

# Cultivating Heritage

Recuperating Dutch Colonial Architecture's Relation to Local Community's Practices through Heritage and Socio-Cultural Approaches in Kota Lama Semarang

*Case Study: PTPN IX Building (Former NV Cultuurmaatschappij der Vorstenlanden)*



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University Fund



## Graduation Project Booklet

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### Cultivating Heritage:

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Fig 1- Danindra, Maheswara Rakhe (2019), Informal Trading in Semarang, Historical Area.

## Project Summary

### Bridging Distance through Reciprocity

"Cultivating Heritage" aims to incorporate colonial architecture that represents history of discrimination as a part of the local community's future everyday practices. In other words, it proposes to bridge the distance between the community and the heritage. This project is a part of Shared Heritage Lab studio that focuses on Semarang historical area, the former city center during Dutch colonialization era in Indonesia.

Semarang city has stood as a trading city due to its strategic location. The city is currently filled by local communities in poverty, forming a dense area referred to as *kampung kota*. These communities are dependent on informal food and agricultural trading practices as their main source of income, which contributes to their poor economic condition as well as manifold environmental issues. These environmental issues include waste, polluted water and air, as well as excessive groundwater extraction that leads to land subsidence. On the contrary, Kota Lama, The former Dutch quarter, is currently being abandoned and disconnected from the surrounding *kampung*. Many buildings have been left deteriorated and only treated as photo backgrounds.

Despite the conflictual history, shared heritage manifests knowledge and history of the past that can be utilized as a constructive means to move forward. The project is an adaptive reuse of NV Cultuurmaatschappij der Vorstenlanden, a former agricultural trading office that was built for the Dutch and was associated to *cultuurstelsel* (force labor system) into an urban permaculture co-operative office (*koperasi*) that integrates, manages, and educates the surrounding community's informal trading as well as reintroducing permaculture production to the city.

Through heritage and socio-cultural approaches, the project utilizes heritage as a tool towards sustainable socio-economy and environment with community being the center of the driving force. The project applies improved traditions as the future embodiment of shared-heritage. Close-readings of the existing architecture and the community's spatial culture result in three types of interventions that consider a balance and the reciprocity between the old and new.

The result is three-part careful interventions:

1. Preservation of the high-valued entrance, with subtle changes to establish the building's connection to the public realm. It is done by inserting new elements without damaging the existing fabrics
2. Interlocking the office's upper structure with local crafts and communal spatial configuration. It is meant to protect parts of the existing fabrics and to reverse the existing segregated space.
3. Adding a socio-production pod that introduces permaculture practices. It enhances the rare courtyard typology and completes the existing corridor pattern. This pod is a response to the logic and flaws of the existing structure and how it can be pushed towards an elevated future.

The co-operative is connected to the urban interventions, in which river, train, and three-wheeler bike are reactivated as transportation for trade. The urban interventions also include the revitalization of storage and production land to support the trading and production activities.

By reintroducing familiar elements, the project intends to let the community appropriate the shared-heritage by themselves while nurturing a sense of belonging.

Keywords: Shared Heritage, Heritage Based Design, Ethnography, Spatial Culture, Community's Practice





*"To love your country  
is to know it in its entirety:  
its blood-soaked history  
and glamorized victories.*

*To **demand reparations**  
for what has been done wrong  
and **continue**  
what has been done right."*

*- Kudeta, 2020*

Fig 2 & 3 - Leiden University Library - Digital Collections. *The Agricultural Force Labor Practices During Dutch Colonialization Era.*

Fig 4 - Iswardhani, Ananta Vania (2019). *Informal Agricultural Trading Practices in Semarang Historical Area.*



## On the Notion of Shared Heritage

The project is a product of a series of research to address the shared heritage notion. The shared history between Indonesia and the Netherlands has contributed to Indonesia's diverse architecture and urban fabrics across the archipelago.

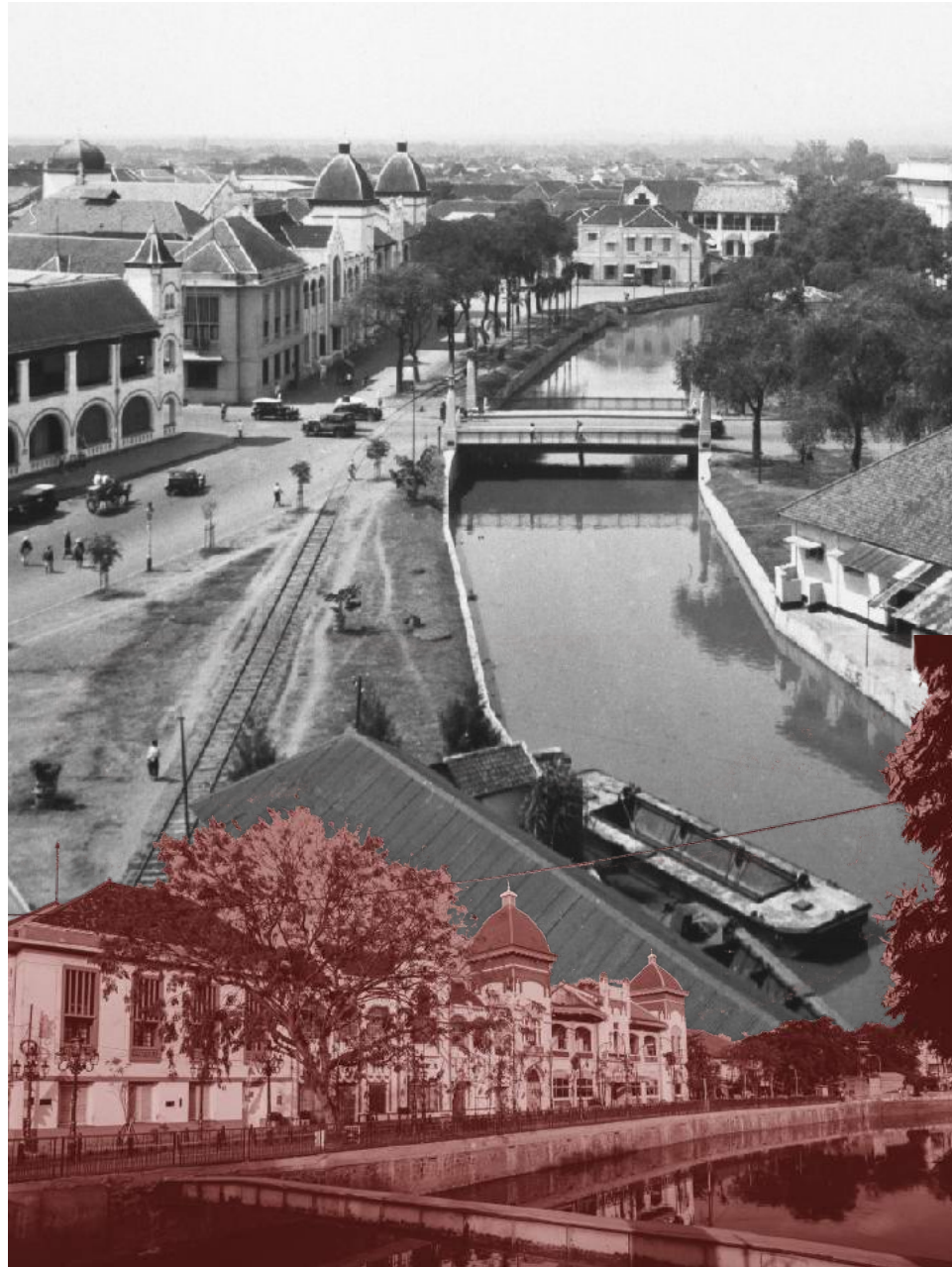
The Dutch-Indonesian relationship often links to a long history of colonialization and discrimination. Even though the past event has been put to rest, there is a distance in the way the people deal with the heritage, especially the architecture. There is a distance between the community and the heritage and it is still treated as a foreign object. This does not come to a shock considering these buildings were built specifically for the Dutch that embodies different cultures, different ways of doing, different climate, and different memory towards the past event.

Many monumental buildings have been constantly revitalized only as museums or photo backgrounds as opposed to programs that could accommodate or improve the local community's practice. In addition to that, the remaining buildings are left decayed and deteriorated.

"Cultivating Heritage" aims to bridge this distance by constant close-readings and reflections on both Dutch and Indonesian traits in several layers, such as history, socio-economic, built environment, ecosystem, and tradition. What does shared heritage mean? How to make it relevant in the future?

This project believes that **shared heritage embodies knowledge and history of the past that can be utilized as a constructive means to move forward**. Heritage is used as a tool to understand the logic, to continue the positive traits, as well as to overcome the flaws of the past. It is especially important in the developing country context that has experienced manifold social and environmental issues because the solution could already exist.

This research also upholds the power of **community as a driving force** to appropriate the role of shared heritage in the future. Combining heritage-based research with a socio-cultural approach, the project proposes to find a balance between the old and the new.



**"Shared heritage** is something that is valued by two or more different groups of people."

- Clarke (2019)

Fig 5 - Leiden University Library - Digital Collections. *Dutch Quarter/Kota Lama and Riversides, 1912.*

Fig 6 - Iswardhani, Ananta Vania (2019). *The Project Site, PTPN IX Building, 2019.*



# Heritage Position

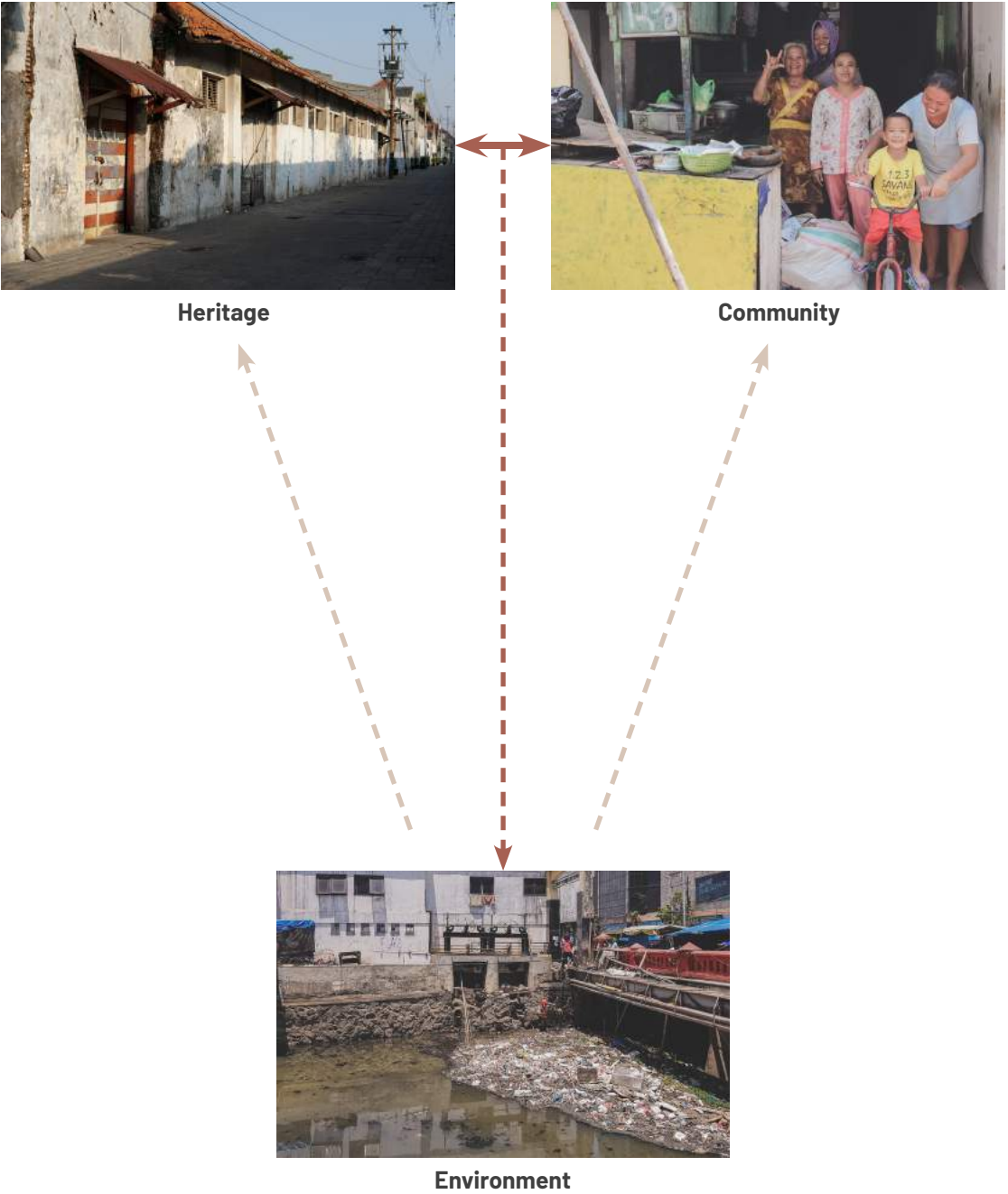


Fig 7 & 9 - Iswardhani, Ananta Vania (2019). *Informal Trading in Semarang Historical Area*.  
Fig 8 - Ruskanda, M. Kadhan (2019). *Former Dutch Shared Buildings in Kota Lama*.



In pursuit of tackling the complex issues that have struck a developing country like Indonesia, the project sees heritage as a tool with community being the center of the driving force. The connection between the two would not only be beneficial for the heritage sustainability. Understanding the people’s ways of doing and limitations while learning about the advantages and the flaws of the past would give a powerful foundation and insights to provide significant solutions for the community and the environment. By putting the people’s needs first, the suitable role of heritage architecture in the future would be clear.

The balance and the reciprocity of heritage and community as well as of the past, present, and future would not only contribute to the sustainability of the architecture and the socio-economy, but also the environment.

Fig 10 - Iswardhani, Ananta Vania (2019). *Fragment Model in the Scale of 1:10, Showing Coexistence between the Existing and the Intervention that Embodies the Community Spirit*.



# Shared Heritage Lab Studio



Fig 11 - Google Maps (2019). Kota Lama Semarang (Former Dutch Quarter) in Semarang Historical Area.  
Fig 12 - Leiden University Library - Digital Collections. Community from Different Cultures Occupying the Area, 1900s.  
Fig 13 - Leiden University Library - Digital Collections. Flooding in Semarang Historical Area, 1900s.



“Cultivating Heritage” runs under the chair of Heritage and Architecture within the Shared Heritage Lab, a studio that is composed of students from Heritage and Architecture, Architectural Engineering, Urbanism, and Landscape departments. Considering the various scale of Semarang’s challenges, perspectives from different fields are necessary to achieve a holistic understanding of the context.

The studio raises question on how to revitalise the former colonial city center of Semarang into an inclusive, thriving, and healthy environment for working, living and leisure taking the specific challenges, such as poverty, floodings, land subsidence, and waste as well as the rich culture of the city into account. The connection of this proposal to the other projects within the studio offers a complete and thorough testing in different scales and parts of the city.

Fig 14 - Yuliansyah Ariawan (2019). Shared Heritage Lab students and tutors in Semarang, Indonesia.



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# Project Context and Methodology

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- 1. Semarang Overview and Brief History
- 2. Kota Lama Today
- 3. Kampung Kota Today
- 4. Problem Statement
- 5. Research Questions
- 6. Methodology
- 7. Methodological and Theoretical Framework



Semarang's Significance as a Trading City

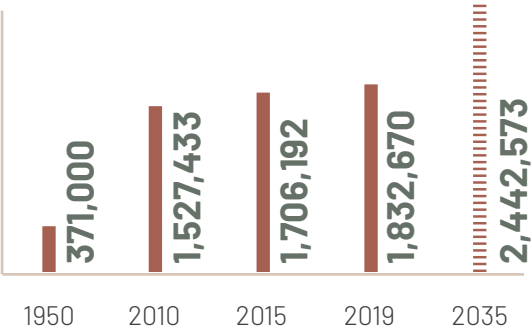
Vulnerable Communities

1,832,670  
inhabitants

71.55%  
population in the productive age

4.14%  
living in poverty

Semarang Population Growth



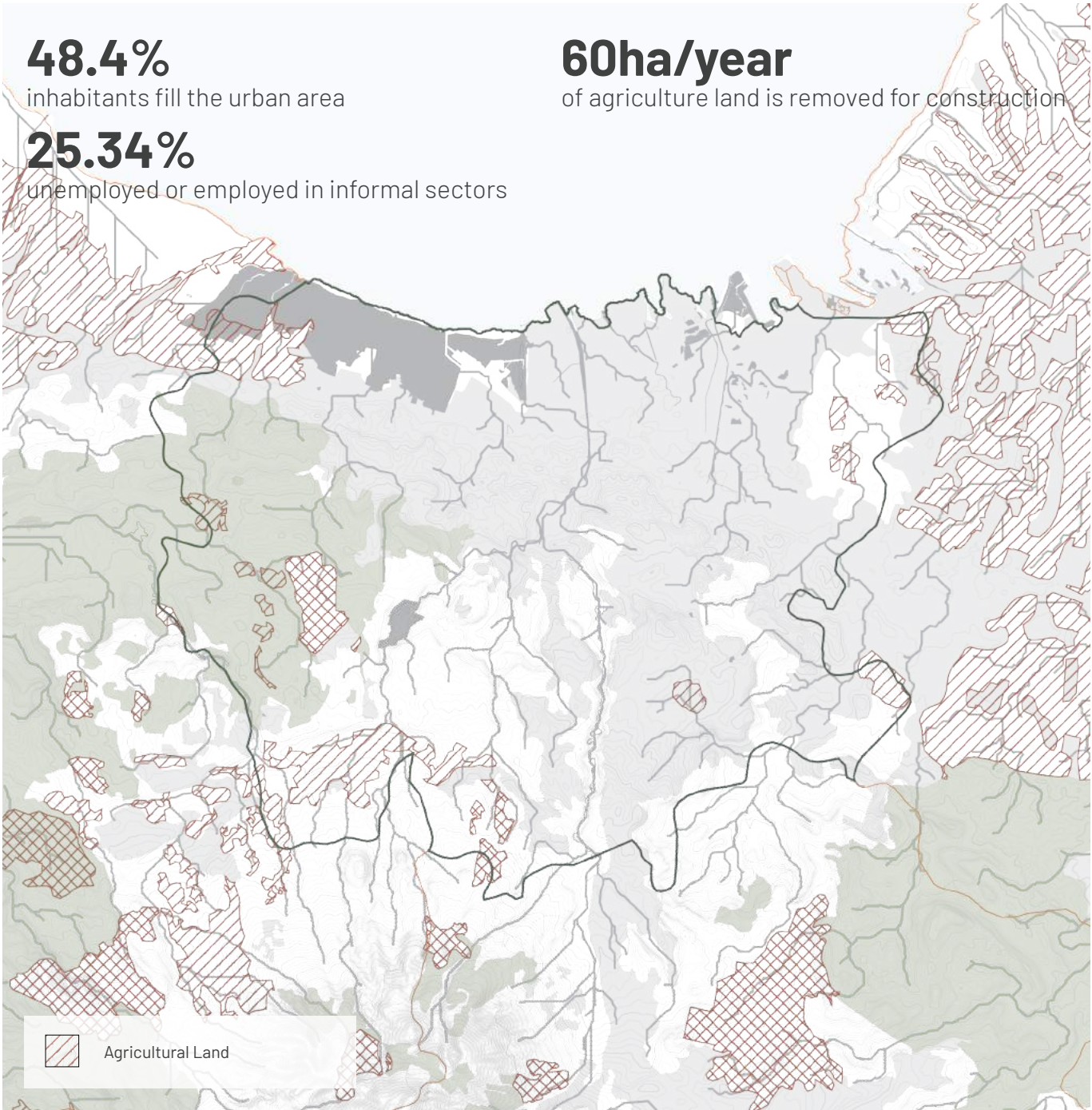
Semarang is the capital of Central Java province, Indonesia. Situated on the northern coast of Java island, the city serves as one of three major ports since Dutch colonialization period. Due to its strategic location, all agricultural products were sent to Semarang before being distributed to other cities, including Jakarta. Today, it is still the main connector of eastern and western parts of Java as well as other cities in the hinterland areas, making all trading logistics concentrated in Semarang.

As a consequence, Semarang has experienced inevitable rapid urbanization since Indonesian independence in 1945, making it the 5th largest metropolitan city in Indonesia after Jakarta, Surabaya, Medan, and Bandung (Badan Pusat Statistik, 2015). The population growth suggests that it increases 1.8%-2% annually and Semarang is expected to expand further in the upcoming years. Even though the economy has developed constantly, many citizens still live in poverty.

Fig 15 - Strategic Location of Semarang City  
Chart 1 - Badan Pusat Statistik, 2019. Semarang Population Growth



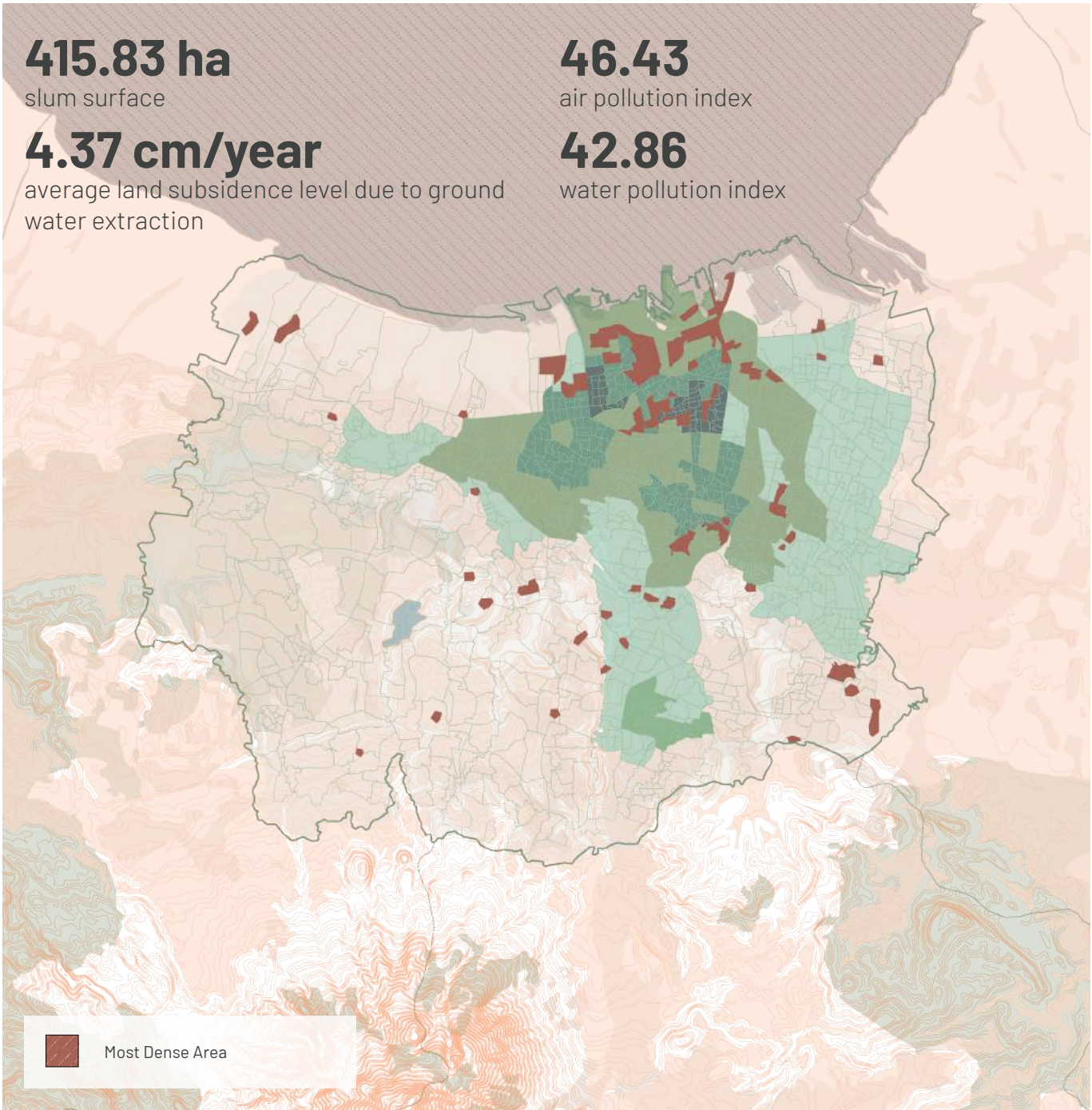
Rapid Urbanization in Semarang Leads to Informal Trading



The citizens in poverty or with low income rely on informal food and agricultural trading as their source of income. Agro-plantation has been the core of Semarang development, which is apparent on the city's infrastructure and urban fabric. Until the beginning of the 1900s, the agricultural practice in Semarang is composed of production and trading. However, agricultural land has been consistently removed each year, driving production away from the city's scheme while strengthening the trade quality of Semarang.

Fig 16 - Semarang City in Relation to Agricultural Land

Unorganized Informal Trading Brings Environmental Problems



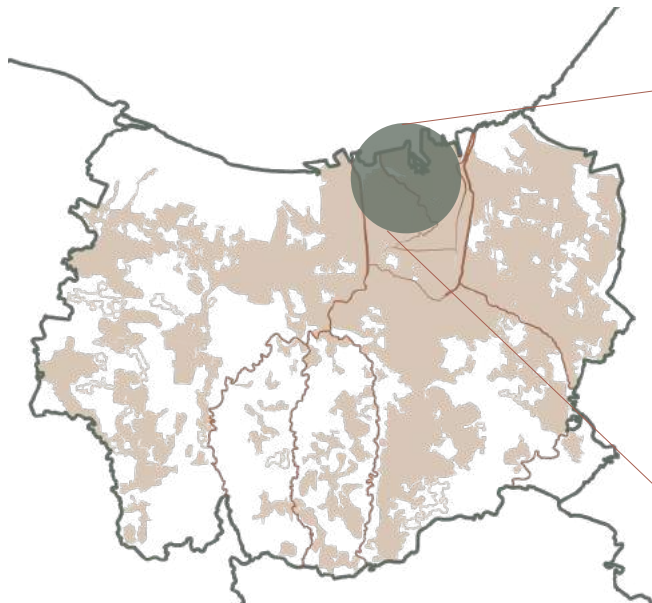
Semarang today shows that rapid development is concentrated on the coastal area instead of the hinterland. It is densely occupied by *kampung* or organic settlements. The density as well as informal trading practice have resulted in manifold environmental issues, such as waste, polluted water, and polluted air. Meanwhile, low absorption area and groundwater extraction contribute to the land subsidence of the area.

Semarang elevation ranges from 2 meters below sea level up to 340 meters above the sea level. With its seasonal monsoon climate, Semarang also deals with heavy rainfall and prone to flooding.

Fig 17 - Semarang City's Density



# Segregated Semarang Historical Area



The focus of this project is the embryo of Semarang city, referred to as Semarang historical area. The area's charm lies within its fragmented urban fabric that was formed since the 6th century. The physical built of the area is defined by racial segregations in the past. The four main precincts that still stand today are Kota Lama (Dutch quarter), Pecinan (Chinese quarter), Kauman (Arab quarter), and Melayu (Malay quarter).

The government is attempting to put Semarang historical area on the UNESCO's World Heritage nomination list, which has led to various planning and beautification projects. This effort has opened up discussion and critiques on the future of the area that this project sees as an opportunity to address the future role of heritage.

Fig 18 - Map of Semarang



Fig 19 - Semarang Historical Area and its Multicultural Quality



# Brief History: Semarang's Segregation throughout Centuries

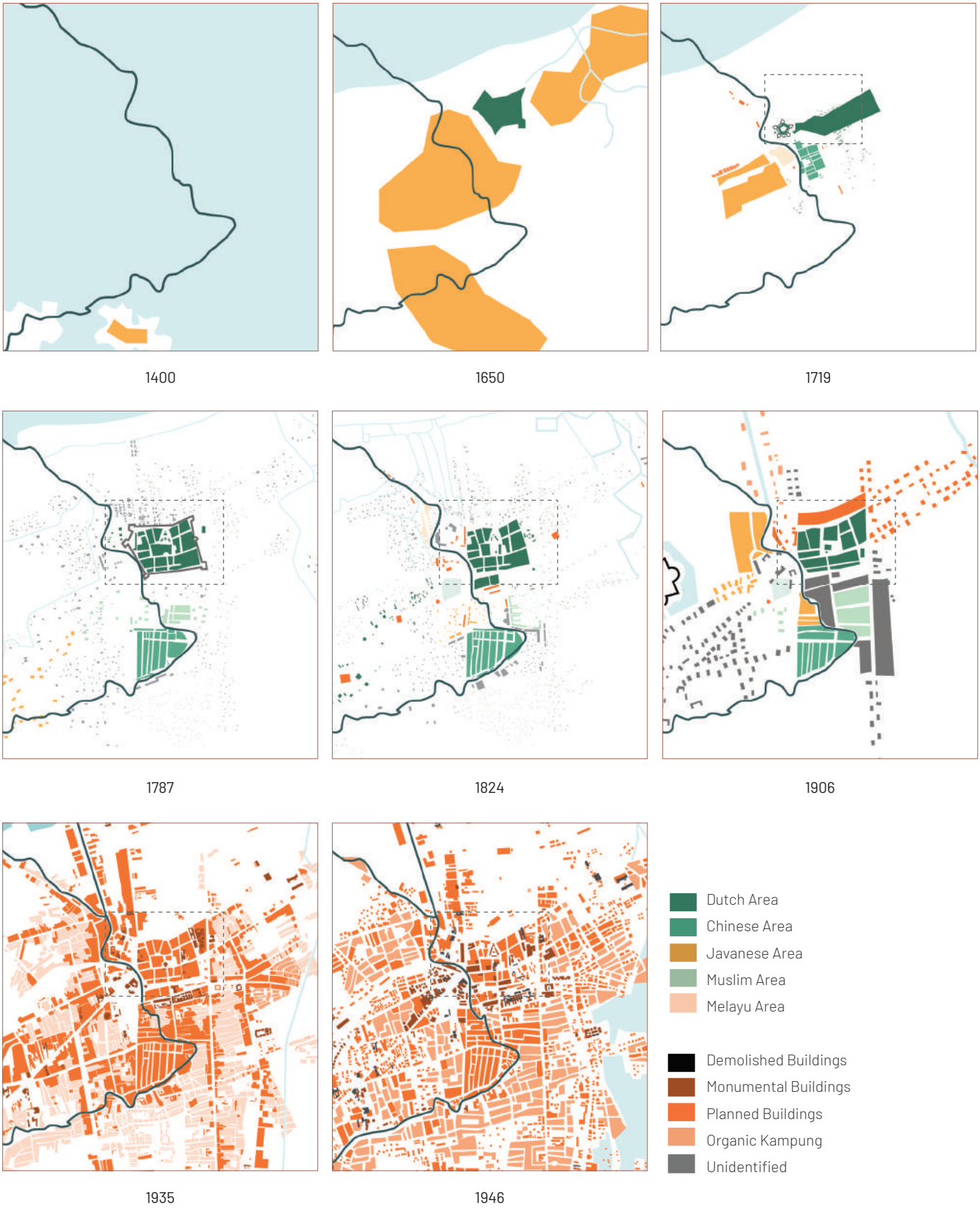


Fig 20 - Semarang Historical Area Development

During colonialization, the racial division of Semarang urban fabrics depicts the politics and the socio-economics dynamics, in which the Dutch stood as the administrator while others were assigned as workers or traders. The positioning of the precincts resulted in unequal settlement conditions and access to infrastructure, facilities, or water. Dutch precinct is situated in the center, allowing them to control and monitor the other precincts.

Semarang was initially a part of Mataram Kuno kingdom called Bergota, which has expanded significantly due to continuous sedimentation. In the 15th century, the Chinese came for trading activities, positioning themselves in the hilly part of Semarang. This then followed by Arab traders that contribute to the rich diversity of Indonesia in the present day. VOC, a trading company from the Netherlands came to Indonesia in the 16th century because Semarang is situated on the coast that is suitable for transport. It is also close to the hinterland that produces spices, making it a prominent location.

In 1678, the kingdoms throughout Indonesia's archipelago still fought for domination and VOC helped Mataram Kuno defeating Trunojoyo kingdom. VOC gained the authority of Semarang city as a reward, which then eventually led to the emergence of European style buildings in Semarang and the establishment of Semarang as a Dutch headquarter and trading hub. The took over by VOC led to the long-standing, over 300 years, of Dutch colonialization in Indonesia.

The settlements grew around Kali Semarang (Semarang main river) and the regional east-west road that stood as transportation routes. In 1700-1800, the water transportation was eventually shifted to road transportation due to significant sedimentation. Despite rebellions from the Chinese and the Javanese throughout the years, the city still gradually expanded and rearranged according to the VOC's rules. However, social segregation and ethnicity still determine the city configuration.

After the bankruptcy of VOC in 1824, the Dutch state took over Semarang. Lack of agricultural assets led to the implementation of *cultuurstelsel* or force labor practice. The sugar factory is the biggest economy driver in that period which dictates productions, tradings, and city development. In 1800-1900, various infrastructures, such as railway, train stations, ports, as well as the road network from hinterland to the coast were developed to transport goods. These were followed by settlements growth around the developed area. During Dutch colonial authority, Semarang administrative boundary has been expanded three times, by the year of 1886, the year of 1894, and the year of 1902.

Floodings and death threatening diseases, such as cholera urged the Dutch government to propose "New Tjandi Planning". In 1935, Thomas Karsten was in charge as the advisor of the planning. The intention was to direct the inhabitant movement towards the hinterland area for healthier living and environment.

Karsten divided the zone based on the economic classes rather than the ethnic group. However, in reality, the three ethnic groups represent three different economic classes. As a result, the concept of zoning division only changed land use and spatial function, but still embodied the segregation.

With the declaration of independence in 1945, the urban population grew exponentially. Urban infrastructure thrived and many Dutch buildings were nationalized as Indonesia's properties, while some others went to individuals and private institutions.



# Kota Lama Today



Today, the traces of segregation are visible on the architecture and planning of each area. Due to lack of revitalization, low economic development, as well as privatization, people left the Dutch quarter and most buildings have become vacant and damaged. Kota Lama then lost its centrality while the formal trading and industry have moved towards Simpang Lima area (the center of Semarang today), suggesting gentrification in the late 1900s.

After that, Semarang historical area was associated with crime, illegal activities, and urban myth for decades as a result of the abandonment. During this time, many parts of Dutch-Indonesian shared heritage have been stolen, damaged, or illegally occupied. However, the attempt to put the area as world heritage nomination has led to beautification projects. Several private individuals also took risks to bring life back to Kota Lama.

Even though the negative perceptions have drifted away, the area is now dominantly used as tourist attraction and as a background for photos. Private businesses have commercialized several areas with middle and upper class citizens as their target consumers, making an invisible border between Kota Lama and the vulnerable community's practices around Kota Lama area. Nonetheless, around 30% of the heritage built are still left vacant, giving room for opportunities in addressing the role of heritage in the future.

Fig 21 - Ruskanda, M. Kadhan (2019). *Deteriorated Building in Kota Lama*  
Fig 22 - Heijnis Marijn (2019). *Heritage Built as a Photo Background in Kota Lama*



Kota Lama’s Architecture Conflictual Past



Fig 23 - Leiden University Library - Digital Collections. *Force Labor During Dutch Colonialization Era in Indonesia*  
Fig 24 - Iswardhani, Ananta Vania (2019). *Abandoned Shared Heritage in Kota Lama*



**“INDONESIANS AND DOGS  
ARE PROHIBITED FROM ENTERING”**

*Assumptions*

Apart from the segregated urban fabrics, most Dutch colonial architecture were not built for Indonesians in the first place. Therefore, the architecture may not be suitable for Indonesian spatial culture and practices. Many buildings were also designed by Dutch architects with European knowledge that may have effects on the building’s performance concerning Indonesia’s tropical climate.

Furthermore, many of the architecture were linked to the history of discrimination, which may contribute to the gap between colonial architecture and the local community. The sign depicted in the figure above is one example.

Fig 25 - Falcon Pictures. *Bumi Manusia*.



# Kampung Kota Today



On the contrary, rapid urbanization results in the growth of dense organic settlements around Kota Lama, referred to as *kampung kota*, which encapsulates the Dutch-Indonesian heritage. Yunarto (2017) stated that Semarang's population will reach approximately 5,8 million inhabitants in 2050 with the coastal area and the ports being the densest in comparison to the other areas.

*Kampung* is a form of settlement that is being passed on from one generation to the other. The inhabitants have developed an attachment to their *kampung* and surroundings as well as a sense of belonging to their neighbors. In *kampung*, this sense of belonging also leads to a strong connection between social and economic realms, in which the neighbors and community are often build informal trading business in small groups to help each other.

Looking at this condition, it would be a far-fetched idea to assume that these people would leave the area despite the poverty, flooding, land subsidence, as well as the slum conditions. The trading activities have added waste issues as well as water and air pollution to Semarang's already complex environmental challenges.

This condition is also similar to the other Indonesia's big cities where class segregation is apparent. Therefore, finding ways to work with *kampung* and its community would provide a test for solution that would impact other cities and countries that deal with organic settlements like *kampung*.

Fig 26 - Iswardhani, Ananta Vania (2019). Local Community's Trading Practices in Semarang Historical Area  
Fig 27 - Iswardhani, Ananta Vania (2019). Waste Polluted River in Kali Semarang (River)



# Problem Statement



## Local Community from *Kampung* as Driving Force

- Vulnerable communities
- Informal agricultural trading practices
- Social and economy practices strong relation
- Poverty
- Dependent economy
- Attachment to *kampung*
- Land subsidence
- Waste
- Water pollution
- Air pollution
- Rapid urbanization
- High density

Fig 28 - Local Community's Trading Practices in Semarang Historical Area

There is no bond between the community and the heritage.

There are multiple layers of distance between Dutch colonial architecture and the local community in Semarang Historical Area, Indonesia.



## Shared Heritage as a Tool

- Segregation
- Decayed colonial architecture
- Deteriorated/damaged buildings
- Lost its centrality
- Tourist oriented
- Disconnected from vulnerable communities
- Represents discrimination of the past
- *Architecture Hypothesis*
- Not suitable to Indonesian spatial culture and practices
- Not suitable to Indonesian tropical climate

Fig 29 - Abandoned and Disconnected Kota Lama



## Research Questions

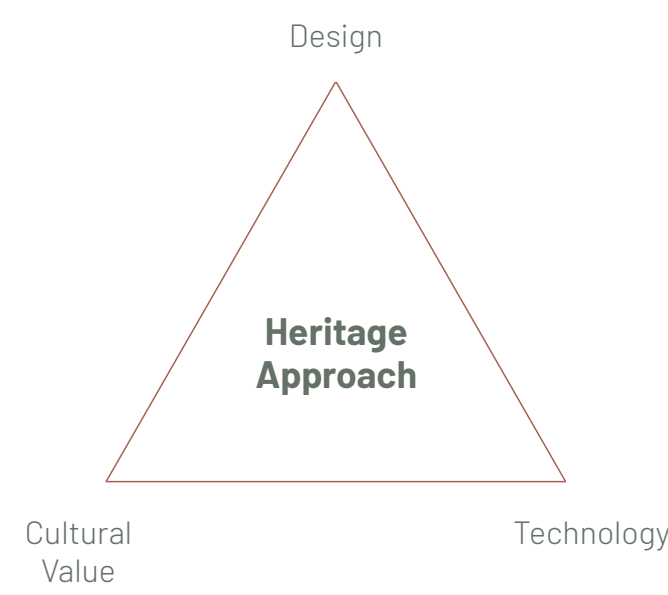


**How can shared heritage architecture that embodies a conflictual past be appropriated as a part of future local community's practices in Kota Lama Semarang?**

**How to bridge the distance between the shared heritage and the community?**

**How can shared heritage be used as a tool to improve the agricultural trading practices and its relation to the natural environment?**





In line with the chair of Heritage and Architecture, the project takes heritage-based design as one research approach. The method carries contextual analysis in an in-depth manner by considering factors from the city scale to the scale of building fragments along with its transformations. The analysis is done through site visits, redrawing urban morphology and the building's development, as well as research on the history, socio-economy, waterscape, built environment, and infrastructure.

This project specifically performs close-readings on architectural fragments of the existing fabrics and its relation to the possible new layers. The architecture is dissected from design, technology, and cultural valuation. The outcome of this method is an understanding of urban and building characteristics, logic, as well as the initial obligations and opportunities for transformation.

As a heritage that contains rich historical, socio-economic, architectural, and cultural quintessences of two groups of people, the future role shared heritage is not meant to be limited to certain groups of people. The relevance of its qualities needs to be constantly questioned and adapted according to the context and the challenges. This way, heritage could serve to elevate the practices of the community and the environment in the future.

