street structure. The steel structure is also used to support the doors designed with the spontaneity strategy enabling them to act as a wall or a roof. The first layer of the doors, made of metal and completely opaque to function as a wall when closed, swings open and fixed to the new steel structure to enclose the space. The inside space now allows the natural light and air. Then the second layer made of wood slats opens to create a canopy for shaded outdoor space. The variations of doors define the boundaries of the extended working space outside the building, providing flexibility when working on larger projects, or assembling multiple projects with other craftspeople.

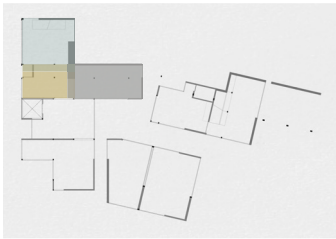


Various combinations of door define different conditions for the metal welding workshop.



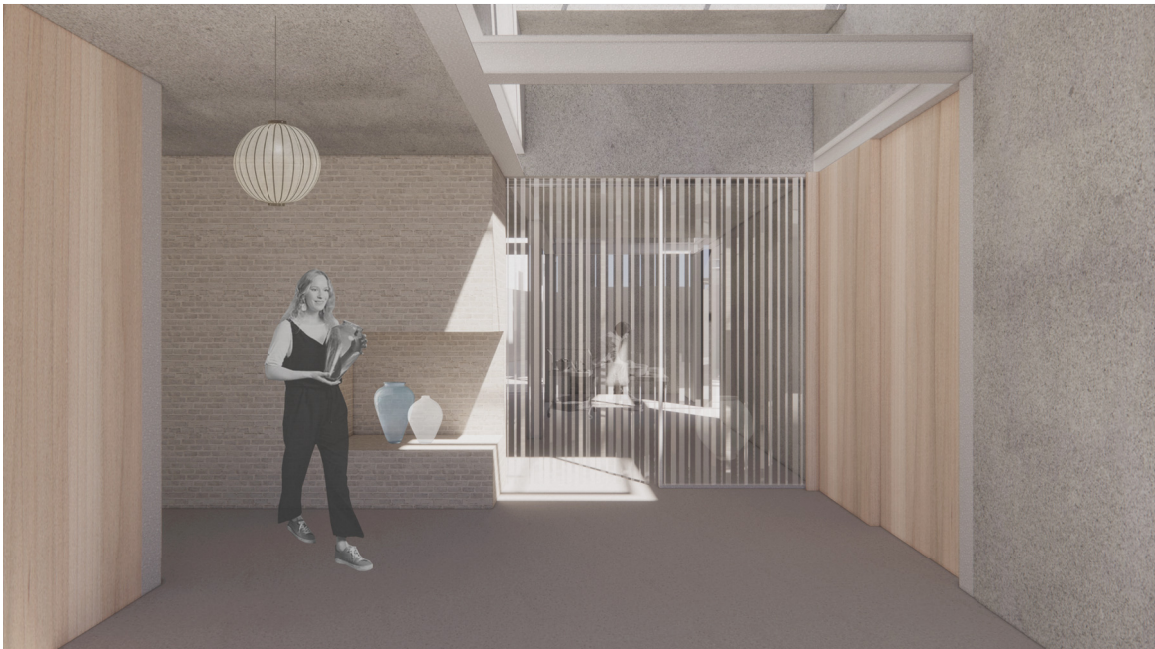
The outdoor working space enhanced through the changeability of doors.

Spontaneity also redefines the atmosphere and maintains comfortableness of space designed with the partial overlap strategy between glass and ceramic workshops. This is the space reserved for craftspeople from both sides to have a break, discuss and play, acting as the Maru space. The partition made of glass and ceramic pieces reveals a glimpse of the potter working in her workshop. When a craftsperson wants more privacy, she opens the partition and pulls down the shutter, the shared space becomes the extended working space for glass makers.

