



## Cultivating Heritage

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

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Reflection Paper

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*“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

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Project Description

“Cultivating Heritage” has the ambition to appropriate shared heritage architecture that embodies a conflictual past as a part of local community’s everyday practices. The project believes that despite the blood-soaked history, shared heritage manifests knowledge and history of the past that can be utilized as a constructive means to move forward.

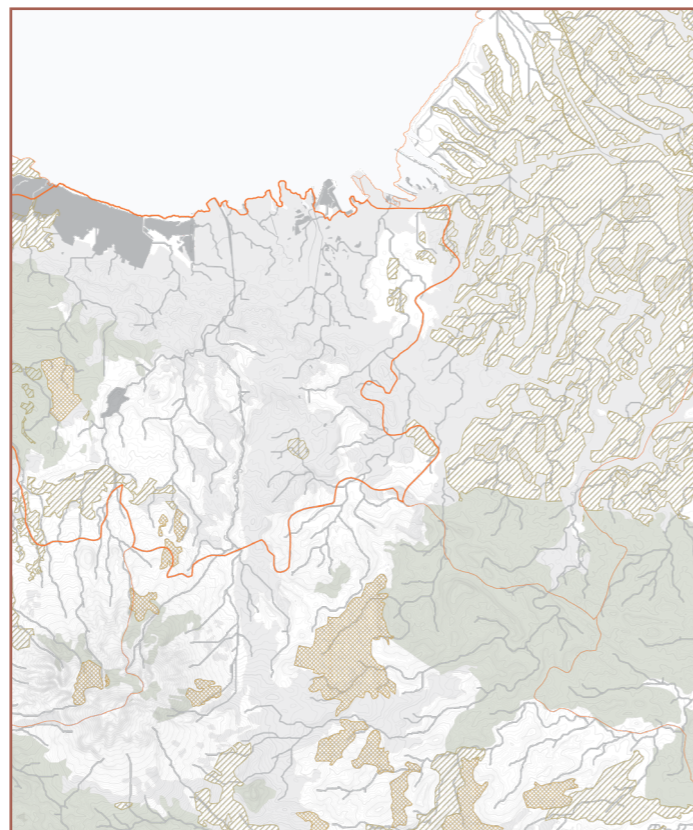
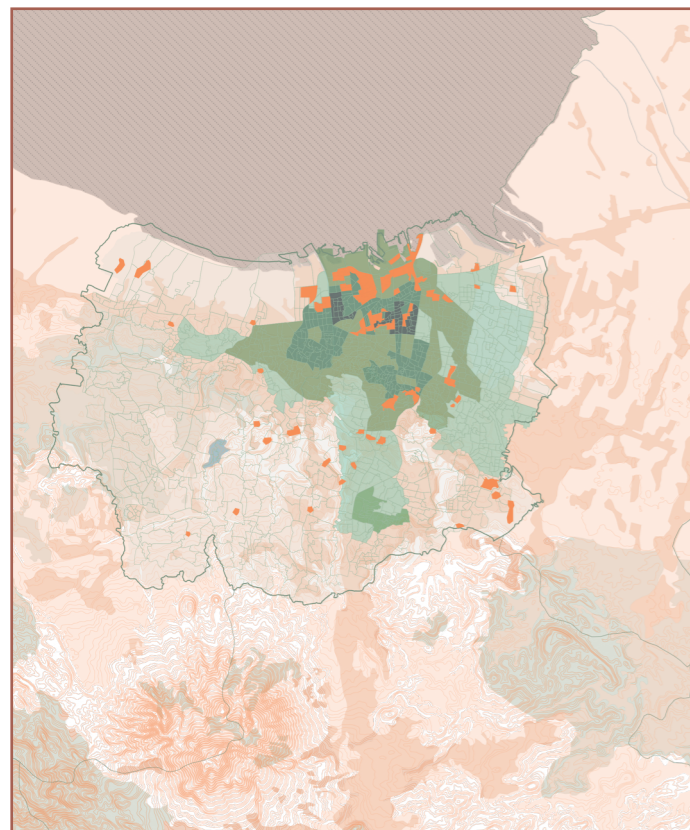
This project is a part of Shared Heritage Lab studio that focuses on Semarang historical area, the former city center during Dutch colonialization era in Indonesia. Due to its significant role and strategic location, the area has been occupied by vulnerable communities, forming a dense area referred to as Kampung Kota. These communities are dependent on informal agricultural trading practices as their main source of income, which contributes to Semarang historical area’s manifold environmental issues. On the contrary, Kota Lama, the former Dutch quarter, is deteriorating and being separated from the local community’s practices.

The project site is the abandoned PTPN IX building, the former NV Cultuurmaatschappij der Vorstenlanden, which administrated the agricultural trading practice and was linked to the forced labor system. The proposal is an adaptive reuse of this building into an urban permaculture co-operative office that administrates, manages, and educates local community’s production and trading practices in Semarang historical area.

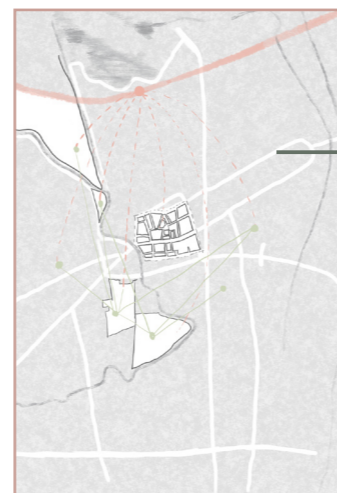
Research Questions

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

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



**1830** Cultuurstelsel **1890** Liberal Politic **1950** "Gotong Royong" **2019** Informal Trading Domination



Initial research phase on architecture and urban development in Semarang historical area in relation to agricultural practice through archival studies on history and map.

Fig 1 - 6, 10, source: Iswardhani, Ananta Vania

Fig 7 - 9, source: Leiden University Library - Digital Collections (1915-1930)

## The Notions of Shared Heritage and Spatial Culture

The project questions the notion of "shared heritage" and its role in the future. As a heritage that is embraced by two or more different groups or countries, shared heritage architecture contains manifold historical, architectural, and cultural quintessence. The research starts with personal fascination towards abandoned heritage in Kota Lama that is disconnected from the local community's practices around it. In line with the Chair of Heritage and Architecture studio approach, the project takes contextual analysis in an in-depth manner by considering factors from the city scale to the scale of building fragments along with the transformations. The analysis is done through site visits (taking photographs, sketching, measuring, and redrawing the building) and archival investigations of the original (1888) and renovation drawings (1974). The architecture is dissected from design, technology, and cultural value perspectives. The outcome of this method is an understanding of building's characteristics along with the initial obligations, opportunities, and dilemmas. The chosen architecture site, the abandoned PTPN IX building, holds historical, relative art, rarity, and use values that embody both Dutch and Indonesian spirit. It also represents history of inequality that is apparent on the building fabrics.

Despite the conflictual past, the project believes that shared heritage embodies knowledge and history of the past that can be utilized as a constructive means to move forward, especially in the context of Semarang historical area that is facing various social, economical, and environmental issues. The balance of the past, present, and future could be reached by understanding and questioning the relevance of heritage through assessment in socio-cultural context. Therefore, alongside heritage-based investigation, this project assess the lively local community's practices and traditions.

This project employs place-centered ethnographic mapping, sketches, and interviews to record the patterns of community's practices along with the "hidden" traditions. The data consists of spatial arrangement, the relationships between individuals in practice, the connection of individuals to the natural landscapes, as well as the trading pattern and route. The unapparent patterns that become visible in Semarang historical area is the "gotong royong" or kinship principle that the community holds in their daily socio-economic life. Moreover their trading patterns are distant from the natural landscape and have numerous negative impacts on the environment.

Apart from these methods, by mapping the urban development of Semarang historical area throughout the centuries, architecture and urban fabrics could be used as a tracing tool to understand the different layers of space at different times. This method also has been done by Pauline K. M. van Rosmalen on her various researches about heritage and colonialization in Semarang<sup>1</sup>. This part of the research along with the heritage-based investigations results in the program matrix and initial heritage positions of the project in architecture and urban scale.

Looking at the complexity of the context, it is necessary to question the shared heritage notion from the perspective of urbanism, landscape, and architecture engineering. Shared Heritage Lab is a multi-disciplinary studio that makes the exchange between these master tracks possible. Therefore, the project does not only dwell on the building scale but also has a holistic view of the whole. The connection of this proposal to the other projects within the studio offers complete and thorough testings in different parts of the city.