This design utilizes heritage as a tool towards sustainable socio-economy and environment of Semarang historical area with the local community being the center of the driving force. Socio-economy empowerment is chosen as the focus, considering its significant influences on numerous other problems in Semarang. It has also been the main role of Semarang city, which suggests that there are many information that could be investigated from Semarang history.



Therefore, the project does not only assess the Dutch colonial fabrics, but also the socio-cultural context of the local communities and their practices. The project employs place-centered ethnographic mapping, behaviour setting sketching, and interviews to record the patterns of the community's spatial practices and spatial culture along with the hidden traditions.

"Cultivating Heritage" also learns about vernacular architecture and tradition with the purpose of adding a new layer that is familiar with the local community. This is an attempt to allow the community to appropriate the shared heritage themselves, giving shared heritage a new life that is really valued and belong to the local communities. The design decision considers the reciprocity of the heritage and the community for the best quality of intervention.



Methodological Framework

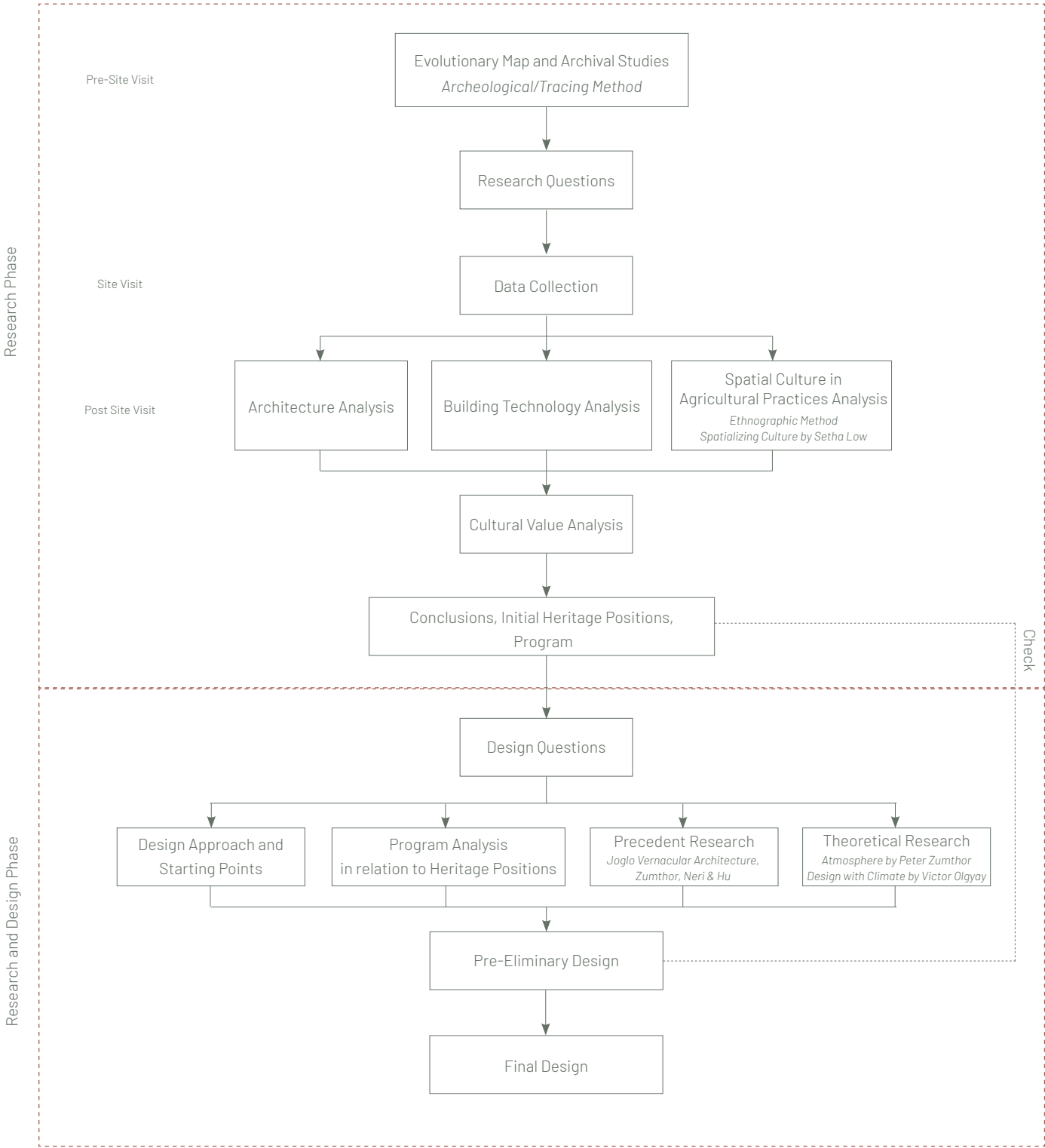


Fig 30 - Methodological Framework by Iswardhani, Ananta Vania (2020)

Theoretical Framework

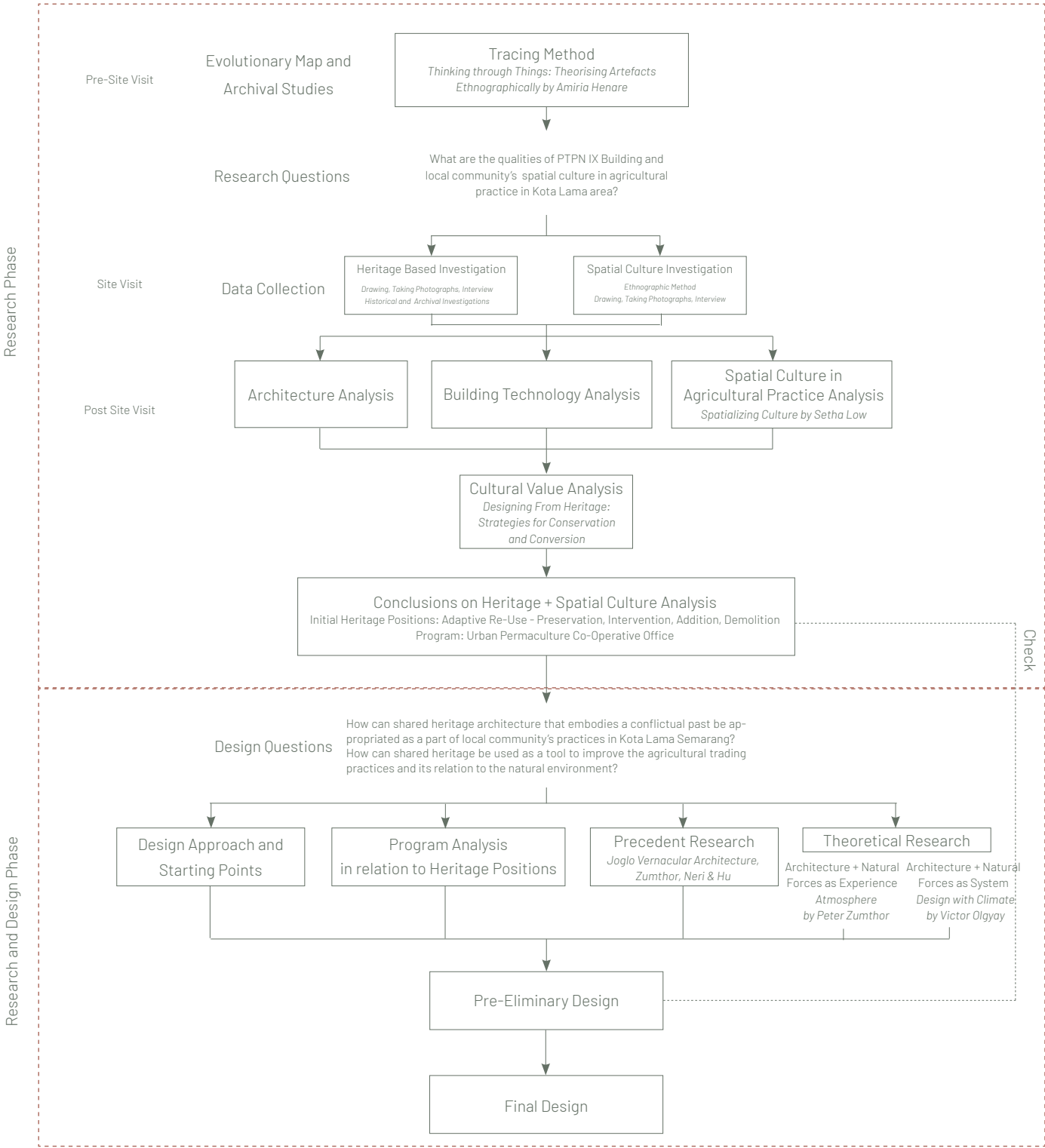


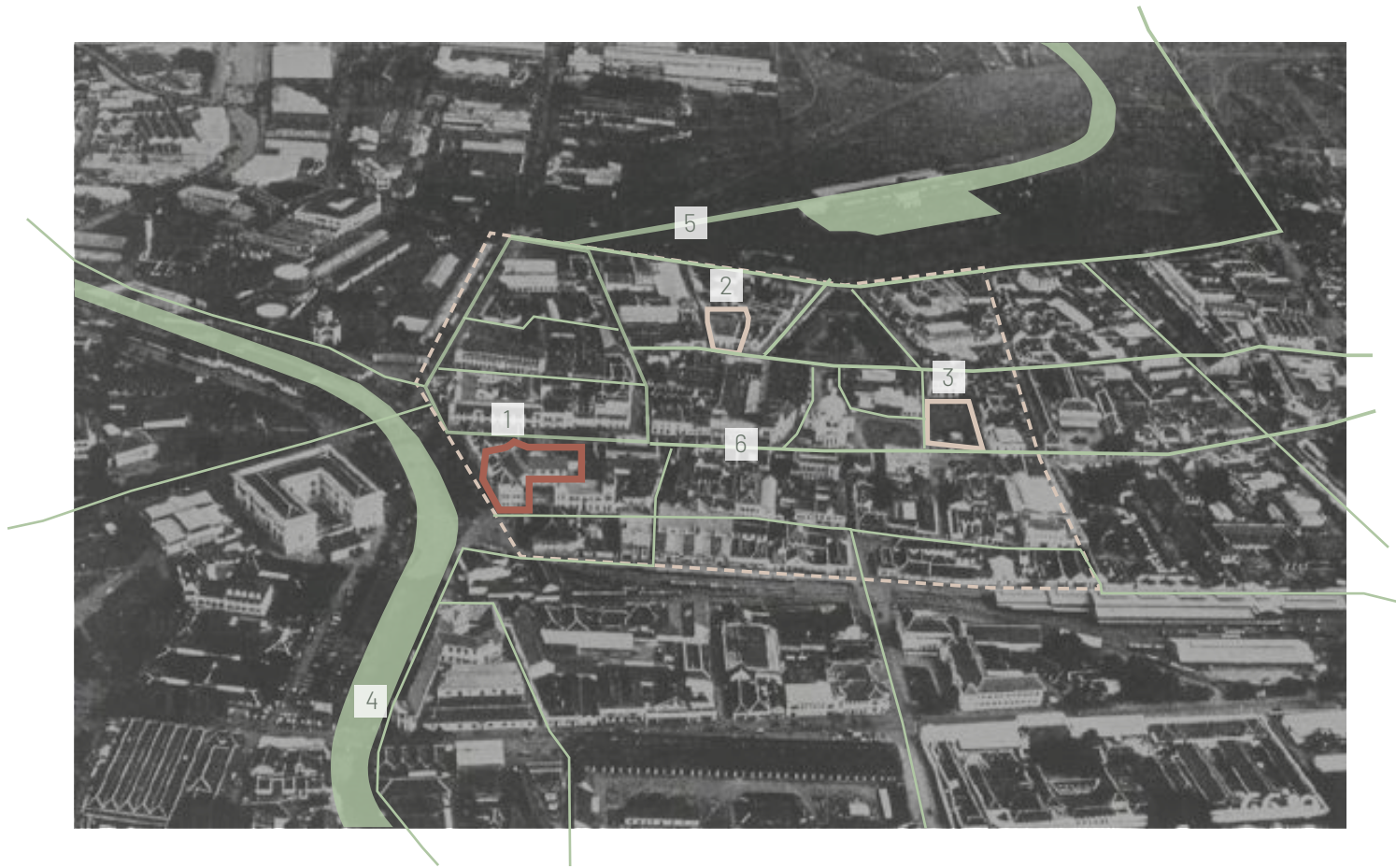
Fig 31 - Theoretical Framework by Iswardhani, Ananta Vania (2020)



# Urban Scale Observation and Analysis

- 1. Project Site
- 2. Urban Context Observation:  
*Community's Practices*
- 3. Precedent Study:  
*Vernacular Architecture*

## Project Scope and Site



“Cultivating Heritage” consists of integrated strategies and design proposals in different scales as follows:

- Main Project Site - Architecture Scale, Adaptive Re-Use (Transformation) Proposal**  
(1) Former NV Cultuurmaatschappij der Vorstenlanden Office
- Supporting Project Site - Architecture Scale, Conceptual**  
(2) Former NV Cultuurmaatschappij der Vorstenlanden Storage and (3) Former Janson Lot
- Urban Interventions in Kota Lama - Outdoor Public Spaces and Transportation, Conceptual**  
(4) River, (5) Railways, (6) Street Corridors
- Urban Strategy in Semarang Historical Area**  
Kampung Kota

Fig 32 - Leiden University Library - Digital Collections. Kota Lama in 1912.



# Project Scope and Site



The main project is the transformation of PTPN IX building in Kota Lama owned by PT. Perkebunan Nusantara IX. It is located in a prominent location on the Kali Semarang riversides.

It was built in the early 1900s during the Dutch colonialization era. The building initially functioned as an office called NV Cultuurmaatschappij der Vorstenlanden. It administered agricultural trading practices and was linked to the forced labor system (*cultuurstelsel*).

After Indonesia gained independence, it was nationalized as Indonesian agricultural trading office until the year of 1974. The building has been vacant since 1997.



The building is chosen because of its strong prominence, its strategic location to the other precincts, as well as its relation to agriculture. It was also specifically built for Dutch workers while representing a history of inequality, which provide a suitable testing opportunity for this project.

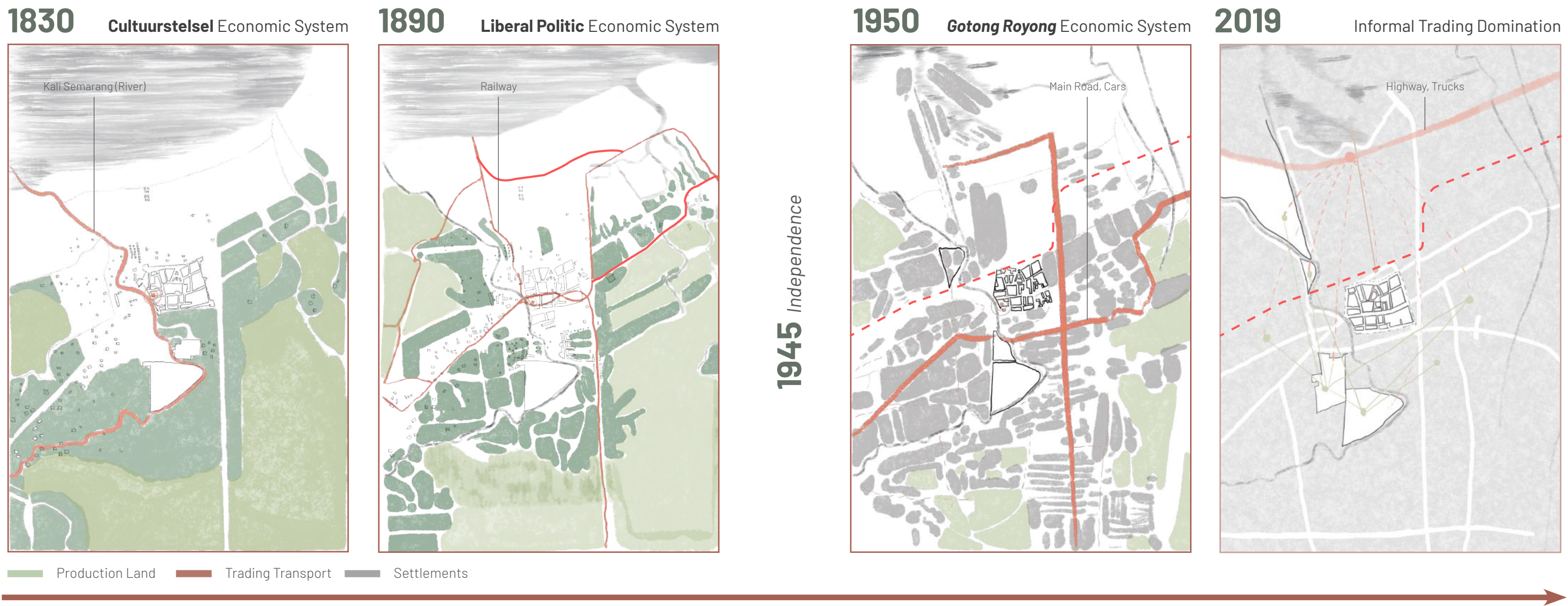
Moreover, the building is linked to a storage called Gudang Garuda. It is located in the middle of Kota Lama and was used to store NV Cultuurmaatschappij der Vorstenlanden products before being transported to the port or train station. This site has the potential to support the design proposal.

Fig 33 - Leiden University Library - Digital Collections. The Project Site in 1912, the Former NV Cultuurmaatschappij der Vorstenlanden, now PTPN IX  
Fig 34 - Leiden University Library - Digital Collections. Kota Lama in 1912.

Fig 35 - Leiden University Library - Digital Collections. Kota Lama in 1912.



Macro Scale Analysis: Semarang Historical Area Development in Relation to Community’s Agriculture Practices



Through historical map tracing of Semarang historical area, it is apparent that the production practices and land have disappeared from the city caused by urbanization. The area is currently dominated by organic settlements that lack space to breathe, contributing to the environmental challenges.

Mode of transportation and technology advances also influence the area’s morphology. It started with the dominance of Kali Semarang and the railway that goes well with the environment. However, it later shifted into the domination of trucks and cars.

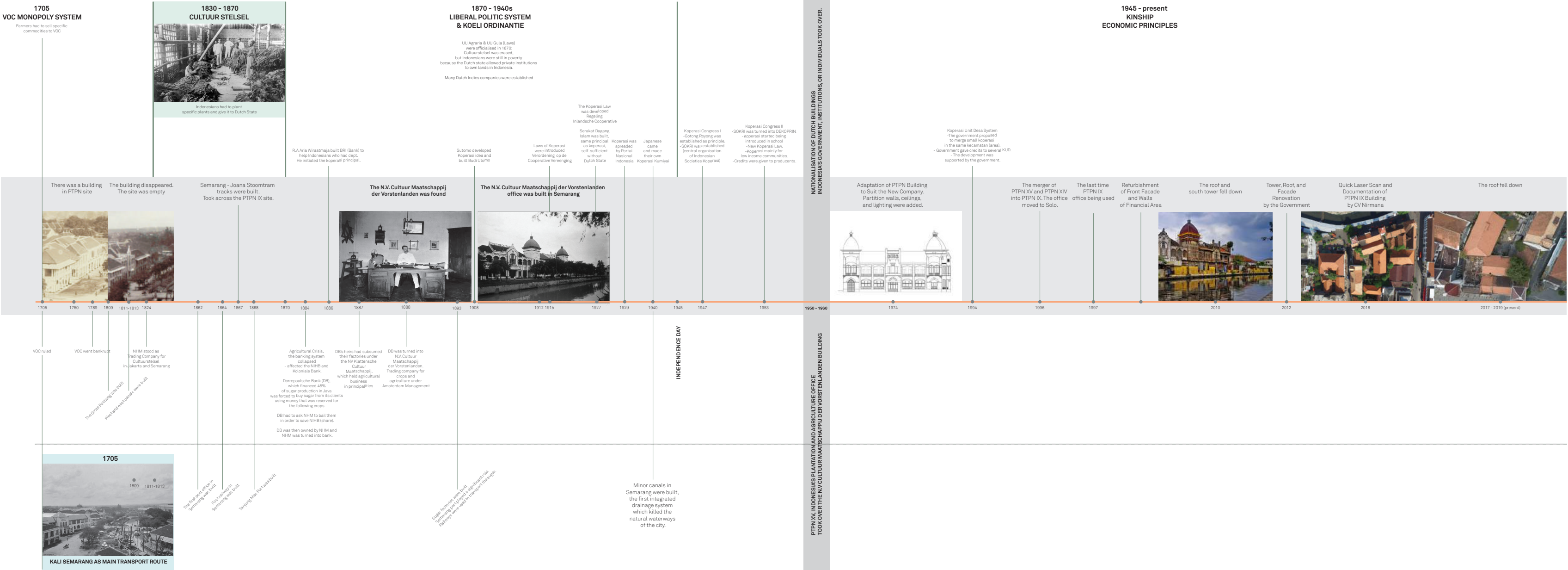
This map also illustrates that despite the segregation and inequality of the past, the multicultural precincts work together in the agricultural trading scheme. Back then, each quarter has its own role that is integrated to one another.

Currently, informal trading by the community has dominated the city and Kota Lama or the Dutch quarter is excluded from the scheme.

Fig 36 - Semarang Historical Area Development in Relation to Agricultural Practices



# Timeline of Semarang Historical Area in Relation to Socio-Economic Practices and PTPN IX Building



## Highlight



Due to *cultuurstelsel*, the Indonesian farmers went bankrupt despite the production lands that they owned. This condition initiated the birth of *koperasi* (co-operative) in Indonesia.

### Principles

Koperasi is an economic organization in Indonesia in which people with common interests implemented a shared benefit system so that all the members would be self-sufficient. The type of koperasi varies from production to trading. It runs with kinship or *gotong royong* principle (helping each other). It could be operated independently or supported by the government.

### Development

- Koperasi Unit Desa
  - Merging several small koperasi in the same area.
  - The government gave credits.
  - The government supported the development.

### Evaluation

- Many koperasi still operate in 2019 with a lack of monitoring by the government.
- Lack of management and education to sustain.
- Many have experienced financial issues due to a lack of control in production.



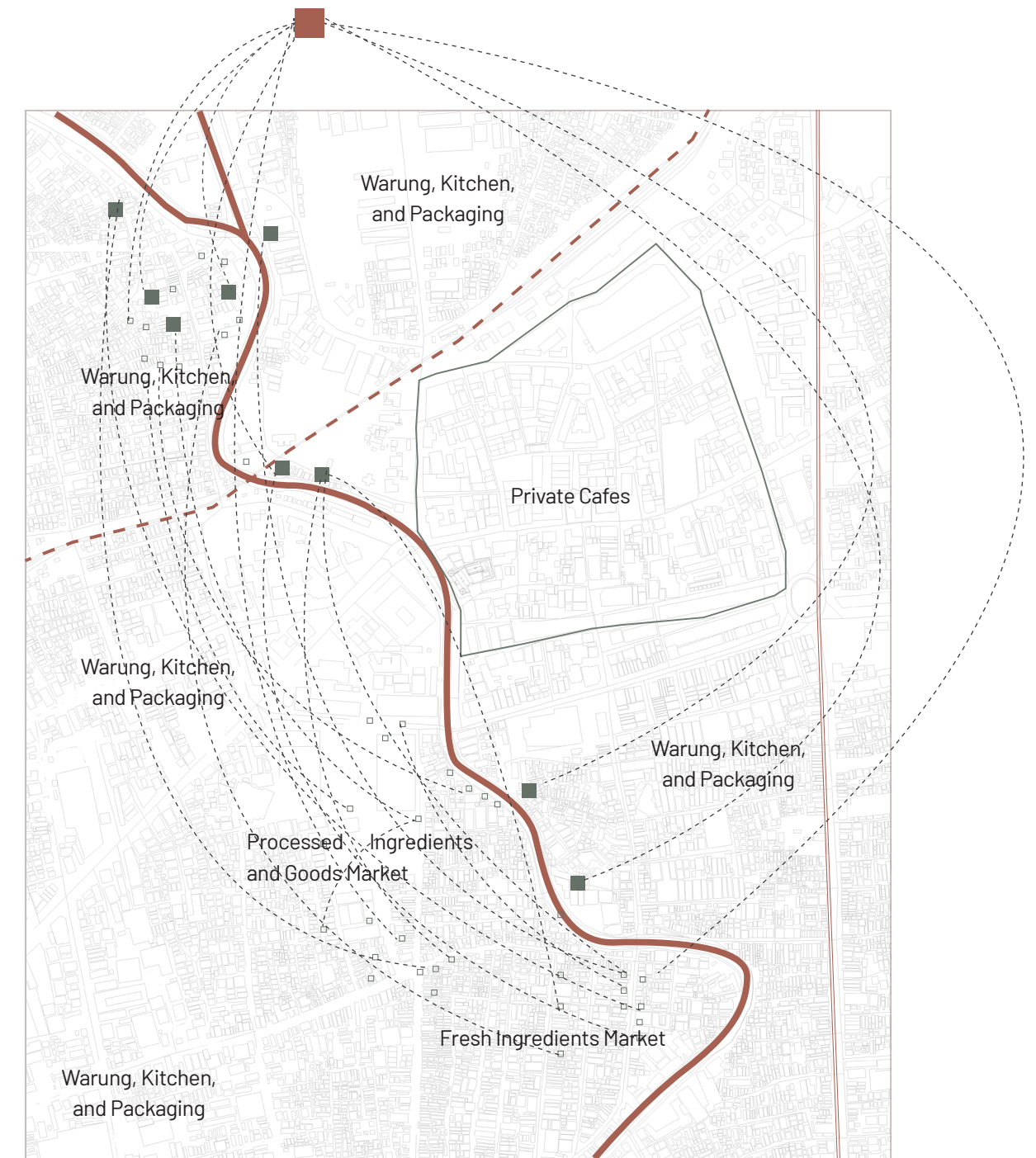


## Urban Context Observation

### Community's Agricultural Trading Practices

Ethnographic Method

## Meso Scale Analysis: Agricultural Trading Practices



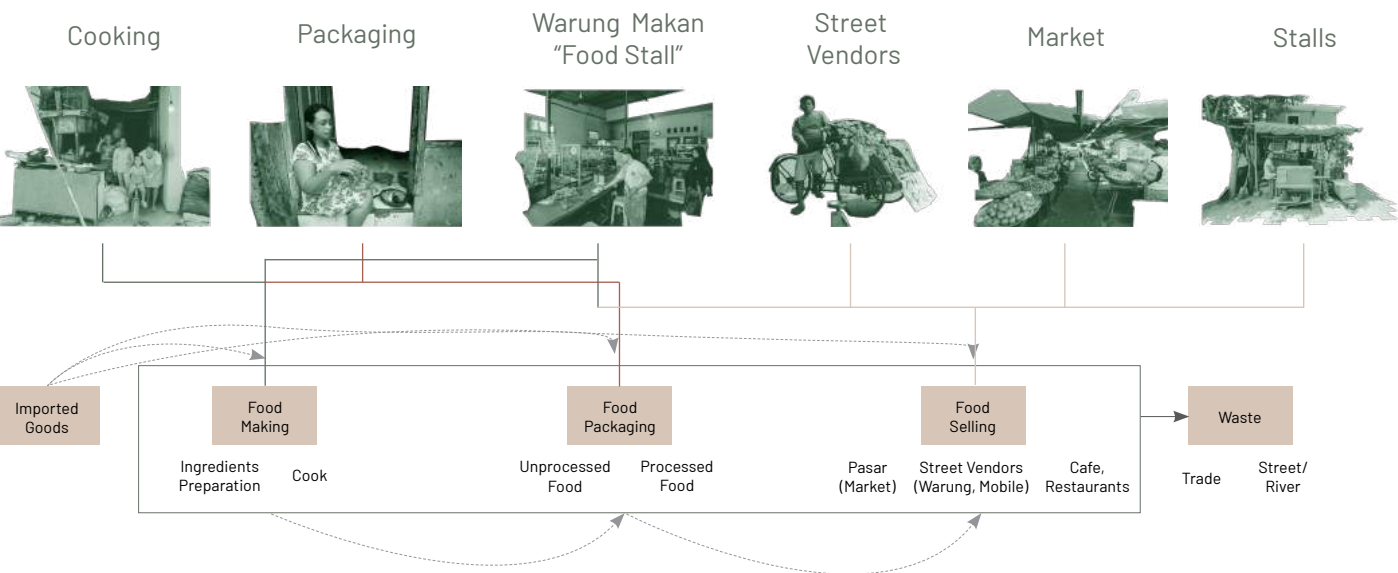
The place-centered behavior setting observation is done by mapping the people's everyday practices on food and agriculture in kampung around Kota Lama to grasp the socio-economic dynamics of the community, the food and ingredient flow, as well as the agricultural waste scheme. It is also to reach an understanding of the reciprocal relationships between the standing pattern of behavior (repeated activities) and circumjacent milieu (specific spatial arrangements) in a specific time.

Meanwhile, the culture and tradition would be revealed through the relationship patterns, through interviews with the community, experts, and government, as well as historical-contextual findings. The research informs the scheme of the whole area all the way through the details.



# Meso Scale Analysis: Agricultural Trading Practices

## Food and Ingredients



Through ethnographic mapping, observations, and interviews in Semarang, it is found that the practices are varied from cooking, packaging, to street vendors. There are no significant production activities, but the people are interested in practicing it.

The people have become economically dependent on other cities to do their practice due to lack of production and ingredients. They imported ingredients or food by trucks. The suppliers come from cities like Bandung, Surabaya, Yogyakarta, and many others. The transportation within Semarang historical area also utilizes small trucks and cars.

These trading activities occur around Kota Lama, while Kota Lama is being disconnected from this scheme. According to interviews, the local community is not allowed to do trading in Kota Lama as it would affect the area's cleanliness and orderliness.

The observation shows that the people in *kampung kota* have formed food trading business individually or with their closest neighbors applying the spirit of *gotong royong* (kinship, working together). Their products are sold to one another, making the price expensive.

On the urban scale, these people in small groups compete with each other as opposed to work together. As a consequence, they have become insufficient because they eventually could not afford to buy or eat their own products. This condition explains the poverty in these *kampung*.

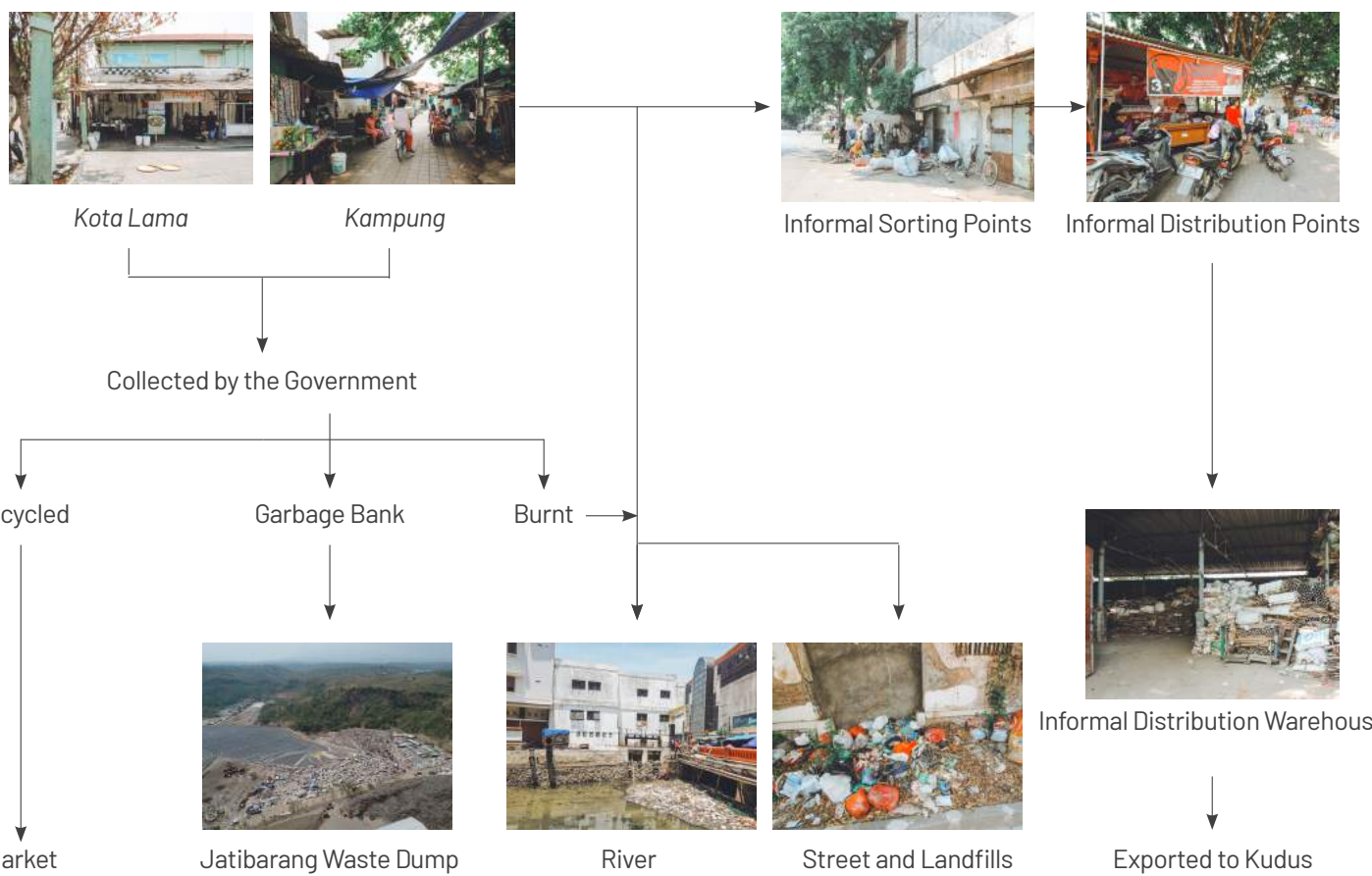
## Waste



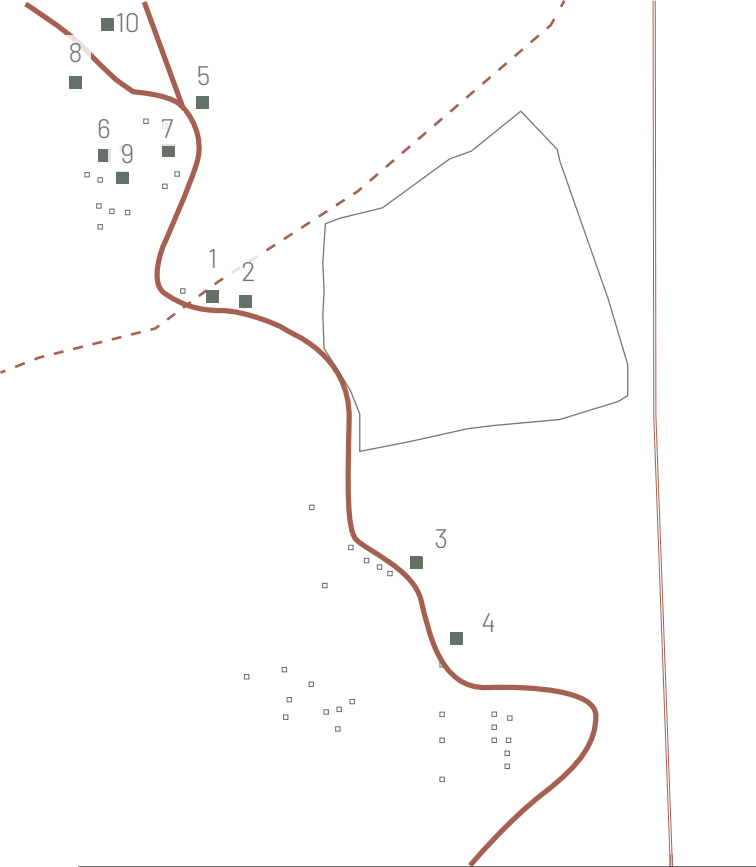
6400m<sup>3</sup>/day

The waste caused by the practices of food making, packaging, selling, and distribution contributes most to the waste that is dump to the river and street.

The informal food and agricultural trading have brought informal waste sorting and distributing business that runs in the *kampung* area. This waste, such as bottle and plastic are then exported to Kudus city.







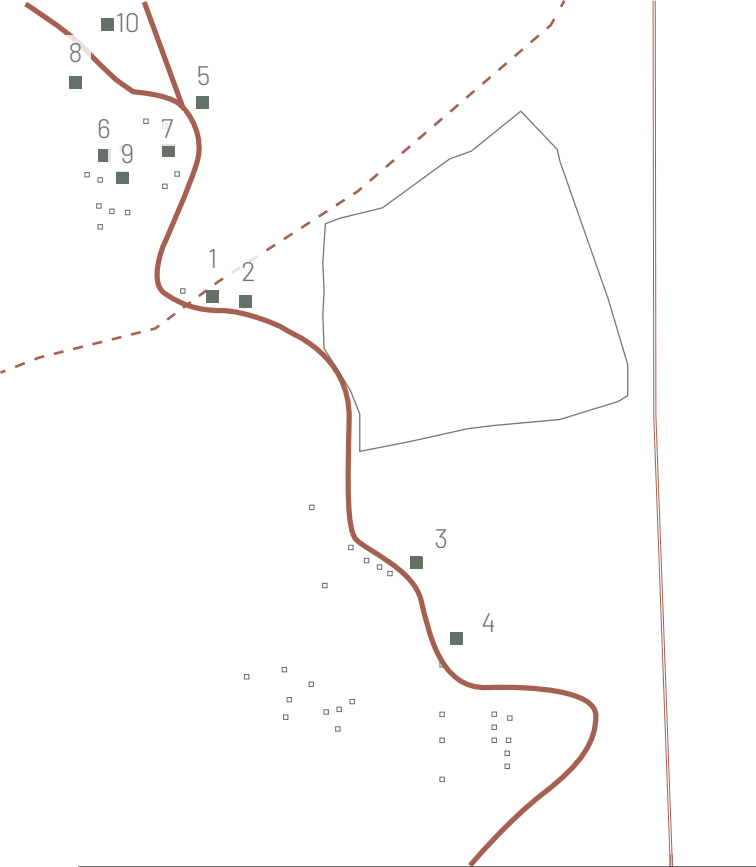
The observation shows that despite the bad impacts on the environment, the communities apply the beautiful kindship principle, *gotong royong*, in which the communities are helping each other, in terms of practice, but also in how they build and use the space.

Some spaces are built together so that they can share the space or being used in shift, while some others are built on their own, but they arrange it in such a way that they can interact with each other. For instance, they would design a kitchen to be located on the front porch even though they only distribute the food (no customer interaction). This is an attempt to interact with each other.

However, natural settings such as river, are often treated as a garbage bin. The spatial configuration depicts how they turning their backs on these river.

Setting		Weekday		Weekend	
		Day	Night	Day	Night
Setting 1					
Setting 2					
Setting 3					
Setting 4					
Setting 5					





In regards to building methods, the structure and the technicality in *kampung* are limited due to the cost. The used materials are wood and tarpaulin. The structure is made to be temporary so that the spatial configuration could be changed according to the needs of the community. Oftentimes the activities last 24 hours.

Setting		Weekday		Weekend	
		Day	Night	Day	Night
Setting 6					
Setting 7					
Setting 8					
Setting 9					
Setting 10					



# Samples of Interview



## The Owner and Caretaker of a Dutch-Chinese-Indonesian Shared Heritage in Pecinan

"What is Kota Lama for? It is a mess now and people take it for granted. It is a pity that the government does not have a significant and suitable plan. You can start small, you can build public space and public toilet! The community is already there, the bottom up approach would be better as opposed to the alternative. We need to be able to organize ourselves. We need to consider CIUM (kiss in Indonesian) to revitalize the heritage.

1. "C, cinta" or love. We need to bond with the heritage, if we have a connection with the heritage, the community will automatically preserve it.
2. "I, ilmu" or science. We need to have the knowledge to be able to conserve the heritage properly. What is the aim of making fake old lamps? (referring to the current beautification project) It is not conservation, it is also not a reconstruction because it was never there. The government does not know what they are doing!"
3. "U, uang" or money.
4. "M", Management!"



"I came here for from Purwodadi to work, but many people like me are poor. I have travelled everywhere, but Semarang is the only place I could work. I built a traditional massage business. Ideally we have to bring back production here. I like to plant because it reminds me of our ancestors. We should not forget about our history and roots. YOU have the responsibility to improve the nation now. I am already old, I tried, you have to continue our struggle and my job is to remind you. I can't rely on the government."