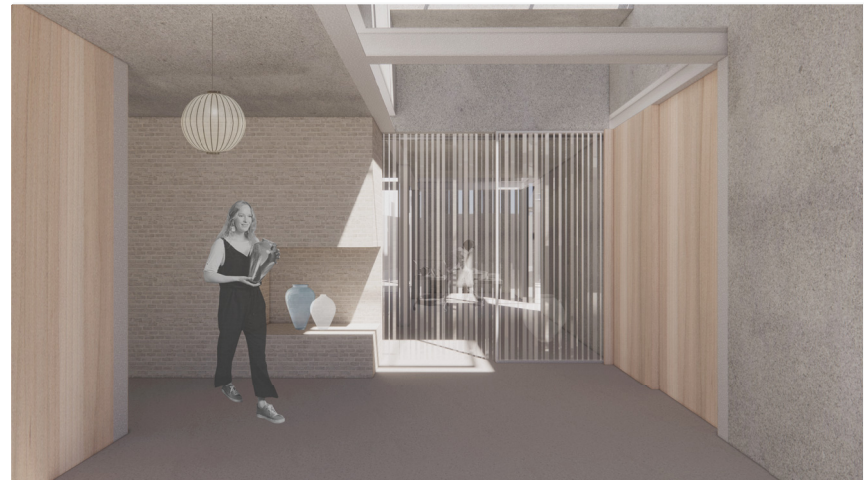


The glass workshop space (blue-coloured) and the ceramic workshop space (grey-coloured) share the Maru space in the middle (yellow-coloured).

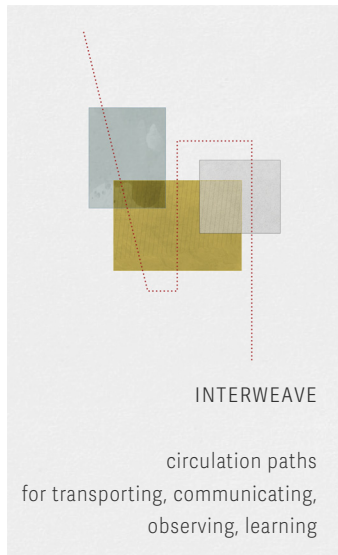
The rest of the facade, doors, windows and roof are designed similarly allowing transformation for improvisation; the changeability of these elements continuously redefine the atmosphere to be functional for different circumstances, creating harmony and maintaining the comfortableness of space for the craftspeople.



The partition made of glass and ceramic pieces reveals a glimpse of the potter in the ceramic workshop. The privacy and visibility is adjustable by the multiple layers of doors.



Glass makers and ceramists, using the multiple layers of doors to change the atmosphere of their space.



Interweave.

Interweave

Experience is to design the path developed from Connecting Corridor in the existing street analysis. Connecting Corridor is the smallest street scale in Euljiro, indicating paths improvised inside the existing buildings or emerged in the narrow gaps in-between buildings. Sometimes they appear as short-cuts and also as longer paths in other parts, weaving through everywhere to make a convenient path to deliver materials and objects in the making.

Experience path in Craft Laboratory, developed from Connecting Corridor provides a circulating path fluently connecting all workshops. It serves craftspeople to transport their project to the next workshop more easily with carts and hand dollies. As the path interweaves through the complex, it allows everyday craft-making scenes to be exposed to craftspeople and visitors, and provides opportunities to witness and experience the process of collaborative craft making on-site in the various types of workshops.



Interweaving path to enhance the activities of transporting craft objects, visiting experience and collaborating in craft making.

Site 2: Experience Laboratory

Experience Laboratory, reachable from Craft Laboratory through the path connected to the narrow existing alleyway between two old buildings of craft workshops, is a place of sharing and learning. It is designed to provide community workshop spaces for craftspeople inside and outside of Euljiro and hands-on learning spaces for the public. It aims to merge diverse craft workshops and diverse groups of people in the city to improve understanding and acknowledgement of craft, incubate new ideas from new collaborations, and nourish the country's craft-based manufacturing and craft art.

