

REFLECTION PAPER

future inner city live-work typologies - Bandung

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SHARED HERITAGE LAB GRADUATION STUDIO

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01. WHAT IS THE RELATIONSHIP BETWEEN RESEARCH AND DESIGN?

THE FIELD STUDIES AND THEORETICAL RESEARCH IN THIS GRADUATION PROJECT IS FOCUSED ON THE CULTURAL AND TECHNICAL PRINCIPLES OF HOUSING CULTURE ON JAVA THROUGHOUT HISTORY. THE OUTCOME IS USED IN THE RESEARCH & DESIGN PHASE FOCUSED ON THE DESIGN OF AND THE RELATION BETWEEN DIFFERENT TYPOLOGIES OF TRADE, SHOPPING AND HOUSING IN THE PASAR BARU AREA OF BANDUNG.

The research into the housing culture on Java throughout history started with my personal fascination with local (architectural) identity, vernacular architecture, the evolution of architectural and building technological principles over time and contemporary social issues of globalisation, unification of architecture, and westernisation of Asian cities. These issues are complemented with the need for a more sustainable built environment. Due to this reason, I dived into the history of housing culture and building technology on the Island of Java in order to derive local cultural and sustainable building principles as input for the design.

The design is focussed on the revitalisation of the Pasar Baru area in Bandung, its old inner-city trade district, which is currently in decay under the pressure of monofunctional commercial use, densification, pollution, and the poor architectural and technical quality of the architecture and the urban space. The creation of new inner-city live-work typologies in order to enhance the liveability of the area for its inhabitants, merchants, customers, and clients is the key to the revitalisation strategy. The need for these new typologies arose from the field research in which I concluded that the old typology of the shophouse was failing to meet the current requirements of the inhabitants and the merchants in the district.

During the design process, the research was focussed on the different typologies of housing, shopping, and trade in relation to the typologies of the public environment currently present in the area and the desired typologies for potential new inhabitants. The theoretical research was of valuable input for the choice of bio-based materials, 'easy to understand' construction methods that contribute to the architectural expression of the building, the spatial organisation of the dwellings in relation to the public space and in the design of climate adaptive strategies focussed on the stimulation of natural ventilation and the protection from the rain and the sun.

The connection between research and design has, therefore, always been strong, since the research in the design and the theoretical phase of the project has always shaped the strategy and wherever the progress of the project got stuck, further research has proven to show an outcome.

02. WHAT IS THE RELATIONSHIP BETWEEN THE TOPIC OF THE GRADUATION LAB AND THE TOPIC OF THE STUDENT?

THE PARTICIPATING STUDENTS IN THE MULTIDISCIPLINARY STUDIO SHARED HERITAGE LAB STRIVE TO ANSWER THE QUESTION 'HOW TO EVOLVE IMPORTANT HERITAGE STRUCTURES AND AREAS OF BANDUNG, IN ORDER TO REALISE INCLUSIVE, THRIVING AND HEALTHY ENVIRONMENTS FOR WORKING, LIVING AND LEISURE?' FROM THE PERSPECTIVE OF THEIR OWN GRADUATION STUDIO

The Shared Heritage Lab is a collaborative studio of the master tracks of Heritage and Architecture, Architectural Engineering, Urbanism and Landscape Architecture. From every studio two or three students participate in the lab, each of them approaching the collective topic from their own field of interest. My field of interest is in Architectural Engineering, a master track dealing with social and environmental issues, for which a technical solution embedded in an architectural project can bring a positive change. These technical solutions are characterised by the studio in terms of 'Flow' or 'Make', where the focus of flow is on waste flows, material flows et cetera and the focus of make is on building methods, digital fabrication or craftsmanship.

The technical aspect in my design project is focussed on the study of how to 'Make, built and construct'. With inspiration and knowledge derived from the history of building and housing culture on Java, the technical objective of the project is to propose a new type of building method in the city of Bandung, which is specifically focussed on the revitalisation of the Pasar Baru Area. The building method has to recall local traditions, construction methods, and architectural expression and should also contribute to a sustainable and healthy built environment.

In the context of the Shared Heritage Lab, the project is focussed on the heritage of the urban fabric of the Pasar Baru Area, the character of trade, the coexistence of housing and shopping, the typology of the shophouse and the multi-ethnic character of the district. The project aims to restore the historical balance between the function of housing and shopping, provides guidelines to maintain the different typologies of housing and shopping in the area and offers a new approach to reinvent the shophouse typology.

In conclusion, this project aims to revitalise the Pasar Baru Area in Bandung by proposing an architectural strategy for the area, focussed on its cultural values and on new technical insights gained from the research into local building traditions, that will have an urban impact.

03. WHAT IS THE METHODOLOGICAL LINE OF INQUIRY OF THE CONDUCTED RESEARCH AND DESIGN ?

MAKE & FLOW ARE THE TOPICS OF RESEARCH IN THE GRADUATION STUDIO OF ARCHITECTURAL ENGINEERING, TOPICS THAT ARE COMPLEMENTED WITH THE RESEARCH INTO THE CULTURAL AND SOCIAL VALUES OF HERITAGE AND HISTORICAL SITES IN BANDUNG IN THE SHARED HERITAGE LAB. THE RESEARCH IS BASED ON THE METHODOLOGIES OF FIELD RESEARCH, THEORETICAL RESEARCH, AND RESEARCH BY DESIGN

The process of the graduation project is based on a time schedule of two semesters. The first semester is focussed on research and the second on design. In the Shared Heritage Lab, the research was not only technical but also focussed on social, cultural and historical values of Bandung. Ideally, these two inquiries would complement each other during the research process and the outcome of the individual inquiries would strengthen the outcome of the other, generating cohesive research and potential solutions to the technical, social and cultural aspects of the topics the Shared Heritage Lab is dealing with. Then, in the second semester, this research will be translated into a design answering to all the topics addressed in the research phase.

