

Reflection Paper

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Relationship between Research and Design

In Architectural engineering graduation studio, research is an important part of the process. The research I did mainly focuses on a water and biomass flow manage in the rural village in Bandung , Indonesia. The research provides me new view point approaching the unfamiliar site apart from the conventional space-oriented method in architecture study. It help me focus the acting point where I anchor my intervention, and specify and quantify the spatial requirement, which is the solid foundation of my design. The effort I made in the research also give the final design more value than just a building, by intriguing interesting debate on larger and broader aspects.

Theme and Subjective

The location I chose is Cigondewah in Bandung, Indonesia. As a pre-urbanized rural village, Cigondewah is facing with a series of problem leading by violent expansion of textile industry, including water and soil pollution, farmland and natural green area shrink, social and spatial collapse of the traditional village. These problems are intricately intervened with each other, making it difficult to solve with only a few interventions. The Flow approach, thankfully, provide me the tool to approach this complex social context, and find the most focused point where my design will anchor.

The principal of Flow approach, in short, is to connect. Seemingly irrelevant social elements may have undiscovered connection that is broken or yet to be strengthened, which generate the apparent dilemma. During my research, the most striking missing link I found is between textile factories and farmland. The reason why industry area bit up farmland is simply that they have no collaboration nor spatial necessity to co-exist. People keep establish big factories on top of farmland and green space which is already scarce merely because factory makes more money. More factories bring more pollution, which in turn threat the safety of food crops produced on the farmland nearby. Here is where the vicious circle start.

After understanding the context, I anchored the starting point of my design: bridging the long separated farmland and local industry. In the scenery I pictured for the future Cigondewah, farmland thrives producing eco-friendly raw material for textile industry. densely covered artificial green space also accelerates the recovery process of eco-system. People will no longer stand bad environment, nor will they sacrifice economic

benefit by maintaining the green space. during the process, the Flow approach and knowledge did help me find this standing point and further develop a convincing overview of the new conceptual agriculture-industry chain.

Methodic Frame and personal approach

The Methodic framework that AE graduation studio set is to find a technical fascination that will guide throughout the entire research and design process first. by researching on the chosen theme, we get known of the capability of certain technique and therefore find the corresponding problems on site, from where the design will be generated.

Instead of a building technique, the Flow theme I chose is more about making connections among several existing social elements, which requires a comprehensive understanding of these elements and their working process. So the major part of my research is based on literatures about the both current situation on the site and the interventions I am about to make.

Current situation research helps me understand the context even before we visit the village in person. We have quite short time for site excursion, plus unfamiliar cultural background and language barrier, early research, especially on researches that former students who also chose this site have done, did help me narrow down my idea and use time wisely on site.

Since I want to create a whole new agriculture-industry chain, in which several components don't even exist on site, there is hardly any mode I can reference in the process. So I had to started by selecting possible elements I want to integrate, followed by analyzing their pros and cons as well as operational process, and finally connecting them together forming a complete system.

In the design process, the result of research played as a guideline on deciding the program, and quantifying spaces. Since the Flow theme is about making material, resource and function connection instead of a certain building technique, the output of the research is more of a requirement for space rather than the spatial solution. Therefore, it doesn't play the role of a tool anymore in my design process. In turns, case study, model and model and drawing making take the leading role when making and refining the design. In a way it is reasonable, but I am constantly reflecting whether there is possibility to let the study of flow derive the design in a more consistence way.

Debate in Wider Social Context

My project pays attention to the industry striked rural area in a developing country.

Not only in Indonesia, many villages in China, India and Vietnam also face similar situation. Meanwhile, there is less and less undeveloped countries and unpolluted land where we can transplant those violent industries. A reconciliation between industry and nature must be made. Agriculture can be the key to tie these two sides together, giving them reason to co-existence. My project is trying put farmland and farmers in an active position in altering the tendency of environmental decay and spatial collapse of the village, which I believe is a smarter way compared to unilaterally restricting industry expansion or conducting strict environmental policies, for it will happen in a bottom-up manner with lower social cost.

Given this subjective, I explored the possibility of building the “shell of flow” with low technical construction methods, cheap yet eco-friendly material. Meanwhile, the intimate and inclusive atmosphere is also important. The final design might not be a universally applicable solution in villages all over the world, but it is exemplary on paying concern to these aspect.