

MOSAIC GARDEN CITY

*: redefining the relation between people and nature
by structuring water management through landscape infrastructure
in an informal settlement, Kampung Tamansari in Bandung*

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Aspect 1 & Aspect 3

the relationship between research and design.

Elaboration on research method and approach chosen by the student in relation to the graduation studio methodical line of inquiry, reflecting thereby upon the scientific relevance of the work.

My research aim was directly focus on how to improve living quality in a context of informal settlement as a landscape architecture by redefining the relationship between nature and people. Before starting the research in the site, I asked myself back that why we need nature in the city and near our neighbourhood. I got answered that we are part of the nature. Practically, ecosystem service can bring direct benefit to people.

After that, I tried to understand the landscape in context of the city and kampung (informal settlement) so that I could figure out why the site experienced radical changes that informal settlements occupied green spaces. I got a conclusion that these kampungs have similar condition, which is more efficient to choose one specific site and explore it. Even though I zoomed into my project site, which is Kampung Tamansari, the site is still extremely complex, so I conducted the research generally based on Ecopolis theory by Tjallingi(1995) using threefold strategies framework: flow, area and people. It drove me to study not only about unique landscape in Bandung but also about the social structure and people's daily life in the city.

Firstly I investigated the water flows in the Kampung Tamansari. It shows linear water flows without any treatment. And I found the cause through the lens of area. The research was brought the conclusion that landscape topography – kampung is on the lower ground level than centralized infrastructure facility – was the obstacle to connect kampungs to the existing centralized infrastructure such as sewage pipes and drainage system. The research guides me to think of how I can use this disadvantage as an advantage. Moreover, this outcome strengthens my argument that I need to solve the problem by creating landscape as infrastructure.

Finally Indonesian social structure was quite characteristic that they have their own autonomy which administration does not reach to their independent self-government system(RT and RW) even in the informal settlement. Also there are many grassroots support involve in many sector to improve their living environment. I considered these unique qualities and planned in the bottom-up approach and who will use the space. And when it comes to informal settlement, what kind of need the residents do want to meet, such as safe water source and food security.

During the design phase, studying Kampung Naga which was studied as an example of ecopolis helps me how to use the landscape value in the site. The cultural landscape provides ecosystem service and bond close connection between the nature and people in their daily lives.

The project dealt with sensitive subject which is informal settlement and focused on how landscape architecture can support the settlement's living condition. Based on the research on the context, I drew the conclusion that people's participation was the key point to sustain this green space and its system as a long-term solution and try to implement it into the design using ownership or visible benefit from the product which is produced in the space.

Aspect 2

the relationship between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS).

My graduation project is about the reestablishment of the relation to the nature. Failed relationship with nature provokes natural and ecological degradation due to human behaviours, which eventually boomerangs on the people. It is imperative to reconcile people and nature. The vicious circle is broken by constructing resilient urban metabolism on the existing landscape topography.

Studio Flowscape gives a basic frame to explore the project through landscape as a type of infrastructure and infrastructure as a type of infrastructure (Strang, 1996). In relation with this aspect, the project creates new green and blue infrastructure to connect broken urban metabolism flows. Every flow is closely linked to green and blue infrastructure on the site.

On the other hand, flowscape suggests a point of view of 'genius loci' which corresponds to Shared Heritage Lab. 'Shared heritage lab' explores how heritage could drive sustainable development to make a city and its landscape healthier and more resilient. Bandung is a case study for my batch. The garden city was a concept of Bandung city plan during Dutch colonial era. The Cikapundung river and its valley was the main green corridor to bring nature from the North side of Bandung into the city. However, rapid social change due to urbanization transformed a green corridor to informal settlement, and Bandung lost its biggest garden. But their unique social culture which was formed during the colonial era helps the informal settlement to survive ironically. The graduation project sheds new light on the garden city which is represented in the context of kampung (informal settlement).

Aspect 4

Elaboration on the relationship between the graduation project and the wider social, professional and scientific framework, touching upon the transferability of the project results.

The tendency of growth of informal settlements is increasing globally. We need different perspectives that informal settlement is an eyesore in the city and is physically isolated from the urban tissue. My project would like to explore and show that an informal settlement is not the object that we have to grant them financial or development aid. The self-constructed city, or informal settlement, is not a separable element of a larger city; rather it is intricately welded into it (Okyere, 2016). That is why the project aims to create a decentralized system which does not physically connect to existing formal settlement but it can be dependent and the city can regard the people as a productive member of society.

This graduation project takes into account the restoration of the relationship between nature and people especially in the context of dense informal settlements in a developing country. Replication could be adapted within Bandung city or other similar Javanese context. In addition, even you cannot adapt all the strategy, you can choose one of the elements selectively. But still design's sustainability is nothing more than an assumption that cannot guarantee completely.

Aspect 5

Discuss the ethical issues and dilemmas you may have encountered in (i) doing the research, (ii, if applicable) elaborating the design and (iii) potential applications of the results in practice.

I focused on two ethical issues in Bandung generally about maldistribution of nature and the lack of safe food and water which decide quality of life. Bandung remains garden city plan during colonial era. It makes another landscape segregation which north-east Bandung is most greenery space including parks and the rest of city can barely find nature. Another one is between formal and informal settlement. Moreover, people who live in informal settlements cannot afford to buy groceries and clean water. Many people are suffered from a water-related disease. To deal with both issues, I tried to make a hybrid landscape which can offer green space to promote productivity of land as well as public amenity.

To make a new type of space for design removing houses in dense kampung (informal settlement) was inevitable. It conflicts to ethical issues on freedom of residence even though people took it illegally. I made priority and minimize the distance to move – within the community – and the number of houses of relocation. Priority is to remove house which blocks stormwater flow to be against floods and the house next to the river embankment. Both are closely related to their safety.

At the same time, I did not include the improvement of quality of houses in this project because I make a conclusion that it is too premature to apply it. Indonesian government tries to improve kampung nationally. They invest big money to build vertical garden. As a process, they have considered the freedom of residence and have plan about temporary relocation. However, residents are not fully satisfied because of the cost of housing maintenance. The cost of current housing maintenance is almost zero. But you need to pay for the fee if you live in proposed new vertical kampung. It is a big burden for the people who even cannot afford their food. So this graduation project could be a phase before adapting vertical houses to establish economic foundation.