"We sell *nasi kucing*. The neighbors cook together in the house of the elder and then wrap it during the day. We then sell the food to the street vendors that would stand in front of Kota Lama during the night because we are not allowed to sell our food in Kota Lama area. We work hand in hand to help each other."



"We always have a headache because it is hard to find customers as everyone is selling food. We just rely on our neighbors now. We love to hang out with them, all my family members grew up here. We don't go to Kota Lama, it's full of tourist."



## Aquaponic Village Community in Semarang Mountain

"A teacher in our neighborhood, Pak Syafei, initiated an aquaponic system and everyone here just followed him. It is self-sufficient. Many people go here to learn."



"I sell chicken in the morning and meatballs in the evening. I got all the ingredients from the people in the north. I don't know any other way to make a living, this one is the most feasible. I have tried many things but it did not pay the bills. The weekends are the best because the neighbors like to hang around here. I like being kept busy."



"Semarang is identic to food, we like to cook together. The people in this area have their own business and have their own suppliers. I imported everything from other cities. I only package stuffs and sell it with higher price."



## Aquaponic Village Community in Semarang Mountain

"We help each other and share our knowledge because this system could be applied to all areas of Semarang including the historical area."



"Everyone sells food here. This was belong to my mother in law, so I continue it now. It has been passed on from one generation to the next. I got all the ingredients from Pasar Johar (Kampung Kauman), I cook it, and I sell it.

I don't go to Kota Lama, I don't know what to do there."



"I moved here 30 years ago, now all my family members work and live here. All of us have to work everyday, otherwise we would not eat. I cannot rely on my husband's income. I don't hate Kota Lama, I just don't go there."



"Semarang is so hot and we do not have any green space, that's why many of us like to plant, we just do not have the money for it. I plant for family medicine and for shelters. I know that the government urge us to have urban farming, but they only give money to the people in the social housing."



## Observation Conclusions



### Community

- In poverty, surviving.
- Working with the principle of *gotong royong*, helping each other.
- Have no bond and connection to Kota Lama.



### Spatial Culture

- Self-made structure, built together.
- Temporary structure, could be adapted to the spatial needs.
- Spatial configuration is determined by communality and social interactions: centralized in one house, shared working space, in-between space interaction, or facing each other.
- River is treated as a back and dumpster.



### Impact to the Environment

- Produced a lot of inorganic waste, which ends up in the river or street due to lack of management.

“Spatializing culture is a way of revealing how social relations are grounded by aspects of space and place.

The production of space and the construction of its sociocultural inform the social complexity of interactions of people, the built environment and how everyday realities are enacted.

The activities people engage in, the meanings they give to spaces, and the opportunities

are all informed by the complex dynamics embodied in places and spaces. Behavior settings whereby certain settings inform if not enforce certain types of behaviors.”

- Setha Low (*Giesecking, et al., 2014*)



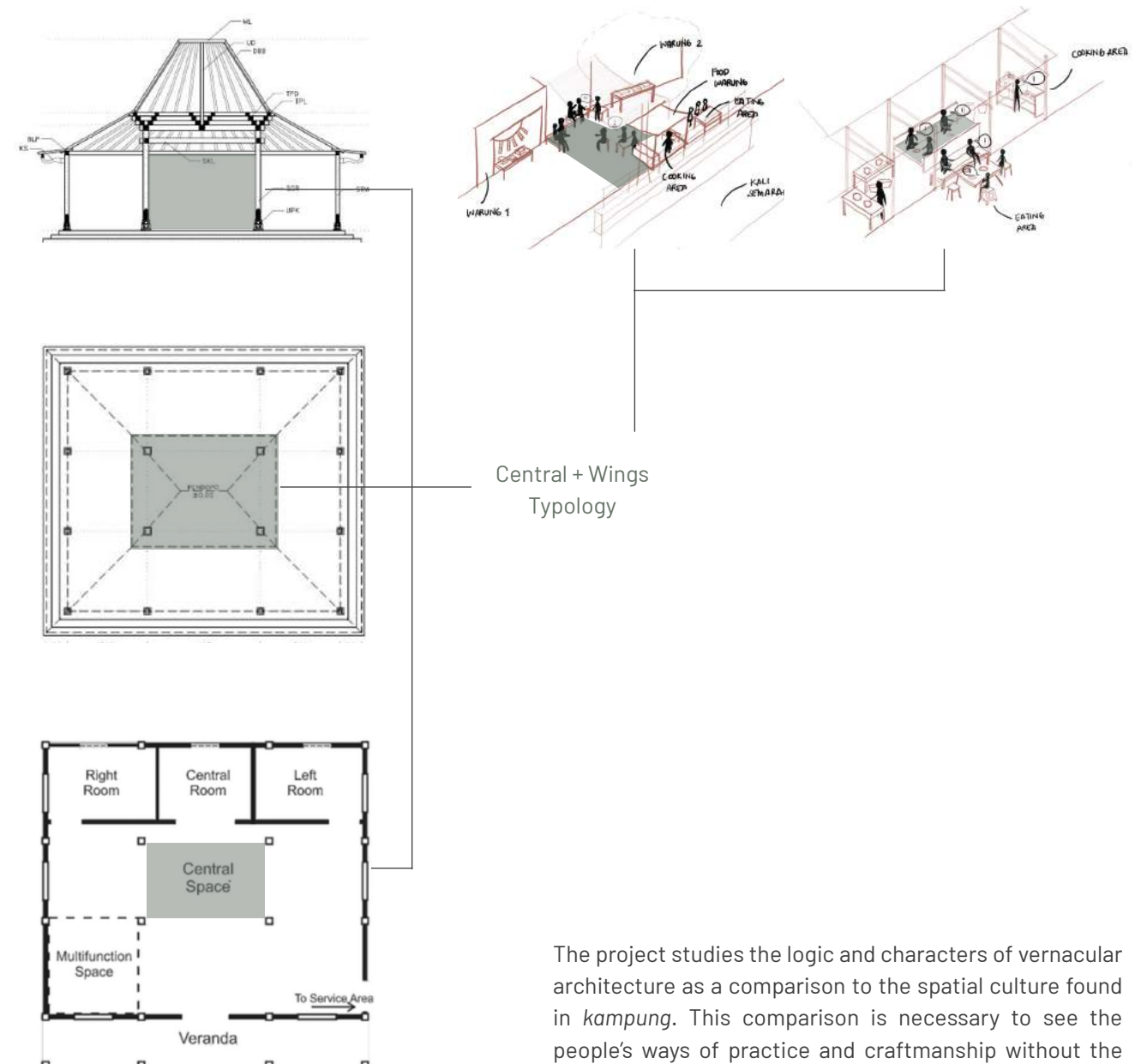
## Precedent Observation Vernacular Architecture

### Comparative Method



## Spatial Culture Study, Vernacular Architecture

### Joglo, Central Java Vernacular Architecture



Central + Wings  
Typology

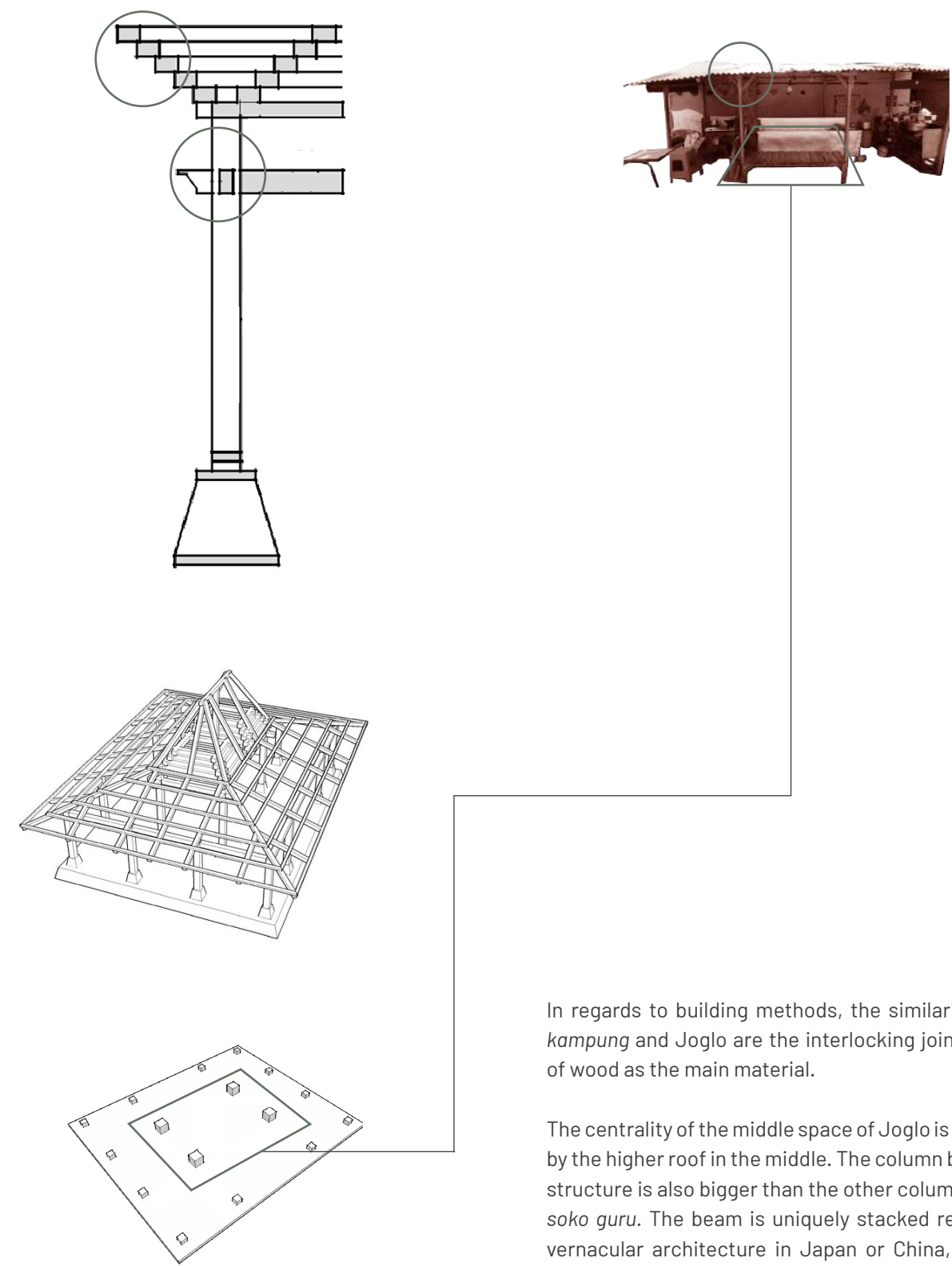
The project studies the logic and characters of vernacular architecture as a comparison to the spatial culture found in *kampung*. This comparison is necessary to see the people's ways of practice and craftsmanship without the *kampung's* limitation, such as high density. This analysis is then compared further to the existing shared heritage built site (PTPN IX).

Most resemblances are contained in Joglo, a vernacular architecture from Central Java. The spatial configuration applies central and wings typology, in which the central space holds the highest hierarchy.

Fig 39 - Pembuat Joglo, Joglo Vernacular Architecture.



Joglo, Central Java Vernacular Architecture



In regards to building methods, the similarities between *kampung* and Joglo are the interlocking joint and the use of wood as the main material.

The centrality of the middle space of Joglo is strengthened by the higher roof in the middle. The column below the roof structure is also bigger than the other columns, it is called *soko guru*. The beam is uniquely stacked resembling the vernacular architecture in Japan or China, in which the stacking gets wider on the top.

Fig 40 - Pembuatan Joglo. Joglo Vernacular Architecture.

# Urban Strategy

- 1. Urban Strategy
- 2. Urban Interventions



1830



1890



1950



2019

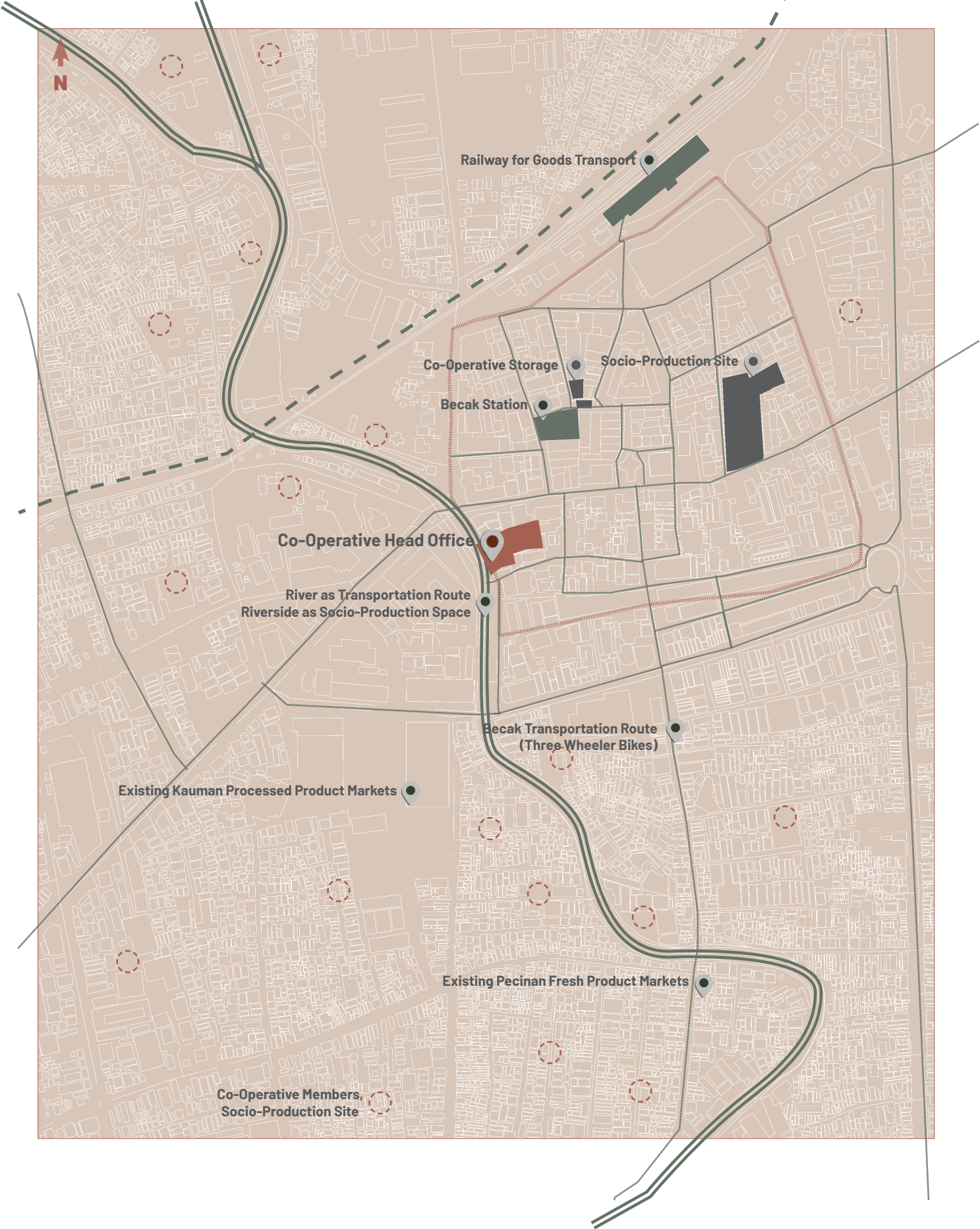


FUTURE





# Urban Strategy: Urban Permaculture Co-Operative Scheme in Semarang Historical Area



On the urban scale, the project intends to include Kota Lama in the socio-economic scheme of the local community. The scheme brings back production to the city so that the people would produce their own food and independent from food import activities.

In this scheme, Kota Lama stands as the administrator that integrates the agricultural permaculture production and trading of the communities around it through a co-operative scheme. Co-operative or Koperasi in Indonesian is an organization that runs with kinship or *gotong royong* principle.

Co-operative has a shared profit system based on contribution. It has been developed by local community since colonialization era. The people from each *kampung* have their own share in the *koperasi*. Each *kampung* produces crops which then would be reported to the office. The office collects all products and distributes it to the people of Semarang or exports it to other cities.

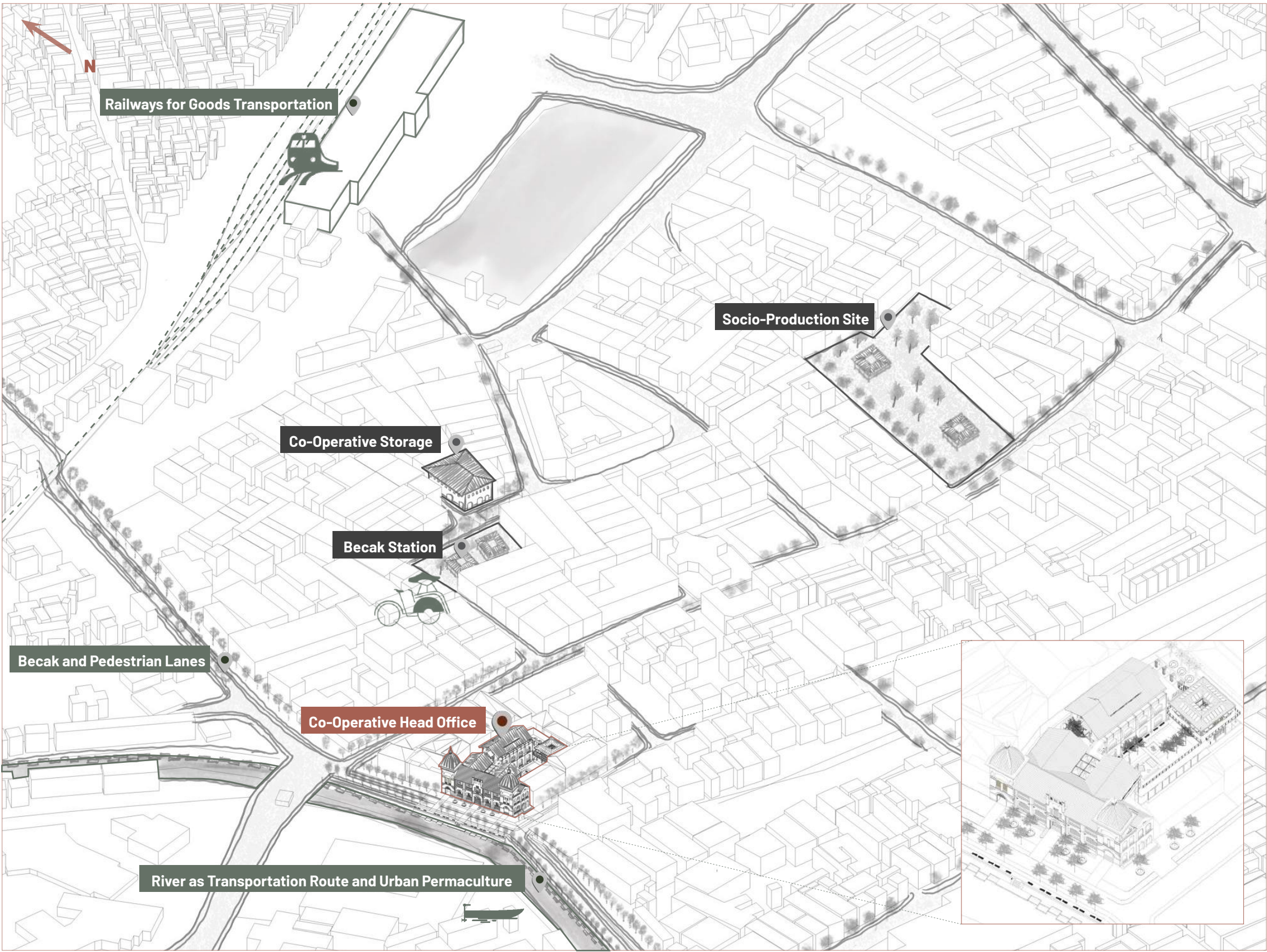
In this scheme, each *kampung* is not competing with each other as they are linked together as one. At the same time, they are producing their own food so they are self-sufficient.

Meanwhile, the production will follow the principle of permaculture, which is a principle that works with and embraces nature instead of working against it to promote practice that embraces the environments.

The existing markets in Pecinan and Kauman are preserved.



# Urban Interventions: Urban Permaculture Co-Operative Administrator in Kota Lama



The scheme is realized through several urban interventions in Kota Lama, which include architecture, open spaces, and street corridors.

The first group of urban interventions is adaptive re-use on the architecture scale:

## Co-Operative Head Office (Main Project Site)

The transformation of the abandoned NV Cultuurmaatschappij der Vorstenlanden office into a co-operative office that administrates, manages, and educates co-operative members within the urban permaculture scheme.

## Co-Operative Storage

The transformation of the former NV Cultuurmaatschappij der Vorstenlanden storage into co-operative storage that is responsible to store and distribute products, seeds, and tools for production.

## Socio-Production Site

The transformation of an empty lot, the former Hotel Janson into a production space of Kota Lama as an initial site for communal production. It also the main production site for banana tree plantation. Banana leaves are being used as the main packaging material of the co-operative products. The site also serves as an open public space that is rarely found in Semarang.

## Becak Station

The transformation of an empty lot into a traditional three-wheeler "becak" station. It is located in front of the storage/distribution point.

## Transportation

The scheme is supported by the utilization of mini boats in the river and becak to transport goods within the area. Meanwhile, railway and ship are utilized to export and import. It is an attempt to minimize the use of trucks and cars to reduce the impact on the environment.



# Building Analysis and Cultural Value Assessment

1. Brief History
2. Macro Context
3. Building Transformation
4. Building Chronological Mapping
5. Building Analysis
6. Cultural Value Assessment
7. Initial Heritage Positions

## Brief History of PTPN IX Building



PTPN IX building is situated to the east of Kali Semarang, on Jl. Mpu Tantular No. 5, Kelurahan Bandarharjo, Semarang Utara. It was designed by a Dutch architect, C.H .Lugten in 1888. It housed N.V. Cultuur Maatschappij der Vorstenlanden, a trading company in crops and agriculture based in Amsterdam.

Before the company was built, the agriculture trading activities in Semarang were managed by Nederlandse Handel Maatschappij (NHM). NHM was one of the companies responsible for *culturstelsel* in 1830 - 1870. *Culturstelsel* is a cultivation system that labor-forced Indonesians to produce specific plants for the Dutch state. However, due to the agricultural crisis in 1884, NHM had to bail in order to save Dorrepaalsche Bank, a bank that financed 45% of the sugar production in Java, from bankruptcy. Dorrepaalsche Bank was later owned by NHM, which then turned into N.V Cultuur Maatschappij der Vorstenlanden. It took over the agricultural trading during the liberal politic system and *koeli ordinantie* period. Even though the *culturstelsel* was officially banned by the Dutch state in 1870, this period still applies the force labor system (*culturstelsel*), but in a different way.

The Dutch state granted access for private companies and other countries to do economic activities in Indonesia which applied a system similar to *culturstelsel*, making the policies worse for the Indonesian workers.

After Indonesia announced its independence, Indonesian government nationalized most buildings in Kota Lama. N.V. Cultuur Maatschappij der Vorstenlanden was turned into PT. Perkebunan Nusantara XV or PTPN XV in the 1950s. PTPN is an Indonesian state-owned enterprise that operates independently. It currently manages 14 companies in agriculture, one of which was PTPN XV that managed the company's main commodities, namely rubber, sugar, drops, tea, and coffee. PTPN XV controlled 15 units of plantations, 8 sugar mills, 1 unit of agro tourism, and 1 unit of production and marketing of downstream products.

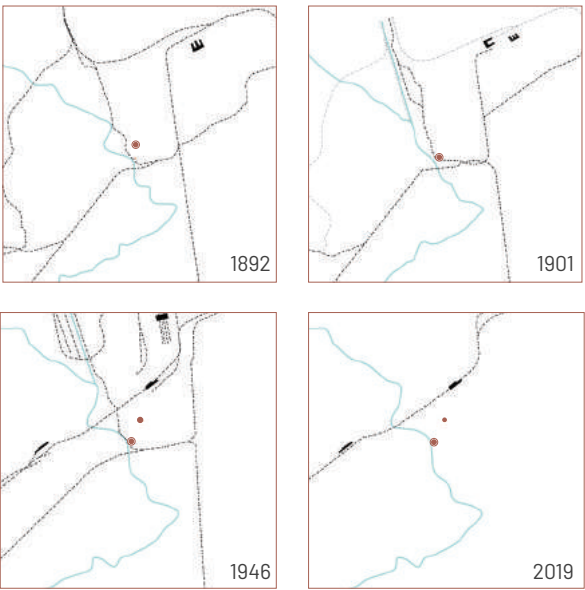
In 1996, PTPN XV and PTPN XVI were merged into PTPN IX, which forced the operational activities to move to Solo, Central Java. The building in Semarang is still currently owned by PTPN IX and has been left vacant since 1997. Moreover, the north tower is currently being used illegally as *warung* (food stall) by the locals.



# Macro Context



The company controlled 13 sugar mill factories, 2 sugar canes plantations, 1 tobacco plantation, and 1 tea plantation in Indonesia. The name “der Vorstenlanden” represents the function of the company. It handled the exchange of the agricultural assets of the four self-governing states in Java, which was referred to as “der Vorstenlanden”. These states used to operate under the Kingdom of the Netherlands.



Historically, the building is an important node for multiple transportation routes throughout its lifetime, such as river, railways, and roads.

N.V. Cultuurmaatschappij der Vorstenlanden also has its own storage in the middle of Kota Lama, which is currently called Gudang Garuda.



It has a strong urban presence because it is a corner building. It welcomes visitors and passers-by to Kota Lama as it is visible from multiple points of the city, especially from Pecinan area and the current city center (Simpang Lima).

The building's facade typology also makes it a landmark in Kota Lama skyline.



The buildings in Kota Lama were designed by different architects and were built in different periods of time throughout the long-standing colonialization. Therefore, the buildings have various styles that gradually changes according to several factors, such as the tropical context implementation and the technology. The distinctive unifying element is that most buildings have red-tiles roof.

The building borders:	
1888 - 1946	2019
<b>North</b> Koloniale Bank	<b>North</b> Pharmaceutical Office
<b>East</b> Spaarbank	<b>East</b> Mandiri Bank Storage
<b>West</b> Road, Kali Semarang, Railway	<b>West</b> Jl. Mpu Tantular, Kali Semarang
<b>South</b> Secondary Road	<b>South</b> Jl. Kepodang



# Transformation of PTPN IX Building

**1912** Cultuurmaatschappij der Vorstenlanden



After working on buildings in Semarang, Surabaya, and Jakarta, C.H. Lugten practiced as an architect and contractor in Bandung, Indonesia from 1914 to 1915. He was specialized in residential projects.

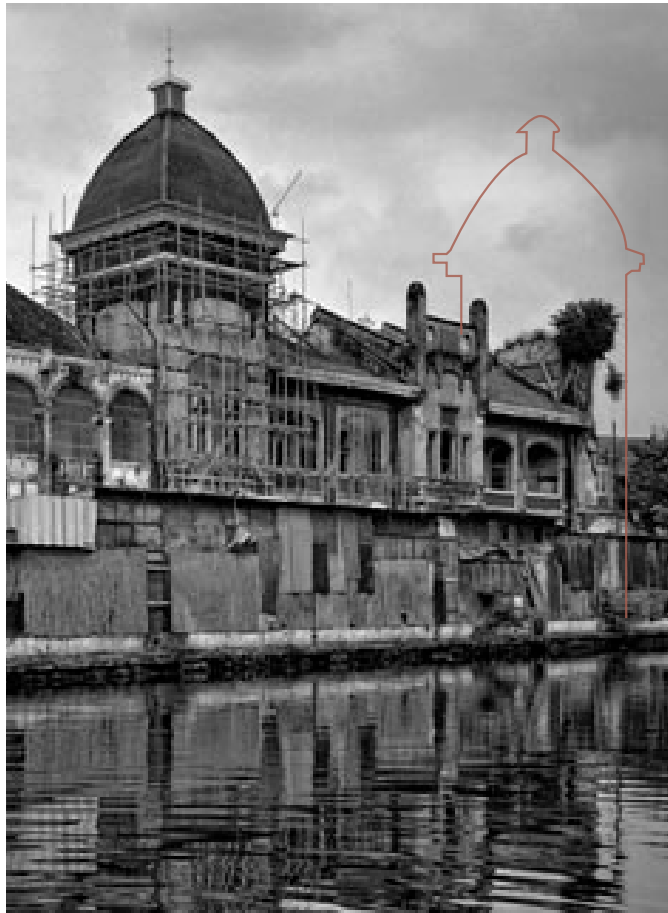
N.V. Cultuurmaatschappij der Vorstenlanden has a strong Dutch and European influences with the arches typology, the towers, as well as the design of the column. Several attempts were made to respond to the tropical context.

**1974** PT. Perkebunan Nusantara XV



After being nationalized, PTPN XV did a refurbishment for the building in 1974. The corridors on the facade were enclosed with aluminum frame and glass windows which disconnect the porch from the public realm. The facade is also painted. The photos suggest that the colors were altered from the original scheme. There is a building extension in the courtyard that housed the staff's dining area. On the interior space, wall partitions and lighting fixtures were added in the office spaces and toilets were added in the two towers.

**2010** Vacant PT. Perkebunan Nusantara IX



After became vacant in 1997, the roof and the south tower fell down in 2010. It is assumed that the damages were caused by a lack of ventilation as well as an overlapping roof structure in the middle part of the building.

**2019** Vacant



In 2012, the government rebuilt the tower and the roof as a part of Kota Lama beautification project. The front facade was also repaired and painted. However, the new tower appears to have different measurements and proportions in comparison to the original tower.

Fig 43 - Leiden University Library - Digital Collections  
Fig 44 - PTPN IX Documentation. 1980. PTPN IX from Above.

Fig 45 - [www.jejakkolonial.blogspot.com](http://www.jejakkolonial.blogspot.com). PTPN IX.  
Fig 46 - Iswardhani, Ananta Vania (2019). PTPN IX.



Original Drawings of NV Cultuur Maatschappij der Vorstenlanden

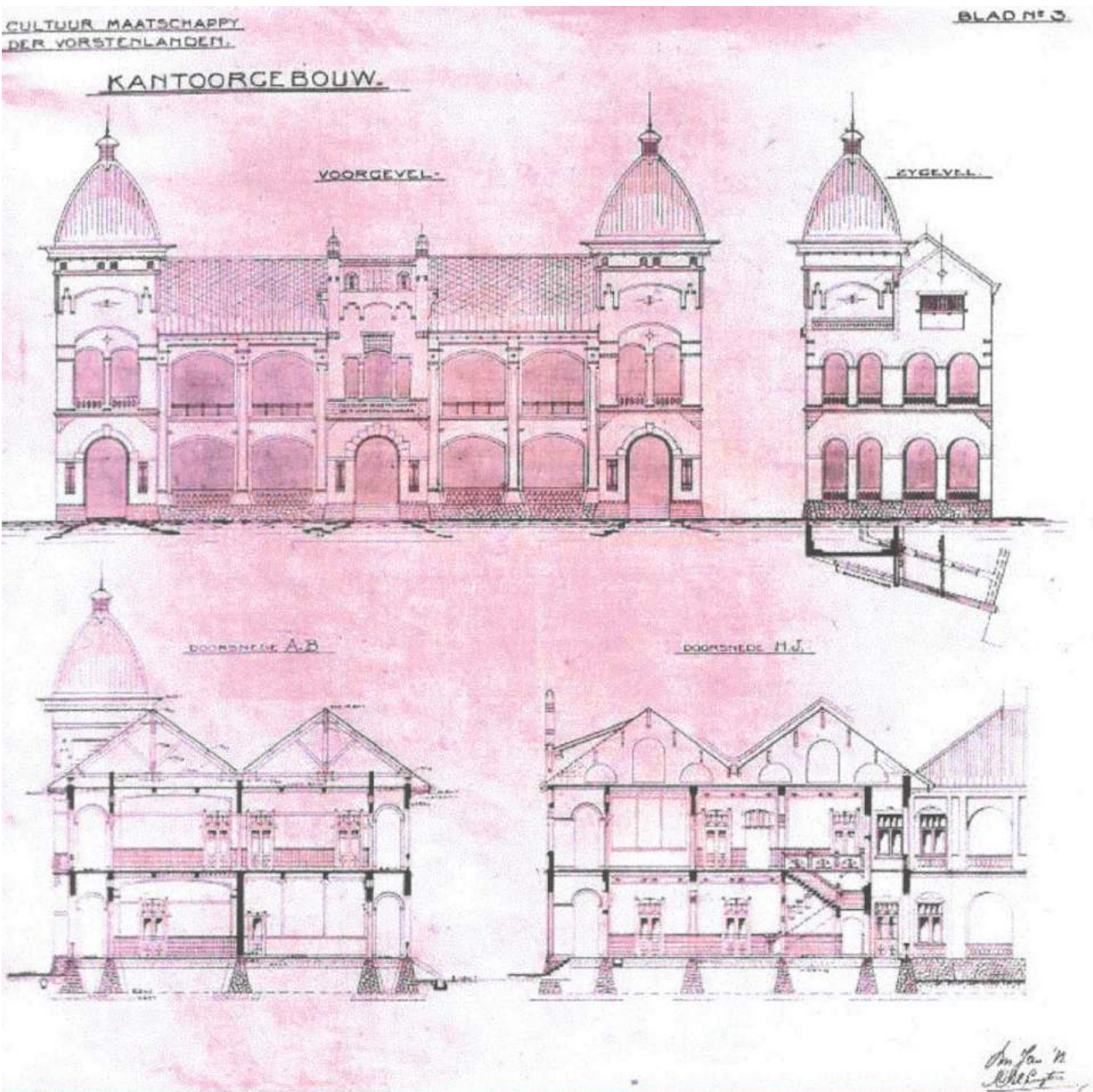
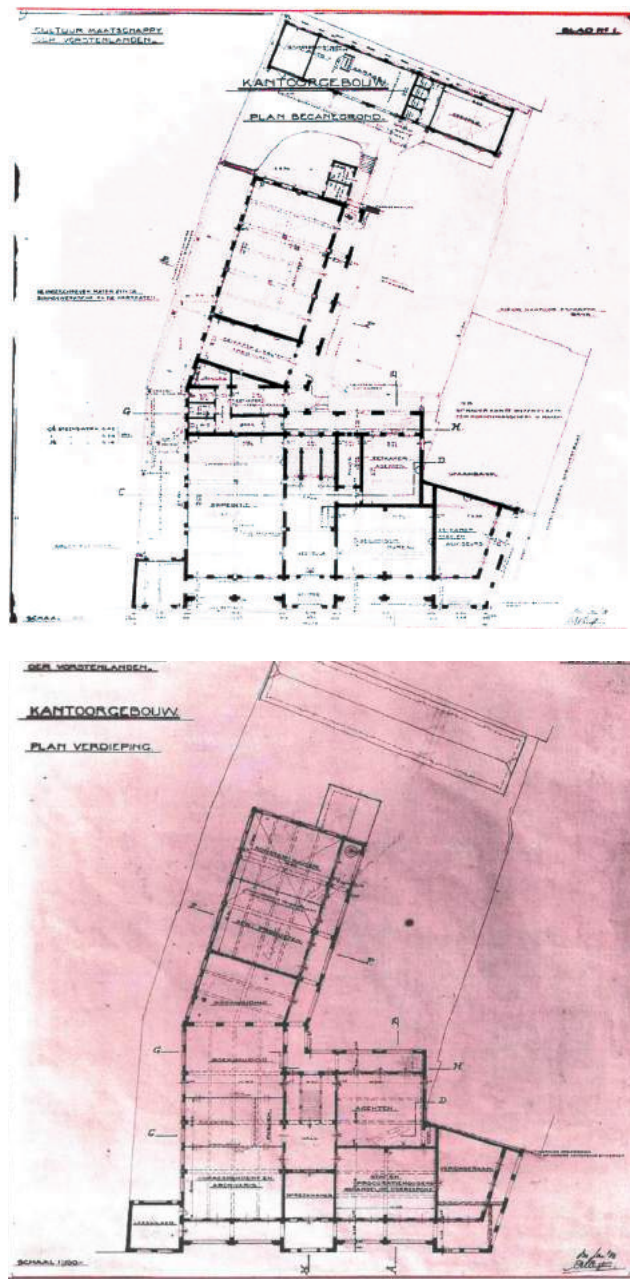
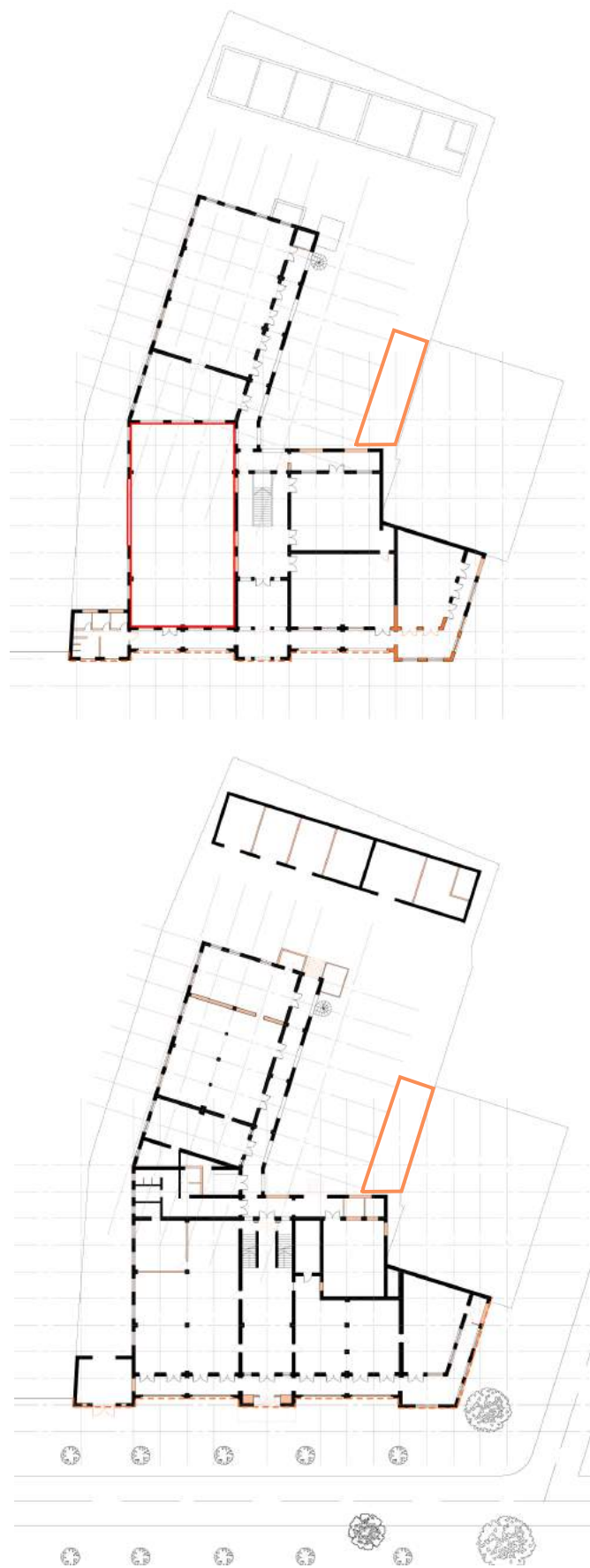


Fig 47 - 49 PTPN IX Documentation. 2017. Original Drawings of NV Cultuurmaatschappij der Vorstenlanden.