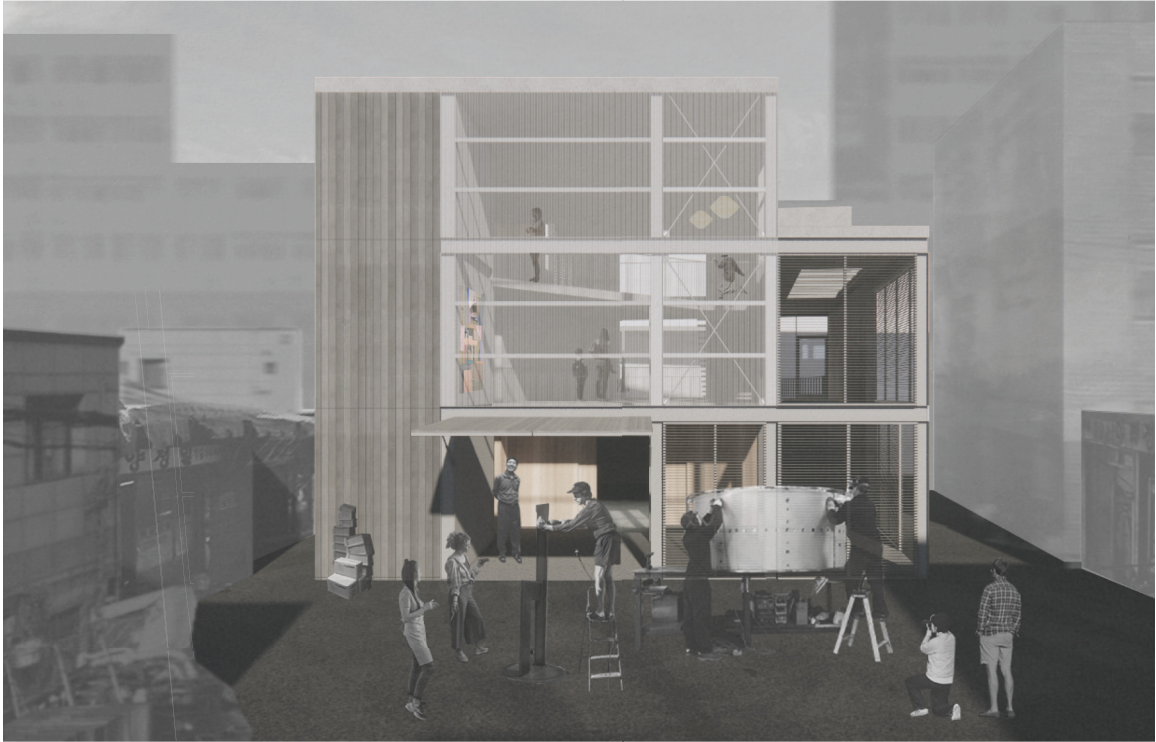
Merger, Overlap, Spontaneity, Interweave

These sharing and learning spaces are designed with four overlap strategies previously introduced in Craft Laboratory, to soften the boundaries between workshop spaces and promote active interactions among the craftspeople and craft-class participants in the process of making. Especially through the collective overlap strategy, the Madang space is designed to allow the craftspeople and participants to openly share, discuss and exhibit their work, and offer open opportunities for the public to visit Euljiro to learn and experience craft making. This Madang space is inherited from the existing urban fabric facing existing workshop spaces to make the new architecture to be naturally blended with the existing architecture. It is at the core of the building connecting all inside spaces with the interweaving circulation path. These spaces and the path are also extended to join Euljiro's craft-making block and Sewoon Sangga, enabling the visitors and craftspeople to share the spaces and programs in both sides together while

