

Graduation Plan: Architecture

1. Personal information

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Studio

Chair	The Why Factory
Theme	The Vertical Village, Jakarta Impian (A dream for Jakarta)
Teachers	Professor Winy Maas, Ulf Hackauf, Adrien Ravon

Argumentation of choice of the studio

We started this project as a group with the goal of researching urban villages in South East Asia. The Why Factory started a research on this topic in 2007 with the Vertical Village studios, which lead to a publication in 2011. We planned on brining the knowledge and research further by focusing on the city of Jakarta, Indonesia, and design a “real” vertical village.

Jakarta as a city was chosen because of the fact that 70% of the city consists of what is called kampungs, also know as urban villages. The city is in a desperate need of a new vision on this informal part of the city while maintaining the growth of its global and formal city, the kota.

2. Product

2.1 Problem statement

Jabodetabek, the urban agglomeration consisting of DKI Jakarta, Bogor, Depok, Tangerang and Bekasi, is the second fastest growing megacity on the planet (*Robinson, 2011*). Current projections show that Jabodetabek’s population will reach 38 million people in 2030 (*Jakarta municipality, 2014*). However, this growth will take place in a city that is facing major problems; all these issues are deeply interconnected and are seriously jeopardizing the city’s livability. (*Kusno, 2010; Robinson, 2011; Silver, 2007*). We believe these problems should be tackled with a radical reconsideration of Jakarta’s urban fabric. In doing so it the city would take decisive steps in its pursuit of becoming a world-class megacity.

In 2030 Jakarta will have expended so much, and in this process overtaken many adjacent cities, that it will be called Jabodetabekasepususesuci (*Jakarta municipality, 2014*). An unpronounceable name for a megacity that has become so addictive to growth that it will become uncontrollable. In general, an increasing amount of city will decrease the net capita per square km. The municipality will be left incapable in effectively managing the dramatically enlarged city.

The only way to pursuit the ambition of a world-class city is to address all problems simultaneously. Since the real estate market stands in direct relation with the stock market (2) (*Rolnik, 2013*), the city has become addicted to urban growth. Therefore, a building stop would imply an economic stop. Urban sprawl is one of the main outcomes of the real estate investments. We believe stopping the

urban sprawl (3) to be the first and most critical step in solving the city's problems. The projected urban growth should take place within the center of DKI Jakarta.

Although official numbers forecast differently, we expect an even further decrease of the population in the city center of DKI Jakarta due to the increase of the middle class. The middle-class, which will be doubled in 2020, will either move to the suburbs or enlarge their spatial demand per capita within the city center. To accommodate this spatial demand the low-income groups will be bought out of the existing kampungs. It will slowly turn them into gated middle class communities. As a result, the former Kampung dwellers will be forced to outskirts of the city, which in terms results in even more commuting and sprawl.

Stopping the urban sprawl will mean that the city center, known as DKI Jakarta, should increase its density; both in its inhabitants as well as its FAR (Floor Area Ratio), in order to be able to house the majority of the expected growth for all income classes. The current DKI Jakarta 2030 master plan is developed for a population of 10 million with a density of to 15.000 inhabitants / km² and an economic growth of 6-7 %. We propose to double this by increasing the average density to 30.000 inhabitants / km², this will amount to a total population of 20 million. This change will require a new kind of urban fabric, in which the kampung is intensified. The re-envisioned Kampungs will have to house more people then ever while maintaining its diverse income groups. This strategy will offer the opportunity to tackle some of Jakarta's major issues. With this focused approach the city would benefit from a larger investment per square meter.

We believe Jakarta's major problems could be eased with a radical reconsideration of Jakarta's urban fabric. Solving these problems and maintaining the crucial relationship between the formal city (Kota) and the informal (Kampung) (*Sihombing, 2004, 2010*) would ensure Jakarta's prospect of becoming a world-class city. What if we could stop this relentless expansion of the city, which will only harm the city more, but still allow the growth (from mitigation) to happen within the city center? And doing this in such a way that we can bring kota and kampung back in balance.