# Chronomapping of PTPN IX Building



N.V. Maatschappij der  
Voorstenlanden was built

1900's

Refurbishment and  
adaptation by PTPN

1974

South tower fell down

2010

Tower, roof and façade  
renovation by Government

2012

Left roof fell down

2017

Roof is still missing and interi-  
or of the room is dilapidated

2019



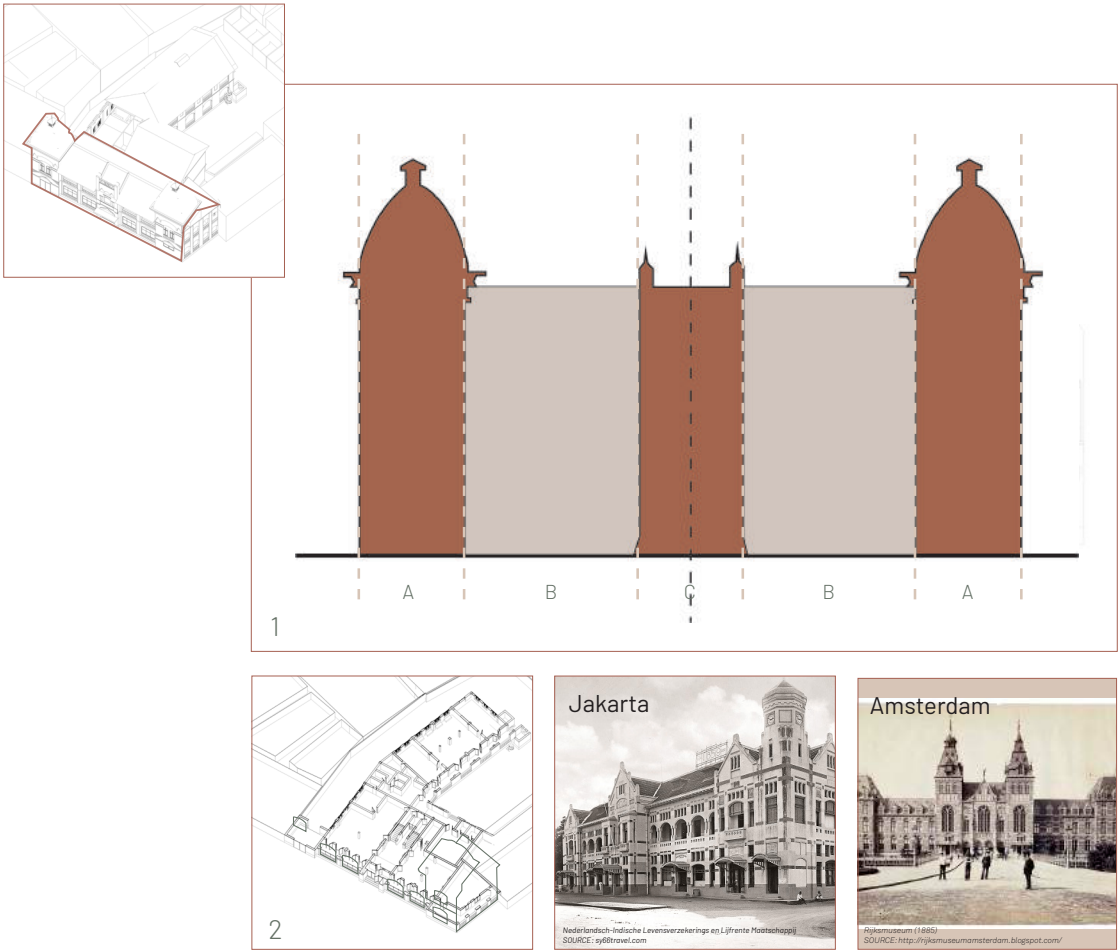
The chronomapping demonstrates that there has not been a significant change throughout the building's life time. However, the refurbishment in 1974 and 2012 were not carefully done as they corrupted the building's strong characters.

For instance, the additional aluminum frame glass window broke the facade's arches rhythm and cut the connection between inside and outside, making it even more enclosed. The roof of the towers also have different dimensions and proportion. The additional dining room in the courtyard created a border between PTPN IX building and the immediate surroundings.

The chronomapping also depicts a strong ground floor and fragile upper floors, suggesting significant technical issues with the design.



# Building Analysis: High Valued Facade Typology



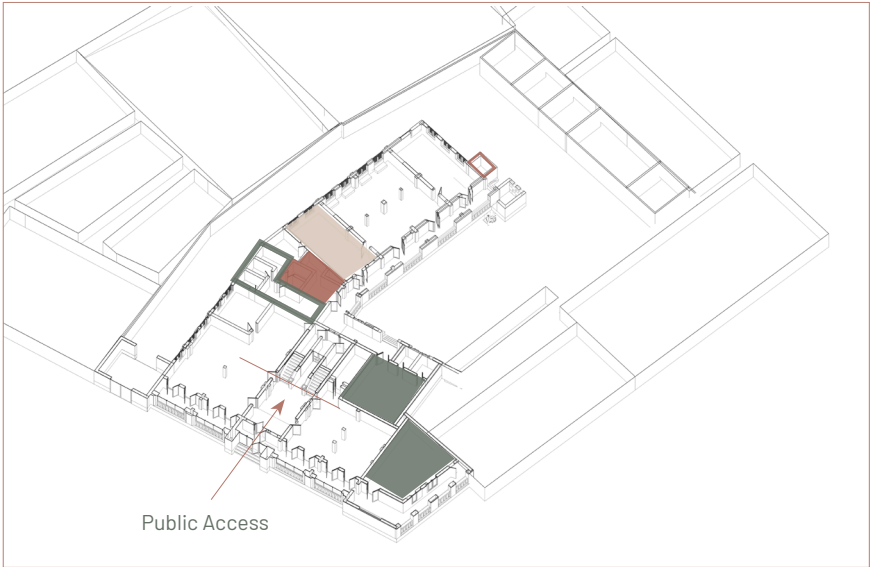
(1) The facade possesses historical and relative art values with the tower and symmetrical typology. The rhythms of the arches, the openings, and the building outlines are similar to the indische buildings and the Dutch architecture that were being designed in the same period (the 1900s).






However, the additional aluminum frame windows (2) as well as the modification of the entrance resulted in an enclosed building, making a disconnection to the outside space. The rhythm of the facade is also disrupted by the incorrect dimensions of the rebuilt tower.





Building Analysis: Traces of Segregation

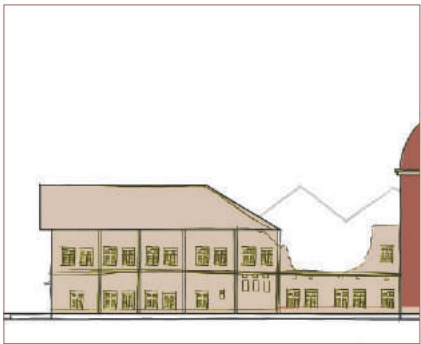
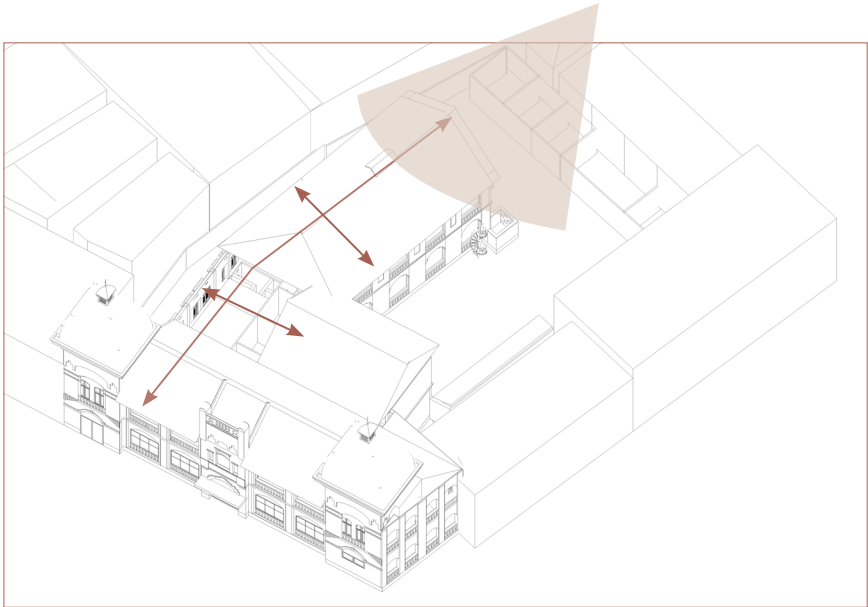


- |   |   |
|---|---|
|    |    |
| Dutch Dining Room   | Dutch Toilet  |
|  |  |
| Chinese Dining Room   | Non-Dutch Toilet  |
|  |   |
| Non-Dutch Dining Room   |   |



The spatial configuration of the building embodies traces of inequality of the colonialization period. The dining rooms and toilets were separated by race and hierarchy of the staff. The dining room of the Dutch staff was located on the corner of the building that has a view of the river. It also has daylight as well as air circulation with big openings and corridors. Meanwhile, the dining room of the Chinese staff was put next to the Dutch staff toilet, which is a cramped and dark space with no air circulation. The toilet of these staffs is also located on the outside of the main building. The building also has an exclusive attitude to the public realm as the public were only granted access to the entrance.

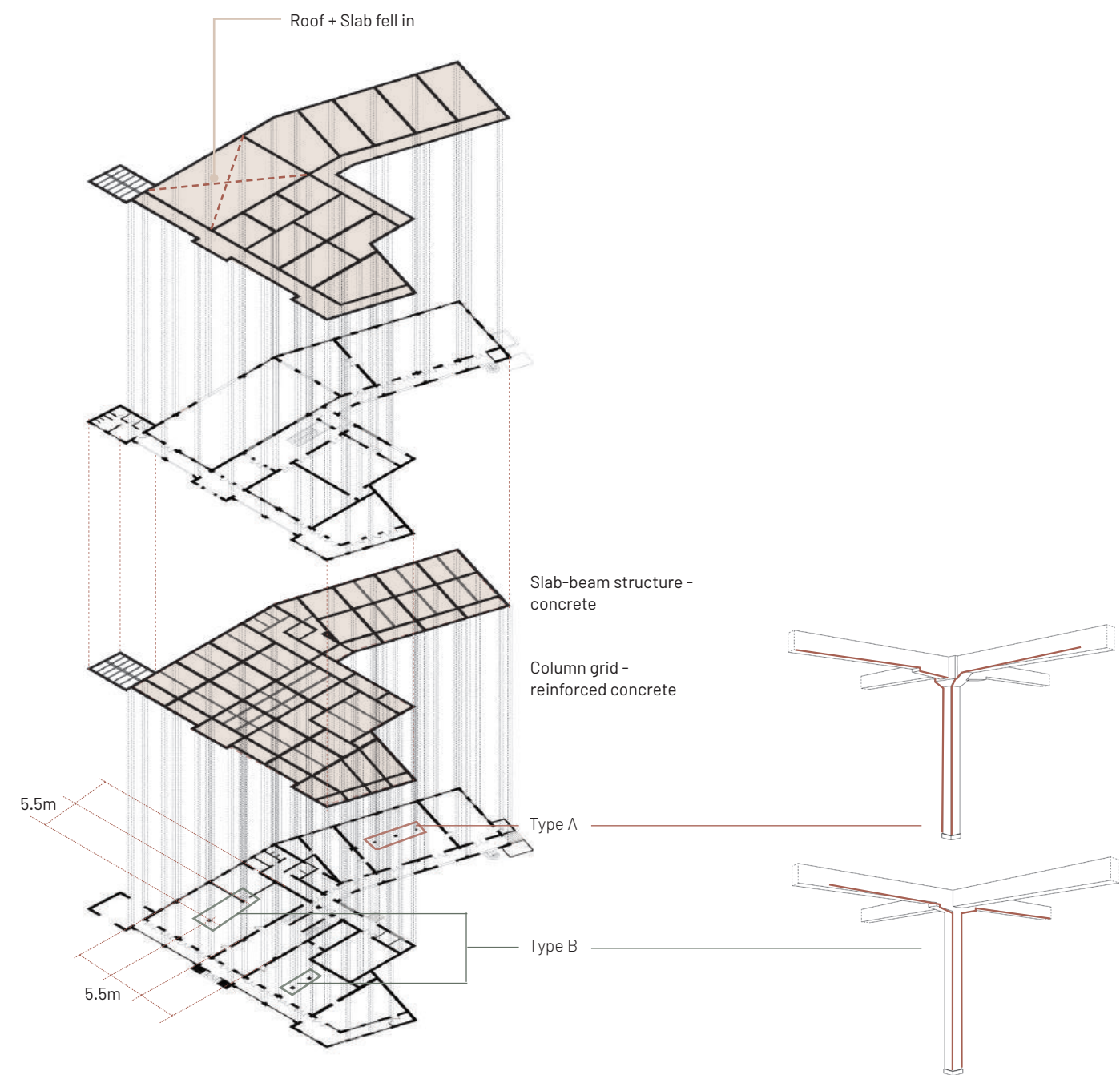
Building Analysis: Fragile Roof Structure



Even though there are attempts to respond to Semarang’s tropical climate, such as recessed walls, shading elements, and ventilation on the window, the European characters of the building outweigh the tropical traits. It is proven by the upper structure that keeps falling down despite the reparations as well as the cracked floor slab of the middle part of the building. The building also has a long depth which makes it hard for the light to penetrate in. The design of the opening also hinders air circulation. Furthermore, the walls are 45 cm thick, making it harder to release moisture. There is also an overlapping structure in the meeting of the roof that adds to the building’s fragile upper structure.



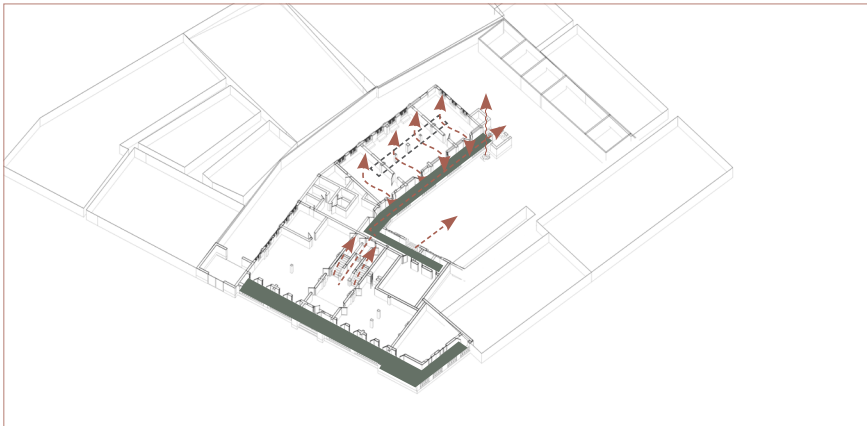
# Building Analysis: Ground and Upper Levels Structure



The structure on the ground level applies the hennebique system. The system consists of round bars with fish-tailed ends using stirrups that are of flat straps which were made of mild steel. Tensile resistance in beams and slabs were provided by the bars and helped supplement the compressive capacity of the concrete columns and walls. This building has proven that this system is durable. Apart from that, the structure offers specific relative art quality that is rare in Indonesia. On the contrary, the upper structure offers a rather bland and austere atmosphere. Looking at the cracked floor slab as well as the damaged roof, it is evident that the upper structure needs to be adapted in order to sustain it.



# Building Analysis: The Rare Existence of Courtyard



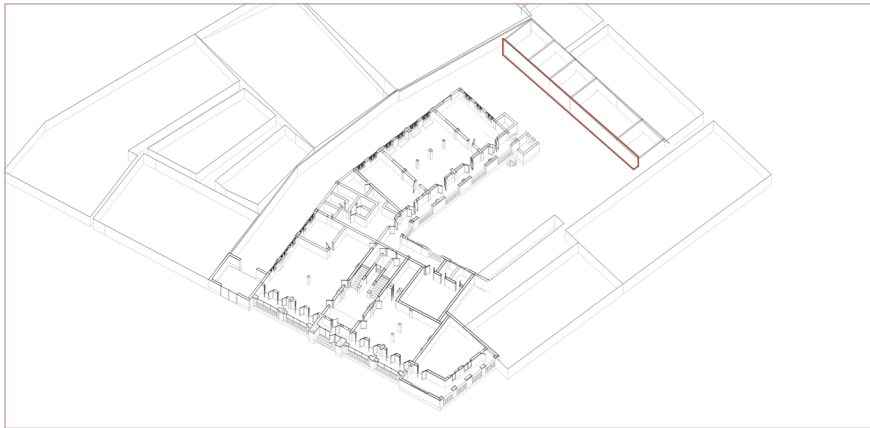
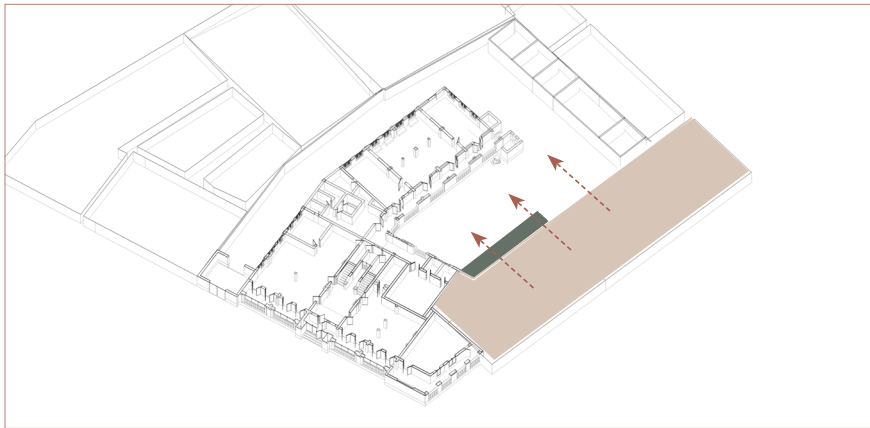
The presence of courtyard is rare in Semarang historical area due to its density. The courtyard along with the corridor typology provides an inside and outside experience inside the building. The light play as well as the air flow give the building a specific spirit of place.

# Building Analysis: Relation to the Immediate Surroundings





# Building Analysis: The Courtyard



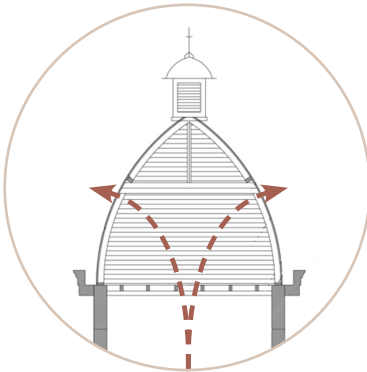
There is a potential connection to the neighboring buildings as it is not separated by any borders to the site. According to historical research, it appears that most offices, especially trading offices, are always situated next to a bank, which is the former function of these neighboring buildings.

There is a garage wall in the back of the site that originally functioned as a garage. It marks the use of vehicles in the 1900s period. It also has rarity value as the presence of a garage is not common in Kota Lama. However, the building fell down apart from the front wall.





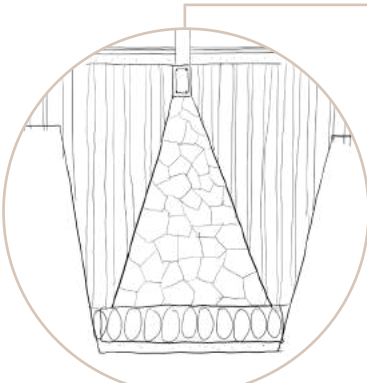
Building Methods



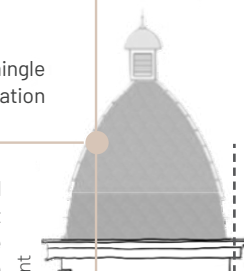
The roof tower is made of wood with shingle as its surface. It has minimum ventilation and it is now used as bats nest.



Concrete is used as plate and beam materials. In the east part of the building, the plate is bending as seen from the ground floor.



Based on its original drawings, stone is used as foundation material, which is commonly used in Indonesia for two storey buildings. The soil in this area is alluvial.



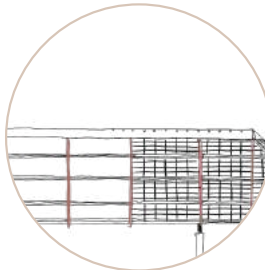
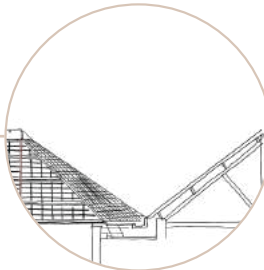
shading/buffer element



Reinforced concrete column is used as the structure, steel on the several columns were found to be rusty and chapped due to corrosion.



The excavation documentation shows that there are no foundation on this area, only stack of stones that are not connected to the broken column.



The structure material is wood and steel. The overlapping position of the roof is peculiar, indicating structural adjustment issue.

The roof fell down several time, indicating inability to accommodate the forces.

The double roof is made for air circulation of the long room on the east side of the site.



The wall arches are made of bricks with plaster and paint. Some paints have peeled off and several walls have been infiltrated by wild plants.



Plastered and painted bricks are the main wall materials for the building. Most of the skin are peeled due to water capillarization.



There are corridor on the street and courtyard facing facade as circulation route and environmental control.



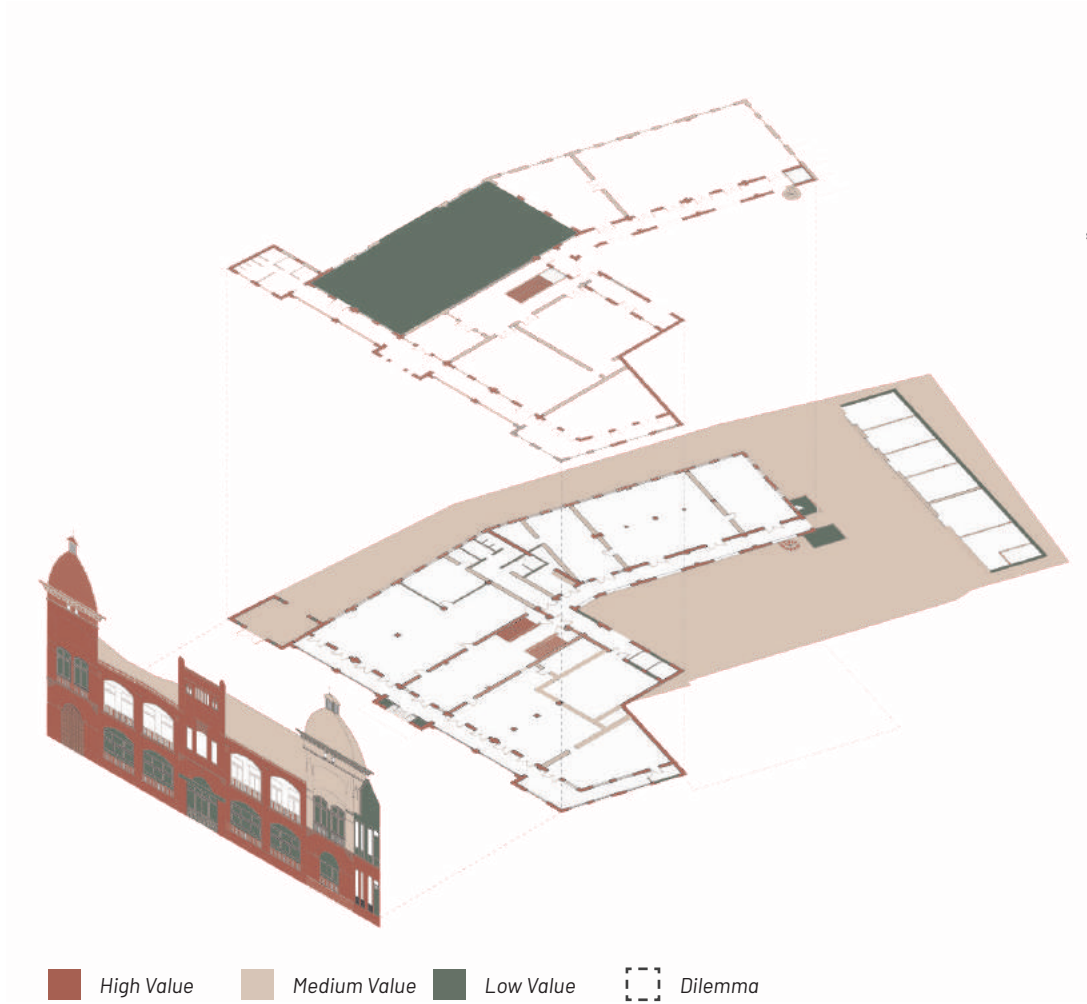
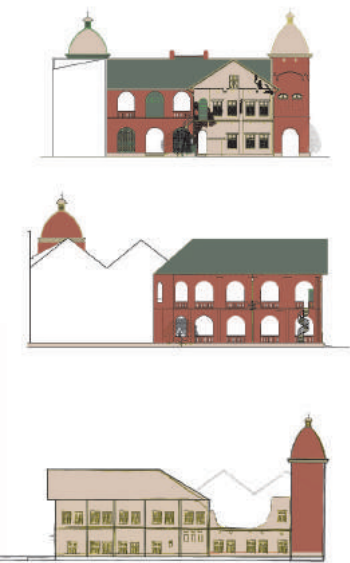
The garage building mass on the back of the site, fell down with only several traces left.



Cultural Value Assessment

	Historical	Relative Art	Age	Rarity	Use
Surroundings					
Site					
Skin (Exterior)					
Structure					
Space Plan					
Surfaces (Interior)					
Services					
Fixtures					
Spirit of Place					

High Value Medium Value Low Value Dilemma



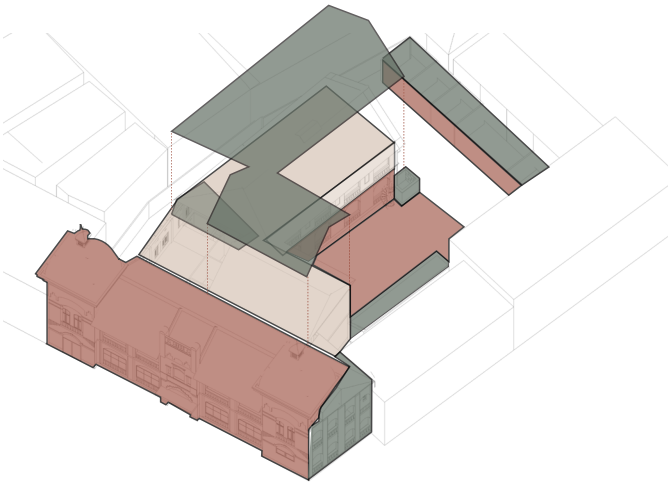
< The table figure on the left shows the project's value assessment that refers to the building analysis. The matrix was used to examine both tangible and intangible elements in the existing building as a guide for the design transformation. The method was developed by Clarke, Kuipers, and Zijlstra (2017) based on the matrixes created by Riegl and Brand.

This significance of the force labor system that was linked to this building as well as the social segregation that is evident in the building are important factors in determining which values are more crucial than others.

^ Based on the conducted value assessment, three main value mapping strategies were identified. Obligations are identified as those that should be preserved or restored based on a high value that can be given. Opportunities are identified as those that can be redeveloped or maintained through additions, interventions, or adaptations. These are areas assessed with medium to low value. Dilemmas are identified that areas that should be interfered with. These are either areas where the original design was tampered with throughout the course of time or areas with potential for maximum interventions.



# Initial Heritage Positions



- Preserved, Repaired, Subtly Improved
- Adapt
- Removed or Replaced

There are several heritage positions in this scheme, which is preservation with repairs on the front mass and the ground floors of the site, interventions in the middle part of the site, the replacement of the roof in the middle, as well as the removal of the overlapping structure and roof on the folded part of the building.

**Historical, Age, & Relative Art Values**  
Skin: tower typology, rhythm, and arches - context.

**Rarity Value**  
courtyard and the voids.

**Relative Art & Use Values**  
the corridors typology

**Relative Art & Historical Values**  
ground floor's structure, skin, & surfaces: stairway, column, beams, tilings, doors, and windows

**Potential Use & Relative Art Values**  
austere character, flexibility, good condition on structure, skin, and surfaces apart from the cracked floor slab.

**Potential Use & Relative Art Values**  
austeric wall and its surface.

**Use Value & Relative Art Values**  
double layered openings, climate control, patterns/colors.

**Historical & Use Values**  
trace of inequality, low spatial qualities, lack of room to breath, overlapping structure.

**Overlapping Roof Structure**  
overlapping structure, repeatedly fell down, different typologies.

**Modified Facade with Historical Value**  
corner facade - has been transformed many times, currently enclosed despite its visibility from the city.

**Rarity Value**  
marks the use of vehicle, garage is a rare element in Kota Lama Semarang.

**Use Value**  
the additional mass disrupts the connection of the site to the surroundings.



# Building Transformation Strategy and Design

1. Program
2. Transformation Strategy
3. Transformation Proposal
  - 3.1 The Entrance
  - 3.2 The Office
  - 3.3 The Pod

## Program

### *Kantor Koperasi Urban Permakultur* Urban Permaculture Co-Operative Office



The program is inspired by the previous function of the building because of its suitability with the current needs of the community. It is an improved continuation of its previous life by learning from the existing fabrics and the culture of the local community. The role of the building is altered to nurture and elevate the community's practices, as opposed to torture.

Urban Permaculture Co-Operative Office has the responsibility to manage the community's trading activities, to bring back production to the city, as well as to provide management and education to the community through consultation, workshops, examples, and discussions.

#### **Koperasi**

The program adopts and improves the Indonesian tradition, *koperasi*, that applies the *gotong royong* spirit of the community that embraces working hand in hand and communality.

#### **Permaculture**

The permaculture principle is introduced to the city to raise the community's awareness towards the natural environment by implementing the permaculture principle on their practice lifestyle. Both principles are also applied to the design strategy and proposal.



Program

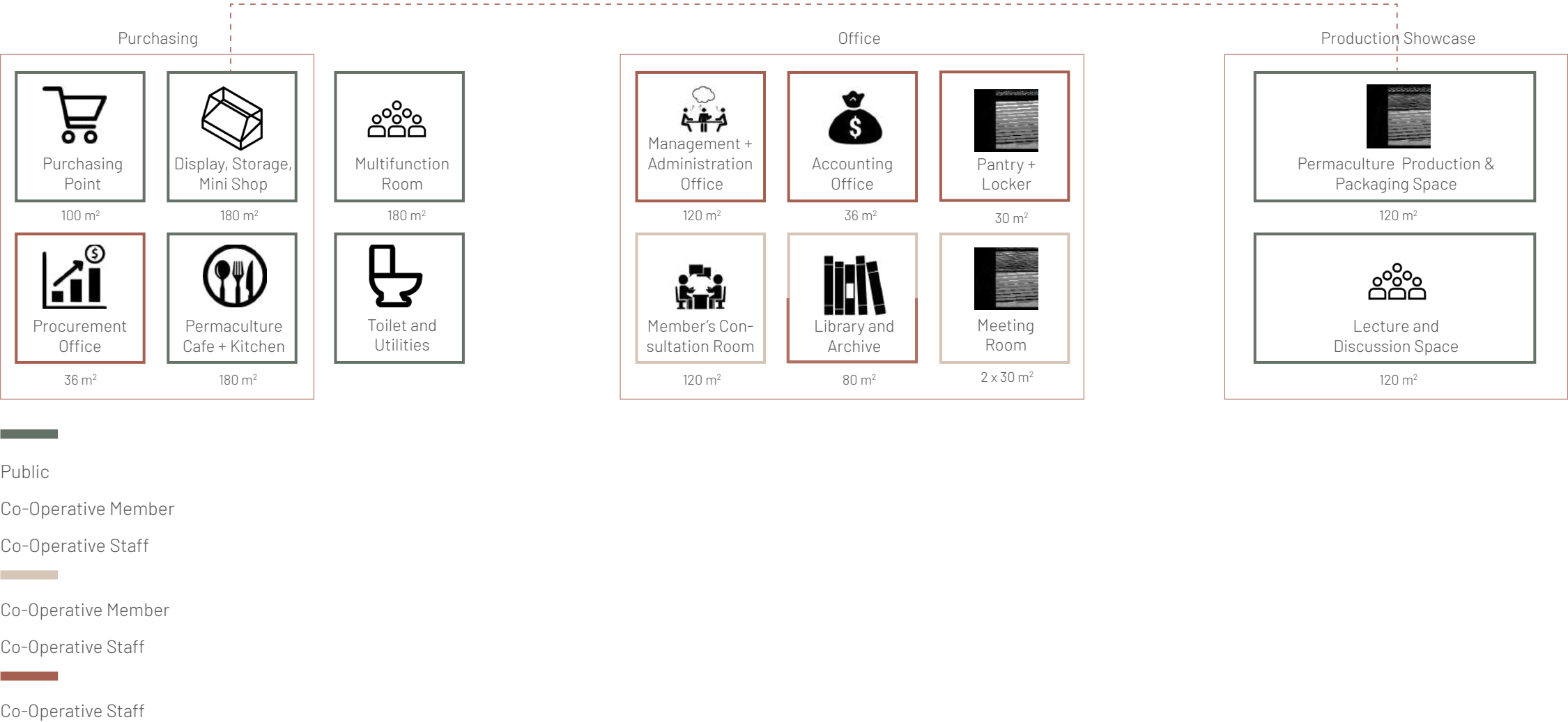
Koperasi Co-Operative

Koperasi is an organization composed of a group of people that are united voluntarily to meet their common economic needs and aspirations. It runs according to the social and cultural principle of *gotong royong*.

Permakultur Permaculture

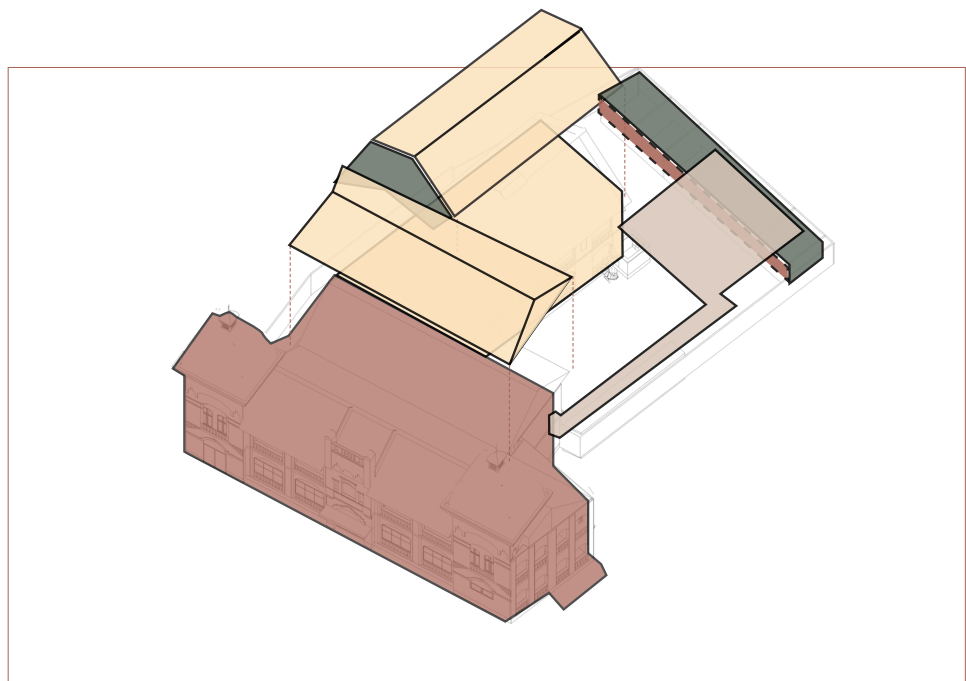
Permaculture (permanent agriculture) principle was firstly introduced by Australian researcher, Bill Mollison. It is not only an agriculture principle, but a lifestyle and design approach that thinks and responsible about the whole, such as natural cycle, intake and outtake, and humanity.

The building programs are grouped into three main functions: trade, manage, and production. All programs are ran with the spirit of social, economy, and education.





# Program Zoning in Relation to Heritage Positions



- Preserved with Repair | Trade
- Removed
- Preserved without Repair
- Intervened | Manage
- Added | Production

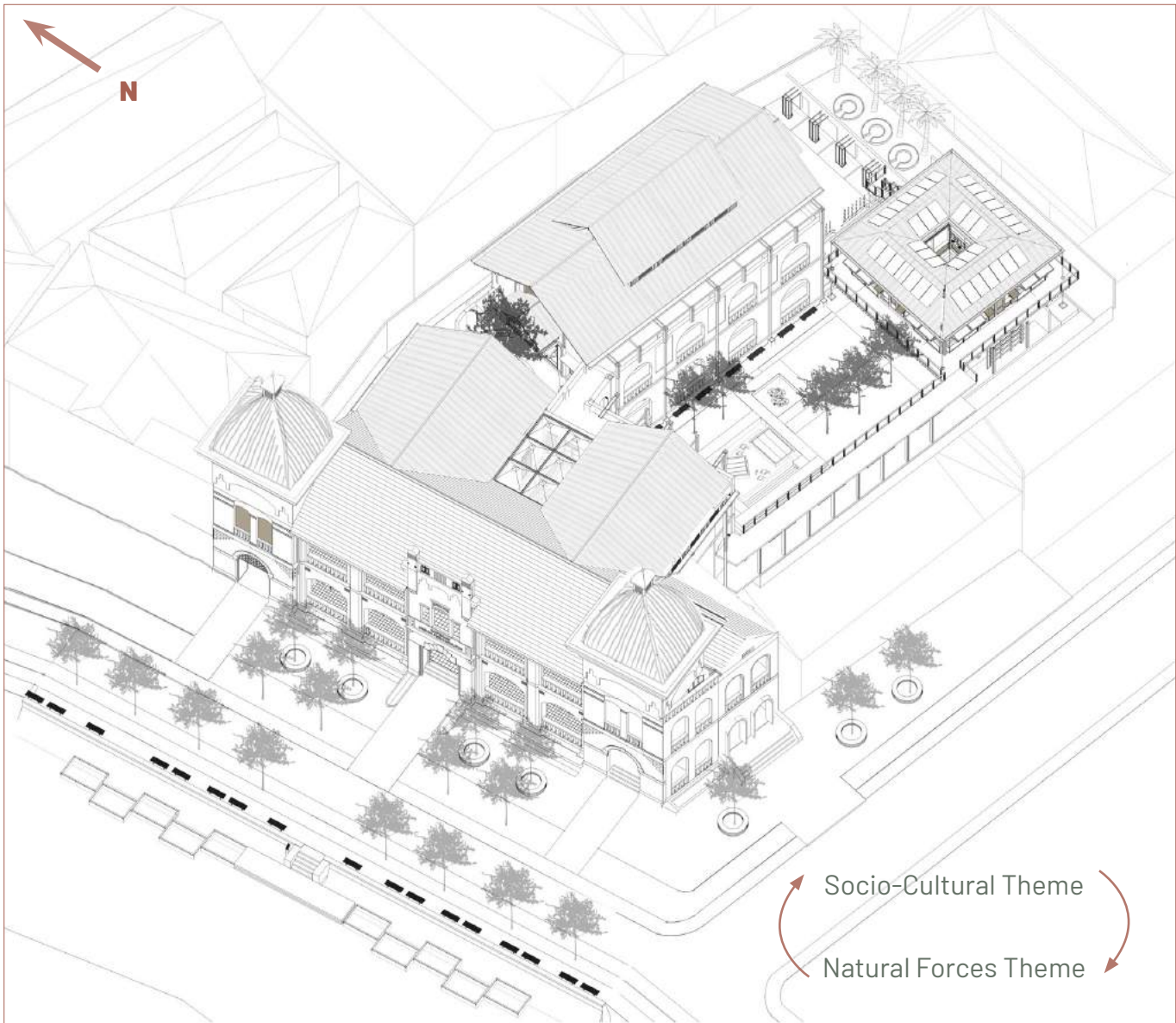
The zone is divided into three:

1. Trading activities that reflect the original function of the building is positioned in the preserved area. Apart from its position that is strategic to the public realm, it is meant to be the zone that embraces the embodied knowledge of the past without damaging it.

2. Management and administration are located in the middle part of the site. The program and the design interlock the old and the new. It tries to provide the communality spatial culture and question the office typology for the local community by removing parts of the existing and re-introducing new elements that reflect the local communities. It demonstrates the sacrifices that need to be made in order to move forward as well as to add a new layer of Indonesian to the Dutch colonial architecture.

3. Socio-production education is a new function that is added to the site as an extension. The program and the design question the logic of the existing and reverse it by cultivating the local knowledge in the process. It is also meant to complete the pattern of the existing site and elevate the spatial qualities of the courtyard.