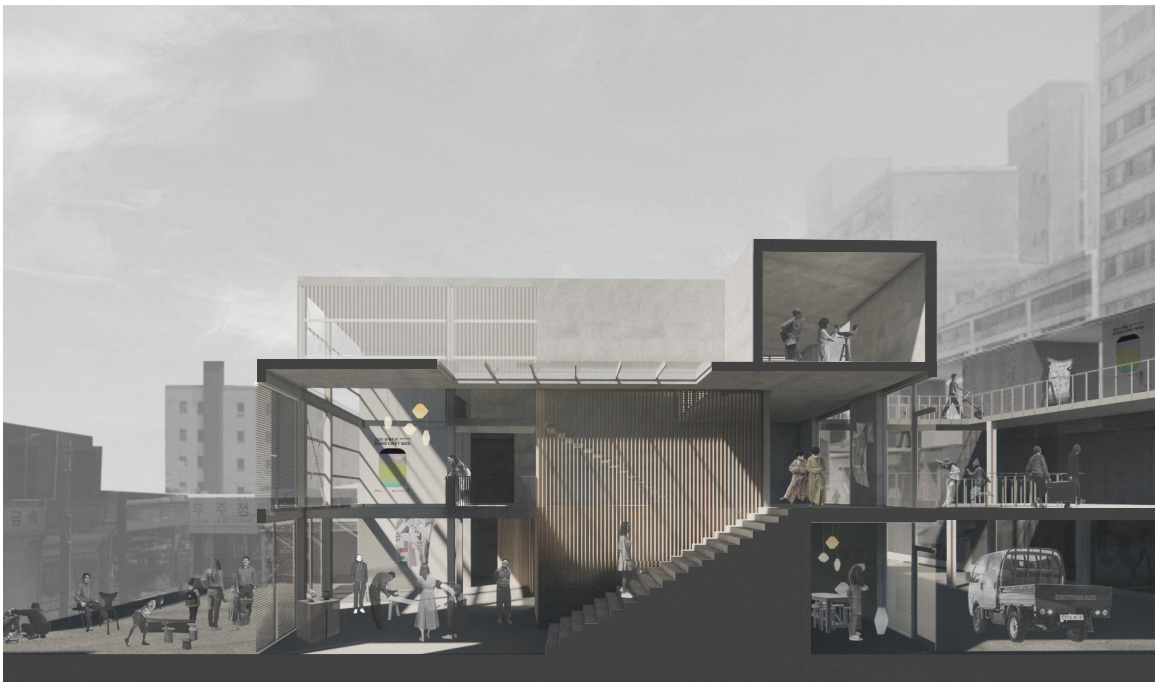


Floor plan.

effortlessly moving from one side to another. Meantime, all spaces spontaneously respond to the needs through the design of the adjustable facade, wall, door and roof.



Shared Madang space, engaging craftspeople inside and outside of the Euljiro area.



Public engagement in craft making enhanced by Madang and the connecting path to Sewoon.

Site 3: Field Test

The last site is Field Test, situated on the same alleyway with Craft Laboratory, which stretches out to the neighbouring art-and-craft amenities to make a connection. The Field Test site is designed to attract the general public to Euljiro, guiding them to the heart of Euljiro's distinctive alleyways. It rehabilitates the existing building originally occupied by metal workers, marks on the wall and remained old machineries remind the visitor of its place-ness.



Existing building, street view outside the site, and material inspiration. (Kakaomap 2021; Seoul Museum of History 2010a)



Floor plan.

Merge, Overlap, Spontaneity

Field Test is designed to impose the complete overlap strategy; the space is without the definite boundary between different programs. The wide range of crafted objects from the architectural elements, interior millwork, furniture, and lighting to the small objects like cups, plates, and flatware made in Euljiro's workshops are used, displayed, and sold at Field Test. It is designed to reflect the everyday use of craft objects in architecture and daily activities to increase the attachment and understanding of craft. The space also implements the spontaneity strategy using movable walls and doors, improvising the atmosphere of space by adjusting them.



Field Test site, designed to invite general public to Euljiro for better acknowledgement of craft making in Euljiro.

Chapter 6: Conclusion

The thesis defines the unique identity and authenticity of the Euljiro area with the Korean notion of Mahk, that values the process, accumulated traces, spontaneity, and harmony. It is deeply embedded notion in Korean culture within everyday life, which although most of the time is hidden, unacknowledged, or unable to notice until consciously realizing it. Mahk shapes the significant part of the Korean culture and it guides us to find the means of maintaining authenticity.

Mahk recognizes the significance of the daily activities of craft making and collaborative working in Euljiro. Although the daily activities, such as the craftspeople's repetitious movements in carving, welding, cutting, shaping and assembling might seem mundane, slow and never-ending, over time, those movements are accumulated to form their crafted objects and define the working environment, and the daily interactions between craftspeople, shaping the streets, gathering space and the community. The ordinary everyday movements of craftspeople and their process of working are the activator of Mahk in the design of architecture of this thesis, which makes the architecture to keep transforming, continuously reflecting the process of craft making.

This approach is implemented to develop the design strategies, merger, overlap, spontaneity and interweave to propose a new way of renewal. The design of Collaborative Craft Laboratory aims to build a new architecture and reuse the existing building while respecting the authenticity of the place, the people, and its own culture. It suggests a way to better enhance connections and collaborations, as well

as to nourish the country's craft industry to make this place revitalize.