<sup>1</sup> Digging4Data: How to do research on the built environment in Indonesia, 1920-1950, Cultural Heritage Agency of the Netherlands, Amersfoort / National Archives of the Netherlands, The Hague, 2017

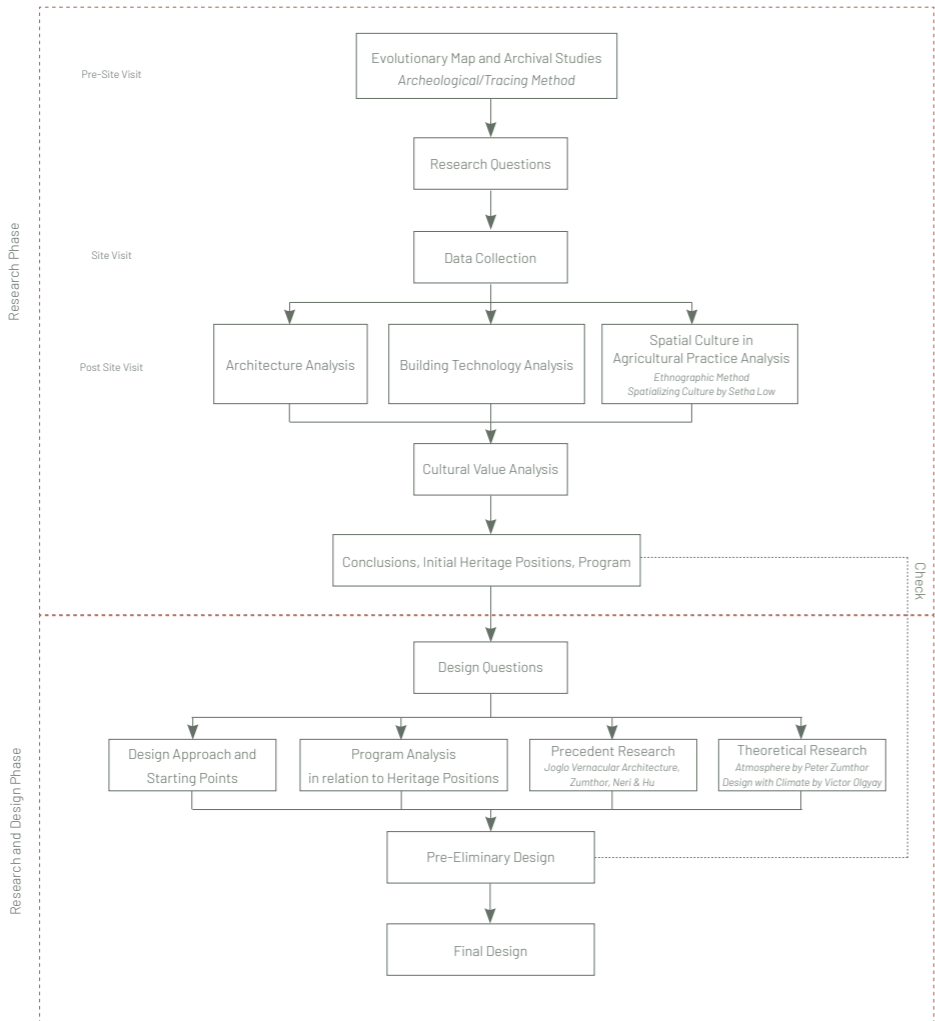


Fig 11: Methodological Framework by Iswardhani, Ananta Vania

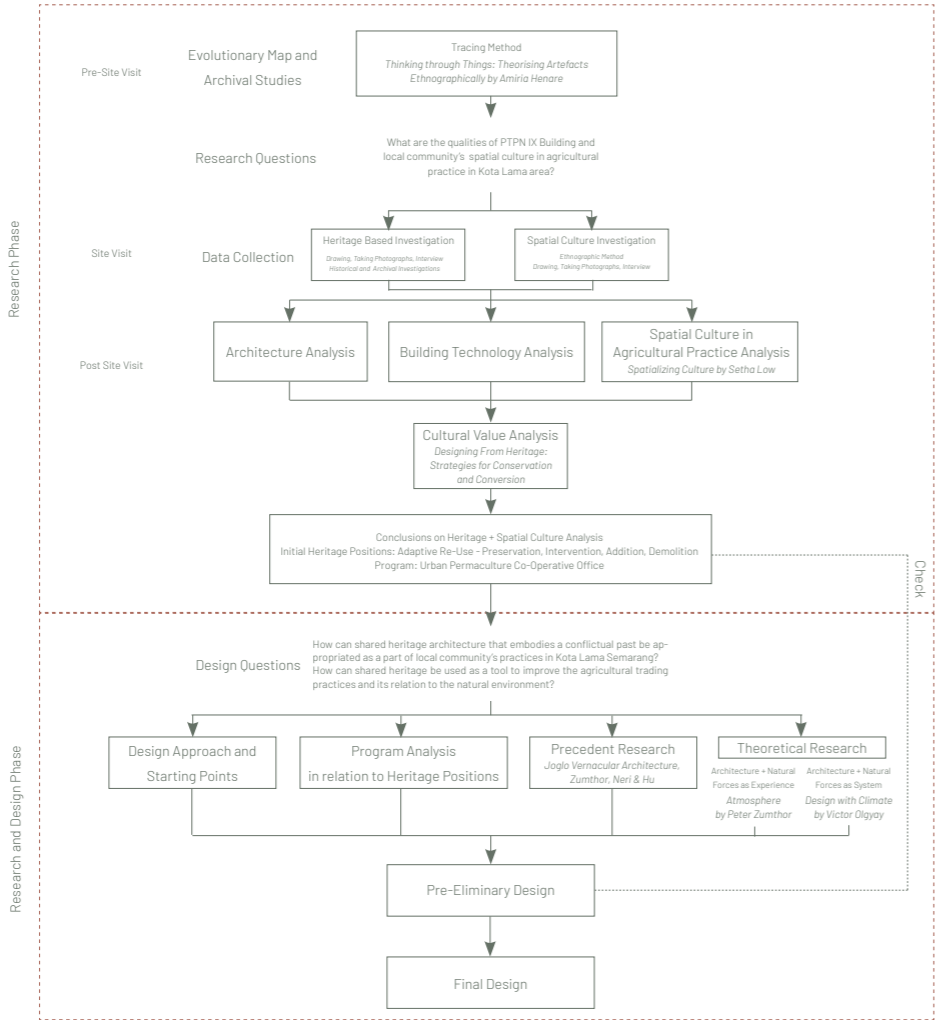


Fig 12: Theoretical Framework by Iswardhani, Ananta Vania

## Spatializing Culture in a Shared Heritage Architecture

During the graduation studio process, it has come to realization that designing with a heritage mindset signifies a process that weighs on constant research in order to reach a fruitful and contextual design solution. This project's building scale research started with architecture and building technology analysis. Through this part of the research, the embodied knowledge and the logic of a building could be read. However, this data needs further assessment to determine which information is relevant to the project's heritage positions. The distinct process in this method that sets the heritage approach apart from other methods is the cultural value assessment. Before the cultural value assessment was introduced, architects' attitude towards heritage built was divided by the everlasting debate on whether to preserve or restore.<sup>3</sup><sup>7</sup>This debate divided views into ethics and aesthetics stand points. Looking at this condition, Alois Riegl<sup>4</sup> and Brand<sup>5</sup> introduced matrix that examines both tangible and intangible elements in exisiting heritage fabrics as guidance. Brand matrix, which takes physical factors of the valuation, is being used by Clarke, Kuipers, and Zijlstra (2017) to develop cultural value assessment matrix<sup>8</sup> that is used for this project. Even though the evaluation implies subjectivity, it offers a solid and practical base to determine heritage positions. Consequently, similar to other architecture approaches, this method does not possess an absolute solution. Thus, continuous personal reflections and discussions with experts and group assessment can be done to get the "best" result. This part of the research results in the valuation of the Dutch colonial building and its main strength, characters, and issues within the present and future context.

In order to bridge the local community to colonial heritage, the research is enriched with spatial practice and culture studies of the community that are obtained from the initial research phase of the project. However, it was a difficult task to process the data due to manifold intangible elements and factors that are obtained. Reflecting on the P2 feedbacks, the project took a step back from the overwhelming information gained during the initial research phase to find a spatial approach for the design. Fortunately, the heritage method is flexible and can be adapted based on the purpose and fascination of the project.

The project then decided to do a comparative study on the existing architecture fabrics to the spatial culture and tradition of the local community. A vernacular design precedent study on Central Java traditional pavilion called Joglo helps to spatialize the intangible pattern of the local people's practice culture. At the same time, to address the disconnection of architecture and the local community to the natural landscape and forces, a literature and design precedent studies are done from two perspectives. The phenomenological study based on Atmosphere book by Peter Zumthor is held to see the relationship of architecture and natural forces as an experience, while the climatic study based on Design with Climate book by Victor Olgyay is held to see architecture concerning natural forces as a system and building technology based on permaculture principles. Studies on design precedents by Neri and Hu as well as Peter Zumthor has also helped the investigation.