# Design Approaches



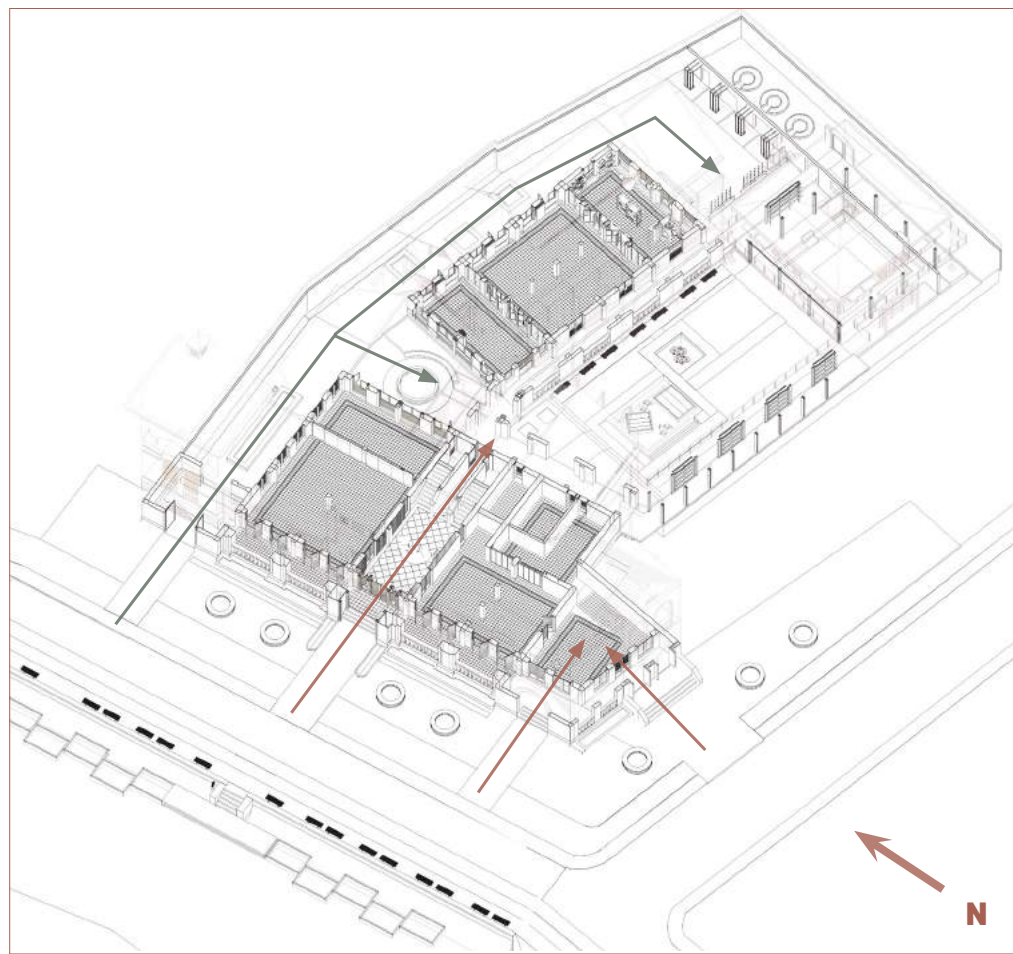
The design approach is composed of two themes:

- Socio-Cultural Theme, to provide and improve the community's spatial culture.
- Natural Forces Theme, to bring the building and the community closer to the natural environments.

The architecture and building technology strategies aim to intertwine the community's socio-cultural aspect and natural forces, while respecting the characters and qualities of the existing fabrics.



# Transformation Strategy

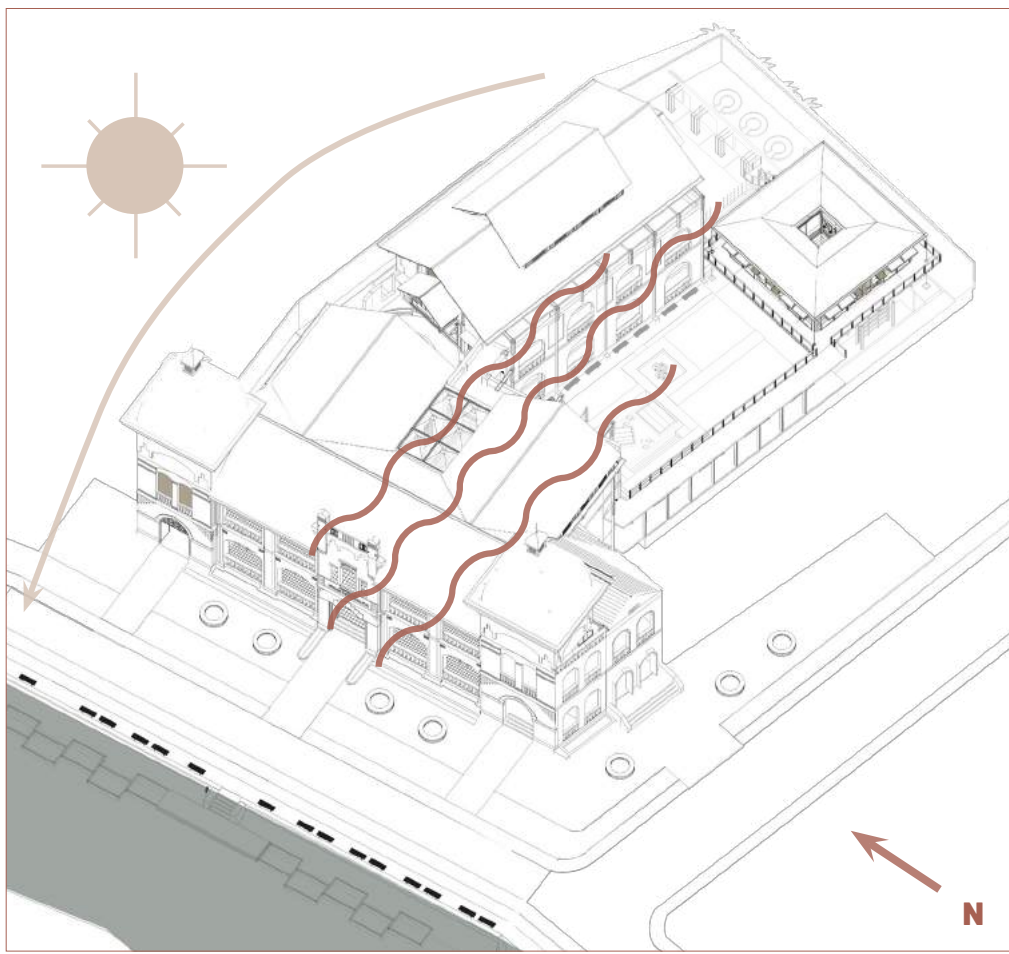


→ Public Access, Work Hour      → Public Access, Day and Night

## Opening Up to the Public Realm

The first design strategy is to establish connections to the public realm and to open up the enclosed and exclusive fabrics. The aim is to promote inclusivity and to provide inside-outside relation of the building and the landscape.

The courtyard that is rare in Semarang serves as an urban pocket. There are welcoming elements from every direction as public routes, which would take visitors to a journey from the old to the new.



## Incorporating Semarang's Natural Forces

The second strategy is to embrace and to utilize Semarang's natural forces. The aim is to adjust the Dutch colonial architecture into the tropical context as well as to raise awareness of the community towards natural environment.



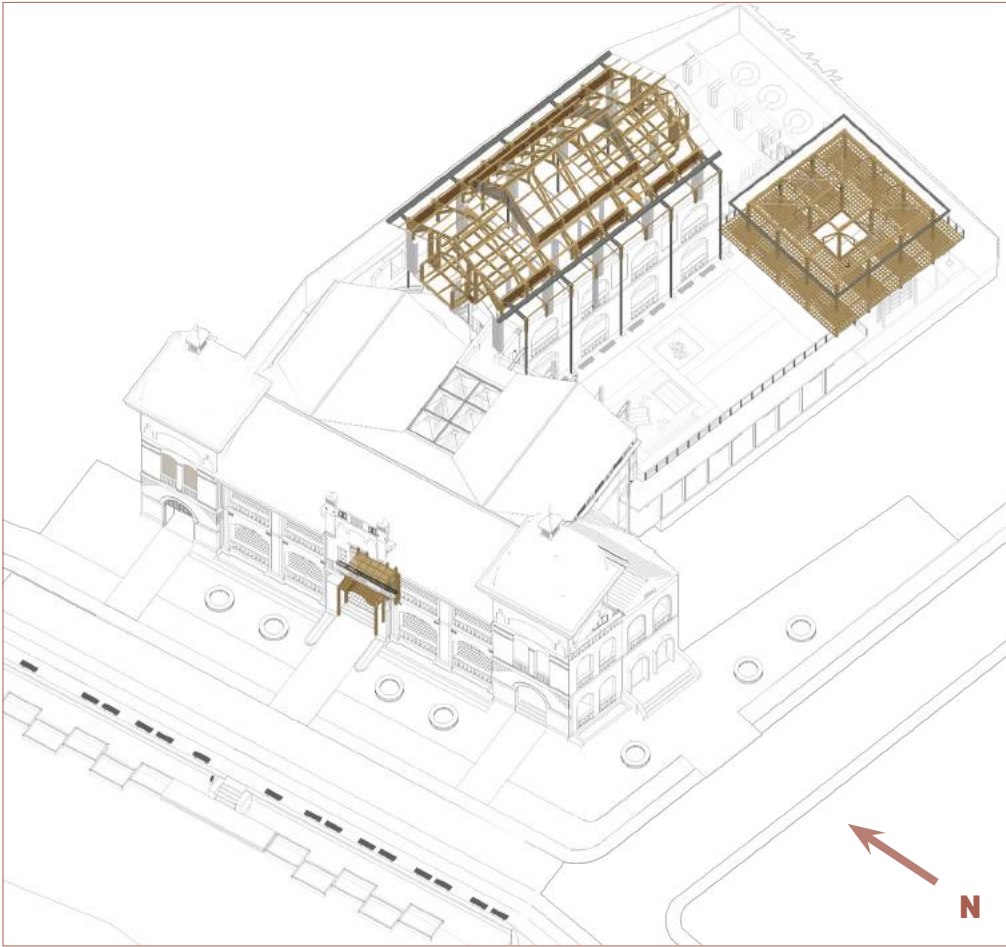
# Transformation Strategy



Communal/Interaction Spaces      Specific/Contemplation Spaces

**Adapting Spatial Segregation into Spaces of Communality**  
The third strategy is to turn the traces of spatial segregation into spaces of communality. It is an attempt to provide the people's spatial culture with central and wings typology. The central spaces is being used for interactions, such as trade, consultation, discussion, and lectures. Meanwhile, the wings spaces are occupied for specific functions or spaces of contemplation.

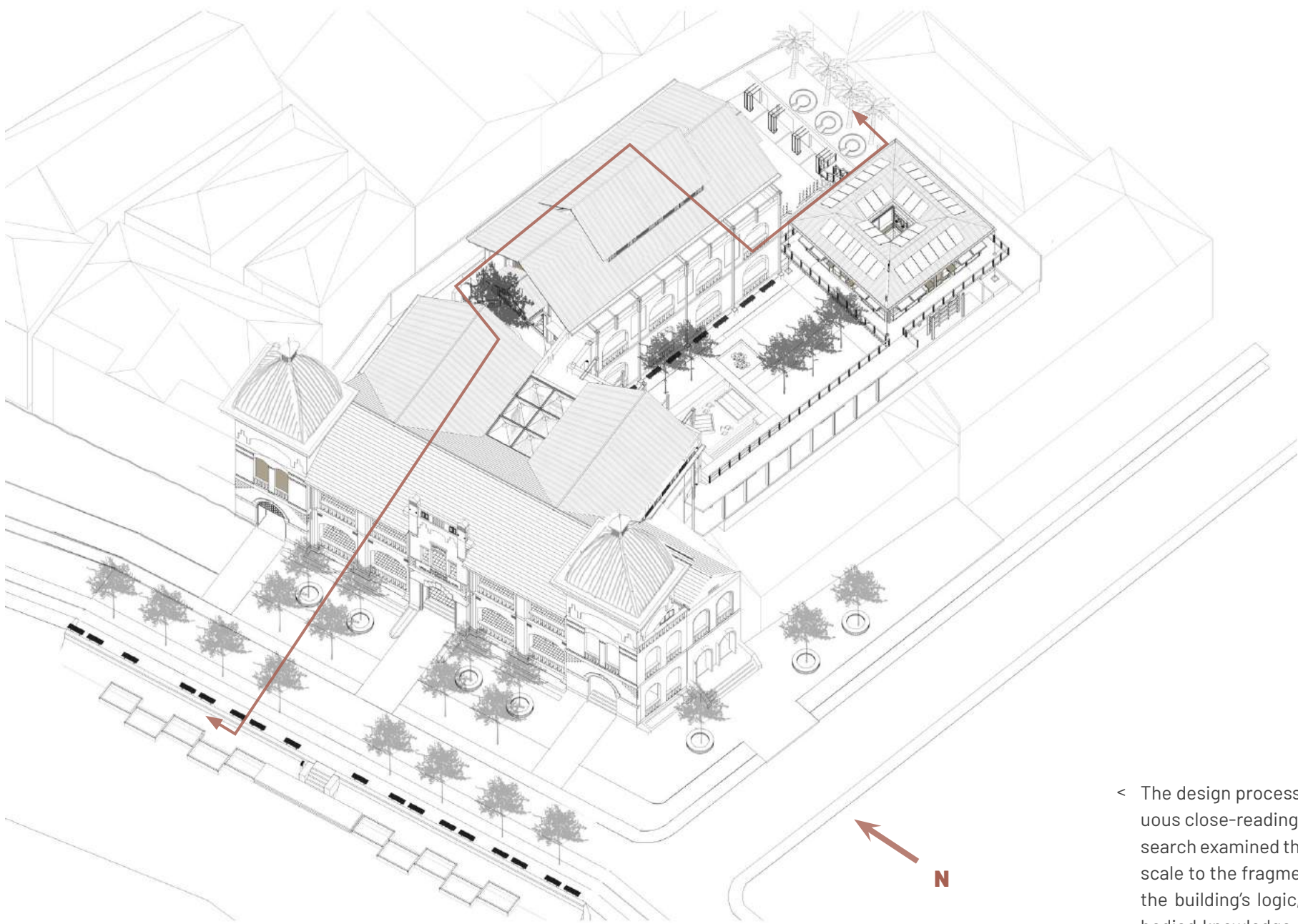
# Transformation Strategy



**Incorporating Local Craftsmanship**  
The fourth strategy is to implement local craftsmanship which includes structure and materialization to let the community be involved since the early stage of diminishing distance between heritage and the people as well as to nurture the sense of belonging.



Close Readings



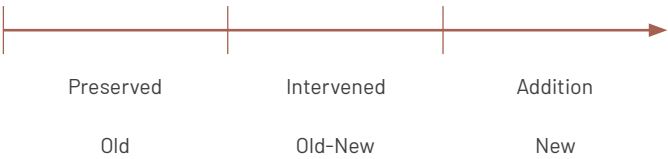
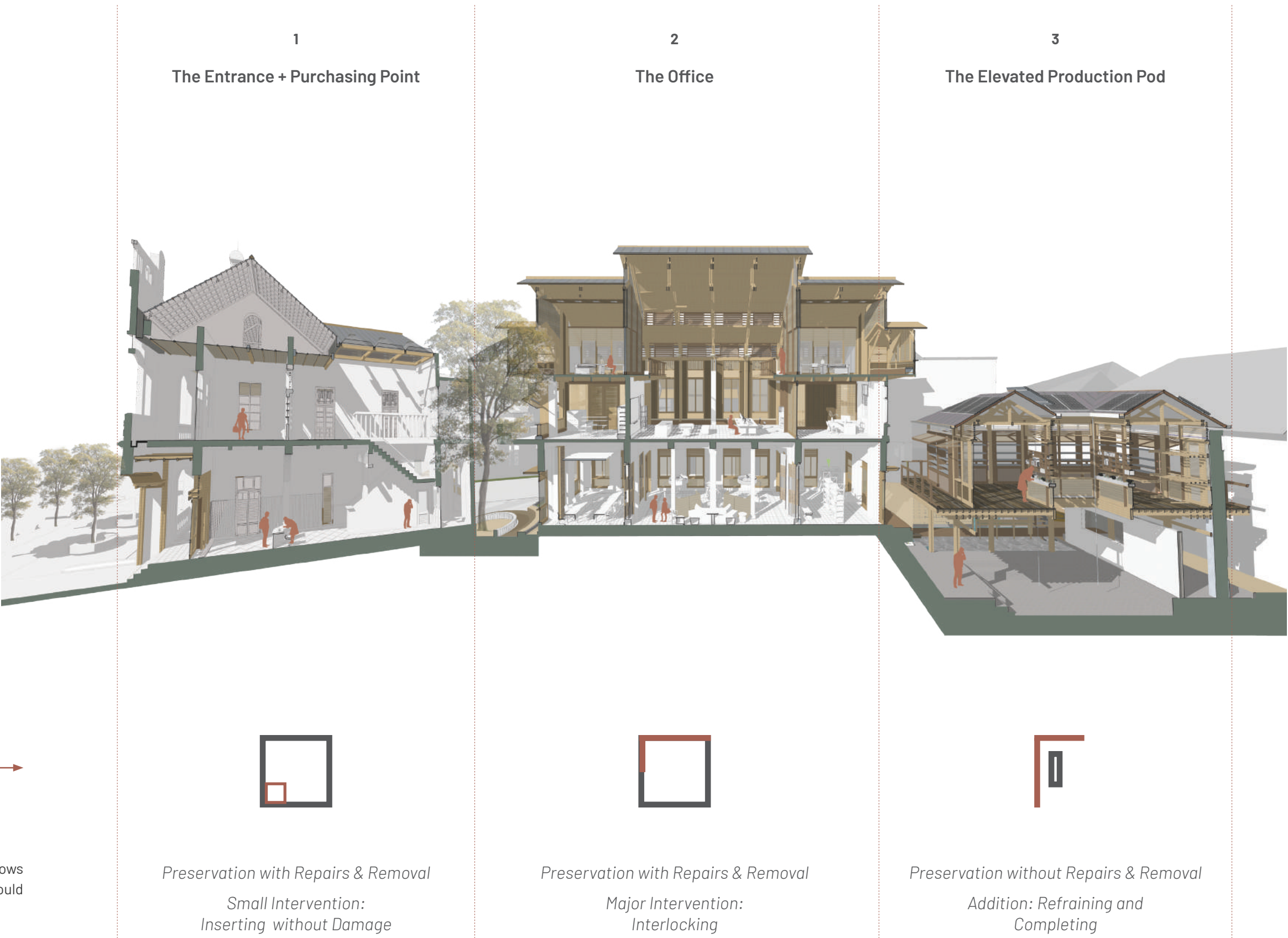
< The design process of the project is done through continuous close-readings of three parts of the building. The research examined the existing fabrics from the surrounding scale to the fragment scale for a deeper understanding of the building's logic, characters, technology, and the embodied knowledge, as well as its relation to possible new layers of interventions.



^ These close-readings were carried out through historical map tracing, redrawing building parts, sketching, making digital model, and by making 1:10 scale fragment models.



Heritage Strategy



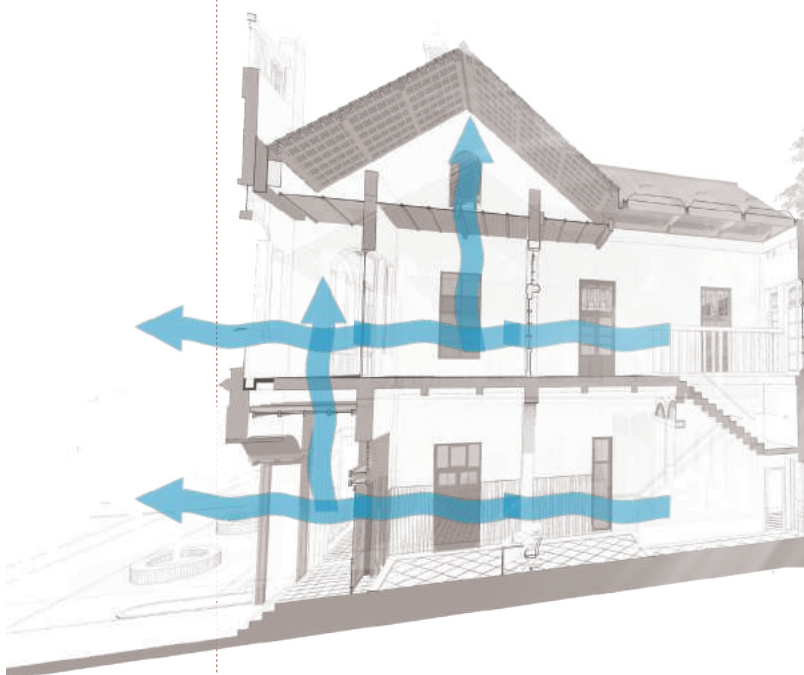
This is the illustration of the heritage strategy that shows the different levels of intervention. The visitors would experience a journey from old to new.



# Building Technology Strategy

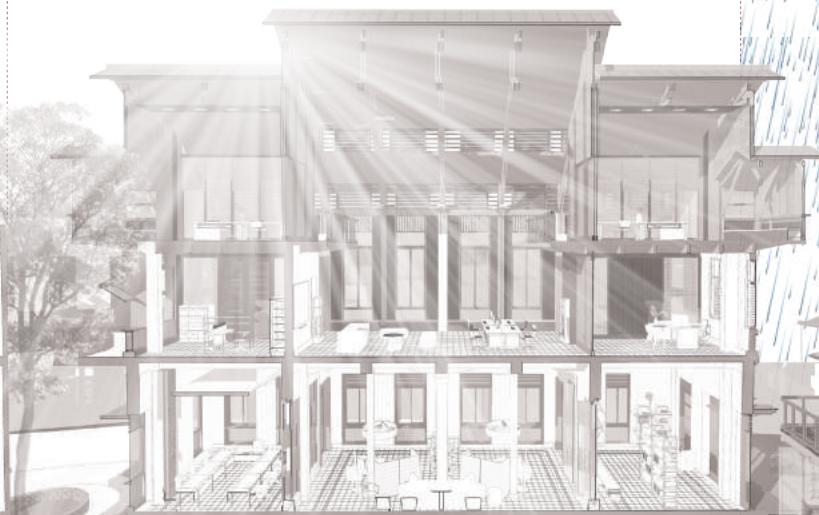


1  
The Entrance + Purchasing Point



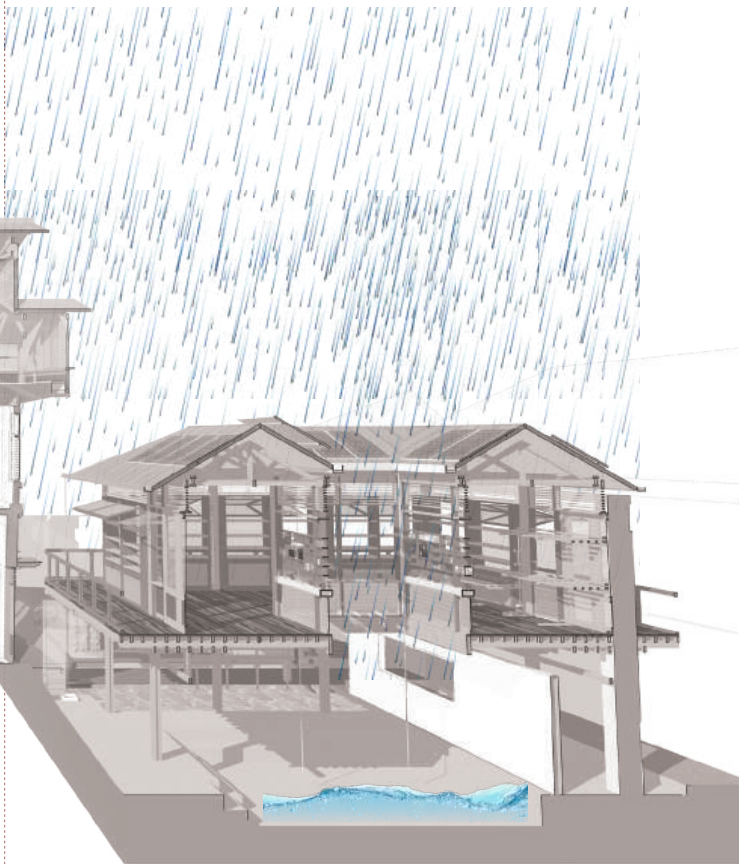
*Natural Forces for Comfort*

2  
The Office

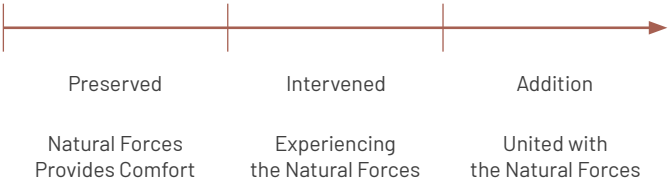


*Natural Forces as Experience*

3  
The Elevated Production Pod



*Embracing Natural Forces as Lifestyle*

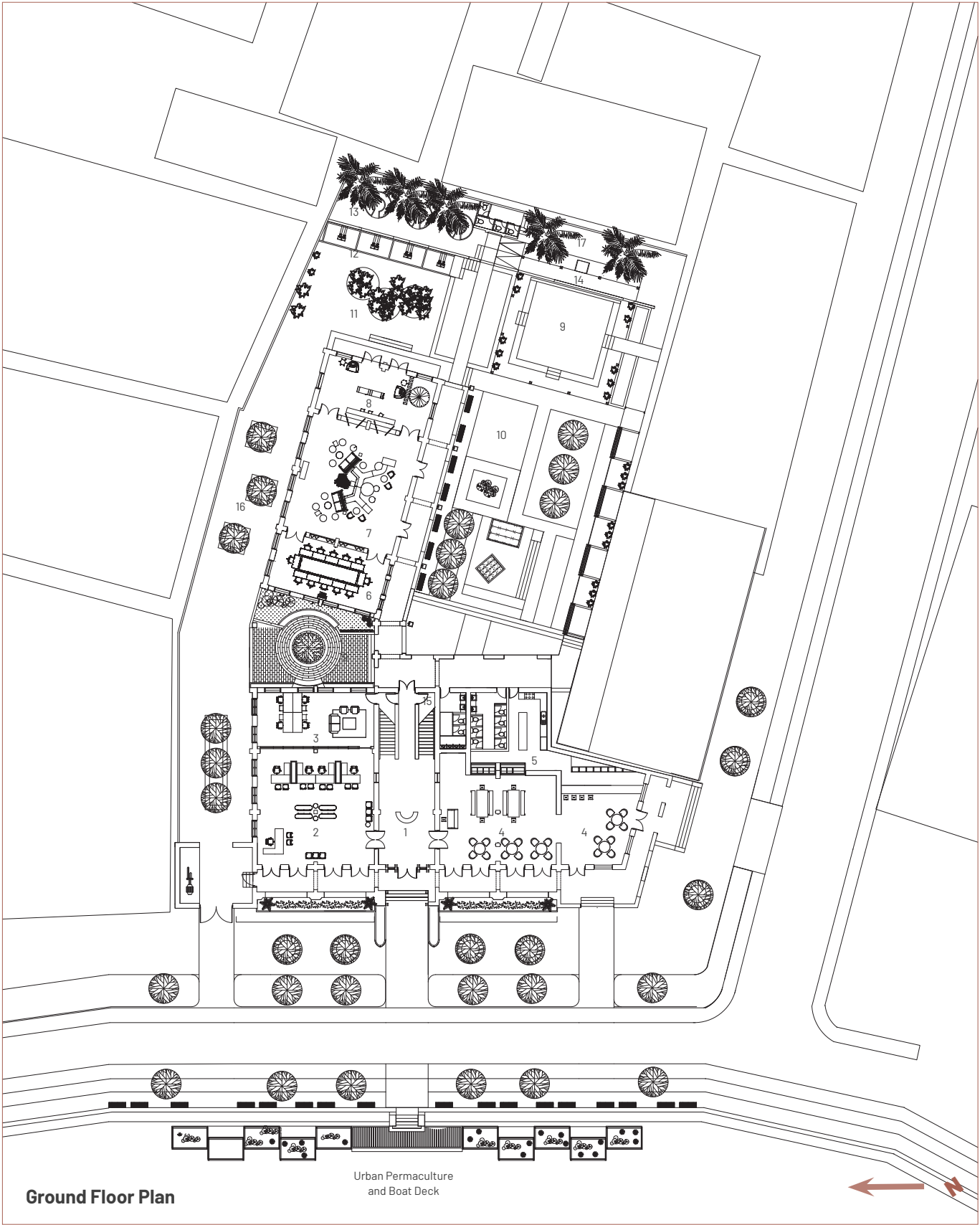


The building technology strategy is done so that the building could withstand the tropical climate in the future, It is also to utilizes natural forces to form the building's as well as resource energy. It is to bridge the connection of the building and the community to the natural settings.

The visitors would experience the different intensity of natural forces throughout the site.



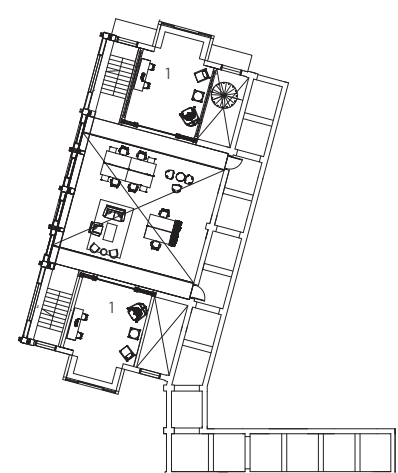
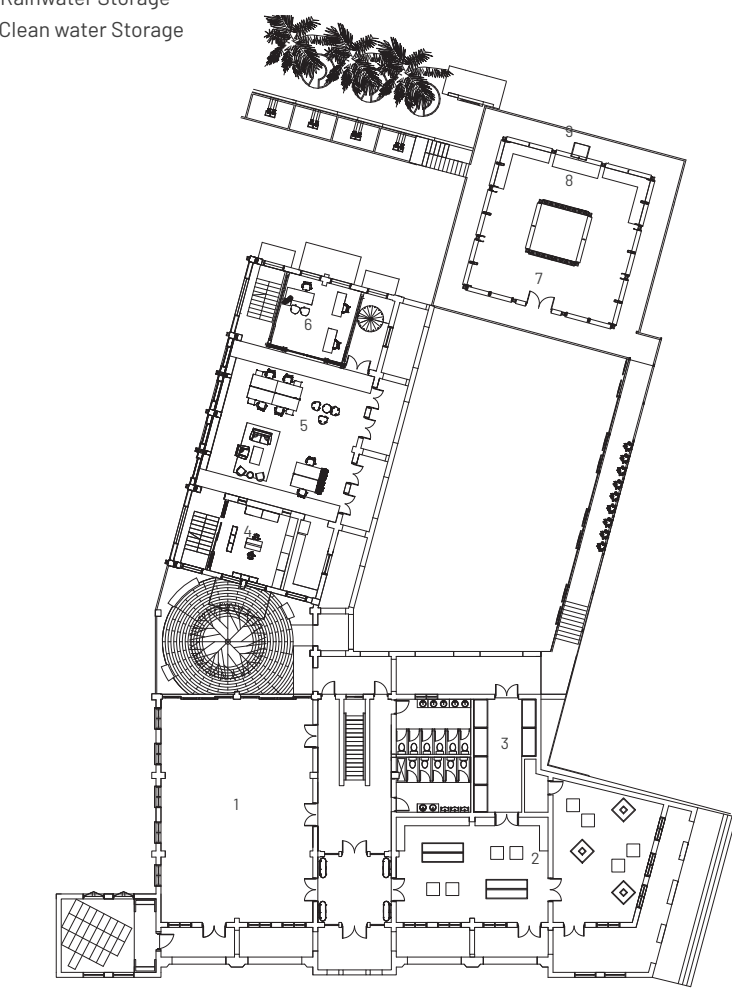
Plans



- GROUND LEVEL
- 1. Information Desk
  - 2. Purchasing Point
  - 3. Purchasing Office
  - 4. Cafe
  - 5. Kitchen
  - 6. Meeting Room
  - 7. Co-Operative Members Consultation Space
  - 8. Mini Library
  - 9. Social/Lecture Area
  - 10. Urban Permaculture
  - 11. Rain Garden
  - 12. Water Filtration
  - 13. Banana Trees and Keyhole Garden
  - 14. Trolley Elevator
  - 15. Storage
  - 16. Rainwater Storage
  - 17. Clean water Storage

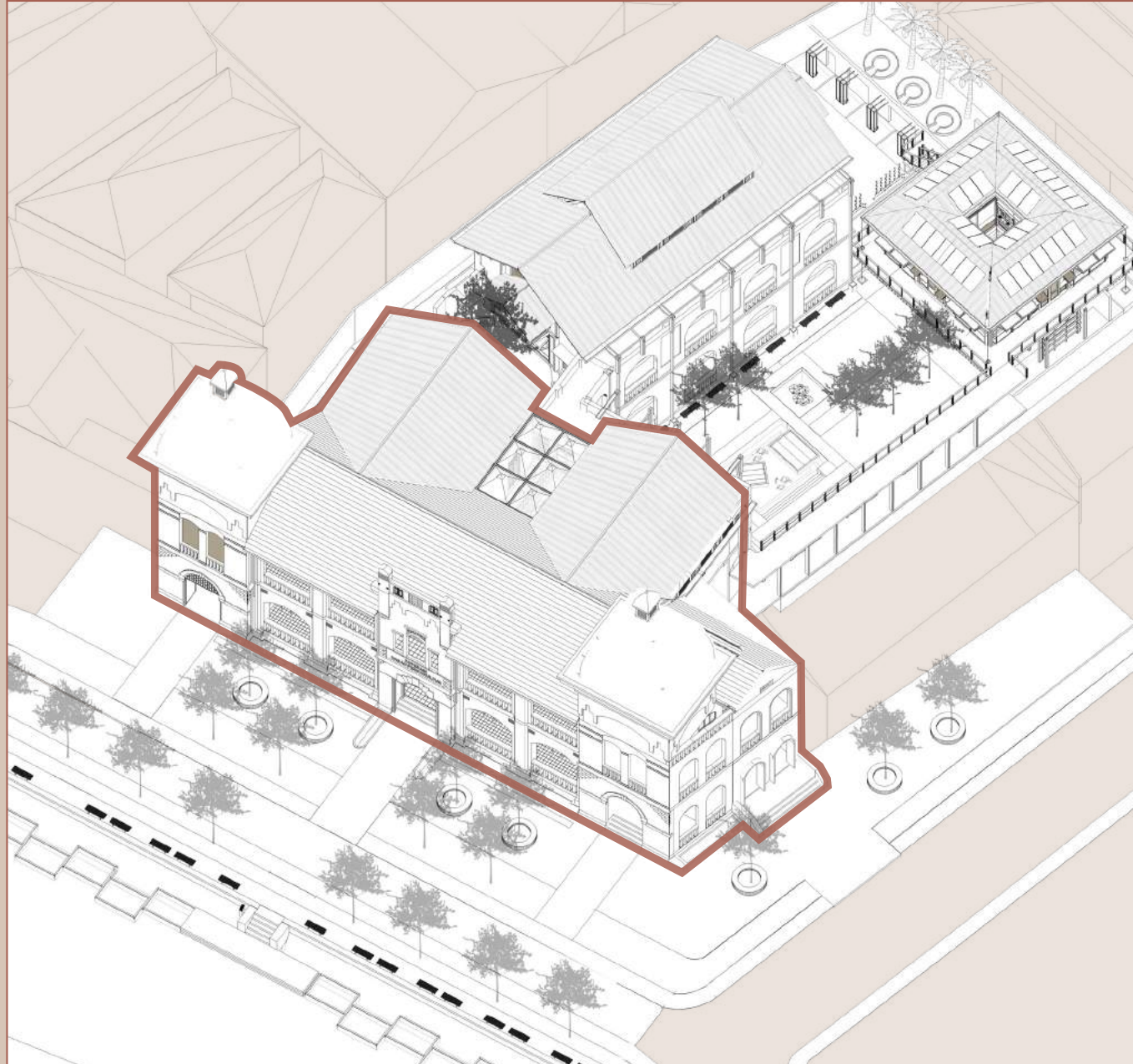
- FIRST LEVEL
- 1. Multi-Purpose Room
  - 2. Seeds and Tools Display and Shop
  - 3. Crops Storage
  - 4. Archive Room
  - 5. Management and Administration Working Area
  - 6. Accounting Room
  - 7. Production Area
  - 8. Packaging Area
  - 9. Trolley Elevator

- MEZZANINE LEVEL
- 1. Contemplation Space





# Transformation Proposal



## *Part 1* The Entrance

The entrance part stands as trading area. It houses the information desk, purchasing points, cafe, shop, prayer room, as well as multi-purpose room, which are accessible to the public.

1912



2019



Proposal





Transformation Proposal: The Entrance



Preserve

Repair

Reuse

Removal

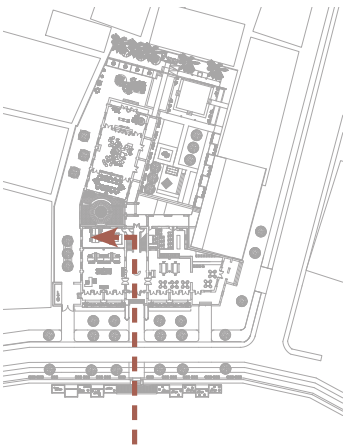
Inserting

**Heritage Strategy**

- Preservation with Repairs
- Small Interventions:  
Inserting new elements without  
damaging the existing structure

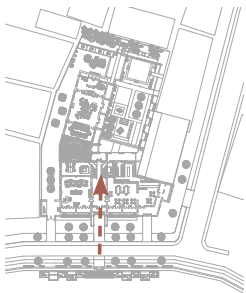
**Building Technology Strategy**

- Using natural forces to provide comfort





# Transformation Proposal: The Entrance



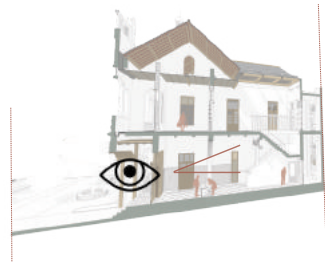
Information Desk Area



Existing



Lobby and Information Desk Area



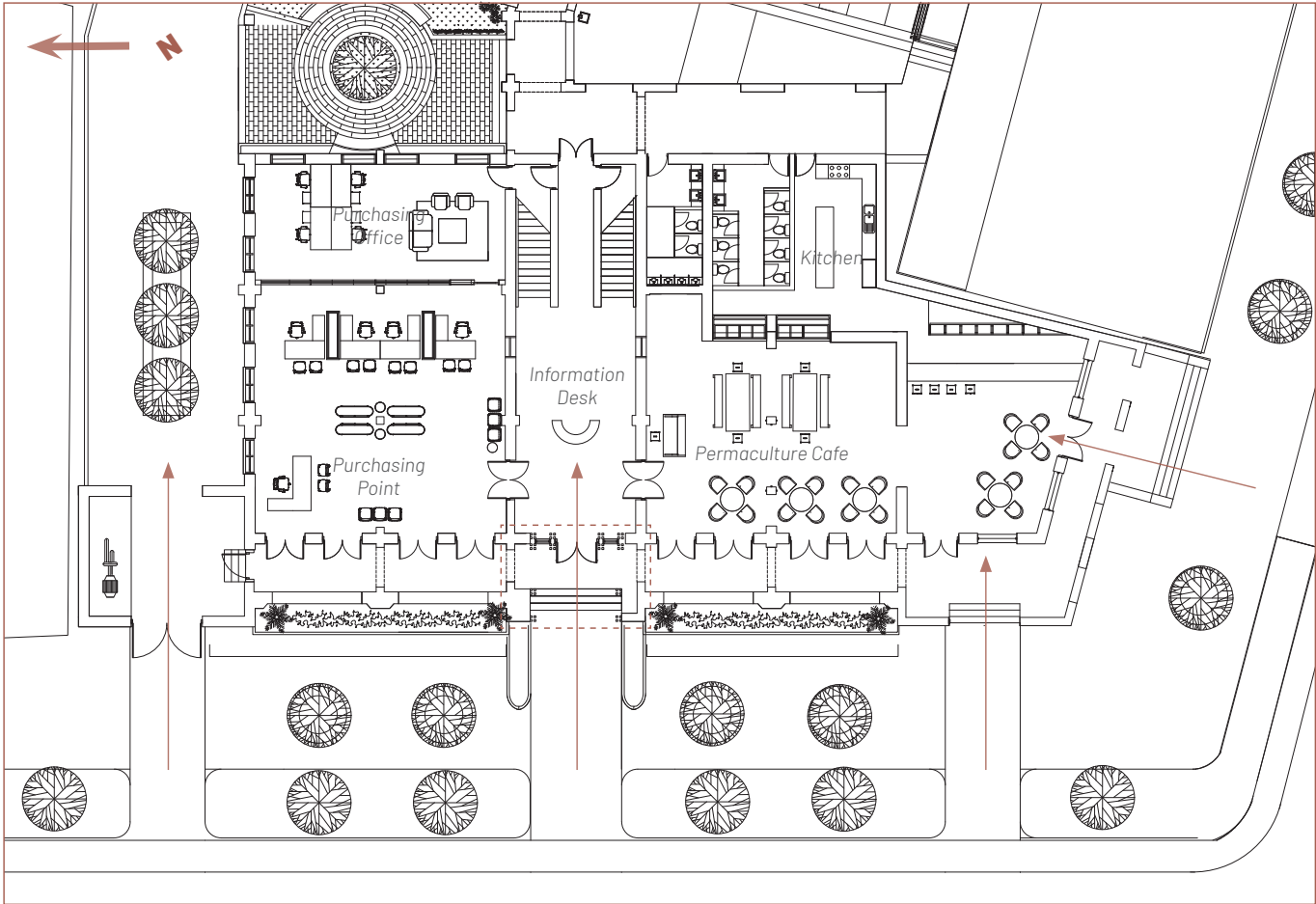
## Preservation with Repair

Considering its high value, the main heritage strategy in this part is preservation. It is done by keeping the fabrics and repairing the front roof as well as the surfaces like walls and floorings that have been damaged. It is meant to preserve the embodied knowledge and memory of the past. The incorrect towers as a result of uncareful renovation were also repaired according to the original proportions.