The design strategies derived from the notion, Mahk, may also be implemented in other areas to reflect inhabitants' everyday activities through the design of architecture. Designing the architecture and the configuration of street implementing Madang, Maru, various street scales, and the multiple layers of changeable walls, doors, windows and roof enhances vitality in the built environment. The strategies are to provoke connections and interaction among people, and support the urban fabric and architecture to organically evolve over time.

The thesis envisions Euljiro's craft-based manufacturing culture to achieve better recognition and acknowledgement in our fast-pace, result-oriented society. I hope to share the beauty of the process and daily life of craft-making in Euljiro. It is indeed the country's one of the important cultural heritages to preserve.



Craftspeople in Euljiro. (Park, Chun, and Seo 2020)

References

- Albers, Josef. 1971. *Interaction of Color*. New Haven: Yale University Press.
- Blower, Mark. 2018. Photograph of Impulse by Yunchul Kim. Yunchul Kim. <https://yunchulkim.net/work/impulse-cascade-project/>.
- Boyer, M. Christine. 1996. *The City of Collective Memory: Its Historical Imagery and Architectural Entertainments*. Cambridge, MA: MIT Press.
- Broudehoux, Anne-Marie. 1994. "Neighborhood Regeneration in Beijing: An Overview of Projects Implemented in the Inner City Since 1990." Master's thesis, McGill University.
- Cheonggyecheon Anti Gentrification Alliance. 2019. Photographs of the Activists. Instagram, January 8, 2019. <https://www.instagram.com/cheonggyecheon>.
- Cheonggyecheon Anti Gentrification Alliance. 2021. "골목의 목소리: 공중그늘 (Voice on Street: Shade in Air)." Video, 18:21. Youtube. <https://www.youtube.com/channel/UCVOsscxaSIRjyLAqaqUxSgQ>.
- Cho, Byoungsoo. 2018. "Mak and Bium: Imperfection and Emptiness in Korean Aesthetics." *The Architectural Review (London)* 243. no. 1448: 44–50. <https://www.architectural-review.com/essays/mak-and-bium-imperfection-and-emptiness-in-korean-aesthetics>.
- Diaz, Dayviana. 2021. "Why the Traditional Wrapping Cloth Bojagi Has Enduring Appeal." Ministry of Culture, Sports and Tourism & Korean Culture and Information Service. <https://www.korea.net/NewsFocus/HonoraryReporters/view?articleId=202030>.
- Encyclopedia of Korean Culture*. 2021. The Academy of Korean Studies. <http://encykorea.aks.ac.kr/>.
- Encyclopedia of Korean Folk Culture*. 2021a. "Madang." National Folk Museum of Korea. <https://folkency.nfm.go.kr/kr/topic/detail/8319>.
- Encyclopedia of Korean Folk Culture*. 2021b. "Lift-Up Door." National Folk Museum of Korea. <https://folkency.nfm.go.kr/kr/topic/detail/8313>.
- Estate of Nam June Paik. 2020. Photograph of Untitled by Nam June Paik, 1993. The Museum of Modern Art. <https://www.moma.org/collection/works/81152>.
- Eulji Art Center. 2021. Photographs of Exhibitions. Instagram, March 28, 2021. https://www.instagram.com/c.enter_official.
- Fab Lab Seoul. 2018. Photograph of Maker in Fab Lab. Facebook, December 10, 2018. <https://www.facebook.com/fablabseoul>.

