OLD AND NEW: Intervention in space and material

Hanok is a traditional Korean architecture built with Korea’s unique technology and style. Most Korean people have a positive impression of the Hanok but Hanok is acknowledged as an obsolete form of living these days. The reasons why the Hanok is not widely used are an inconvenience in living due to facilities, difficulty in maintenance, the high cost required for renovation, and its prone to coldness. Therefore, it is essential to modernize the design and construction of the Hanok by reflecting modern needs in a new Hanok.

This study investigates the characteristics of the Hanok, the typologies, and how it developed in relation to the environment of the region, the distribution of Hanoks in Korea, and Seoul city’s remodeling ordinances/regulations for Hanoks. This thesis will examine formal, material, and operational strategies for remodeling Hanoks to meet the needs of modern lifestyles. Also, I am going to question the spatial composition of the Hanok and what a modern space should look like. I will be looking into various case studies of adaptive reuse with interventions such as insertion, juxtaposition, and wrapping. This thesis will propose a theory of Hanok reuse in an urban context by investigating operations in building and material dimensions.

Francoise Astorg Bollack, the author of Old Buildings New Forms takes five strategies when approaching the subject of restoring and reusing old fabric. Insertions: the new piece of pace or a building is inserted into the older volume, using the existing structure as protection and nestling in it. In general, the inserted piece has its own identity. Parasites: the new piece attaches itself to the side or the top of the original building and becomes one with it as it depends on the original structure. The original building provides key functions: structural support, access, ready-made integration in an existing historical and cultural fabric, and existing infrastructure. The addition cannot function without the support of the original building. Wraps: the addition wraps the older structure in a new mantle, it may spread an overhead umbrella to provide protection to a building that has become fragile, or it may encapsulate an older, smaller structure in an all-around enclosure. Juxtaposition: The addition stands next to the original building and does not engage with the older structure in an obvious dialogue. The visual separation is established: different textures, colors, materials, and styles. Weavings: The new work is weaved in and out of the original building fabric. The old and the new become inseparable.

By looking into case studies of each intervention, the objective is to discuss what is an ideal intervention in formal and material scale that is applicable to a traditional Hanok. My work questions what is acceptable and what is not acceptable, and what is a criterion of a good or bad change in an old building.
**Typologies of Hanok**

**I Shape**
- Kitchen, maru, room spaces are arranged in one long line from left to right. It is considered the most basic and universal type of house because of its simple structure. It can be found mainly in southern regions where the climate is warm.

**L Shape**
- As a variation of the ‘I’ shape, it is a type in which rooms arranged side by side are bent at right angle. It is mainly seen in the central region, and can be built in a small yard compared to the ‘I’ shape.

**C Shape**
- Protrusions of similar length are arranged at right angle on both sides of ‘I’ shape. It can be seen in the northern part of Yeongnam.

**Square Shape**
- This shape is in the form of a small yard located in the center with rooms surrounding it in all directions, shows a closed form so that the wind does not flow well to spend the cold winter. It can be seen in Andong area.

**My attitude towards each interventions**

Insertion needs to carve out some parts or the old needs to be in certain form since the new part must go through the old in some way. This intervention is applicable in cases where we only want the shell of the old building, or in case we need to replace the core structure or space of the old building.

Parasite critical infrastructure is provided from the old, which make the old more valuable and critical—now it serves two chunks. New cannot survive on its own, but also has limitations since we must keep the critical parts of the old and cannot alter that works better with current lifestyle. In wrapping the old building gets to go inside or under the new. The old structure is no longer visible as it gets wrapped (visible only if the wrapping material is transparent or see-through). This is not ideal type of intervention I am looking for because the interaction is only happening on the outer surface, with little interaction, just like glass box settings that protects art piece in museums. Juxtaposition is an interesting intervention to see formal, color, material contrast between the old and the new building. The relationship is disconnected in a building scale— but I think this is more beautiful when it takes place at a material scale. Weaving is great because we can see how the old and new blend together. There is no need to get rid of anything. This is applicable where Preservation is needed.

Good change: change in relationship—old building becomes more critical(parasite), interaction between old and new, visual contrast, not having to damage the old building.

Bad change: superficial change in relationship.

**Adaptive reuse strategy**

**My Question**

What is acceptable and not acceptable in terms of material, form and operation when working with hanok?

How do we define modern lifestyle and how do we alter, adapt, transform, and add to hanok to meet the needs?
Interventions x Typology Analysis Diagram

Hanok distribution map in Korea

Aerial view of the site
Samchung-Dong, Korea
Elevation - before

Existing Plan 1

Existing Plan 2

Existing Plan with Programs
Study of Interventions

1. **Insertion**
   Insert bathrooms in the courtyard to divide one Hanok unit into two units.

2. **Juxtaposition**
   Add three studio units right next to the old Hanok. Each of the studio units has a courtyard in the middle so it resembles the old building. Can create high visual contrast by using very different materials and colors but there is no interaction between the old and new.

3. **Parasite**
   Add loft studio spaces in the vacant lot, and the old space becomes a shared space. Circulation space weaves through both spaces to connect the two. Studio residents rely on and use the old Hanok space.

I chose to proceed with the Parasite intervention because of the following reasons.

1. It creates a new interdependent relationship between the old and new by the new parasite onto the old. Old becomes a public space and the new is a private space.

2. The spacial composition fits the modern life style. Each individual have their private spaces which are a bedroom, bathroom, and living room. Shared space includes kitchen/dining, co-working office space, living room, and courtyard. Modern-day people don’t cook very often, they mostly get the food delivered. But they do need a working environment at home.

3. It allows vertical growth in the tiny, densely populated site.
My proposal is residential for one or two people households with shared space. Interventions used are a conceptual parasite, and physical weaving. The new can’t stand on its own in terms of programs but structurally it doesn’t rely on the old and can be accessed without having to pass through the old. There are multiple entries to access the building. The central stair leading to the second floor of the new building cuts through the existing roof, revealing the structure of the old. A total of 6 units are added to the vacant site, with kitchen/dining, living, co-working space in the shared space.
Proposed Plan 2F

Proposed Plan 1F

Elevation - after

Deconstruction Plan
There is a high degree of contrast in material, and low contrast in color, and structure. formal language is referential as the new also has column structure and void in the core of the building. material, color, formal, language contrast.
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