## Reuse

Several doors and windows on the facade as well as on the interior spaces went missing. The project moved the doors and windows from the office part of the proposal into the entrance area.

Transformation Proposal: The Entrance



Ground Floor Plan of the Intervention Area

Small Interventions

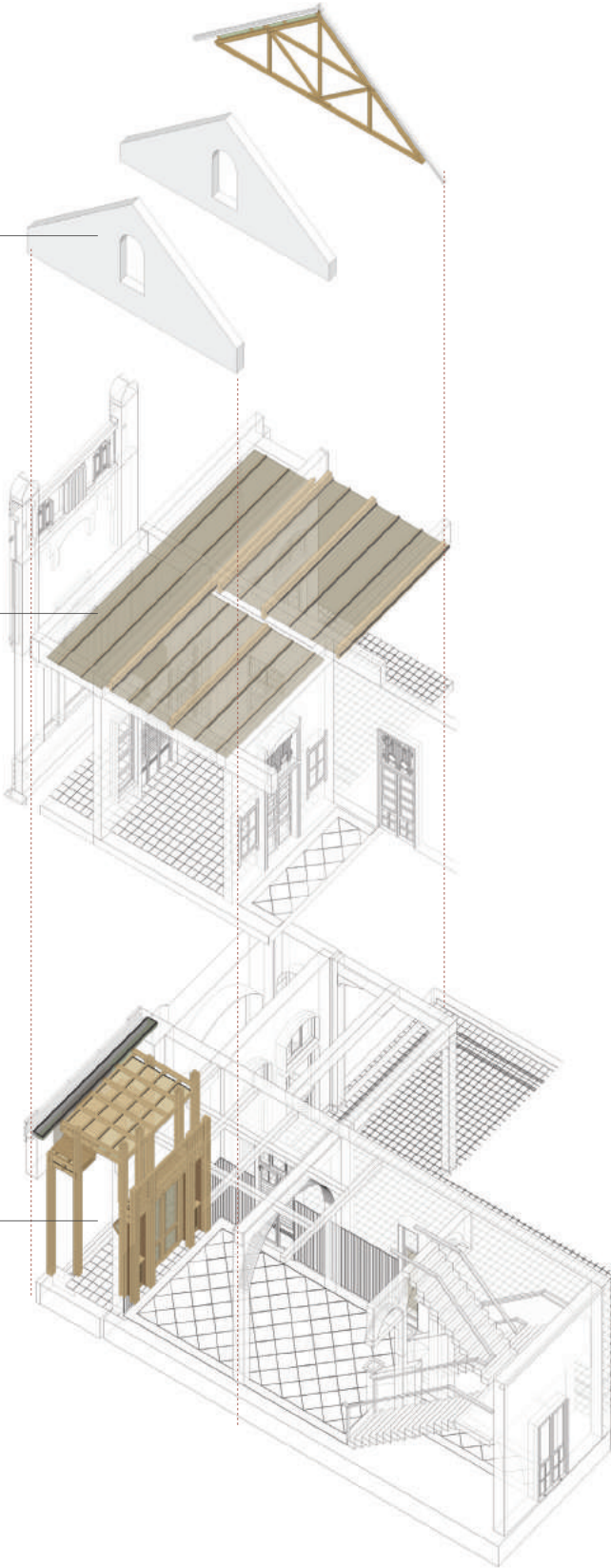
There are three interventions in the entrance area. The intervention inserts new elements as follows:

- 1. Adding a gate.
- 2. Adding ceilings.
- 3. Adding layers to the roof.

Roof  
Intervention

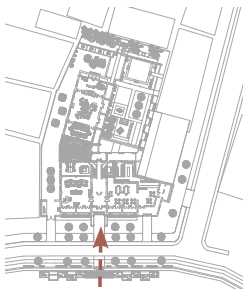
Ceiling  
Intervention

Gate  
Intervention





# Transformation Proposal: The Entrance



## The Gate Intervention



Existing

### Inserting the Gate: Promoting Inclusivity

The additional aluminum frame windows and gate canopy are removed to open up the facade, to bridge the connection between the building and the urbanscape, and to allow a clear visual connection to the river.

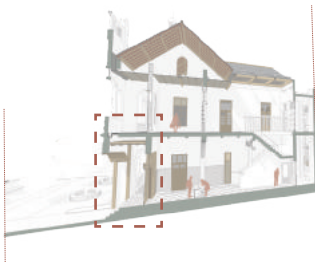
A gate intervention is added to welcome the public by accentuating the access point with a familiar yet distinct element. It is positioned adjacent to the front façade so that it would not disrupt the facade rhythm.



Gate Intervention



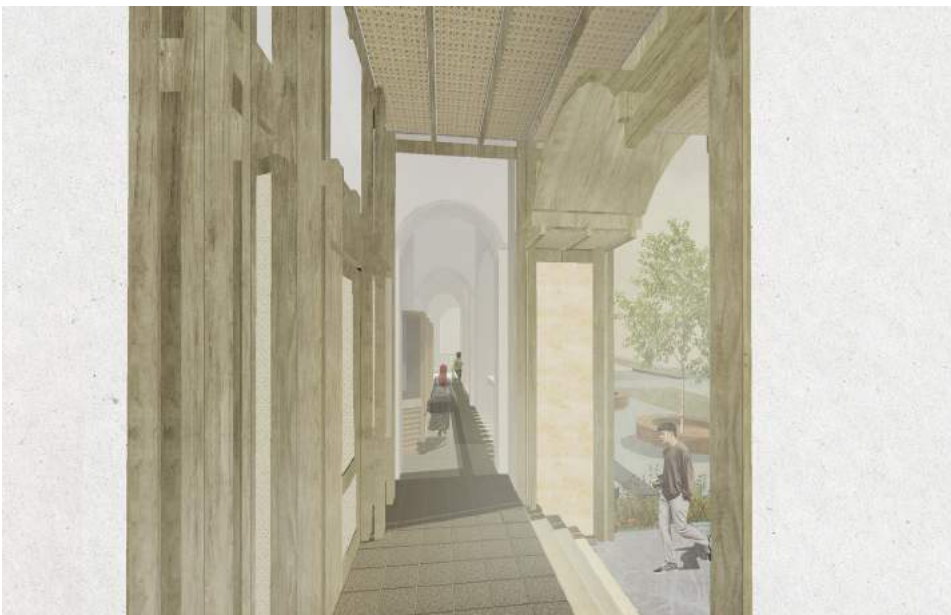
# Transformation Proposal: The Entrance



The Gate Intervention

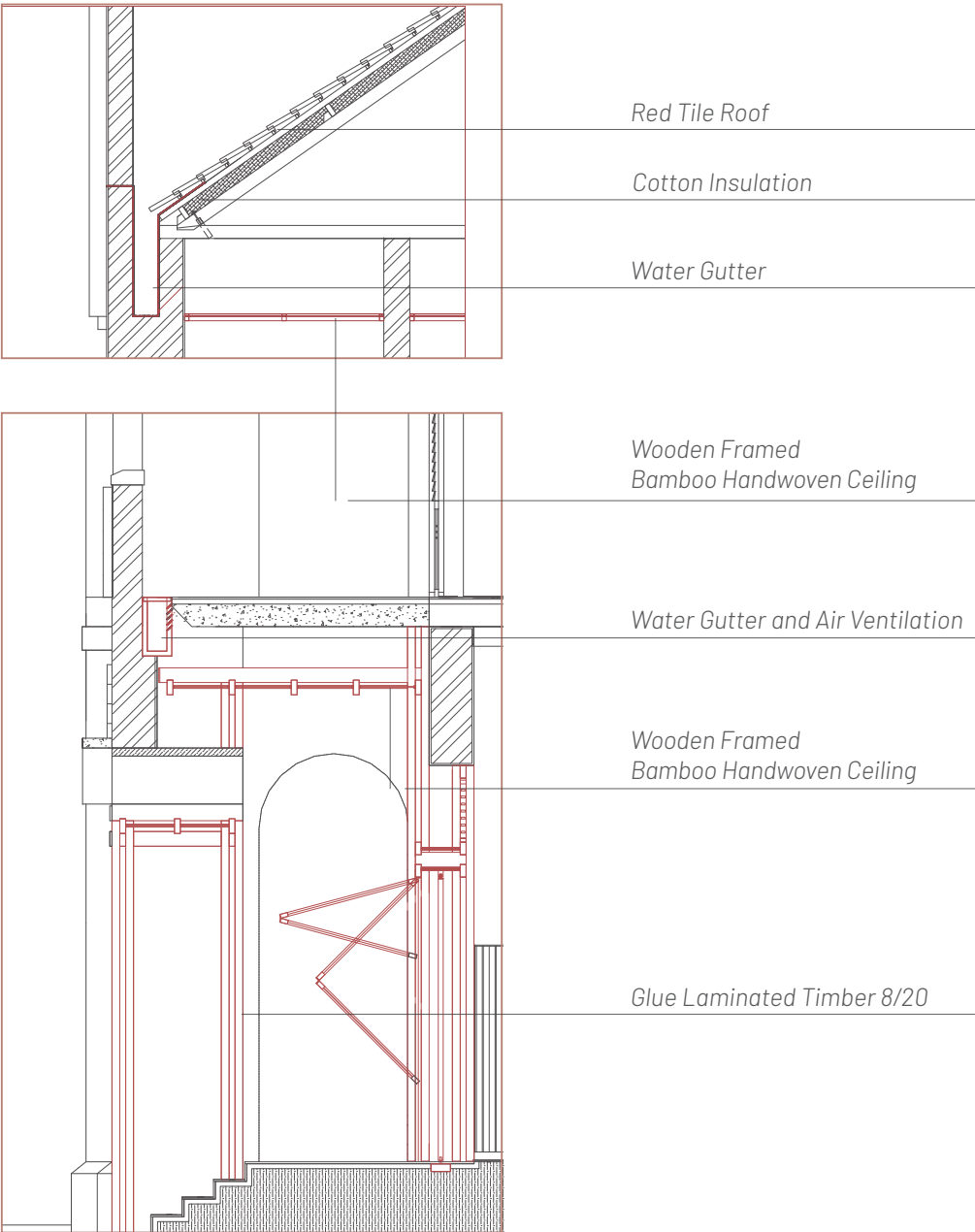


Existing



Gate Intervention

**Inserting the Gate: Promoting Inclusivity**  
The gate intervention also highlights the existing rhythm of the arches in the corridor.



Section of Gate Intervention

**Inserting the Gate: Promoting Inclusivity**  
The intervention is done respectfully by inserting the structure with vernacular principles on the entrance without damaging the original fabrics.



### Inserting the Gate: Promoting Inclusivity

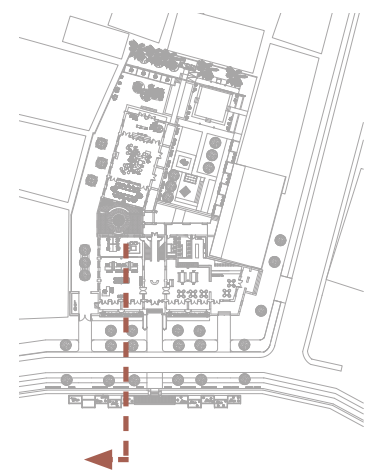
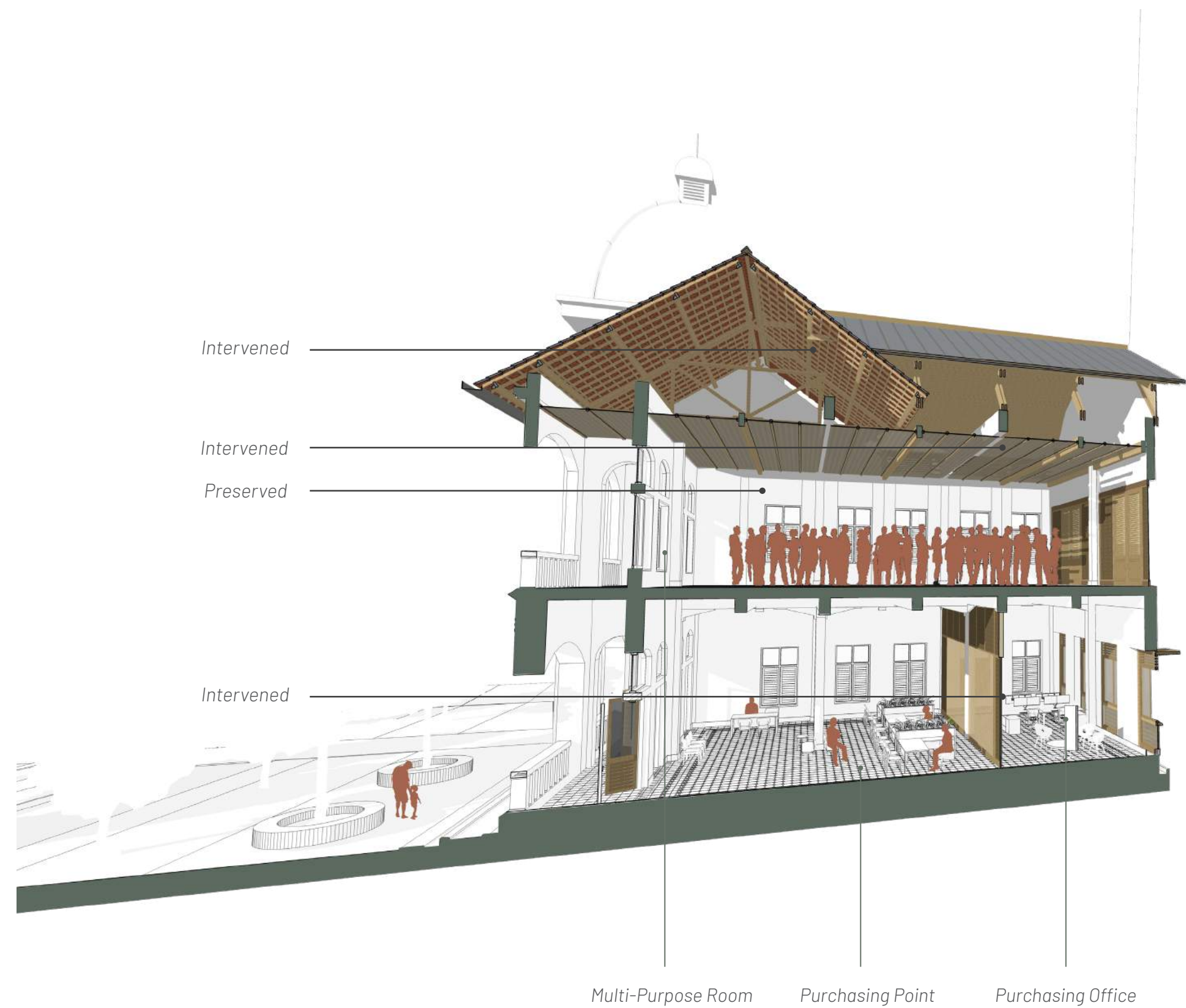
This gate intervention is also applied in the main entrance of the building's corner. It is to create a connection between public realm and the building as well as to accentuate the entrance point without ruining the building façade typology.



The Proposal as Seen from the City



Transformation Proposal: The Entrance



**Ceiling, Partition, and Roof Layer Additions**

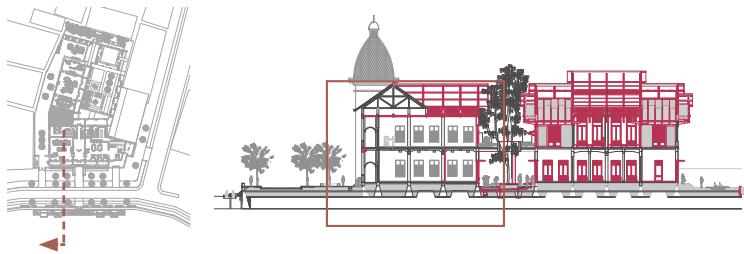
Despite the obligation that needs to be done in this part, it is urgent to improve the comfort of this building. Apart from opening up the corridor that improves airflow and light, the building also equips the roof with a new layer of ventilation and insulation to direct airflow.

Furthermore, the intervention inserts permeable ceiling which is made out of bamboo to allow air to go up. There is also a gutter intervention to catch the splashing rainwater.

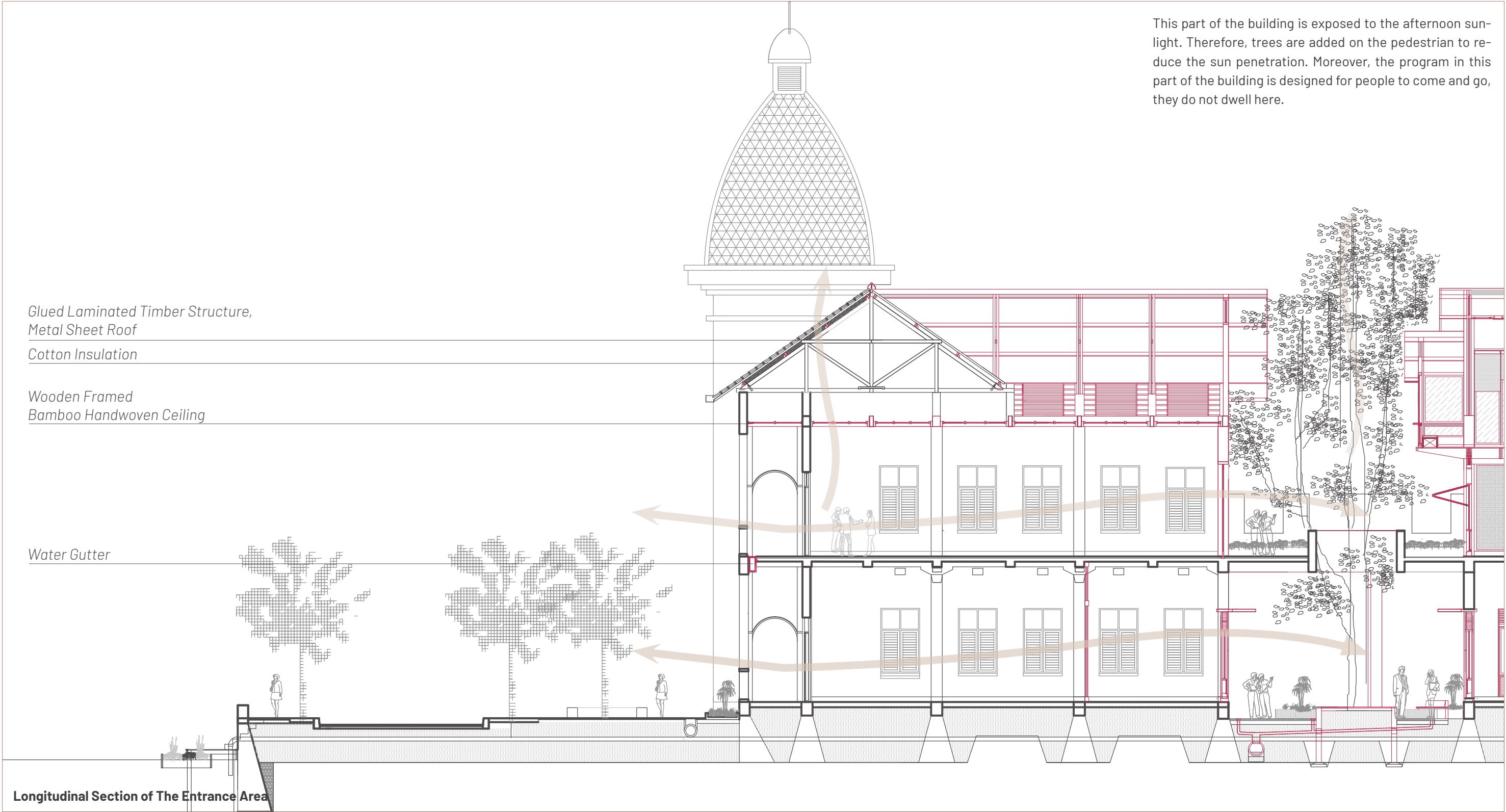
Room partition is also inserted to separate the functions. However, the partition design is made to be permeable so that the public can see through it for a safe work environment. It also allows light and air to penetrate.



Transformation Proposal: The Entrance



This part of the building is exposed to the afternoon sun-light. Therefore, trees are added on the pedestrian to reduce the sun penetration. Moreover, the program in this part of the building is designed for people to come and go, they do not dwell here.





Transformation Proposal: The Entrance



Purchasing Area Intervention



Existing



Purchasing Point Area, Ground Floor

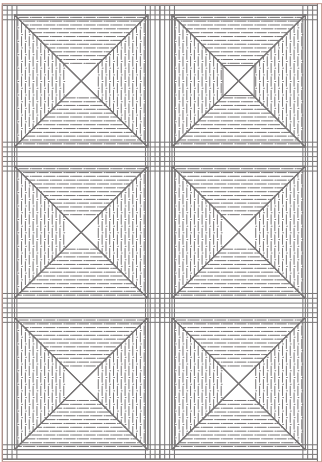
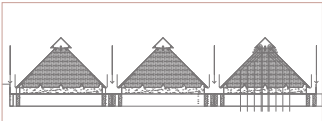
Main Staircase Intervention



Existing



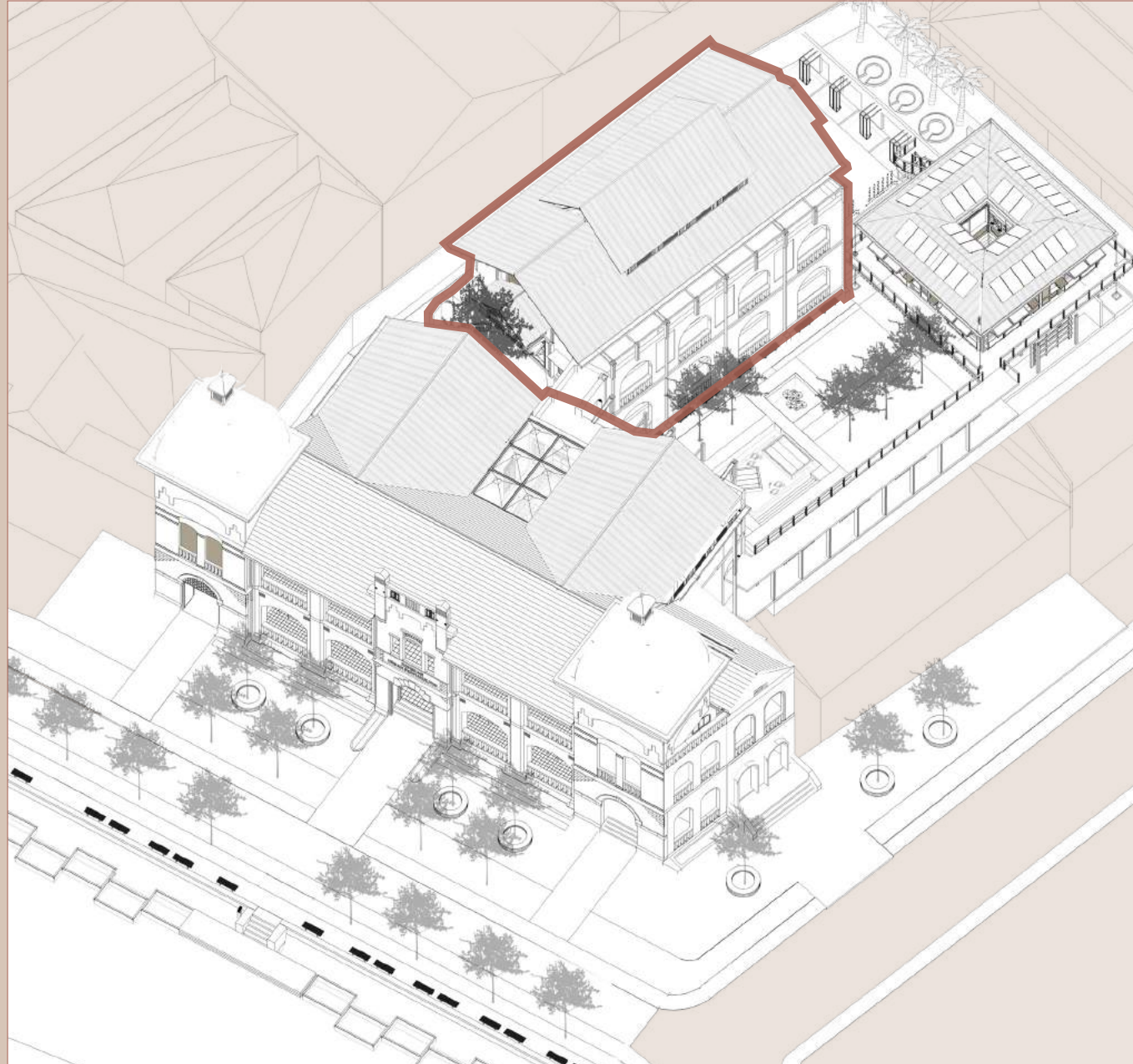
Main Stairway Area, Upper Floor



The Roof Intervention



# Transformation Proposal



## Part 2 The Office

The office part stands as co-operative staffs and members working and consultation area. It houses consultation space, meeting room, mini library, administration and management working area, archive room, accounting room, and contemplation spaces.



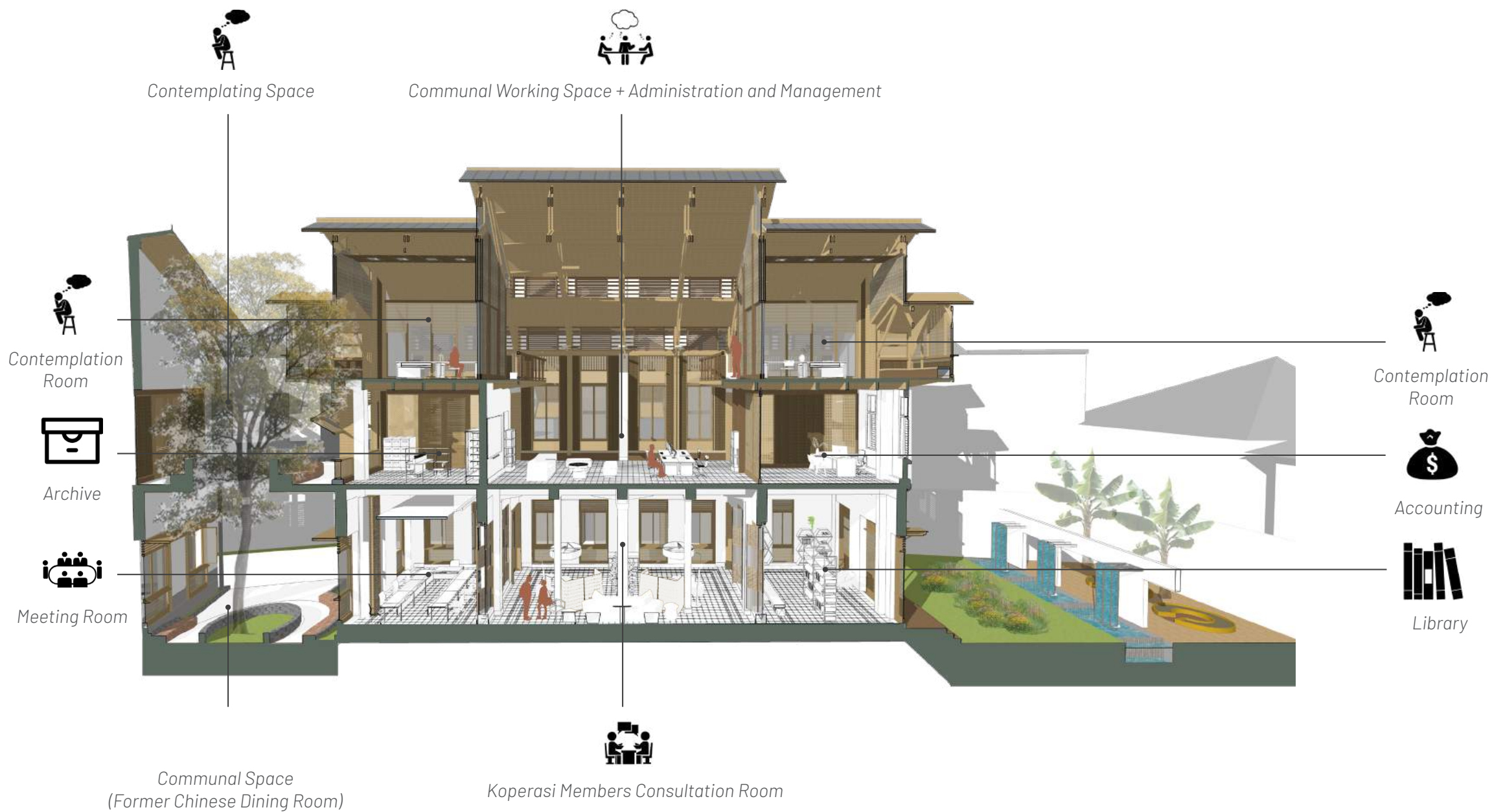
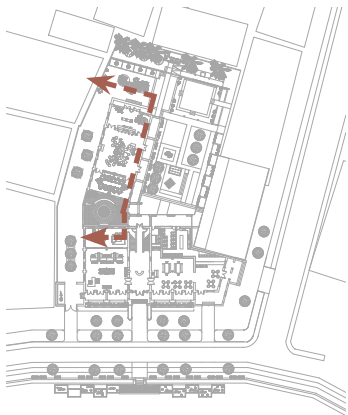
Existing



Proposal



Transformation Proposal: The Office



**Heritage Strategy**

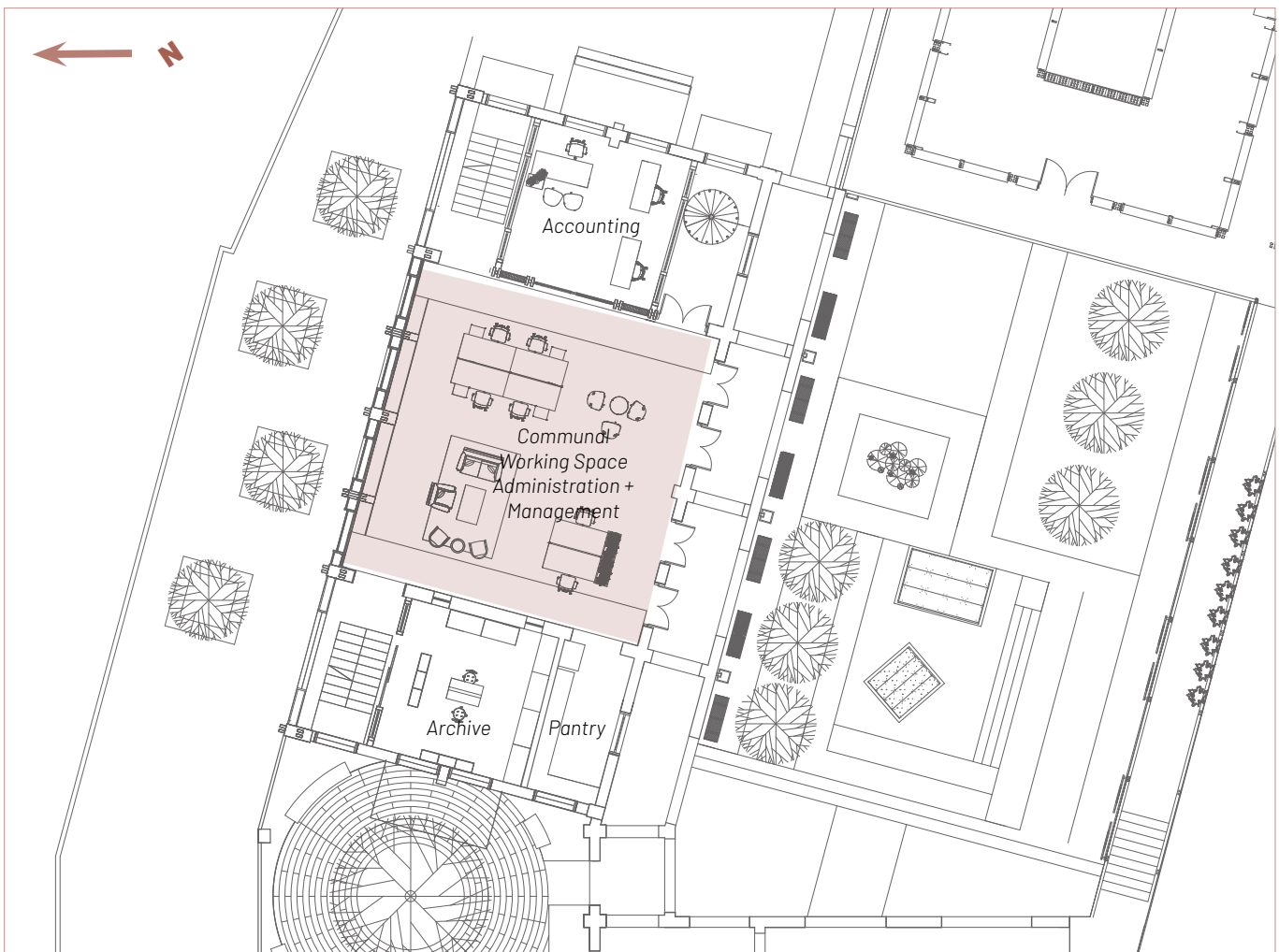
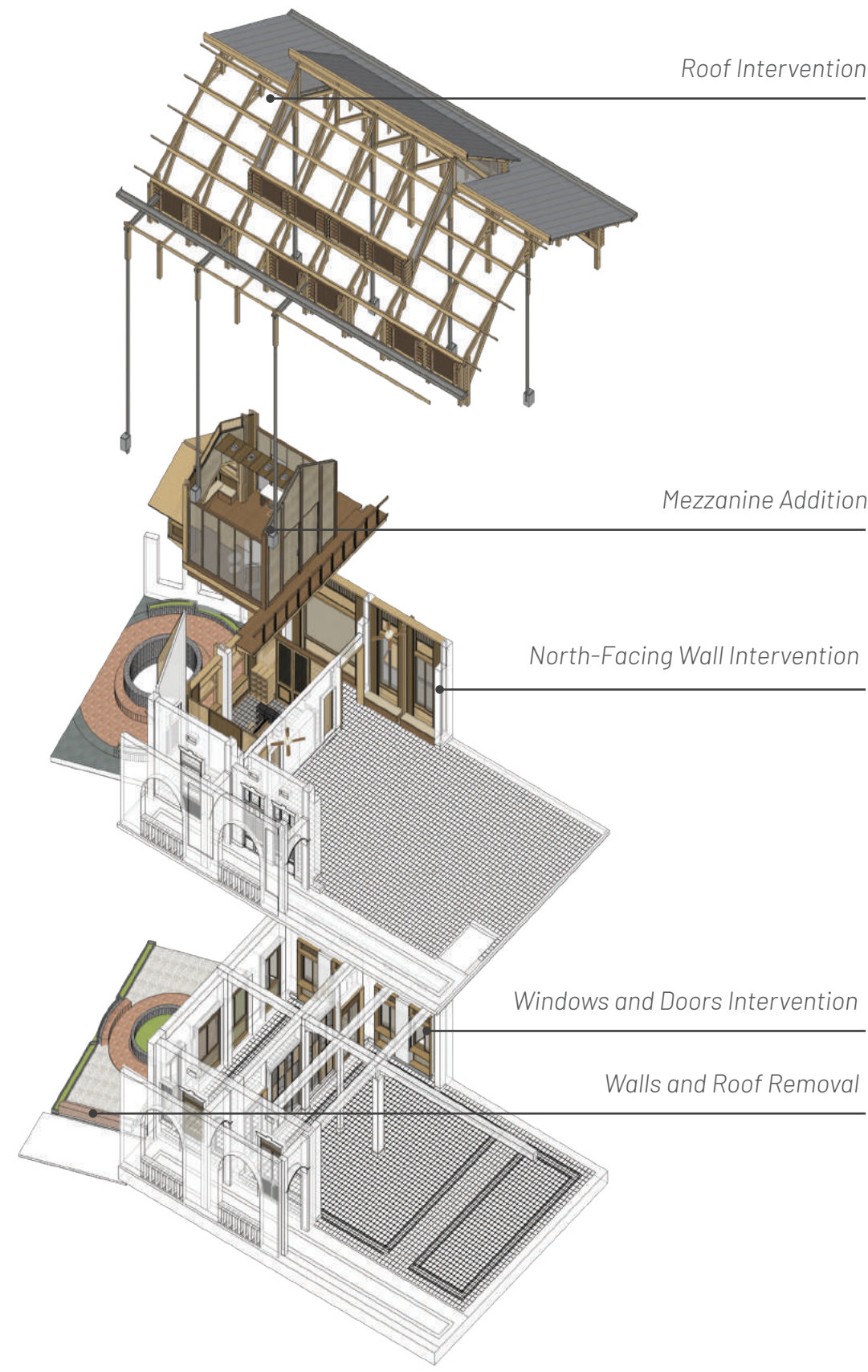
- Ground Floor
- Preservation of the structure and walls of the office.
  - Adapting the doors and windows of the office.
  - Removing walls of the former Chinese dining room.
- Upper Floor
- Preservation of the columns, interior walls, the south-facing wall and the corridors.
  - Intervention of the roof and north-facing wall.
  - Adding mezzanine.
  - Removing parts of the wall and the roof of the former Chinese dining room.

**Building Technology Strategy**

- Using natural forces to provide comfort and an ever-changing atmosphere or spatial experience.



Transformation Proposal: The Office



The Office First Floor Plan

Spatial Configuration that Embraces Communality

The intervention intertwines the local community's spatial culture and the existing heritage fabrics. It transforms the space from a segregated classroom typology into a space with central and wings typology. The center is meant for communal activities.

The ground floor is occupied by co-operative members that come for consultation with the co-operative staff, while the wings are used as meeting space. There is a mini library to support the sharing knowledge activities. The upper floor is occupied by koperasi staffs, in which the middle is used as communal working space and the sides are used as specific working spaces, such as archival and accounting as well as contemplation space.

# Transformation Proposal: The Office



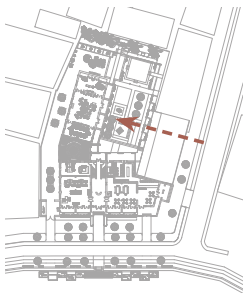
**Interlocking the Old and the New**  
The heritage approach is to interlock the old and the new. The groundfloor's structure and walls are preserved and repaired. On the upper floor, the structure, the south-facing walls and the corridors are preserved.

However, the roof and the north-facing walls are replaced with a new lighter structure due to its fragile upper floor.

The replacement is meant to improve the configuration, atmosphere, air, and light qualities of the space but also to protect the preserved existing fabrics on the ground floor.



Transformation Proposal: The Office



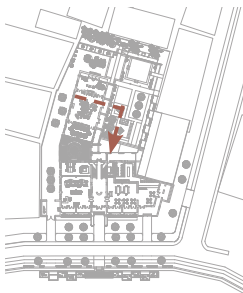
Preservation with Repairs



Existing



The Preserved South-Facing Facade



Preservation with Repairs



Existing



Co-Operative Members Consultation Space



Transformation Proposal: The Office



Existing

Interlocking the Old and the New

The intervention adds a layer of locality into the cold and austere existing space. The layout of the room is meant to have the main orientation to the inside for discussions and interactions. The roof is made higher to emphasize the hierarchy of the center and to lower the intimacy of the space, providing for larger groups interactions. The higher roof is also meant to put the light inside the existing space that has a long depth and length.



Co-Operative Staff Communal Working Area



# Transformation Proposal: The Office



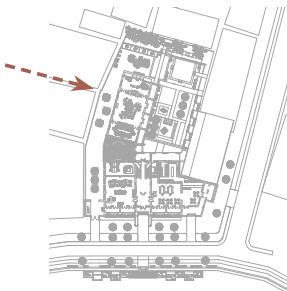
Co-Operative Members Consultation Space



**Interlocking the Old and the New**  
The change of light contributes in shaping the spaces and influencing the atmosphere of the space by offering different spatial experiences throughout the day. It is to utilize nature as experience, especially when you have to dwell all day working. The wooden and bamboo's color and tectonics show a playful and warm attitude to the existing cold and bulky space.