- Gore, Nils. 2004. "Craft and Innovation: Serious Play and the Direct Experience of the Real" *Journal of Architectural Education* 58, no. 1: 39–44.
- Gülgönen, Ahmet, and François Laisnet. 1977. *Morphologie Urbaine et Typologies Architecturale*. Paris: Institut d'Etudes et de Recherches Architecturales et Urbaines Rueil-Malmaison: Comité Pour la Recherche et le Développement en Architecture.
- Hogue, Martin. 2004. "The Site As Project: Lessons From Land Art and Conceptual Art." *Journal of Architectural Education* (1984-) 57, no. 3: 54–61.
- Holl, Steven. 1996. *Intertwining: Selected Projects 1989–1995*. New York: Princeton Architectural Press.
- Holl, Steven, Juhani Pallasmaa, and Alberto Pérez Gómez. 2006. *Questions of Perception: Phenomenology of Architecture*. New Ed. Tokyo: San Francisco, CA: A + U Publishing, William Stout.
- Jackson, Ben and Robert Koehler. 2015. *Korean Architecture: Breathing with Nature. Volume 12 of Korea Essentials*. Seoul: Seoul Selection.
- Jacobs, Jane. 1961. *The Death and Life of Great American Cities*. New York: Vintage Books.
- Jung, Byunghyuk. 2019. "포크레인에 헐린 청계천 공구거리의 '60년 역사' (The 60-Years of History in Cheonggyecheon Manufacturing Supply Streets, Demolished by Bulldozer)." *UPINews*, January 14, 2019. <https://www.upinews.kr/newsView/upi201901140003>.
- Kakaomap. 2021. Map of South Korea. <http://map.kakao.com>.
- Kim, Hyewoon. 2019. "일상미학, 류연희의 주전자 (Aesthetics of Everyday, Kettles by Ryu Yeon Hee)." *Lotte Hotel & Resort Magazine*, February, 2019. https://www.lottehotel-magazine.com/ko/art_culture_detail?no=120.
- Kim, Jong-Hoon. 2012. A Study on Planning and Composition of Module Unit in Korean Traditional House. *Journal of the Korean Housing Association*. 23, no. 4, 41–48.
- Korea Craft Week. 2020. Photographs of Exhibition and Event Posters. Instagram, November 1, 2020. <https://www.instagram.com/koreacraftweek/>.
- Korea Craft Week. 2021. Photographs of Exhibition and Event Posters. Instagram, October 13, 2021. <https://www.instagram.com/koreacraftweek/>.
- Koren, Leonard. 2008. *Wabi-Sabi for Artists, Designers, Poets & Philosophers*. Point Reyes, California: Imperfect Pub.
- Lee, Dongchan. 2020. "열정열전, 더위와 맞서는 사람들 (People Facing the Heat)." *Hankyung*, July 24, 2020. <https://magazine.hankyung.com/money/article/202101202918c>.

- Leeum, Samsöng Misulgwan, and Samsöng Munhwa Chaedan. 2015. *Wisdom of the Earth: Korean Architecture*. Seoul: Samsung Foundation of Culture, Leeum, Samsung Museum of Art.
- Lighting Bespoke Design. 2017. Photographs of Lamps, Nærvær. Norm Architects. <https://normcph.com/bespoke/>.
- Lim, Dongwoo. 2020. “을지로 골목, 위기의 소상공인들 (Alleyways of Euljiro, Small Business owners on the Verge).” *LaborPlus*, April 4, 2020. <https://www.laborplus.co.kr/news/articleView.html?idxno=24219>.
- Listen to the City. 2019. “청계천 아틀라스: 메이커 시티 (Cheonggyecheon Atlas: Maker City).” Video, 51:37. Youtube. https://www.youtube.com/watch?v=bpEB4VGce_g.
- Lynch, Kevin. 1960. *The Image of the City*. Cambridge, MA: The M.I.T. Press.
- Magazine Art Mine*. 2019. “Craft Trend Fair 2019.” December 13, 2019. <https://www.magazineartmine.com/craft-trend-fair-2019/>.
- Maric, Marija. 2011. “Liminal Field of Architecture: In-Betweeness.” Master’s Thesis, University of Novi Sad.
- Merleau-Ponty, Maurice. 2012. *Phenomenology of Perception*. London: Taylor & Francis Group.
- The Metropolitan Museum of Art. 2012. *The Metropolitan Museum of Art Guide*. New York: The Metropolitan Museum of Art.
- Michael, Chris. 2019. “‘I’m Panicking’: Seoul Rips out Its Manufacturing Heart.” *The Guardian*, February 20, 2019. <https://www.theguardian.com/cities/2019/feb/20/end-of-an-era-seoul-prepares-to-rip-out-its-manufacturing-heart>.
- Modutour. 2020. Photographs of Seoul. NaverPost, March 4, 2020. <http://naver.me/GXEbVrCl>.
- NGII (National Geographic Information Institute). 2020. Map of Seoul. <http://map.ngii.go.kr>.
- Olson Kundig. 2014. Photograph of 242 State Street, Los Altos, California. <https://olsonkundig.com/projects/242-state-street/>.
- Olson Kundig. 2017. “Tom Kundig Collection at ICFE.” <https://olsonkundig.com/news/tom-kundig-collection-at-icff/>.
- One Two Chachacha. 2018. Photograph of Floor Lighting 02. <https://www.onetwochachacha.kr/>.