2.2 Main research question

How can a densified Jakarta maintain and at the same time upgrade the culture of its Kampungs?

2.3 Design Assignment (individual)

Jakarta roughly has 3 types of kampung settlements, low income, mid-low income and mid income. I focus on the mid-low income groups. These are kampungs that have a strong community band and a rat mace of tiny roads.

I'm interested in finding the limits of these communities, how big could a vertical mid-low income kampung be without losing its community structures. And can you maintain the rat mace of roads that provide shelter and are been used as an extension of the house?

The site in Kebon Kecang that I'm using has a far of 1,4 that will have to be increased to roughly 3 (based on the preliminary master plan).

2.4 Goal

On the city scale (group)

The current DKI Jakarta 2030 master plan is developed for a population of 10 million with a density of to 15.000 inhabitants / km² and an economic growth of 6-7 %.

We propose to double this by increasing the average density to 30.000 inhabitants / km², this will amount to a total population of 20 million.

This change will require a new kind of urban fabric, in which the kampung is intensified. The re-envisioned Kampung will have to house more people than ever while maintaining its diverse income groups. This strategy will offer the opportunity to tackle some of Jakarta's major issues

On the small scale / a building (individual)

Jakarta roughly has 3 types of kampung settlements, low income, mid-low income and mid income. I focus on the mid-low income groups. These are kampungs that have a strong community band and a rat mace of tiny roads.

I'm interested in finding the limits of these communities, how big could a vertical mid-low income kampung be without losing its community structures. And can you maintain the rat mace of roads that provide shelter and are been used as an extension of the house? What if we could introduce formality within the informal kampungs that would enable a hyper dense kampung?

The site in Kebon Kecang that I'm using has a FAR of 1,4 that will have to be increased to roughly 3 (based on the preliminary master plan).

Concluding, the final goal is to design a vertical kampung on the size of a community with a average FAR of 3.

3. Process

3.1 Method description

The studio is set up as a research by design studio. We subtract parametric data from existing situations (kampungs) and reuse and reinterpret this data in our projects.

In the next phase we will design structures for four different situations that can be found everywhere in the city.

3.2 Literature and general practical preference

To be able to address the large amount of information we have formed a group of four students. Up until now we have researched the many urgencies of the city based on official data from the Jakartan and Indonesian government, previous data by The Why Factory, reports by the World Bank and UN and through connections with local architects, thinkers and research groups in Jakarta. We spend one month in Jakarta in order to gain a better understanding of and documenting the issues at hand. During this visit we researched several areas and we spoke to numerous relevant parties. Measurements of kampung elements will be used as for parametric research purposes.

Overview of the main literature:

- Bank, The World. (2011). *Jakarta Urban challenges in changing climate*.
- Bank, The World. (2012). *Indonesia the rise of metropolitan regions towards inclusive and sustainable urban development*.
- Burton, E., Jenks, M., & Williams, K. (2004). *The Compact City: A Sustainable Urban Form?* : Taylor & Francis.
- Douglass, M., Ho, K.C., & Ooi, G.L. (2007). *Globalization, the City and Civil Society in Pacific Asia: The Social Production of Civic Spaces*: Taylor & Francis.
- Government, Jakarta Provincial. (2014). *RTRW Jakarta 2010 -2030*.
- Hering, B.B. (2001). *Soekarno, architect of a nation*: KIT Publishers.
- Kusno, A. (2000). *Behind the Postcolonial: Architecture, Urban Space, and Political Cultures in Indonesia*: Routledge.
- Kusno, A. (2010). *The Appearances of Memory: Mnemonic Practices of Architecture and Urban Form in Indonesia*: Duke University Press.
- Levine, David. (1969). History and Social Structure in the Study of Contemporary Indonesia. *Indonesia*(7), 5-19. doi: 10.2307/3350800
- Liddle, R. William. (1985). Soeharto's Indonesia: Personal Rule and Political Institutions. *Pacific Affairs*, 58(1), 68-90. doi: 10.2307/2758010
- Mrázek, Rudolf. (2004). Bypasses and Flyovers: Approaching the Metropolitan History of Indonesia. *Social History*, 29(4), 425-443. doi: 10.2307/4287122
- Nas, P. (1993). *Urban Symbolism*. Leiden: E.J. Brill.
- Nas, P. (2006). *The past in the present: architecture in Indonesia*: NAI.
- Pauker, Guy J. (1967). Indonesia: The Year of Transition. *Asian Survey*, 7(2), 138-150. doi: 10.2307/2642526
- Robinson, I.M. (2011). *Mega Urban Regions of Southeast Asia*: UBC Press.
- Rolnik, Raquel. (2013). *United Nations Special Rapporteur on adequate housing Official Mission to the Republic of Indonesia Preliminary findings Media Statement*.
- Roosmalen, Pauline K.M. van. (2008). *Ontwerpen aan de stad, stedenbouw in Nederlands-Indie en Indonesia (1905 - 1950)*. Technische Universiteit Delft, Delft.
- Sihombing, A. (2004). The transformation of Kampungkota; symbiosys between kampung and kota, a case study from Jakarta. *Department of Architecture, University of Indonesia*.
- Sihombing, A. (2010). *Conflicting Images of Kampung and Kota in Jakarta*: LAP Lambert Academic Publishing.
- Silver, C. (2007). *Planning the Megacity: Jakarta in the Twentieth Century*: Taylor & Francis.
- Vu, T., & Wongsurawat, W. (2009). *Dynamics of the Cold War in Asia: Ideology, Identity, and Culture*: Palgrave Macmillan.

4. Reflection

4.1 Relevance * See 2.1

Jabodetabek, the urban agglomeration consisting of DKI Jakarta, Bogor, Depok, Tangerang and Bekasi, is the second fastest growing megacity on the planet (Robinson, 2011). Current projections show that Jabodetabek's population will reach 38 million people in 2030 (Jakarta municipality, 2014). However, this growth will take place in a city that is facing major problems; all these issues are deeply interconnected and are seriously jeopardizing the city's livability. (Kusno, 2010; Robinson, 2011; Silver, 2007). We believe these problems should be tackled with a radical reconsideration of Jakarta's urban fabric. In doing so it the city would take decisive steps in its pursuit of becoming a world-class megacity.

4.2 Time planning

** This planning is based on the aim of graduating in December 2014*

Februari , March, May:

Understanding of the city, the kampung and preliminary design
orientation to assignment, literature study, topic research, test phase design proposals, design methodology research, correspondence relevant parties, preparation field study, precedent-research, research book

May:

Visit of Jakarta, grip on atmosphere, understanding of situation, understanding (im)possibilities
field studies, visiting relevant parties (interviews/data exchange), re-orientation to assignment, definition of project

June, July

Re-adjustments of design proposal based on field-trip findings
re-orientation to assignment, definition of project, presentation of research and design methodology

August-October

Following defined research and design methodology, working out design proposals
drawing process, re-adjustment of proposal to all relevant scales (s,m,l,xl) of jakarta

November-December

Finalizing design proposals
drawing process, re-adjustment of proposal to all relevant scales (s,m,l,xl) of jakarta

5. Bibliography.

- Jakarta Municipality, Jakarta Provincial. (2014). RTRW Jakarta 2010 -2030.
- Kusno, A. (2010). The Appearances of Memory: Mnemonic Practices of Architecture and Urban Form in Indonesia: Duke University Press.
- Robinson, I.M. (2011). Mega Urban Regions of Southeast Asia: UBC Press.
- Rolnik, Raquel. (2013). United Nations Special Rapporteur on adequate housing Official Mission to the Republic of Indonesia Preliminary findings Media Statement.
- Sihombing, A. (2004). The transformation of Kampungkota; symbiosys between kampung and kota, a case study from Jakarta. Department of Architecture, University of Indonesia.
- Sihombing, A. (2010). Conflicting Images of Kampung and Kota in Jakarta: LAP Lambert Academic Publishing.
- Silver, C. (2007). Planning the Megacity: Jakarta in the Twentieth Century: Taylor & Francis.