# Transformation Proposal: The Office



Existing

## Interlocking the Old and the New

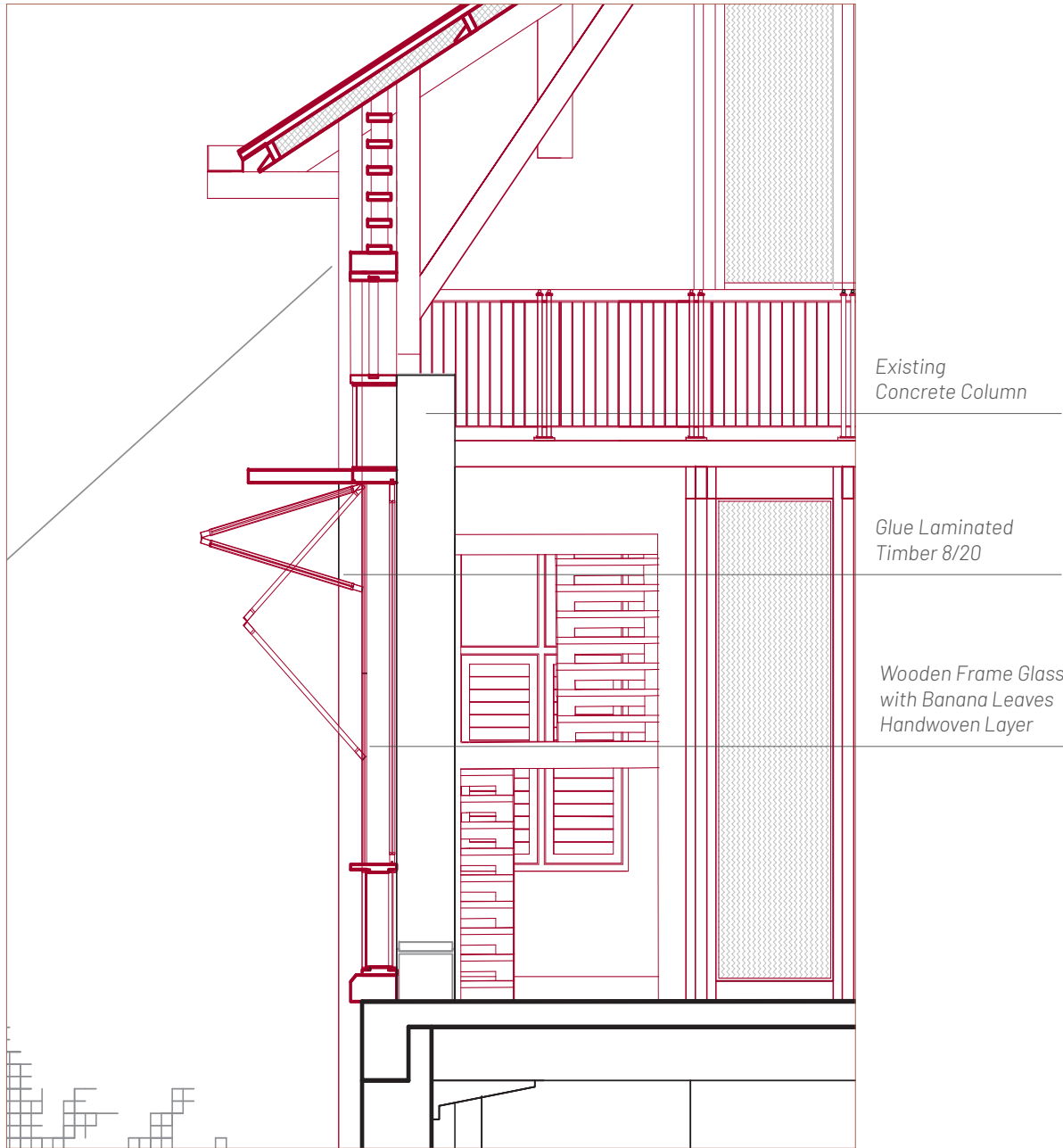
The façade is replaced with glue laminated wood structure. It is equipped with woven surface made of bamboo and banana leaves handwoven layers that allow control of visual and air. Despite the changes, the rhythm of the original façade is preserved to create a continuous experience of the whole site.



Interventions of the North-Facing Facade



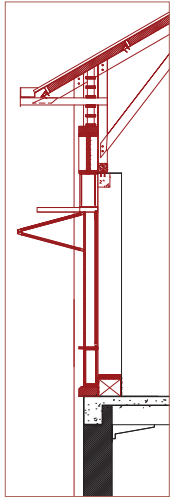
Transformation Proposal: The Office



The Office Facade and Roof Interventions Section Detail



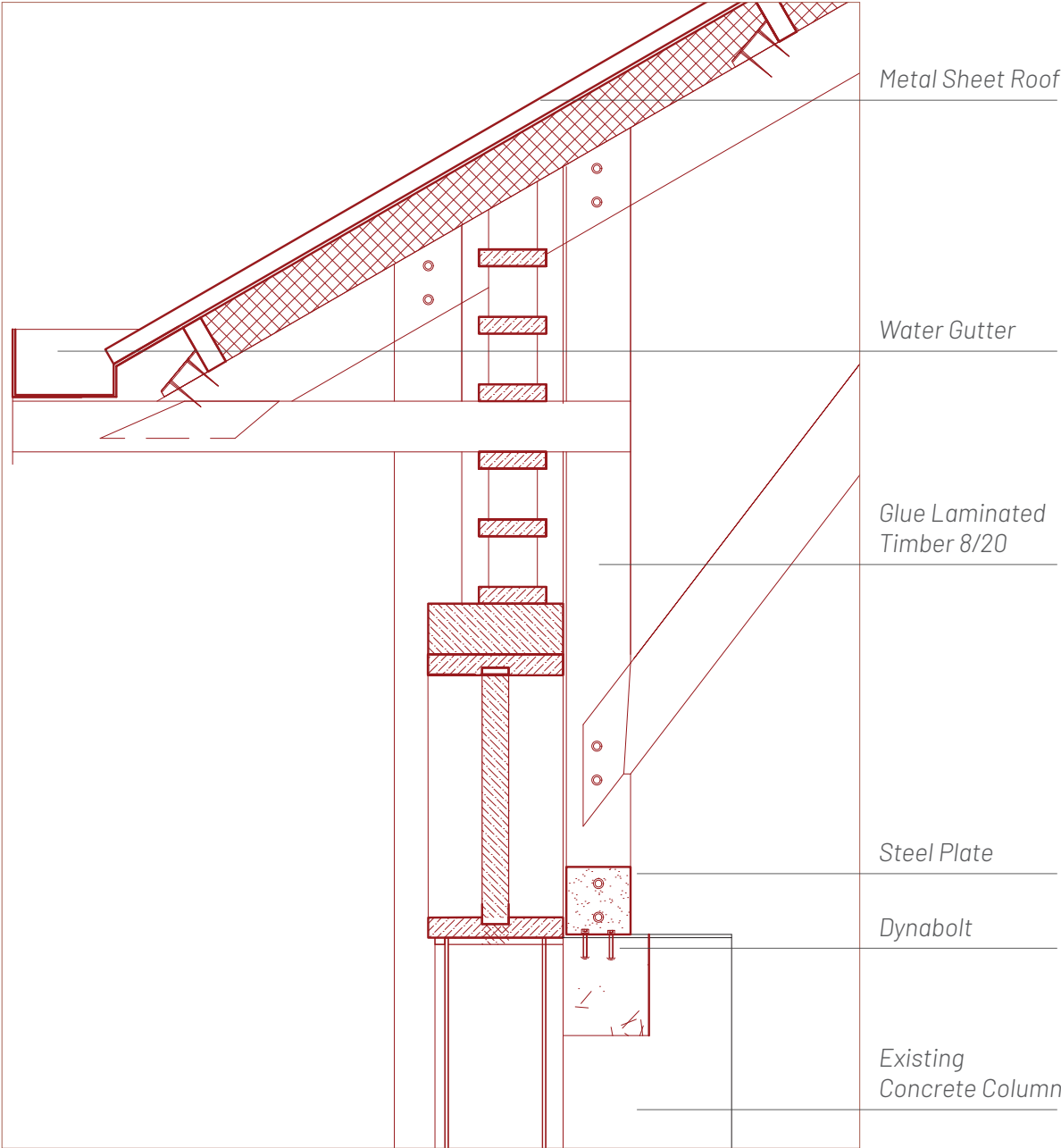
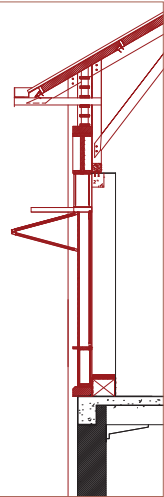
The Office Facade and Roof Interventions Elevation



Wooden Framed  
Bamboo Pattern  
Facade. Water  
Based Polyurethane  
Finishing



# Transformation Proposal: The Office

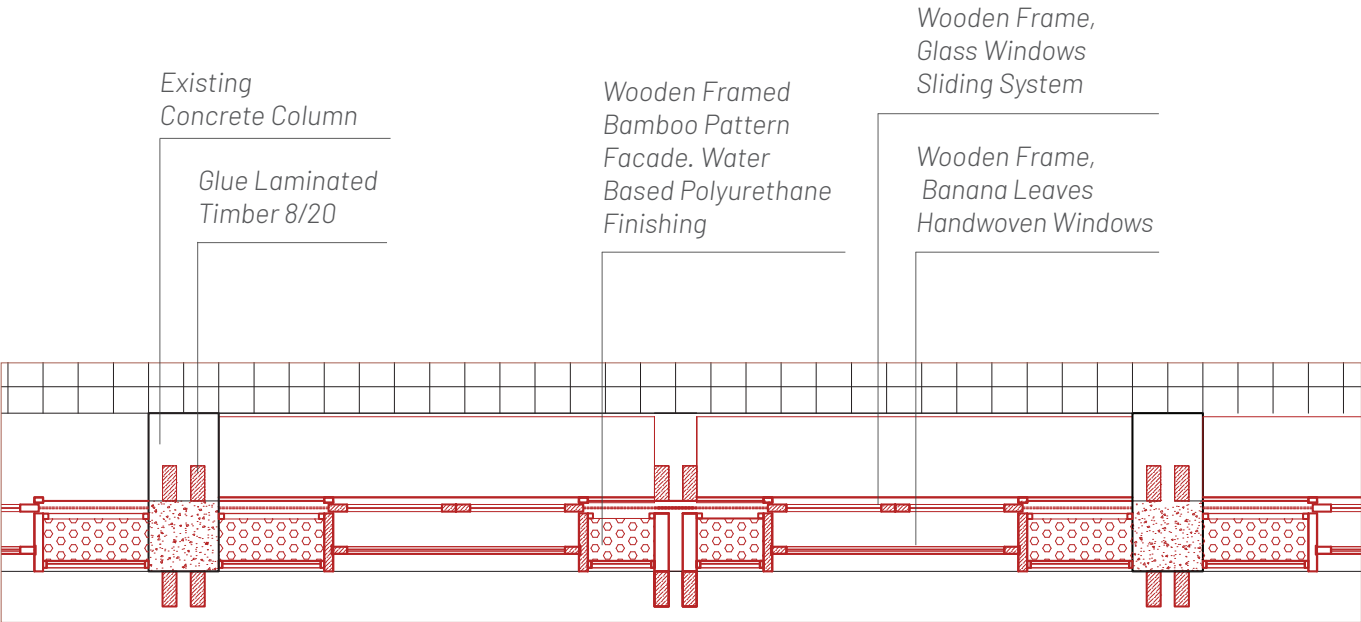


The Office Facade and Roof Interventions Section Detail

**Interlocking the Old and the New**  
This connection shows the co-existence of old and new. It intertwines local material that is more suitable to the tropical climate. It shows the sacrifice that has to be made to improve the structural and spatial qualities of the space.

Its permeable quality helps the building to release moisture, which is a significant problem in the current situation. Two-layer windows allow the users to control the room's visual connection to the outside and to the rain without compromising the light and air qualities.

The outer windows is made of wooden frame and banana leaves handwoven windows to allow light and air to penetrate in while maintaining the privacy of the room and lowering the light intensity. Meanwhile, the windows on the inside is made of glass windows with a sliding system, allowing visual connection while protecting the room from rain. When the two is combined, the room is protected from rain and excessive light.



The Office Facade and Roof Intervention Plan



Transformation Proposal: The Office



The Office Facade and Roof Interventions 1:10 Fragment Model



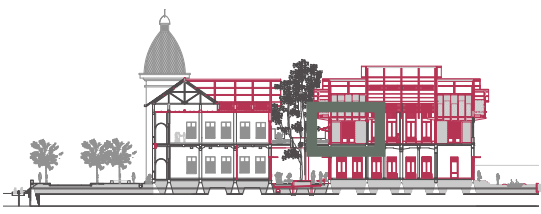
The Office Facade and Roof Interventions 1:10 Fragment Model



Natural Fibers Samples Provided by ROA, Indonesia



# Transformation Proposal: The Office



Archive Room

## Interlocking the Old and the New

On the wings, mezzanines are added. The lower height is meant to improve the intimacy of the room while providing more spaces for the program. The mezzanine is inspired by the openings on the existing fabrics.

Unlike the communal space, the wings have their main orientation to the outside for contemplation. The room is enclosed with welat fabrics (natural fibers) to offer privacy but still allows visual connection for safety. Cotton insulation is added to prevent the sound of the communal space from coming in.



The Mezzanine Section



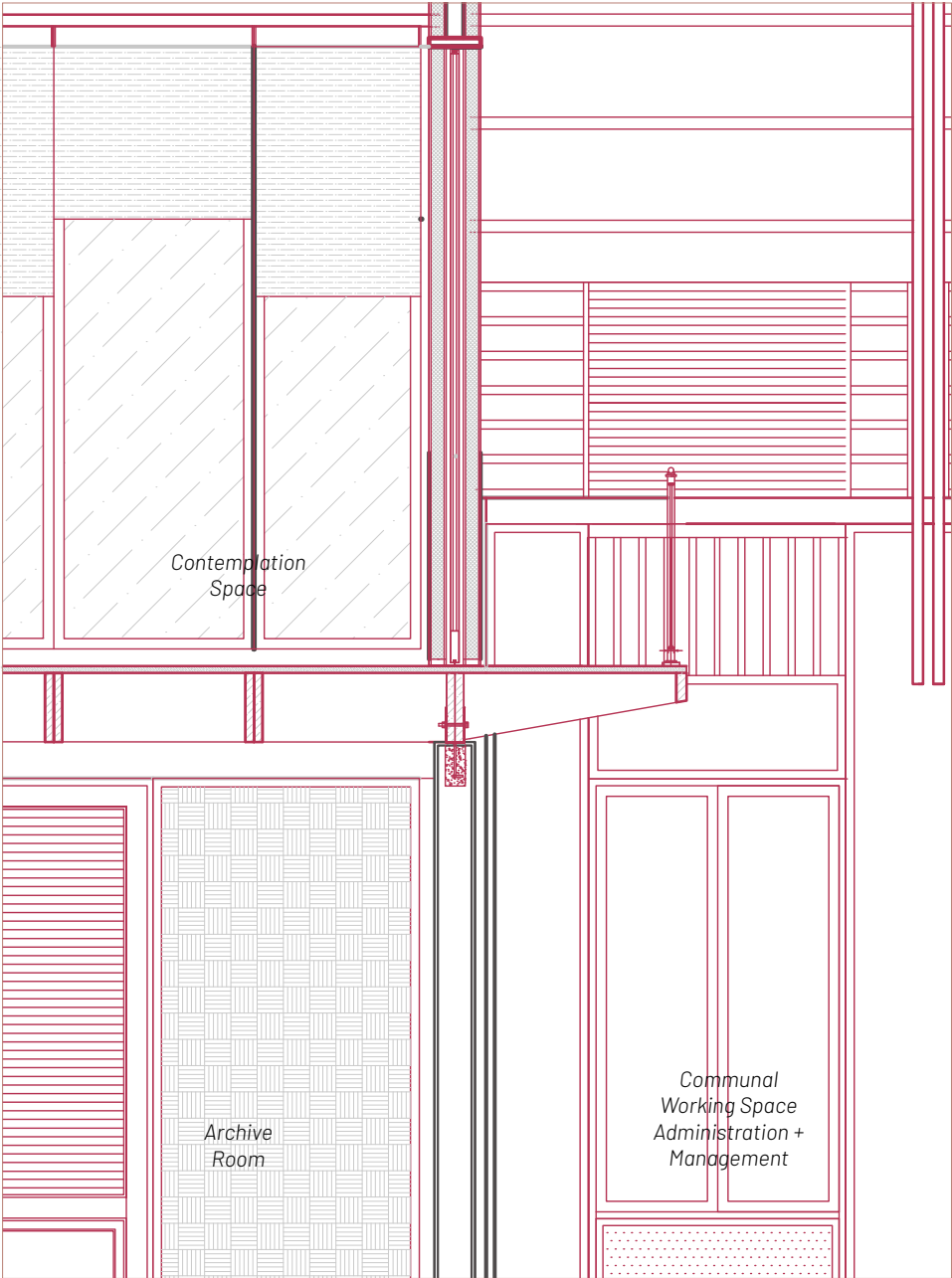
Transformation Proposal: The Office



Contemplation Space



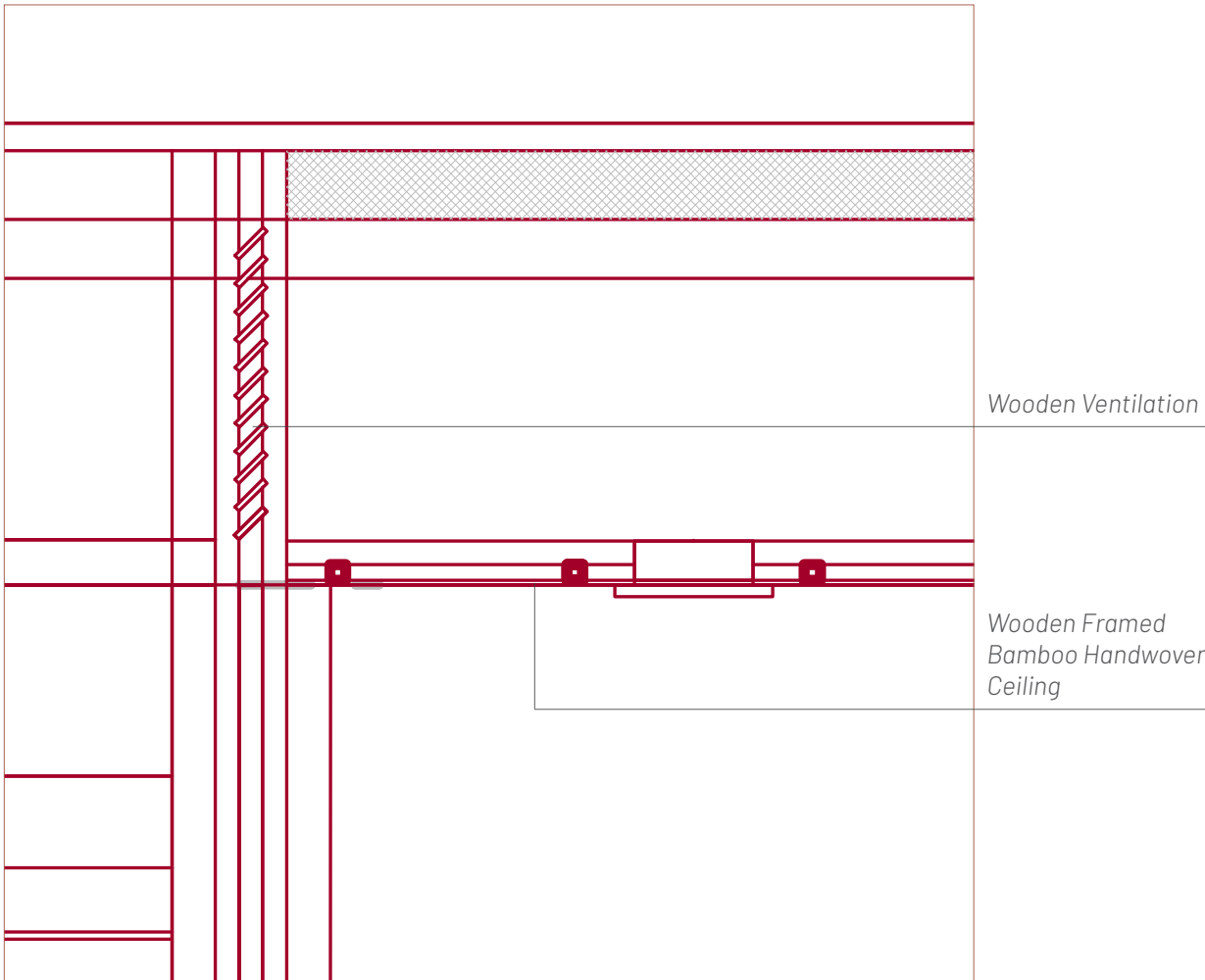
Archive Room



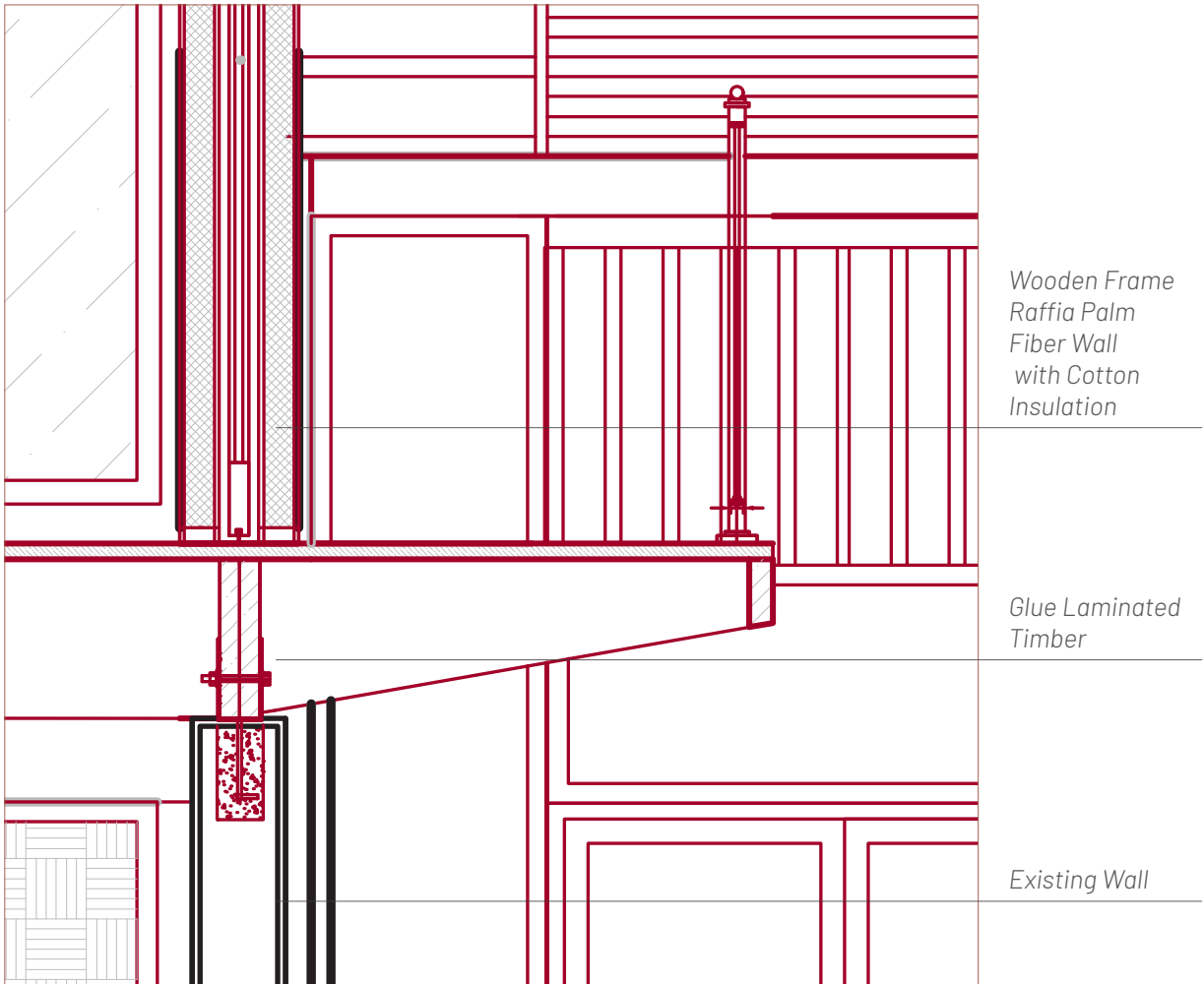
The Mezzanine Section



Transformation Proposal: The Office



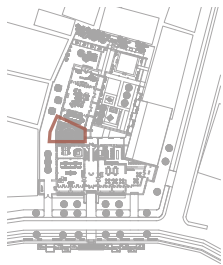
The Mezzanine Detailed Section



The Mezzanine Detailed Section



# Transformation Proposal: The Office



Outdoor Social and Contemplation Space

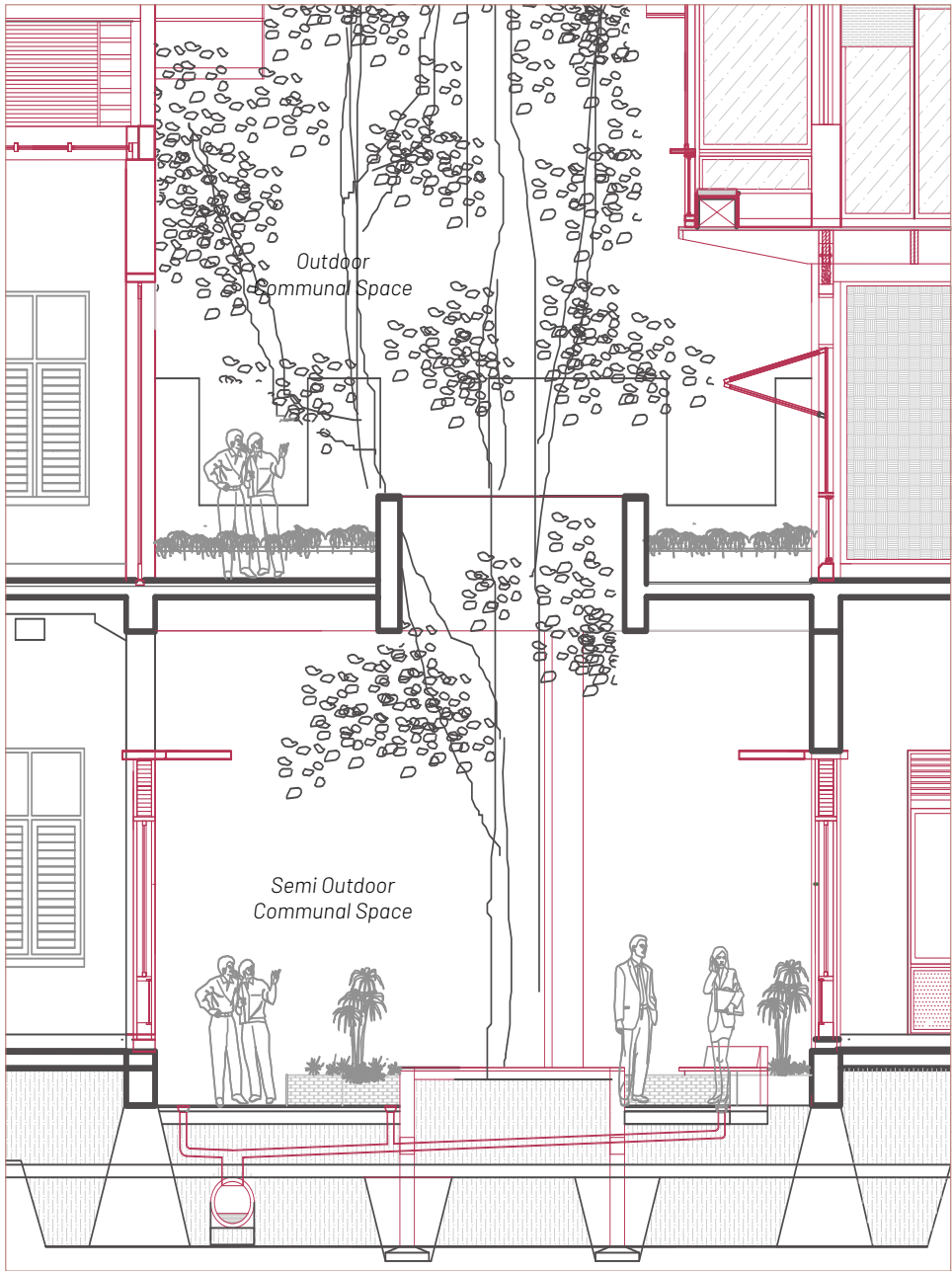


Semi Outdoor Social and Contemplation Space



## Interlocking the Old and the New

The room that was narrow, dark, and used as Chinese dining room is being opened to create a semi outdoor space. The intention is to keep the memory of separation, but for the benefit of the architecture and the community. It functions as a communal space, reversing the role of separation.

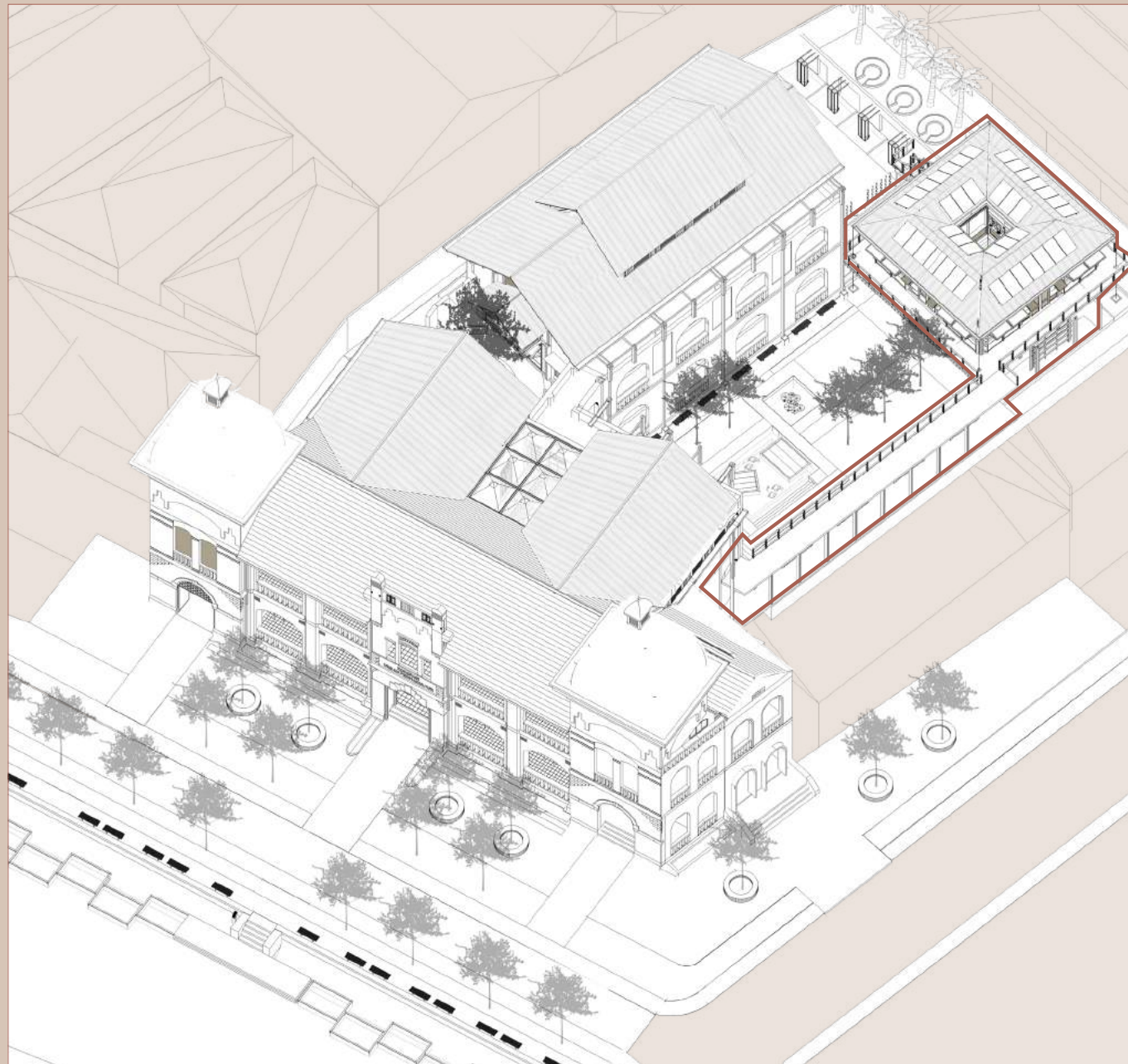


The Semi Outdoor Space Section

The roof and walls removal allows the building to breathe. The overlapping structure is taken away and now each mass has its own roof to prevent the roof from falling down again. The intervention is inspired by the spirit of place of the site that embraces an inside-outside relationship.



# Transformation Proposal



## Part 3 The Elevated Production Pod



Existing



The co-operative or *koperasi* concept is not only meant to be limited to reconnect the past and present. It is to push towards the future. In this project, an elevated pod is introduced as an educational space that embraces both social interaction and permaculture production. It is an improved tradition based on the existing qualities of the heritage and the local community.



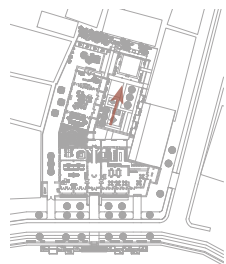
# Transformation Proposal: The Elevated Socio-Production Pod



- Heritage Strategy**
- Preservation without repairs of the former garage wall that marks the use of vehicles in the 1900s, removal of the remaining traces of the damaged walls.
  - Additional pod that dominates the existing wall while confining it.
- Building Technology Strategy**
- Natural forces are embraced. It used light, air, and rain as spatial elements.
  - Natural forces are treated as resources of energy.



# Transformation Proposal: The Elevated Socio-Production Pod



The Elevated Socio - Production in Relation to the Courtyard and Neighboring Buildings

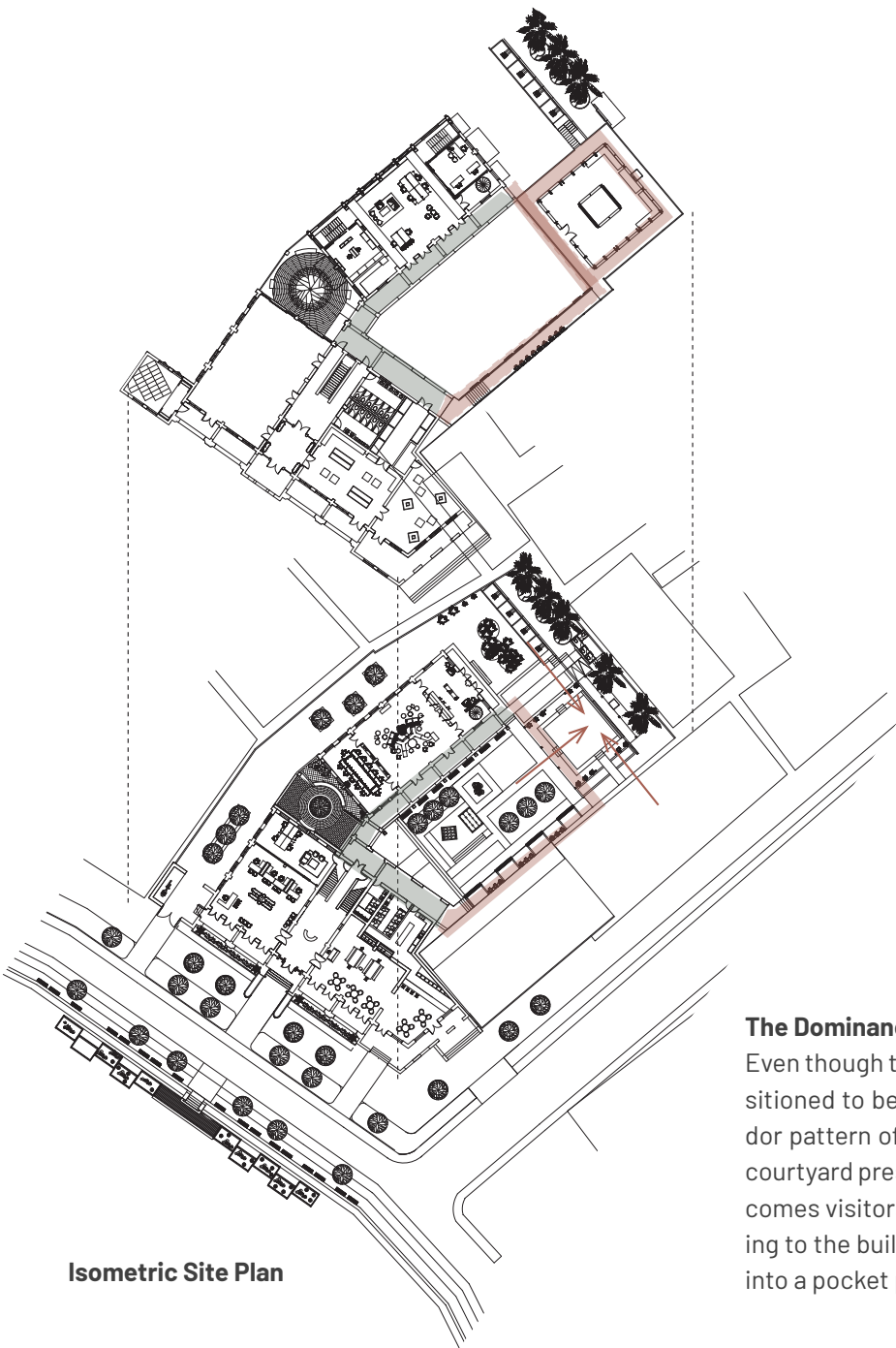


Existing

## The Dominance of the New

The elevated production pod is designed to introduce production back to the city. The extension questions and evaluates the high valued and the low valued traits of the existing heritage and the local community's culture and tradition.

The design is inspired by the economic practice of Semarang people that upholds social interaction. It is also designed to enhance and improves the quality of the existing courtyard that functions as an urban permaculture site. The pod is also meant to be a viewing space of the urban permaculture on the courtyard as well as a viewing pod of the heritage built.