The design process is done by constant reflections on the spatial arrangement and qualities as well as architectural elements, materials, connections, and structure with the notion of old and new, spatial practice and culture as well as the natural forces. The looking back and forth method is purposely applied from the building scale to the fragment scale to inform design decisions that respect the fabrics of the architecture of the past while allowing the community's tradition to be intertwined. The project also intends to test the transformation limits of both the architecture and traditions, so that a new playful, innovative, and sustainable layer could be achieved in the future proposal.

In hindsight, many information and realization on the architecture are obtained on the later design phase of the research, which has influenced the changes in focus while the project is being developed. Furthermore, the heritage design process requires a significant amount of time and effort, yet a clear line of thinking and a sensible solution are possible to achieve. Accordingly, setting an initial guideline and limit for the project is helpful to find a balance during the decision-making process.

2 Kuipers, Marieke, W. de Jonge. "Designing from Heritage: Strategies for Conservation and Conversation." Delft: TU Delft, 2017, 67

3 Kuipers, Marieke, W. de Jonge. "Designing from Heritage: Strategies for Conservation and Conversation." Delft: TU Delft, 2017, 87

4 Riegl, Alois. "Modern Cult of Monuments", 1903.

5 Clarke, N. J. Kuipers, M. "Introducing the Heritage Value Matrix: Connecting Matter and Meaning in Built Heritage.", 2017

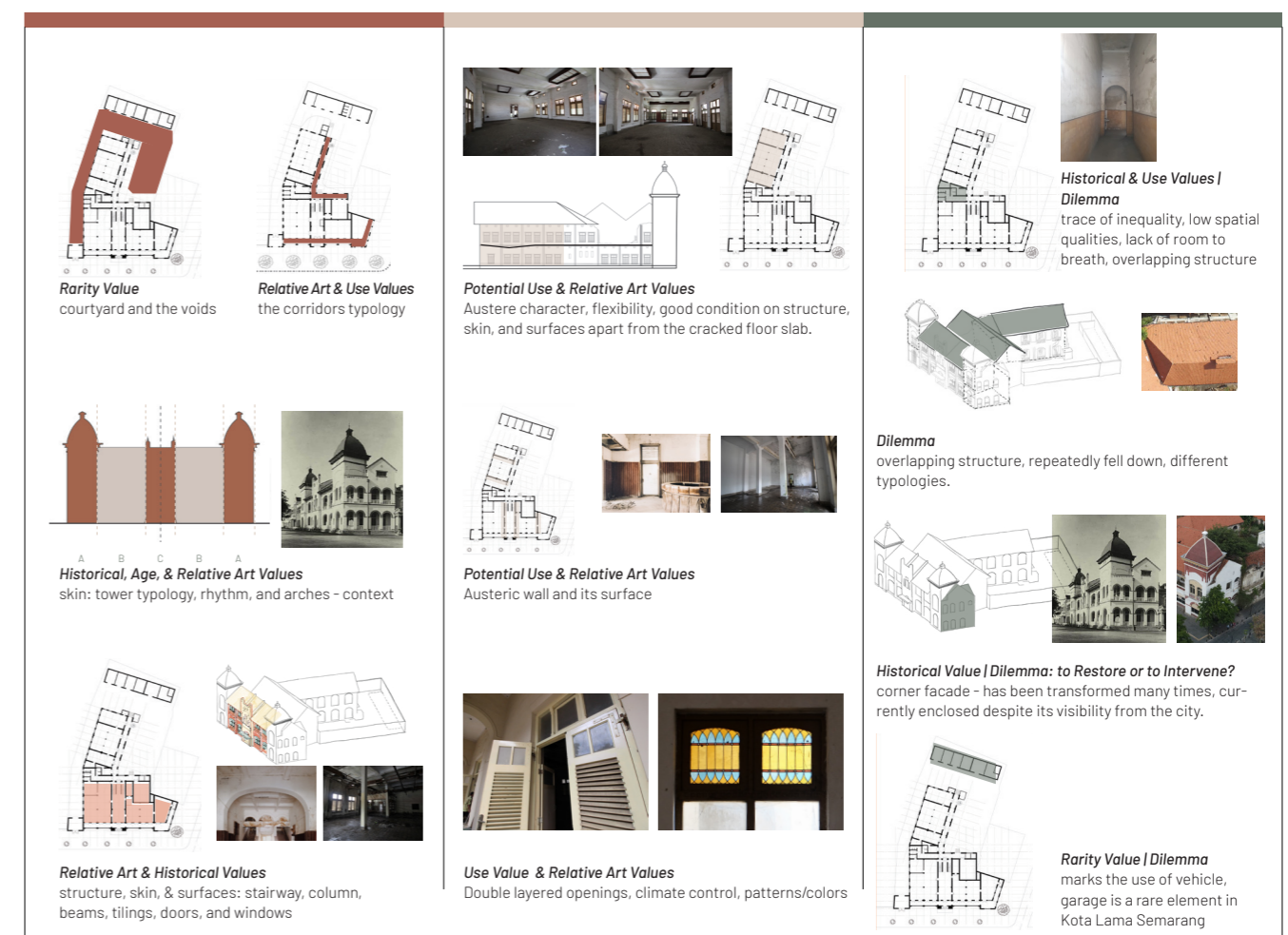
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|                     | Historical    | Relative Art  | Age           | Rarity     | Use        |  | Dilemma |
|---------------------|---------------|---------------|---------------|------------|------------|--|---------|
| Surroundings        | High Value    | High Value    | High Value    |            |            |  |         |
| Site                | High Value    | High Value    |               | High Value |            |  |         |
| Skin (Exterior)     |               | High Value    | Medium Values |            | Low Values |  | Dilemma |
| Structure           |               | High Value    |               |            | Low Values |  |         |
| Space Plan          | Medium Values |               |               | High Value | Low Values |  | Dilemma |
| Surfaces (Interior) | Medium Values | Medium Values | Medium Values |            |            |  | Dilemma |
| Services            | Low Values    |               |               |            | Low Values |  |         |
| Stuffs              |               |               |               |            |            |  |         |
| Spirit of Place     |               | Medium Values |               |            |            |  |         |

■ High Value
 ■ Medium Values
 ■ Low Values
 ■ Dilemma



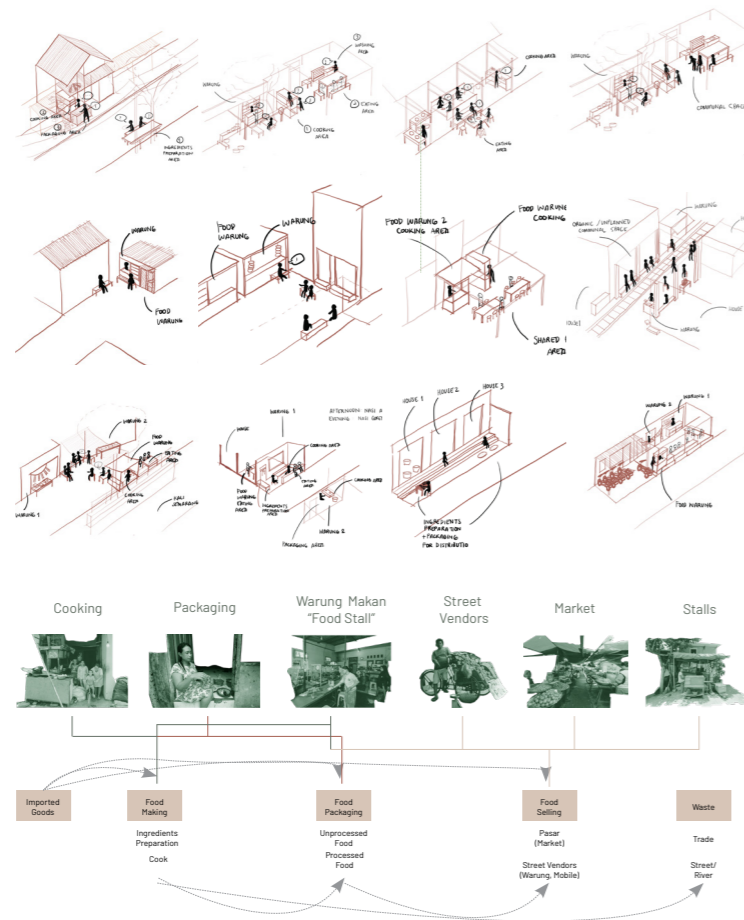


Fig 17-18: Local community's spatial culture analysis using ethnographic and place-centered mapping techniques, source: Iswardhani, Ananta Vania