The research into the context, the history, the cultural values and environmental and social issues of Bandung started collectively in the first semester by conducting theoretical, literature and field research. This research was focussed on understanding the three backbones of Bandung, i.e. the Cikapundung River, The Asia-Africa Road and the Railroad. Although the focus on these backbones helped us to understand the history and spatial development of the city, for me personally it didn't offer a specific area of interest, because of which it took me very long to specify my area or building of intervention. The very late decision to focus on the Pasar Baru Area resulted initially in a minor understanding of its strengths and challenges, because of which it was difficult to relate my technical research to the issues present in the Pasar Baru area. Although I have been trying to catch up on my understanding of the area, the mismatch between the 'technical' and the 'cultural' research has been chasing me up until the P3. The technical research focussed on the topic of 'Make' into the building traditions and housing culture on Java was conducted more successfully by doing field and literature research. The research gave me a broad understanding of the traditions and possible ways of construction on the island that deal with culture, climate and social aspects.

In order to combine the two inquiries into a more cohesive research I developed a new theoretical framework focussed on the topics of heritage, community and environment. It aims to explain the technical, social and cultural challenges and opportunities of the Pasar Baru Area in one theoretical framework. With the help of my tutors I have been able to develop this model further, which now combines all aspects of the conducted research throughout the year and provides a more cohesive understanding of all topics touched upon in the research and design phase.

04. WHAT IS THE WIDER SOCIAL, PROFESSIONAL AND SCIENTIFIC RELEVANCE OF THE GRADUATION PROJECT?

THE QUESTIONABLE VALUE OF COLONIAL HERITAGE IN THE FORMER COLONIALIZED COUNTRIES AND THE DECREASING LIVEABILITY OF THE INNER MEGA CITIES OF SOUTHEAST ASIA AND OTHER THIRD WORLD COUNTRIES IS A RISING ISSUE, AS THESE CITIES ARE EXPENDING RAPIDLY UNDER THE PRESSURE OF URBANISATION AND THE COUNTRIES ARE REVALUATING THE HERITAGE PRESENT IN THEIR BUILT ENVIRONMENT

The decay of the Pasar Baru area in Bandung is, therefore, exemplary for a wider phenomenon in the cities and countries formerly colonized by the Europeans, that experience rapid urbanisation nowadays. The enormous influx of people from the countryside, the uncontrolled densification of buildings and traffic and the poor quality of the contemporary architecture causes a general decay in the city centres, because of which the wealthy are moving out to their suburban gated communities, impoverishing the historic city centre from its diverse population and activities. If this influx and the corresponding densification can be directed according to urban guidelines that maintain the important characteristics of the urban district and allow for enough flexibility to densify the area, the process of decay can be converted into a process of enrichment.

In this process of enrichment, the cultural and historical values of the area can take up an important role, as these central areas in the city usually have significant historical values. This can be seen in Bandung, where the Pasar Baru Area is upholding the old Chinese and colonial trade and shopping heritage of the city, but similar circumstances are present in cities like Jakarta, Singapore, Kuala Lumpur, Georgetown & Semarang where there are many opportunities to revive the liveability and the historic character of the old city centre in order to create inclusive, thriving and healthy dwelling, working and leisure environments for its inhabitants.

When private or public institutions decide to invest in these inner city districts, there is a major opportunity to address the issues of climate change, increasing pollution and decreasing biodiversity as well. Therefore, the urban strategy provides solutions to tackle these problems too, in terms of material use, construction methods, the circular economy and the stimulation of inner-city biodiversity.

All-in-all this project about the revitalisation of the Pasar Baru Area in Bandung is a case-study in a wider social, professional and scientific debate about the living conditions in the inner mega cities of the East, the contemporary values of colonial heritage and climate change. The strategy proposed in this project can be of an example for this wider problem and, if adapted to the local context, can help to increase the liveability of other inner-cities as well.

05. WHICH ETHICAL DILEMMAS DID THE STUDENT ENCOUNTER DURING THE RESEARCH AND DESIGN PROCESS?

THE GENTRIFICATION OF THE PASAR BARU AREA IS THE MAIN ETHICAL DILEMMA IN THIS PROJECT, IN THE PHASE OF RESEARCH AS IN THE PHASE OF THE DESIGN PROCESS.

The objective of the design project is to enhance the liveability for all current and potential new inhabitants of the Pasar Baru Area in Bandung. Part of the strategy is to introduce new target groups to the area, among which are the young urban professionals and the labour immigrants. Especially young urban professionals have more money than the people that currently live in the area. When the strategy is successful, because of which the new target group would like to live in this new environment, there is the threat of 'too much' gentrification, i.e. pushing the current inhabitants out of the area.

The reason to introduce the wealthier target groups to this part of the city is to re-establish the former diversity in the area, where rich merchants and less wealthy street vendors lived next to each other in an area characterised by its diverse culture of dwelling and trade. These two fragments of society characterised by their different economical capabilities enriched each other's life and economy, therefore, enriched the overall character of the district. In order to set the right circumstances for this character to be revived, there have to be strict rules to guide this gentrification and densification in the area. Hence, the urban guidelines contain rules about different types of housing, sizes, density and building heights to set the rules for a culturally rich and diverse dwelling, working and leisure environment in the heart of the city.

This ethical dilemma has been the major concern during the process of research and design and lead to the establishment of the different rules that make up the final design.