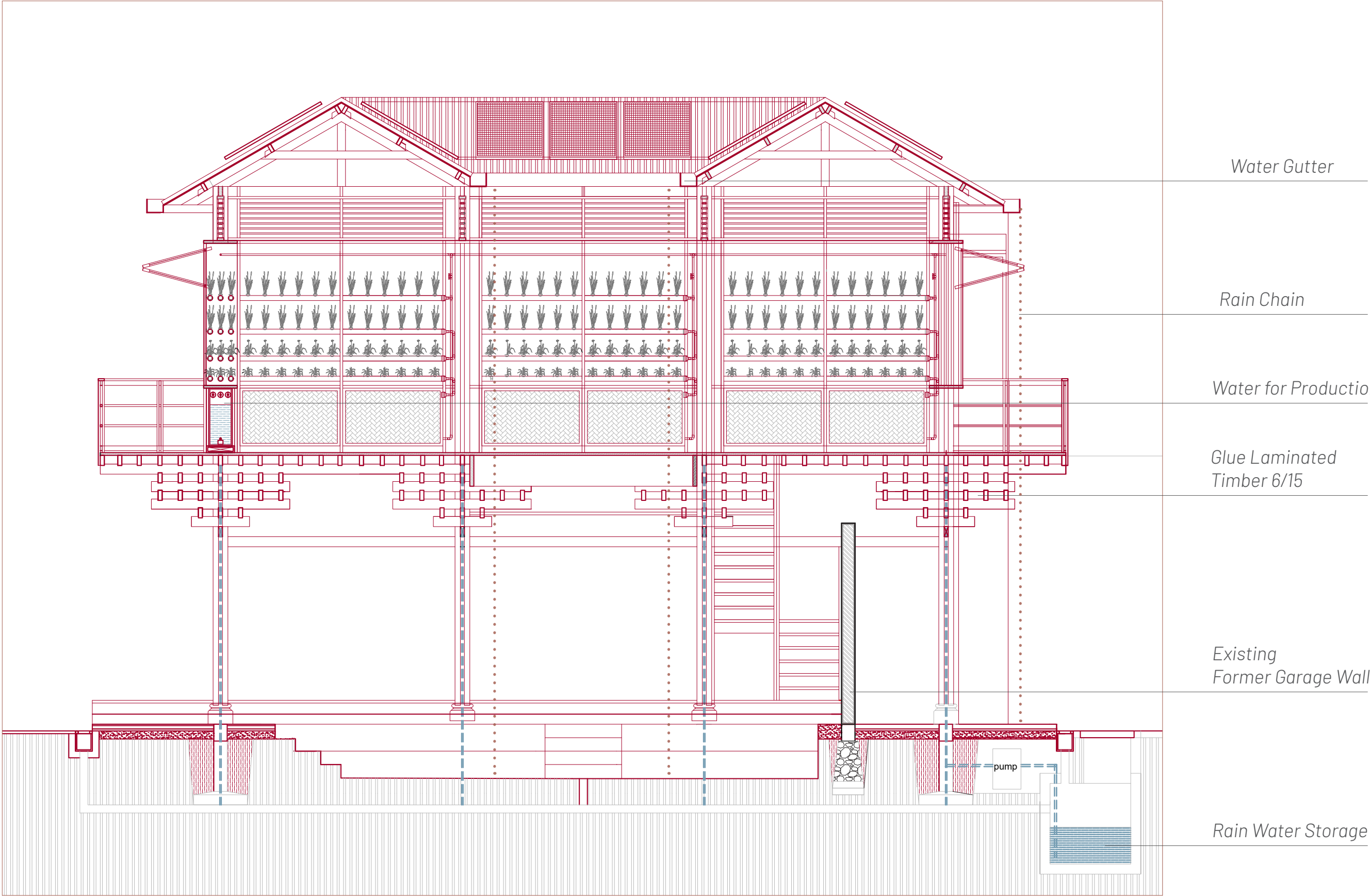


Isometric Site Plan

## The Dominance of the New

Even though the new extension is replicable, the pod is positioned to be specific to the site. It completes the corridor pattern of the existing building and strengthening the courtyard presence. The openness of the ground floor welcomes visitors from every direction. It connects the building to the buildings around them and turned the courtyard into a pocket park for Kota Lama.

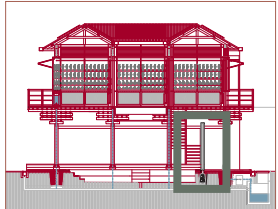
Transformation Proposal: The Elevated Socio-Production Pod



The Elevated Socio-Production Pod Section



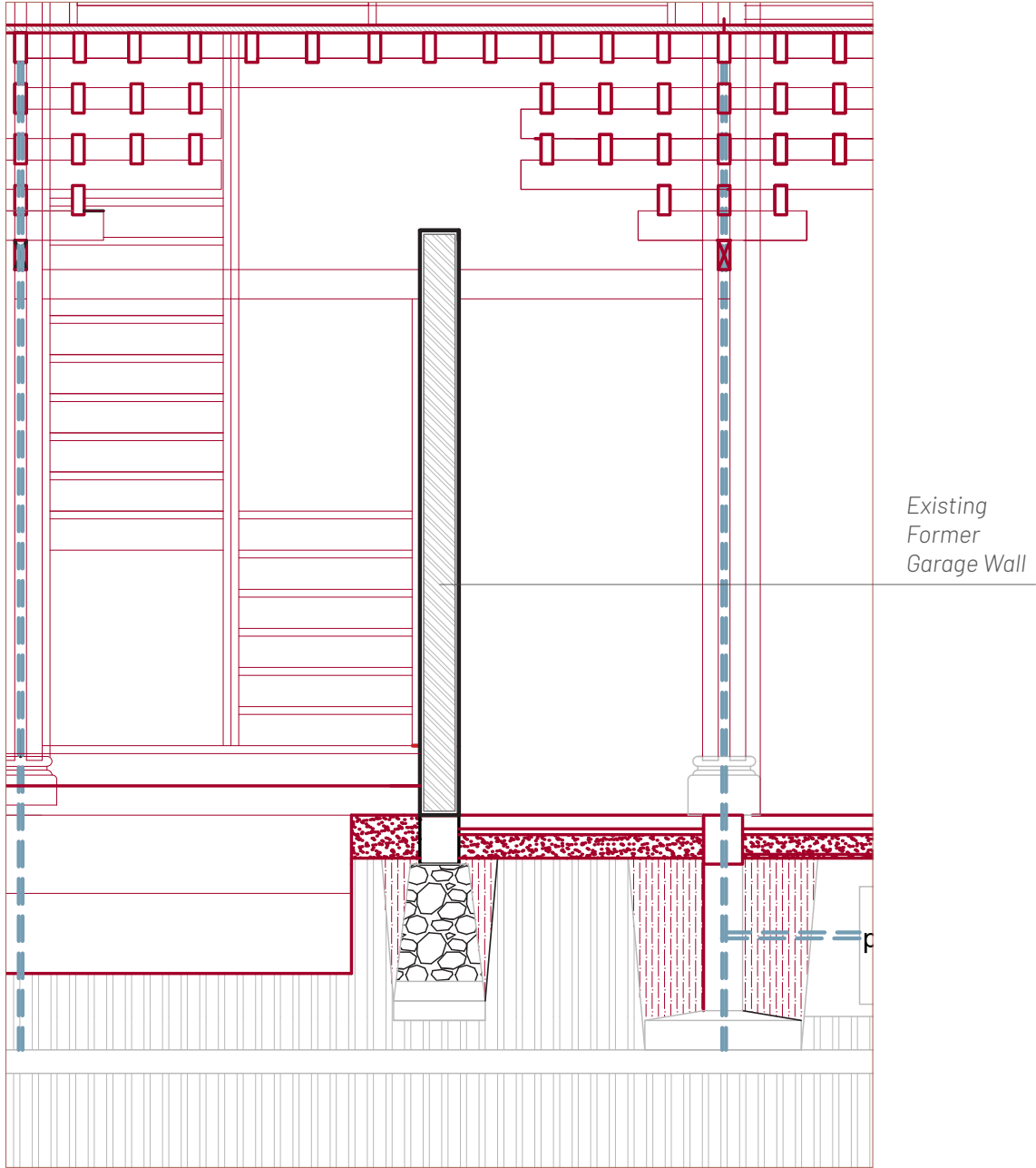
Transformation Proposal: The Elevated Socio-Production Pod



The Elevated Socio - Production in Relation as seen from the Existing Building Corridor



**The Dominance of the New**  
The pod is placed in the back where the former garage wall stands. The wall symbolizes the use of vehicles back in the 1900s. It is being preserved without any repair. The intervention dominates the existing wall without touching it as a respectful gesture to the past.



The Relationship between the Extension Proposal and the Existing Wall



Transformation Proposal: The Elevated Socio-Production Pod



Existing



Ground Floor - The Elevated Socio - Production on Sunny Day



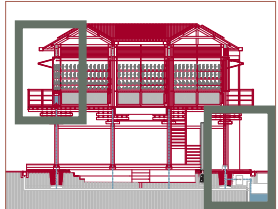
Ground Floor - The Elevated Socio - Production in Relation to Rain

**The Dominance of the New**  
The design questions the relationship of architecture to natural forces in the future. It is an experiment to see how natural forces could be embraced. It embodies the spirit of moving forward. The building is designed to be open in the middle so that it could grab water and store it to the rainwater collector. The water can be filtered and be used again for production.

When it rains, the ground floor could accommodate social activities, lectures, and discussions with the former garage wall as a background.



# Transformation Proposal: The Elevated Socio-Production Pod

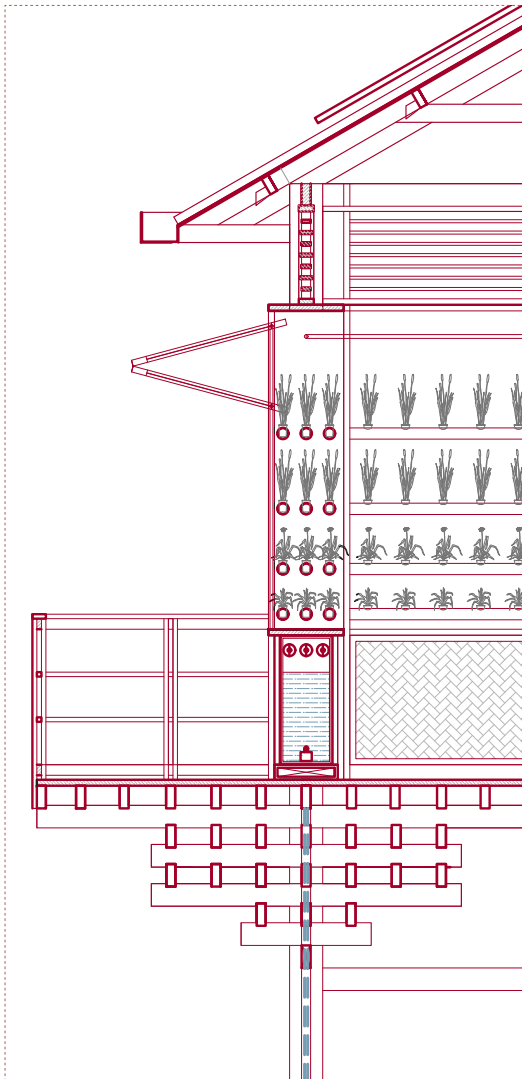


Upper Floor - The Elevated Socio - Production, Production Area

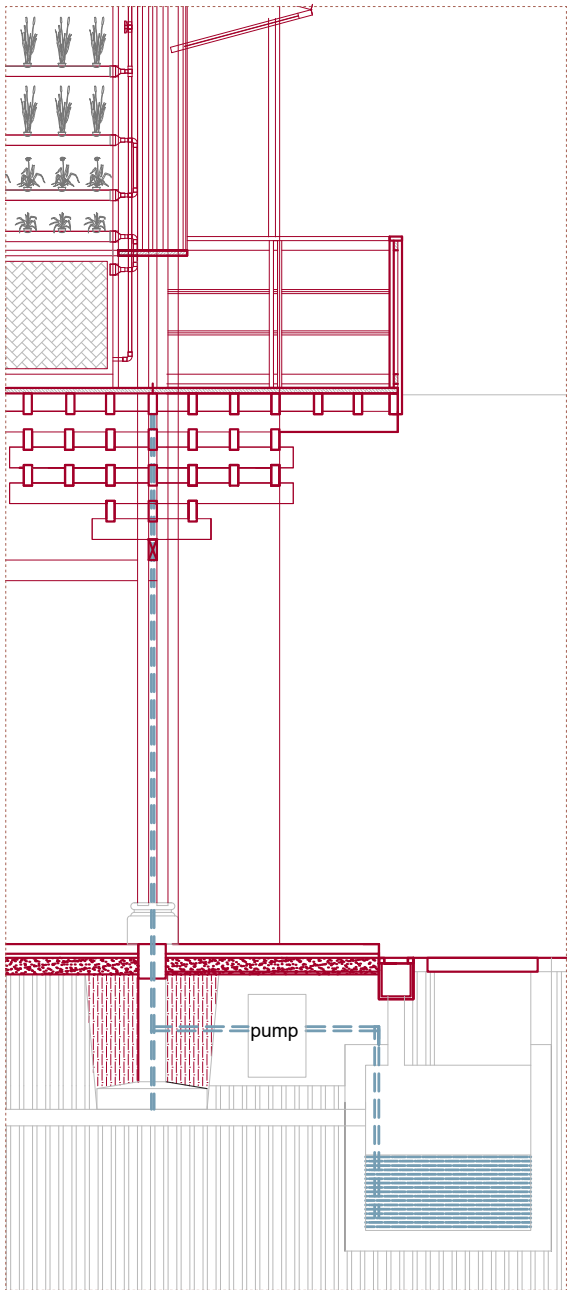


Upper Floor - The Elevated Socio - Production, Packaging Area

**The Dominance of the New**  
The upper floor is designed to be production and packaging area. The production takes place on the façade allowing people to interact to one another while doing the production activities. Meanwhile, the packaging area is positioned in the back of the building that is close to the trolley elevator.

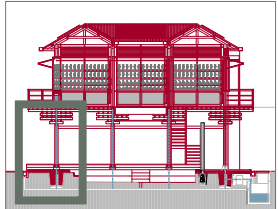


The Building System for Production



The Building System for Production

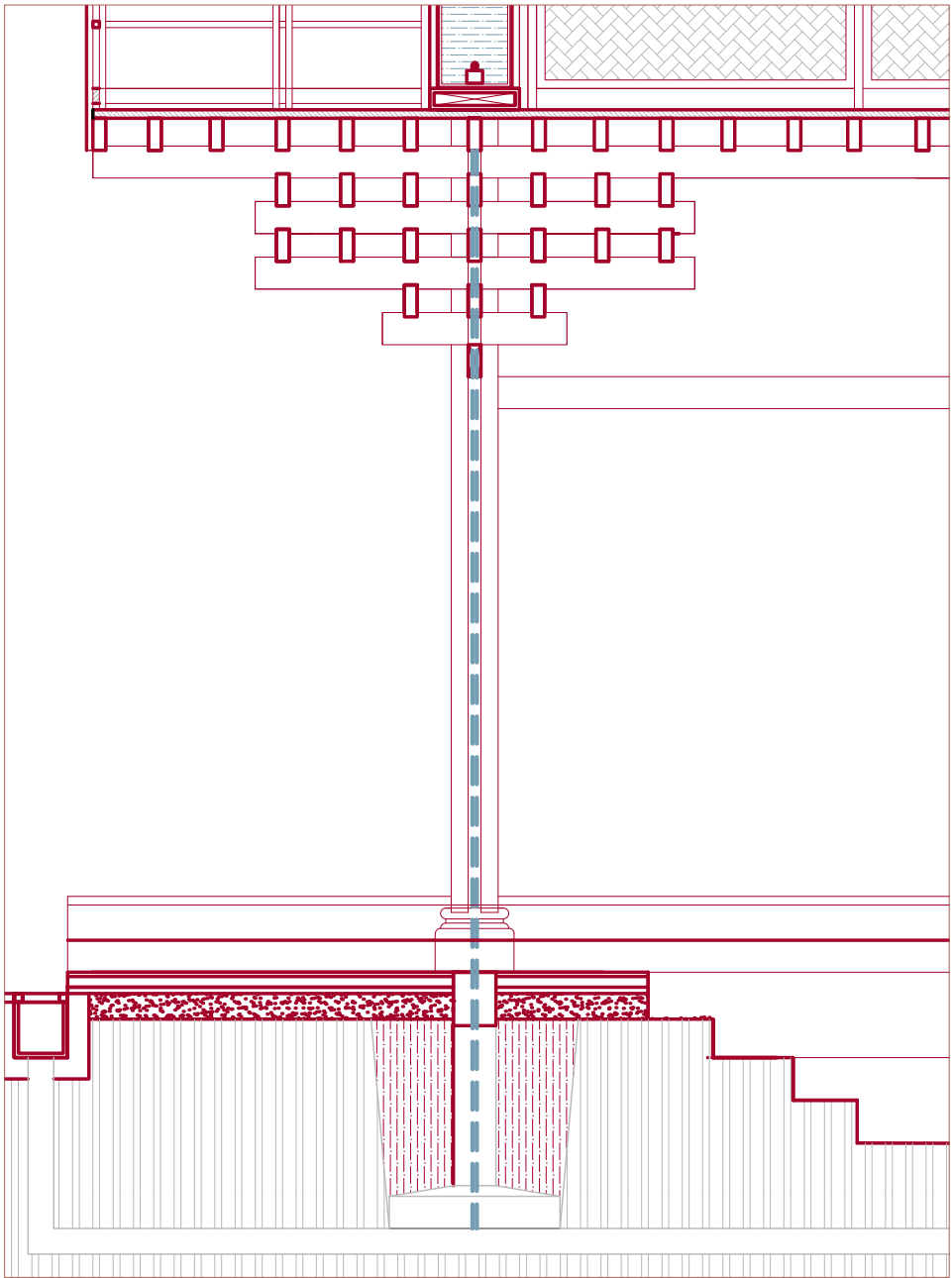
Transformation Proposal: The Elevated Socio-Production Pod



The Structural System

The Dominance of the New

The design approach is in contrast to the existing fabrics. It applies Joglo vernacular architecture structure with column characters instead of walls. The building has replicability quality because of its low-tech structure. It is meant to be an example so that it can be built in *kampung* around Kota Lama. The structure is demountable which allows flexibility for future purposes.



The Structural System Section

The Dominance of the New

The application of Joglo structure is meant to involve the community since the construction period of the intervention. It is also an attempt to pass on the local building culture to the future generation.



# Transformation Proposal: The Permaculture System



The Building as Seen from the North Tower Access Route, Showing Walter Filtration and Rain Garden

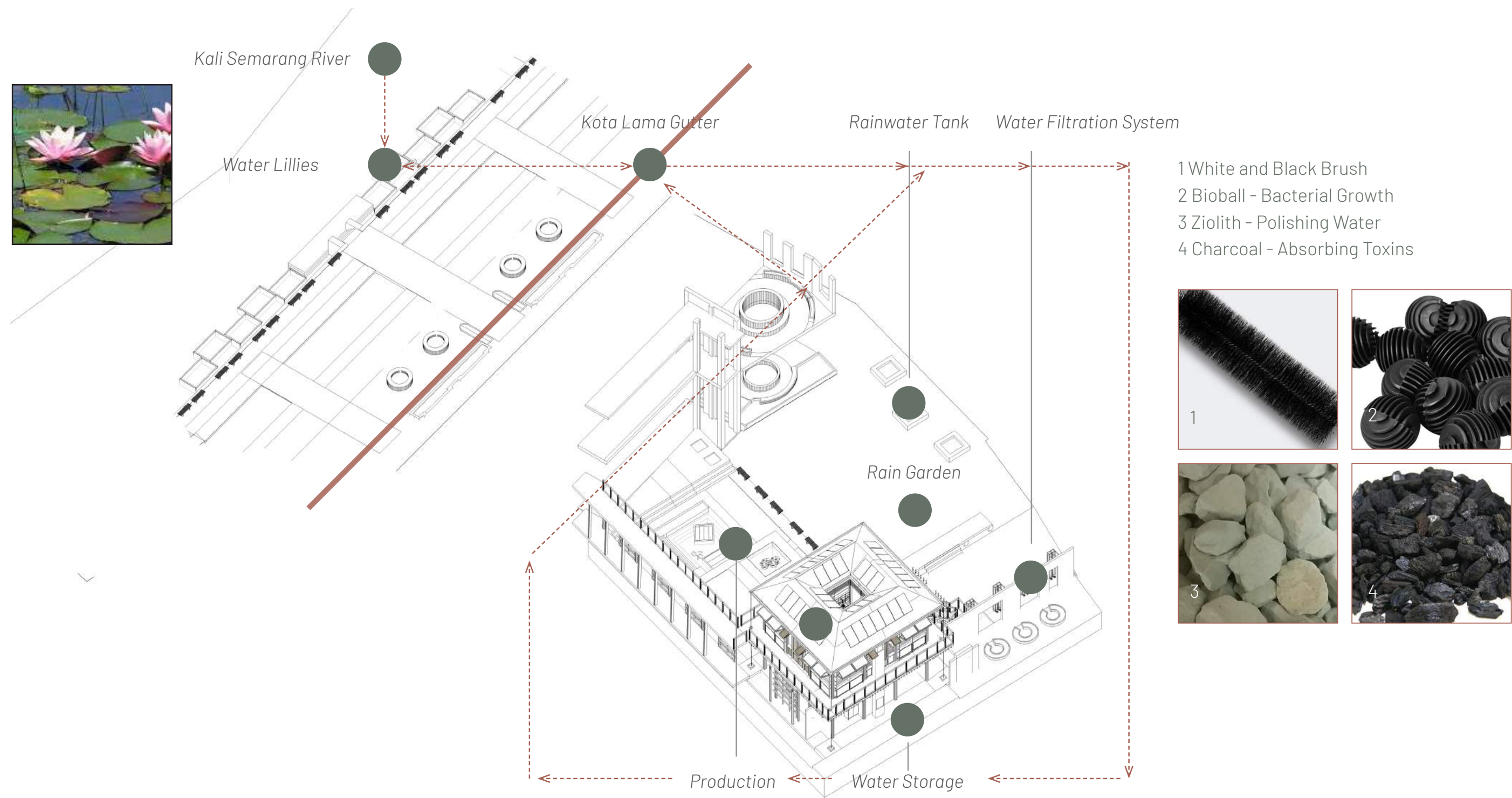
Intakes and outtakes are crucial in urban permaculture. Since Semarang is facing land subsidence and polluted river, the architecture does not apply groundwater extraction. Instead, the water sources are the river and rain which are connected to the city gutter. The water is filtered on the back of the building and then distributed for production and other utilities.

The filtrated water is stored in the back of the site. Once it exceeds the needs of the site, it would overflow and be given back to the river. There is also urban permaculture along the riversides.

Keyhole garden and biopore are applied to grow vegetables with organic waste. Banana trees are planted on the site because the leaves are used as packaging material.



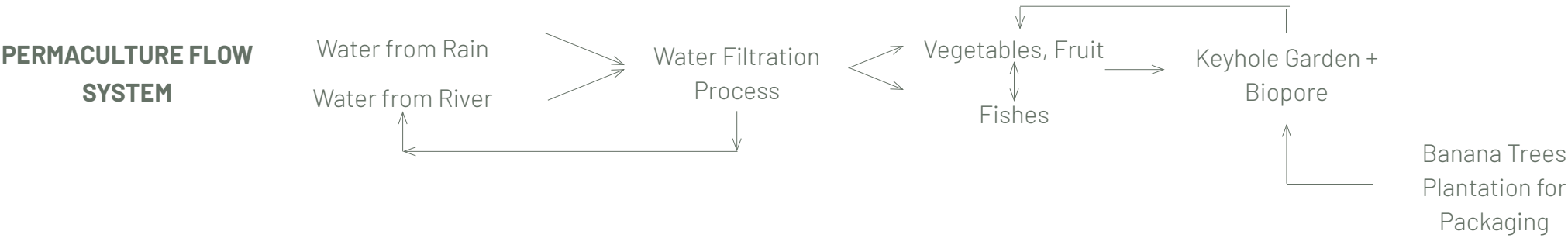
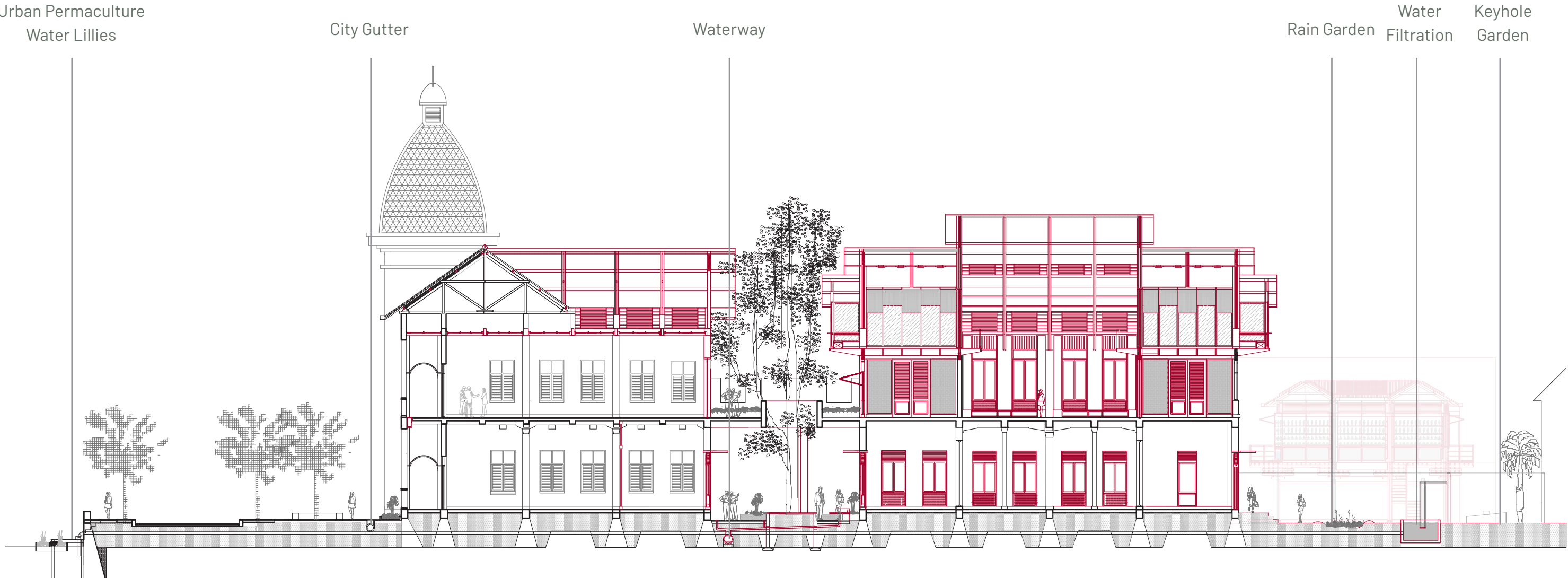
Transformation Proposal: The Permaculture System



References: Chung, Thomas. 2017. "Urban Permaculture".  
Apti, Astidira. 2017. "Living Liquid Habitat".



## Transformation Proposal: The Permaculture System





# Conclusions, Reflections, and Significance



## Conclusions and Reflections (1)

In order to address the role of shared heritage in the future, the project contextualizes the architecture based on the socio-cultural and natural environment contexts.

### Challenges

As a building that was built specifically for the Dutch and was designed by a Dutch, PTPN IX embodies segregated history and spatial configuration. Its European characters also have resulted in damages and in repeated structural collapses. However, the high valued existing fabrics need to be preserved in order to pass on the embodied knowledge and history to the future generation.

### Improved Traditions

The project utilizes improved traditions as the embodiment of the shared heritage. It investigates the socio-cultural aspects through historical research and tracing as well as learning from the present local community context. By learning the pattern of the community's practices in relation to the heritage, insights on the needs of the community and what they are lacking are gained. The program and design were reached by finding a balance between the heritage and the community's spatial culture and by assessing high valued and low valued traits.

### Understanding the Spatial Culture and Local Knowledge

To bridge the distance, the project also needs to understand the way the community uses space or spatial culture. Even though architects could not predict the way space would be used, the project intends to let the community appropriate the architecture by themselves by introducing elements and configurations that are familiar with them.

### Learning the Community's Potentials through Vernacular Architecture and Local Assets

The building needs to be adjusted in order to withstand the natural forces in a tropical context. The project intertwines vernacular crafts as well as innovative local materials into the building as the solution.

Learning about vernacular architecture also gives an understanding of the community's potentials as well as to pass on the vernacular heritage to the next generation. It is a way to include the Indonesian heritage as a part of the future of shared heritage.

### Establishing Connections to the Public Realm

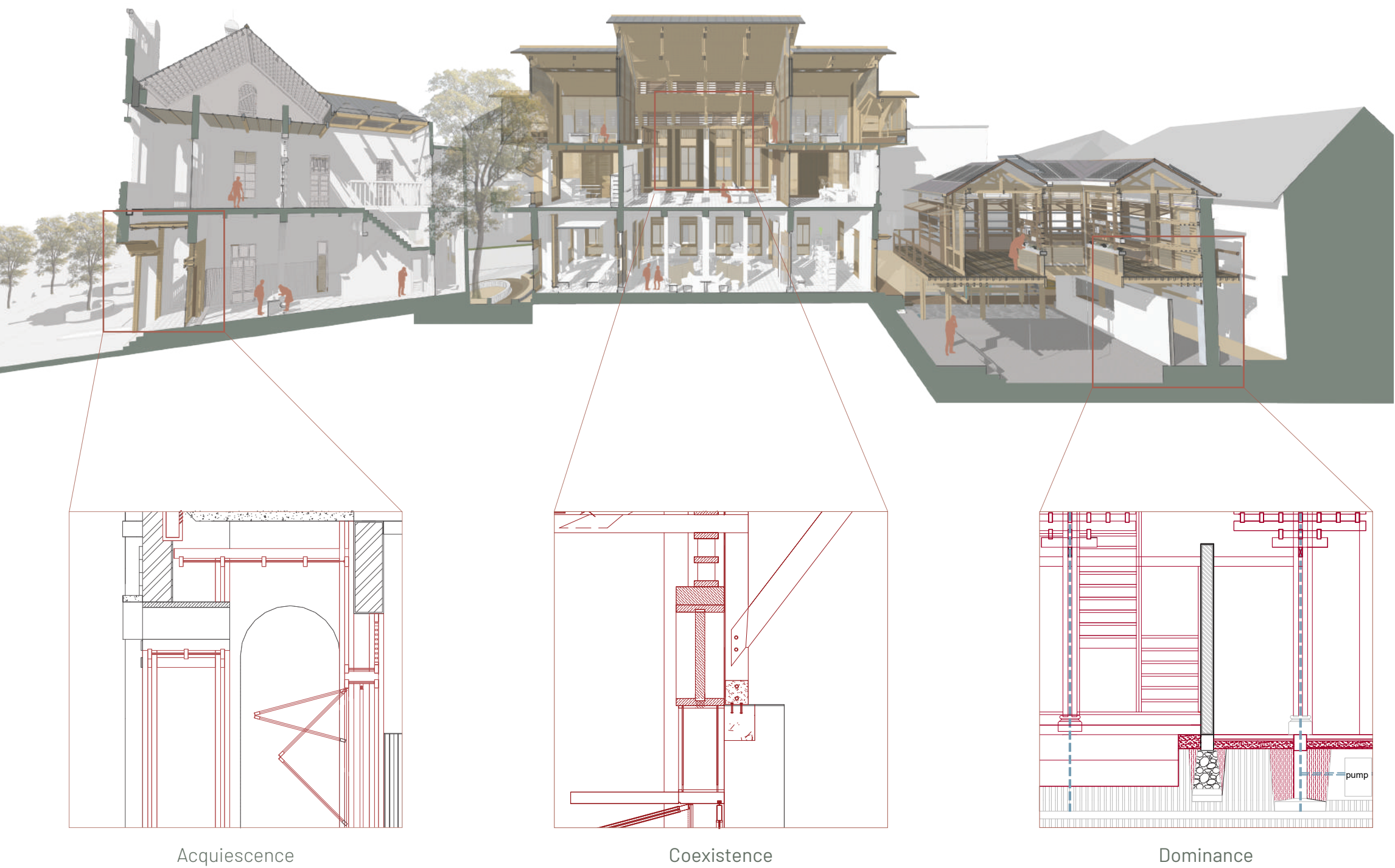
To establish connections between colonial architecture to the local community, the architecture has to open up to the public realm and let the community be involved in the process. The application of local crafts and materials allows the community to be a part of shared heritage transformation since the construction phase. Therefore, the gap between heritage and the people could be diminished from the start and a sense of belonging towards the shared heritage could be nurtured.

### Intertwining Natural Forces to the Heritage

As to the connection to the environment, the architecture has to raise awareness of the community towards nature, but it has to be solved gradually and through habit. That is the reason why this project uses nature not only to provide comfort, but also utilizes it to shape the spatial experiences, as resources, as well as lifestyle.



Conclusions and Reflections (2)



**Bridging the Distance through Reciprocity**

Close-readings of the existing architecture fabrics and the community's spatial culture result in three types of interventions that consider the reciprocity between the old and new:

The first one is acquiescence in preservation, in which the new layer is inserted without disrupting the existing structure so that the embodied knowledge of the past could be passed on to the next generation.

The second one is coexistence intervention, in which some sacrifices of the existing fabrics need to be made in order to find the best qualities of both the existing layer and the new layer.

The third one is the dominance intervention, in which the new layer overshadows the past to achieve a constructive future. However, the new layer is still positioned to confine the existing fabrics as a respectful gesture to the past.



Significance



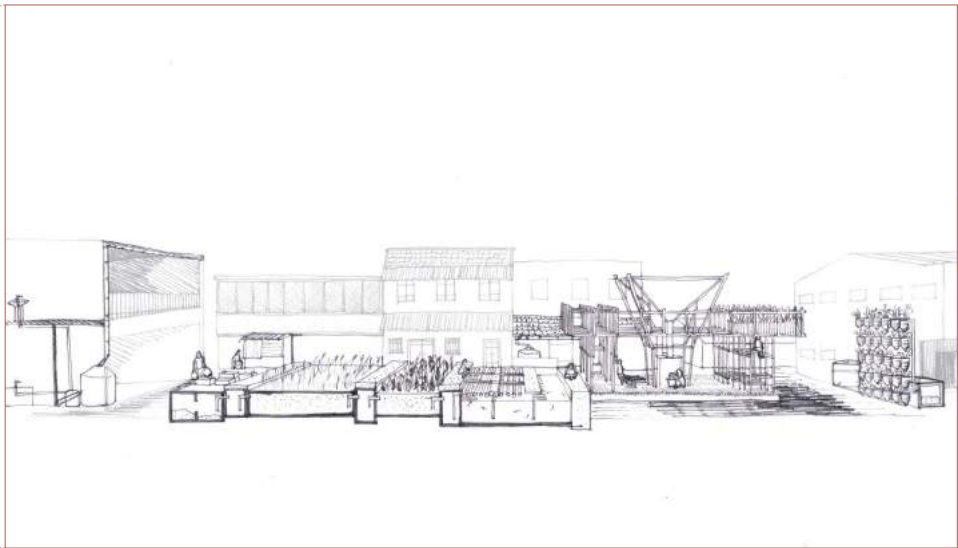
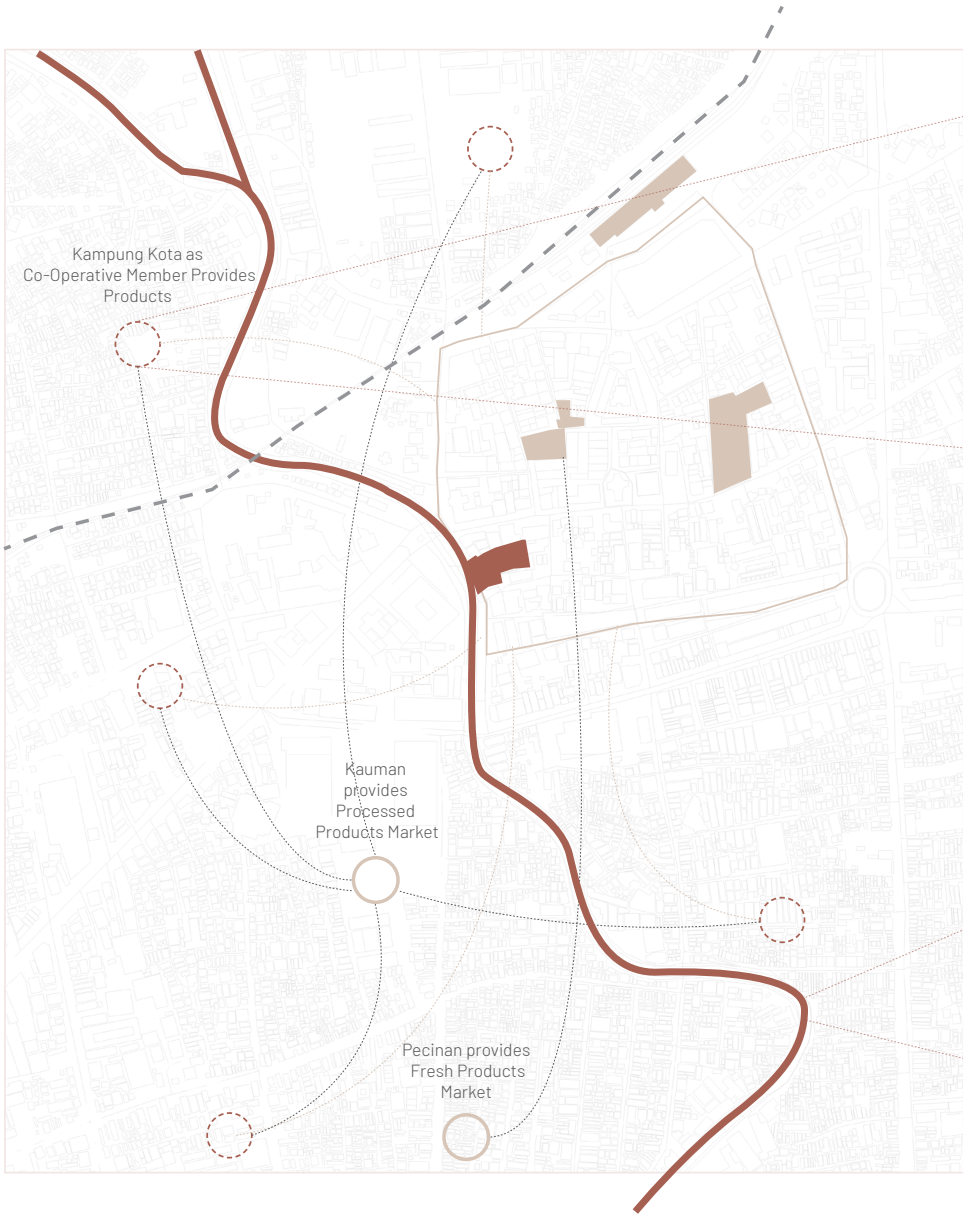
The significance of the project is the implementation of improved traditions to find the future of shared heritage. It answers the question of how a colonial built that embodies past discrimination could be incorporated into the community's everyday practices.

The project bridges the distance between heritage and the people through the reciprocity of Dutch and Indonesian heritage's best qualities and by finding a balance between the two in different conditions.

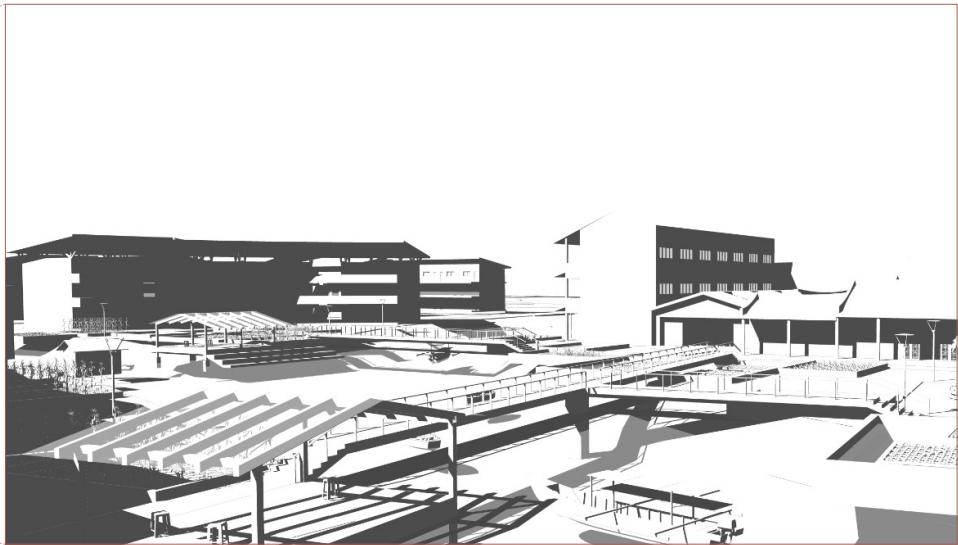
By working on the different layers of heritage relating to the people's practices, the project also contributes to sustainable socio-economy and environment.



Relation to Other Projects in the Studio



Water Treatment with Socio-Production Space in Kampung Kota  
"Kampung Kali"  
by He Yi Fong (Joyce), Landscape TU Delft, 2020



Urban Permaculture in Pecinan Riverside  
"Flush and Splash"  
by Prinka Anandawardhani, Urbanism TU Delft, 2020





*"The tasks which face the human apparatus of perception at historical turning points cannot be solved solely by optical means, ...that is by way of contemplation. They are mastered gradually, taking their cue from tactile reception, through habit."*

Walter Benjamin, 1935



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Kengo Kuma & Associates + College of Environmental Design UC Berkeley: Nest We Grow, Hokkaido, Japan.

Peter Zumthor: Shelters for Roman archaeological site, Chur, Graubünden, Switzerland.

Peter Zumthor: Therme Vals, Vals, Graubünden, Switzerland.

Peter Zumthor: Kolumba - Erzbischöfliches Diözesanmuseum, Cologne, Germany.

TSDS Interior Architects: TSDS Maker Space, Tangerang, Indonesia.

Andra Matin: Sessat Agung, Lampung, Indonesia.

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OMA: Fondazione Prada, Milan, Italy.



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## **Cultivating Heritage Graduation Project Booklet**

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