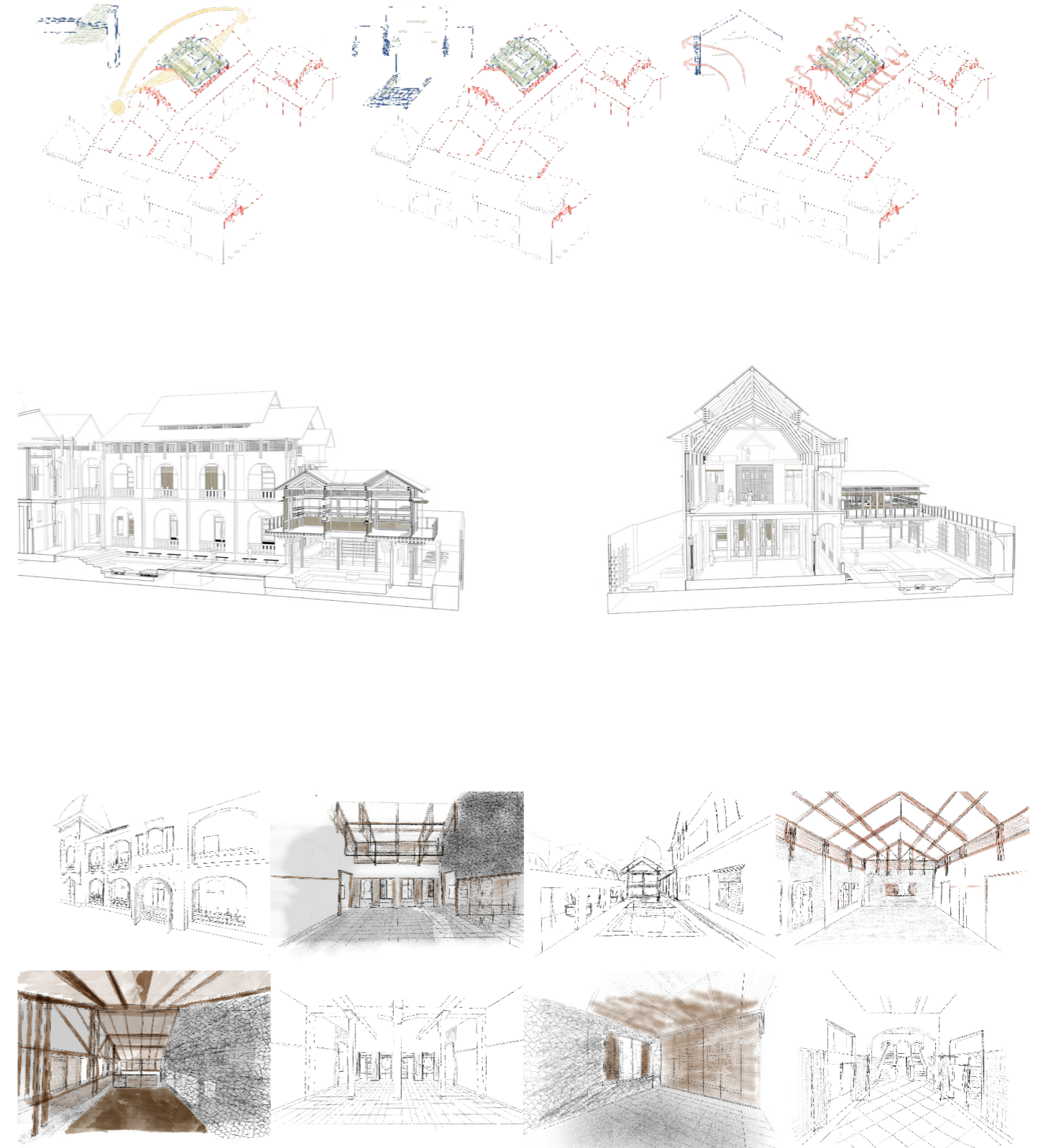


Fig 19: Design explorations with heritage positions and climatic considerations, source: Iswardhani, Ananta Vania

# The Relationship Between the Old and the New in the Context of Colonial Architecture

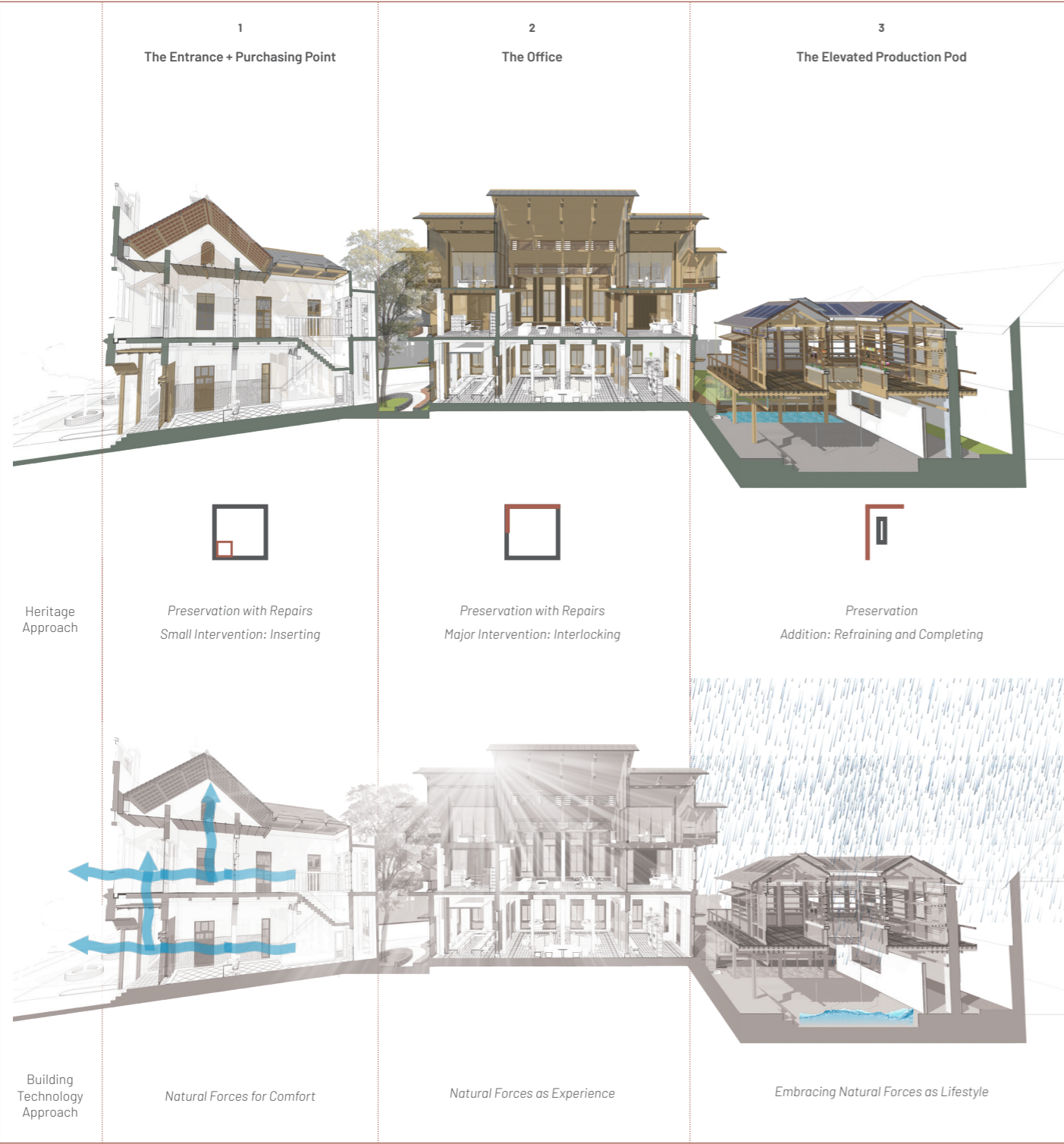


Fig 20: Three parts heritage and building technology approach to the existing fabrics, source: Iswardhani, Ananta Vania

The architecture, building technology, and cultural value analysis result in preservation positions with different degrees of interventions. The project’s approach is to intertwine these positions to the socio-cultural aspect and the natural forces of the context. There are four main transformation strategies derived from these approaches:

- Establishing the building’s connections to the surroundings by opening up the enclosed and exclusive fabrics.
- Implementing people’s spatial culture that values communality.
- Applying local craftsmanship to let the community be involved since the early stage of the transformation.
- Embracing natural forces to provide comfort, experience, and a new life-style in Semarang.