- Page, Tom, and Gisli Thorsteinsson. 2019. "The significance of practicing craft in the modern society." *i-Manager's Journal on Educational Psychology* 12, no. 3: 1–12, <https://ezproxy.library.dal.ca/login?url=https://www.proquest.com/scholarly-journals/significance-practicing-craft-modern-society/docview/2201538750/se-2?accountid=10406>.
- Pallasmaa, Juhani. 2012. *The Eyes of the Skin: Architecture and the Senses*. Chichester: John Wiley & Sons, Incorporated.
- Park, Jiyun, Younjae Chun, and Hyunhee Seo. 2020. "'재생' 사라진 을지로의 비명, 30년 차 장인들이 쫓겨난다 (No more 'Renewal', Craftspeople with 30 Years of Experiences Are Being Forced To Move)." *Hankookilbo*, August 27, 2020. https://www.hankookilbo.com/News/Read/A2020082617020003471?fbclid=IwAR36fhJOaYs7wf5whLWGLW_O-EU_HXGUTARDNghxASMU9zEZtVCqDokY0pM.
- Park, Wonsoon (Mayor of Seoul). 2020. *Maker City: Sewoon*. Seoul: Seoul Metropolitan Government.
- Pye, David. 1968. *The Nature and Art of Workmanship*. London: Cambridge U.P.
- Seoul Metropolitan Government. 2019. Open Public Statistic Data. <http://data.seoul.go.kr>.
- Seoul Metropolitan Government. 2021. Open Public Data for Population. <https://data.seoul.go.kr/dataList/419/S/2/datasetView.do>.
- Seoul Museum of History. 2006. *The Maps of Seoul*. Seoul: Seoul Metropolitan Government.
- Seoul Museum of History. 2010a. Photographs of the Area Nearby Sewoon Sangga. <http://museum.seoul.go.kr>.
- Seoul Museum of History. 2010b. 세운상가와 그 이웃들 1 (*Sewoon Sangga and Its Neighbourhood 1*). Seoul: Seoul Museum of History.
- Seoul Tourism Organization. 2021. Photograph of Bukchon. <http://archive.visitseoul.net/html/searchView.jsp?contentsId=5992&page=2&c1=&c2=&c3=all&c4=&c5=search&keyword=%25EB%25B6%2581%25EC%25B4%258C&page=2&mode=&pageLimit=39&totalCnt=>.
- Shin, Younghoon and Daebuk Kim. 2005. *한국의 고궁 (Korean Royal Palaces)*. Seoul: The Culture of Hanok Press.
- ShinhanCard. 2019. "Euljiro3ga Project." <http://euljiro3ga.com>.
- Stardust. 2022. Photograph of Bojagi by Ayami Tsuchiya. Instagram, March 12, 2022. https://www.instagram.com/stardust_kana/.

- Studio Art Quilt Associates. n.d. Photograph of No-Name Women by Chunghie Lee. Accessed December 30, 2021. <https://www.saqa.com/art/browse-collection/no-name-women-red>.
- Thompson Street Studio. 2021. Photograph of Quilts, Jogakbo. Instagram, December 16, 2021. <https://www.instagram.com/thompsonstreetstudio/>.
- UCCA Center for Contemporary Art. n.d. Photograph of Totem Robot – Askew by Haegue Yang, 2010. Accessed November 13, 2021. <https://ucca.org.cn/en/exhibition/haegue-yang/works/>.
- Urbanplay. 2018. 아는동네 아는 을지로 (*The Neighbourhood I Know, Euljiro I know*). Seoul: Urbanplay.
- Won, Jieun. 2019. “Now Creator, 을지로 개척자 (The Pioneer of Euljiro).” *Maison Marie Claire*, November 14, 2019. https://www.maisonkorea.com/?p=60358&utm_source=url&utm_medium=share.
- Zumthor, Peter and Mari Lending. 2018. *A Feeling of History*. Zurich: Scheidegger & Spiess.