The implementations can be illustrated in three different parts of the building. During the design process, close readings to these parts are done to see the possibilities, implications, and the relations of the old and new.

*First Part: The Entrance, Inserting the New to the Old*  
Due to its historical and relative art values, the interventions in this part are applied by inserting new elements without damaging the existing fabrics. The intention is to keep the historical layer and the embodied knowledge for the future. Small adjustments are made to tackle urgent issues in this part of the building, such as the enclosed character and the lack of comfort. The design allows connection between the public realm and the building as well as to accentuate the entrance point without overshadowing the building façade typology and rhythm. The character of the structure highlights the current corridor typology while allowing hot air to be released, providing airflow and comfort.

*Second Part: The Office, Interlocking the New and the Old*  
The second part offers opportunities for intervention to the building’s upper floor fragility, the space’s flexibility and austere characters, as well as its dark atmosphere. The new program and the community’s spatial culture that prioritizes communality dictate the intervention. The spatial arrangement of the existing fabric is transformed into a central and wings typology, with the center acting as communal space. The roof is made higher on the center to show hierarchy. This area has the main orientation to the inside.

Parts of the existing structure are removed and interlocked with a new lighter structure to protect the existing structure and to allow the user’s visual, audial, and air control. It also imbues a playful reaction to a monotonous space. The structure and material feature local elements to involve the community and so that the building could withstand the tropical climate.

The intervention allows light to come in from different directions throughout the day which contributes in influencing the atmosphere of the space. Despite the changes, the rhythm of the original façade is preserved to create a continuous experience.

Meanwhile, mezzanine is added on the wings. The intention is to provide more spaces for the program. The lower height that the mezzanine offers is meant to improve the intimacy of the room. Unlike the communal space, the wings have a main orientation to the outside for contemplation. The room is enclosed with the community’s handwoven fiber made out of banana leaves to allow a blurry visual connection, providing privacy and control at the same time. Cotton insulation is added to the wall’s layer in order to reduce the sound of the communal space.

The office is connected to the room that embodies traces of inequality. The room had an overlapping structure as well as narrow and dark characters. The proposal removes the overlapping roof structure and parts of the wall to turn this area into a semi outdoor space and to allow the building to breathe. The aim is to keep the memory of separation, but it has been turned into a positive trait. The intervention in the second part shows that sometimes substantial sacrifices are necessary to the building’s ability to stand in the future as well as to improve the existing spatial qualities. Even though that several parts are removed, some elements are being re-used on the entrance building, such as doors and windows, to reduce material usage and also to keep the memory of the elements.

*Third Part: The Elevated Production Pod, Dominating/Confining the Old*  
The elevated production pod is designed according to the social character of the economic practice of Semarang people. It is an additional mass meant to complete the current mass configuration on the site. The ground floor is opened to accommodate social activities, sharing knowledge, and discussion, while the top part is designed as production space to grow vegetables and packaging. The design of this part 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 rain water collector, which can be filtered and used again for production.

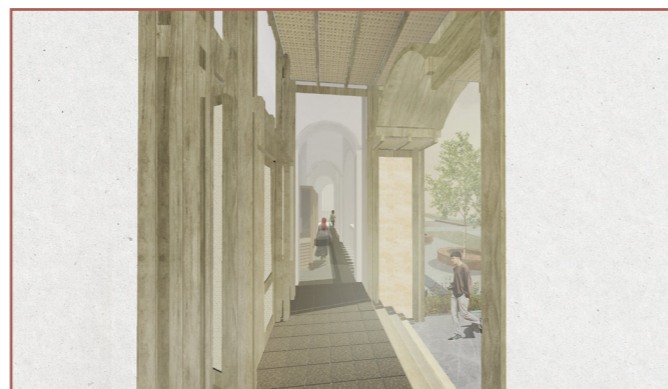
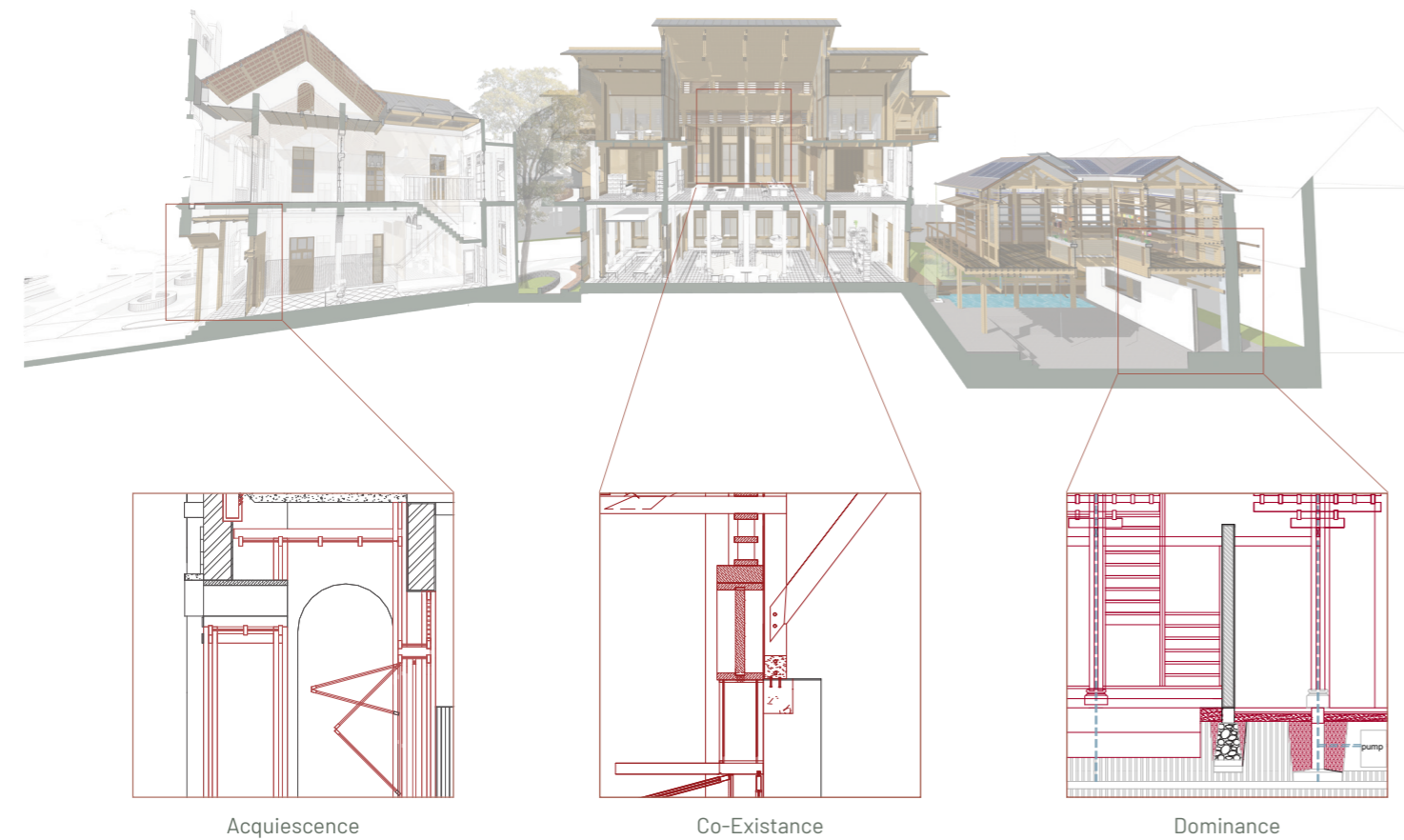


Fig 21: The design implementation, source: Iswardhani, Ananta Vania

The design approach is in contrast to the existing fabrics. The proposal applies vernacular architecture with column characters instead of walls. The building has replicability quality because of its low-tech structure. Therefore, it can be applied to *kampung* or the dense organic settlements around Kota Lama. The structure is demountable which allows flexibility for future purposes. The application of Joglo's structure is to involve the community since the construction period of the intervention and also to pass on their heritage of building culture at the same time.

Even though it is replicable, the way the pod is placed is specific to the site. It completes the corridor pattern of the existing building and enhances the existence of the courtyard, which is rare in Kota Lama Semarang. The pod is also meant to be viewing space of the urban permaculture on the courtyard and the heritage built. 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.

The pod is placed in the back of the site, in which a former garage wall stands. The wall symbolizes the use of vehicles back in the day. It is being preserved without any repair. The structure dominates the former garage wall by standing on top of it. However, the new intervention is meant to respect the wall by confining it.

The research by design has thought this project that particular qualities need to be considered in reconnecting a European colonial built in Indonesia.

#### *Embodies traces of inequality of the past*

Even though the spatial arrangement of the building is relatively flexible, the way the program and accessibility were placed depict traces of inequality. There are two options in dealing with this condition, the first one is to keep the character as it is as a blunt reminder of horrible events in the past. The second option is to take it as an inspiration to reverse the negative history. This project decides to deconstruct the character of the space by removing parts of the elements, so that the intervention gives benefits to the future of the building while preserving the idea of separation.

*The ability of the building to withstand the context's climate in the future.* Colonial buildings are oftentimes designed by people who are not familiar with the site context. The existing fabrics illustrate that even though there are attempts to respond to the tropical climate, the spatial arrangement and the proportion of the room do not allow air flow or light to penetrate the room.

The dimension of the material also creates a huge difference between inside and outside temperature that often causes moisture. The bulky character of the architecture does not allow the building to breathe. The case study proves that these characters have resulted in damages, such as broken surfaces, the fell-down roof, the cracked upper structure, and lack of comfort inside the room.

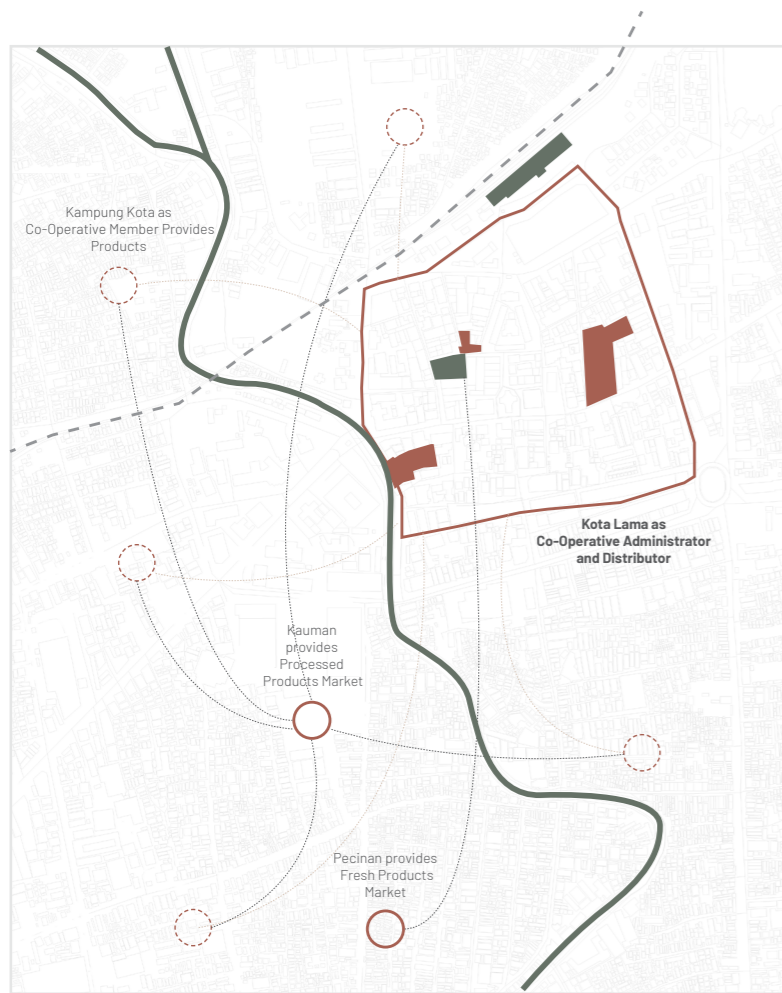
#### *Showcasing the technology of the past as an inspiration*

By investigating how the building is made, the understanding of the logic behind material choice and construction could be gained. The information could be used as an inspiration for future intervention, to see the reasons why things work or do not work. It is also to place the building within the timeline and see the limitation and trends of technology throughout the lifetime of the building.

#### *The relation of the building to the urban context*

By understanding the role of the building within the urban context, the urban fabrics development could be linked to the human aspect of the context, such as social, economics, or politics. The information could be utilized to define a suitable program for the future. In this project case, the program derived from the building's role that administrated agricultural trading practices in the past. The future proposal takes the positive aspect of the past, such as the integrated scheme of the area as well as the strong connection of the practices to the environment. At the same time, the future proposal takes the conflictual history as an inspiration to improve the current situation.

The projects found three relationship characters of the old and the new. The first one is acquiescence, in which the knowledge of the past is preserved for the future, the new elements compromised by subtly including itself to the future scheme. The second one is co-existence, in which sacrifices of the old fabrics are significant to improve the fabrics for the future. The third one is dominance, in which the reversal of the current building's characters is necessary in order to move forward.



## The Project within the Context of Society, Professional, and Scientific Framework

The rapid growth of architecture and urban design in the global scale has sparked questions on the relevance of architecture practice and how it can evolve in the future. Phenomenons such as the significant amount of vacant buildings around the world, the environmental consequences of constant demolition and construction, and a global pandemic, have added arguments to these questions. The Chair of Heritage and Architecture method that works with existing fabrics seems to be one responsible way of navigating in architecture practice. The method is not appropriated well in several parts of the world, such as in Indonesia, where heritage approach is only seen applicable on a monumental building and the action of transforming as oppose to preserving or restoring is often seen as unethical. The heritage-based investigations give a transparent fundamental base for decisions that could help the architecture practice in general, in which obligations, opportunities, and dilemmas could be discussed.

This project introduces another layer of investigation to support the heritage method. In this project, the socio-cultural layer is brought to the discussion of shared heritage architecture in order to address the lost connection of the local community to their abandoned heritage and the natural landscape. In the context of Semarang, heritage built is romanticized and seen as a landmark, which could be seen by the number of people visiting the historical area and treating the heritage object as an alien that is separated from their daily life. It is indeed already a progress to look at the fact that Kota Lama was once affiliated with crime and fear. However, the distance between colonial built and the community has always been there since the colonial era because the building is not meant for them.

The excavation of different historical, architecture, and multiple cultural layers in a shared heritage architecture allows the richness and memories of the past to emerge. The different elements that constructed the heritage are dissected to gain a holistic understanding of the tangible and intangible values as well as the conflicting qualities of the architecture. In this way, the future program and intervention could act as a time-machine that let people to be exposed to their past glory and how it could be involved in their daily life towards a sustainable future. Consequently, the place could be looked after and maintained through time.

In particular to this project, the knowledge on the spatial culture is gathered through observations of standing patterns<sup>5</sup> of spatial arrangements and qualities of the local community's practice as well as comparative studies between the heritage and vernacular architecture. In this routine, the meaning behind rituals and habits that are formed and transferred between individuals could be read. The potential or limit of a building could also be investigated by putting the building in the public realm and how it could be a part of public life.

Even though this method is speculative and architects could never fully control the way space could be used, an intervention is an attempt to influence, to raise awareness, and to add meanings that could define the heritage position in the larger world as oppose to what otherwise could be an austere space.

Additionally, architecture is responsible to accommodate the people's social realm, ground them by providing comfort and experiences, while at the same time elevate their way of doing by providing innovation. The phenomenological and climatic studies are merged to see how architecture and natural landscape could be connected from the system level of building technology to the unapparent layer of the architecture. Architects could never predict or rule how space is going to be occupied or perceived by its users. However, these attempts allow the community to appropriate spaces on their own by reintroducing elements that resonate with them. The project's ambition is not only to touch the community on the physical level, but also to encourage awareness of the people to their natural landscape by respecting the natural forces through the design interventions.

In regards to the urban plan, this project thinks of the urban co-operative permaculture as a considerate continuation of Kota Lama's historical layers. The pattern that becomes visible in Semarang is the "gotong royong" or kinship principle that the community holds in their daily socio-economic life. Although the area is culturally segregated, the settlements in Semarang historical area were built together with agricultural land and green spaces and integrated by the Dutch, which made Semarang thrive. However, these agricultural products were exploited during the VOC/Dutch colonialization era through *cultuurstelsel* or agricultural force labor system. Therefore, this projects take the positive trait and reverse the negative scheme of the colonialization period.

Looking at the global context, food and agriculture have influenced the way architecture and the city is shaped. For instance, the way a certain group of people consumes and prepare food shows the culture of that country, the distribution forms the urban fabrics of the city, and the type of food shows the climate and condition of the context. The lost relationship of the architecture and community to nature emerged recently due to the informal architecture growth, the community's trading practice and the uncontrolled urbanizations, in which nature is concealed instead of being embraced. The co-operative program intends to integrate the trading practice in Semarang historical area with Kota Lama stands as the main administrative and educational point. The permaculture principle is imposed to re-introduce the production character to the city that encompasses the *gotong royong* culture which has a responsible attitude towards natural forces and human-cares. In this way, the area that has been ruled by densification could regain its disregarded tradition in the architecture and practices within the public realm.

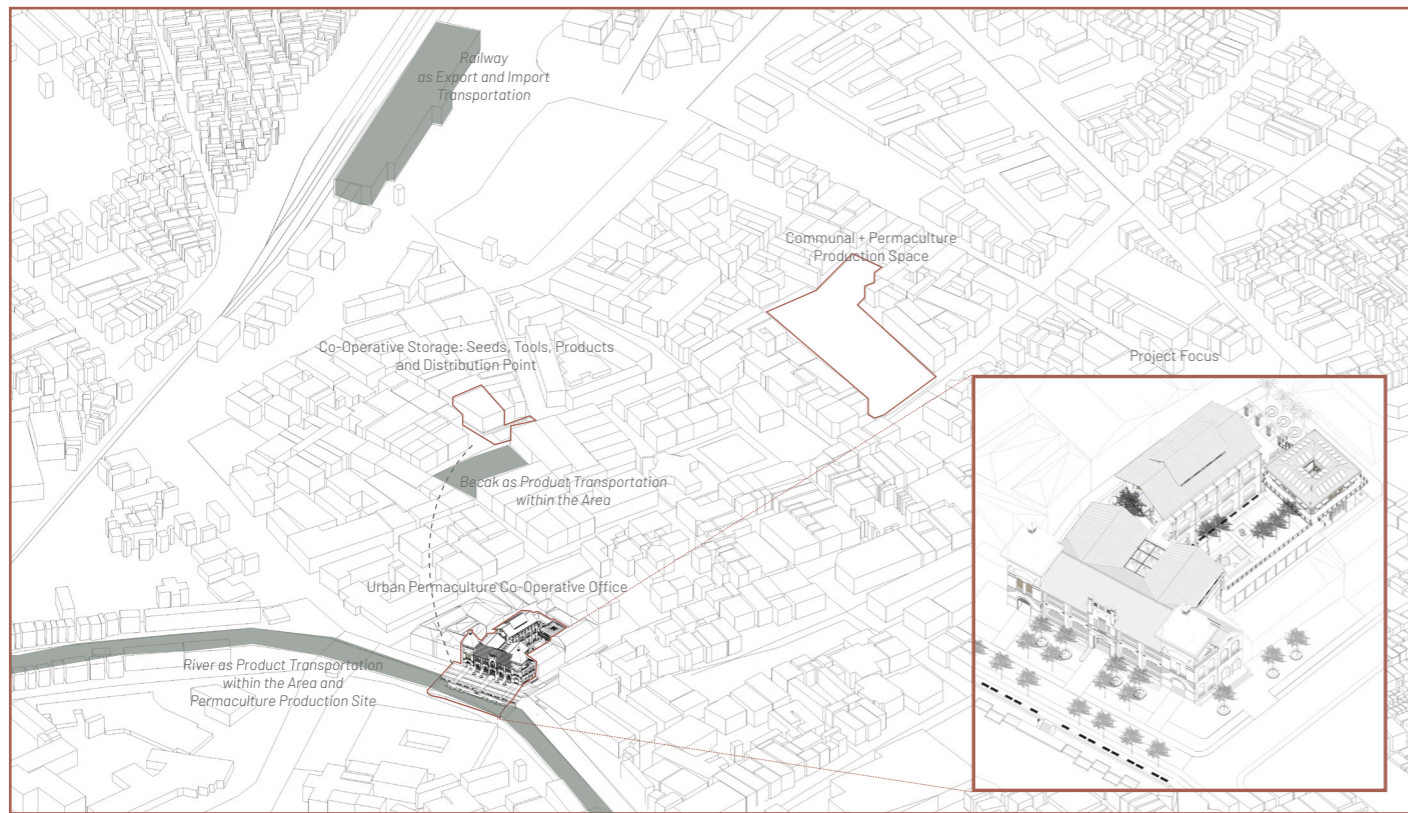


Fig 22: Urban concept to integrate Kota Lama into the Semarang historical area's trading scheme

<sup>5</sup> Setha Low on Gieseeking, Jen Jack, William Mangold, Cindi Katz, Setha Low, and Susan Saegert, eds. "The People, Place, and Space Reader." New York: Routledge, 2014., 35

## Ethical Issues and Dilemma



Fig 23-24: PTPN IX building original state, SOURCE: Leiden University Library - Digital Collections (1915-1930)

Working with existing fabrics brings out many ethical issues and dilemmas which arise alongside the researcher's perspective, the purpose of the project, and the proposed heritage positions within the project site.

### Programme

This project dwelled in this dilemma for a significant amount of time because the change of function would impose issues in relation to the transformation of a heritage built. As an agricultural trading office with a forced labor system in the late 1900s, the chosen site is a product of inequality of the past. Through an in-depth historical and architectural research and by considering the local community involvement, the project decided to propose a similar function as a continuation in the layer of time but by deconstructing the character of the old program to suit the local community's practice as well as to improve its shortcomings. It is a way to immerse the future users of the building to the past while offering them a new experience that elevates their public life, in particular to the practice environment. An office typology of the old program is dissected and tested to the limit of transformation.

This project contains several heritage attitude within the site: preservation, intervention, and addition, in which each position has its own dilemmas.

### Preservation and The Bigger Picture vs Inclusivity and Representation

Preservation with repairs is implemented in the front part or the main street side of the building as an obligation to keep the historical, age, rarity, and relative art values of the building. The dominance and its unique typology stand as a strong identity to preserve the memory and to connect the building to the past as well as to the bigger picture of Kota Lama. It is also an attempt to reduce the use of material as a sustainable way of thinking. In 1974, additional elements were added on the façade for use and security reasons. However, this project would take these additions away as it diminishes the qualities of the original state of the building. Compromise also needs to be made on the façade to promote inclusivity and permeability on the enclosed physical fabrics because apart from its public function, a monumental heritage is partly the property of the society. The intention is to provide social, economic, and also educational benefits to the public. Small adjustments are also an attempt to give the new function a representation on the main façade as well as a response to the climatic requirements of the context. This is a sacrifice that has to be made but worth the benefits in the long-term run. Preservation without repair is applied to the ruined of the former garage mass on the back of the site that holds the rarity value and stands as a mark of the use of vehicle in the year this building was used. The project takes a position to reverse the vehicle fabrics as pedestrian and learning spaces but keeping the physical ruins as a reminder of the past.

### Intervention for Relevance and Durability in Socio-Cultural Context

Major intervention position is taken on the middle part of the site and the roof. The concept brought out many doubts during the design process because the idea of altering the past's spatial arrangement and elements as well as removing parts of the building's memory seems to be irresponsible at first. However, referring to the heritage position of the project, the project aims to bring back relevance to the abandoned heritage built by finding a balance between past, present, and future and by reinterpreting the existing fabrics from the socio-cultural context.

The project challenges itself to learn from the practice culture thoroughly on the intervened parts of the building by contemplating on the assumed former habits within the existing building as well as by inserting and improving the local community's culture into the transformation of the heritage built. The spatial arrangement, communality, intimacy, and senses of the body are explored in order to give a deeper meaning to the future proposal that lies beyond the visual elements. The design process is done with the assessment of the connections of the old and new in mind. For instance, the choice of wood as the exposed new structure, walls, and opening elements is a continuation of the original and the 1974 states of the building. In the original state, the wood is used for the roof structure but hidden by the slab and ceiling, while in 1974, the wood is only exposed as an aesthetic element of wall and lamp covers. In the new proposal, the wood structure and elements are exposed to add the locality character and to add lightness, smooth texture, and warm atmosphere to the white, flat, massive, and austere traits of the old fabric. As a common material that is used by the local community in Semarang historical area, the use of wood is also to let the local community be involved during the construction process as an attempt to spark the sense of belonging of the local community to the heritage built. The intervention also involves woven surface made of natural fibers such as banana leaves that are developed by the local community.

Moreover, apart from the aesthetic strength, the use of wood and woven surfaces in the new intervention allows humans to control the enclosure, atmosphere, and comfort inside the building. The intervention in general also considers the building's relation to the natural forces to increase the people and building's relationship to the landscape as well as to add dynamic experiences throughout different times of the day.

The intervention is imposed as an attempt to protect the existing fabrics from deterioration by providing new elements as shields. For example, the roofs are being replaced because the overlapping structure and the unorganized roof shapes result in the roof falling down many times. The new roofs define a clear division between structures for a durable solution.



Fig 25: PTPN IX building 2019 state, SOURCE: Drone shot by Maheswara Rakha Danindra

The interventions on the roof and the former dining and toilet area impose a new organization of space that does not only favor the spatial culture of the people, but also to strengthen the relationship of the building to the natural forces by allowing spaces to breathe and allowing direct connection to the outside. The toilet area in which the roof is overlapping also offers a dark and close-tight spatial quality. It has implications on the moisture and damage on many layers of the building. This area also encompasses traces of inequality in which the Chinese workers' dining room used to be located in this enclosed space that is adjacent to the toilet. The intervention tries to reverse the spatial quality by opening up space while still keeping the fabrics as traces of inequality.

These decisions on ethical issues and dilemmas may raise debates as it is made based on heritage investigations and the project's purposes which are subjective to the researcher's fascinations. The project intends to test the limit of the heritage transformation, which requires bold moves and sacrifices that sometimes are not universally acceptable. However, this project intends to elevate the heritage qualities in the long-term run as well as with a playful and respectful attitude towards the notions of shared heritage and the old and new.

#### **Addition: Innovation and Dialogue with History**

The dilemma lies in "to build or not to build" position in the already dense historical area, to define how the language of the old fabrics could be translated into this new building as well as to decide what this new building could offer to the bigger context. The project decided to build a new addition to support the new program scheme as a sharing knowledge facility instead of just being an office. However, the project did not make this decision only based on the practicality of the function. Looking at the site and its immediate surroundings, an additional building is needed to enhance connections to the existing courtyards that lie without enclosure. The addition is also meant to create a dialogue between the chosen site and the buildings next to it as these buildings are connected without any borders.

The additional building intends to contrast the structure of the original building by deconstructing the character of Central Java vernacular architecture. It introduces light column structures as a response to the climate challenge and its disconnection to the outside spaces. It is also to elevate the flexibility character by making it possible for an extension to the courtyards. Moreover, food production using natural forces as innovations is intertwined with the building to set an example for the community. Additional corridors are added to interlock the sets of buildings and to define the courtyard by continuing the logic of the existing corridors.

## Conclusions

### Personal heritage position:

Finding a balance of past, present, and future by questioning the relevance and reinterpreting the elements and characters of a heritage built from the socio-cultural perspective with a playful and respectful attitude.

### Did the approach work?

Through perpetual reflections on the shared heritage notion using heritage-based investigations and spatial culture practice studies, the project intends to find a balance of heritage and spatial practice transformations as the main design challenge. The different elements of historical, architecture, and cultural layers are dissected to allow the memories of the past to emerge. The limit of transformation is tested from the urban to fragment scale with the connections of the old and new as main considerations. Even though it requires a significant amount of time, the heritage method is flexible and can be adapted based on the purpose and fascination of the project. It also gives a clear line of thinking and transparent fundamental base for decisions that could help the architecture practice in general, in which obligations, opportunities, and dilemmas could be discussed.

The various heritage positions such as preservation, intervention, and addition sparked different levels of results and consequences throughout the site:

- Reversing the role of a heritage built with a conflictual past
- Keeping the historical layers and memories
- Establishing connections and openness
- Implementing community's spatial culture; communality
- Reversing the traces of inequality
- Intertwining locality to the heritage fabrics
  - by embracing local craftsmanship
- Utilizing natural forces as comfort, experience, and lifestyle
- Promoting inclusivity and involving the local community to the future of heritage built, from the construction process to future usage.
- Sustainability from the use of materials, the permaculture system technology and practice habits, and the attempt to raise the local community's sense of belonging to the heritage built.

This approach is done by considering the relationship between the old and the new. Close readings of difference fragments have thought this project the positions that could be taken are as follows:

- acquiesce where you can, in order to keep the embodied knowledge.
- coexist, in which scarification has to be made to reach balance.
- dominate when it is necessary to move forward.

In regards to the spatial culture approach, architects could never predict or rule how space is going to be occupied by its users. However, these attempts done by the project allow the local community to appropriate spaces on their own by reintroducing elements that resonate with them. The project's ambition is not only to touch the community on the physical level, but also to encourage awareness of the people to their heritage, practices, and natural landscape by respecting them through the design interventions.

In hindsight, many information and realization on the architecture are obtained on the later design phase of the research, which has influenced the changes in focus while the project is being developed. Accordingly, setting a position, initial guidelines, and limits for the project is helpful to find a balance during the decision-making process. Looking at the complexity of the context, it is necessary to question the shared heritage questions from the perspective of urbanism, landscape, and architecture engineering. Shared Heritage Lab is a multi-disciplinary studio that makes the exchange between these master tracks possible.

## Literature

### Literature

Akihary, Huib, Purwestri, Nadia, P.K.M. van Roosmalen. Amersfoort: Cultural Heritage Agency of the Netherlands, 2017.

Altman, I. "The Environment and Social Behaviour." England: The MIT Press, 1975.

Altman, I. S.Low. "Place Attachment: Human Behavior and Environment – Advances in Theory and Research." New York: Plenum Press, 1992.

Ashihara, Yoshinobu. "Exterior Design in Architecture". New York: Van Nostrand Reinhold Company, 1981.

Barker, R.G. "Ecological Psychology: Concept and Methods for Studying the Environment of Human Behavior." Standford: Standford University Press, 1968.

Barker, R.G. "The Stream of Behaviour." New York: Appleton-Century-Crofts, 1963.

Bell, P.A., Fisher, J.D. & Loomis, R.J. "Environmental Psychology." Philadelphia: W.B. Saunders Company, 1976.

Benjamin, Walter. "The Work of Art in the Age of Its Technological Reproducibility, and Other Writings on Media." Cambridge: The Belknap Press of Harvard University Press, 2008.

Berkers, M., "Praxeology" Lecture Series on Research Methods 2019. Retrieved from Brightspace on October 2019.

Ching, Francis D.K. "Arsitektur: Bentuk, Ruang, dan Tataan." Jakarta: Erlangga, 2007.

Clarke, N. J, Kuipers, M. "Introducing the Heritage Value Matrix: Connecting Matter and Meaning in Built Heritage.", 2017

Crowe, Norman. "Nature and The Idea of Man-Made World." Cambridge: The MIT Press, 1995.

Fox, Juliana Birnbaum. "Sustainable Revolution: Permaculture in Ecovillages, Urban Farms, and Communities Worldwide". California: North Atlantic Books, 2014.

Gehl, Jan. "Life Between Buildings: Using Public Space." New York: Van Nostrand Reinhold Company, 1999.

Giesecking, Jen Jack, William Mangold, Cindi Katz, Setha Low, and Susan Saegert, eds. "The People, Place, and Space Reader." New York: Routledge, 2014.

Kuipers, Marieke, W. de Jonge. "Designing from Heritage: Strategies for Conservation and Conversation." Delft: TU Delft, 2017

Kopec, Dak. "Environmental Psychology for Design." Fairchild Publications, Inc, 2006.

Laurens, Joyce Marcella. "Arsitektur dan Perilaku Manusia." Jakarta: Grasindo, 2004.

Lucas, Ray. "Research Methods in Architecture." London: Laurence King Publishing, 2016.

Mollison, Bill. "Introduction to Permaculture". Tasmania: Tagari Publications, 1994.

Olgyay, Victor. "Design with Climate: Bioclimatic Approach to Architectural Regionalism". Princeton University Press, 1963.

Rapoport, A. "Human Aspects of Urban Form." Pergamon Press, 1977.

Rapoport, A. "The Meaning of The Built Environment." SAGE Publications, 1982.

van Roosmalen, Pauline K.M . "Complicated, Challenging and Exciting. Rehabilitating Colonial Built Heritage in Indonesia."

van Roosmalen, Pauline K. M. "Confronting Built Heritage: Shifting Perspectives on Colonial Architecture in Indonesia." ABE Journal, no. 3, 2 Feb. 2013, 10.4000/abe.372. Retreived 14 Oct. 2019.

Van Roosmalen, Pauline M.K. "Expanding Ground. The Roots of Spatial Planning in Indonesia."

Van Roosmalen, Pauline M.K. "Yours or Mine? Architectural Heritage in Indonesia"

Zumthor, Peter. "Atmosphere: Architectural Environments. Surrounding Objects". Birkhäuser Architecture, 2006.

### Project References

Central Java Vernacular Architecture: Joglo.

Kalimantan Vernacular Architecture: Rumah Panjang.

Mbaru Niang Vernacular Architecture: Wae Rebo.

Sumba Vernacular Architecture: Ratenggaro.

Neri & Hu Design and Research Office: Tsingpu Yangzhou Retreat, Yangzhou, Jiangsu, China.

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.

Studio Jencquel: John Hardy Boutique, Seminyak, Bali.

OMA: Fondazione Prada, Milan, Italy.

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