

**UI UF CU IJSS**

**Urban Green Infrastructure: An Interactive Web of Water, Space and Life**

**Wrap-Up**

14 01 2016

**COLLOQUIUM ONE**

**GROUP ONE Setu Babakan – Setu Srengseng Sawah Lake**

**Group 1B**

There are three sources of water in Setu Babakan. There is very little green space. There are three environmental issues: waste management, waste water and water quality. There is a sense of public awareness about the environment and living space. There are not many fish. There are cultural issues related to Tradition, Identity and Perception. Is there water degradation? Has water become a commodity? How has water been mixed with Indonesian tourism? What is the present generation's perception of water and the environment?

The management of water also involves socio-political issues. What do people desire? What are the priorities of the government? What are the priorities of the people?

**Introduction**

In a time line from 1987 to 1985, the events range from preservation to a master plan to establishing the Betawi cultural village. Setu Babakan is part of the region's green infrastructure system. There are three intersecting elements in the analysis of Setu Babakan: Water, Lifestyle and Green Space with GIS as a circle in the middle.

The problems in Setu Babakan are related to burning waste (air pollution), infiltration with water hyacinth, blocked water flow, connection to the natural canal and tourists leaving behind their trash. In terms of Green Space: What is Green and what is its contribution to the sustainability of the environment?

Lifestyle includes tourism with art performances, activities by the edge of the lake, the value of the lake in terms of symbolic use and shoreline activities, such as fishing. The reservoir as a commodity to attract tourists as well as handicrafts, food and trading as occupations.

In terms of city planning for Setu Babakan, the government plans do not show the connections between water, people and space as an integrated system.

**Questions and Answers**

Q1 The island in the middle has a potential for tourism. What is your plan and how do you look at the island?

A1 Yesterday, we discussed general issues and now we are discussing in small groups. The park is more attractive to the local people, so improvements can be made for tourism, such as boats and other water activities

Q2 As we move forward, how do you see yourself collaborating?

A2 It is more about management and how to live.

Q3 The first group is looking at culture and traditions. What is the attraction of local culture to tourists for a day, for a half a day? How many people will depend on the tourists for their livelihood? What is the weakness of the existing plan and what should be done to improve it?

A3 For the Master Plan we would like to explore whether it is about the economic side or about the cultural side. We would like to see a balance between the economy and culture.

A4 Relative to the island and its construction, what do people say about it? What do they want? The island is an infrastructure that is not natural. Related to Groups 1A and 1B, it is easy to differentiate between inlet and outlet. Group 1A concerns the natural or environmental aspects. Group 1B is about the cultural aspects and how the lake is used for water, boating, fishing and cultural activities.

One proposition is: "What is good for the environment is not always good for the people and vice versa."

Water is a blessing. Clean water and clean environment helps to keep a sense of the Betawi people.

What are the interests of the local people in their own culture?

### **Group 1A**

The research included how to manage the quality of water. The island area is divided into a lower and upper side. One of our questions is: How to make people stay longer? We plan to gather data for statistical analysis. The second step is to find out what to do. The third step is from the data analysis to draw conclusions.

#### **Comment Dr. Andrew Flynn**

There should be collaboration among the whole group so that there is no subdivision between 1A and 1B. Eliminate the split and think holistically.

#### **Comment Dr. Andrea Frank**

Re-evaluate the statement: What is good for the environment is not good for the people and vice versa, which overlooks that conversely a poor environment has a negative effect on people's health. A much more linked approach is advisable.

### **GROUP TWO**

## **Group 2A      Upstream Creek Agathis Lake**

The Cardiff Group will visit the site on Friday. The main concept of the UI Lake is divided into economical factors and human-social factors. The new Toll Road construction divides the two areas. The water doesn't flow very well into the lake, so it is stagnant. The morphology is split between formal and informal housing. The informal settlements are located along the riverside. On the UI side there is vegetation covering the entire site; very little water is visible. Trash is apparent near the stairs in one location. The water quality is questionable and polluted because of the housing. The trash comes from the traditional market. At the first cut of the site, the condition of water is muddy.

The Toll Road Project cuts the channel of water. The water from the upstream housing area is cut by the Toll Road Project. How will it be possible to correct this condition in the future? The informal settlements cope with grey water, rainwater and waste water. Somewhat irrelevant to our research, there is also a Gas Regulation Station.

On the upstream river, there is an intervention by the inhabitants of an illegal bridge. The community leaders (RW/RT) say that the bridge is illegal, since the upstream river is owned by the local government and the bridge was made privately.

For the upstream water pond, there is no apparent connectivity.

## **Group 2B      The Kenanga-Kali Baru Water System**

The group has discussed: What we have. How we are thinking. What we should do next. The artificial lake needs to be connected with the canal. More access needs to occur because of an overabundance of plants (*eutropic*). Along Kali Baru, the majority of the buildings are residential, so the collection of grey water and rainwater is apparent.

In considering how we think, there are deeper problems. Where do the solutions come from and what are the human activities? We have to find out the relationship between the lake and the canal. In our previous research, the main problem of pollution is coming from the markets, from the trash and grey water. The canal flows through to Margonda. Residential areas are located along the canal.

### Strategies

1. How will we do our research? (climate, population, land use)
2. Have a clear recognition of the water system
3. Discover the problems
4. Pay attention to human activity. Consider the feasibility of our data. We are not sure about the technology. A lot of the data is from our interviews and observations.

### Next Steps

1. Data Collection
2. Methodology
3. Recommendations and Solutions

## Questions and Answers

### Questions

Q1 **Mijo**

Divide the area of the water body into two types with different characteristics. Could you describe these two areas in a few words to characterize these important aspects?

Q2 **Dr. Ova**

For site visits and interviews, please be humble and think about the Situation when you go to the site. See not only the problems, but also see the good things. You may be surprised by what will develop.

Q3 **Dr. Andrea Frank**

The 'Green' pictures are almost like a botanical garden, but with less trash than the other places. It is not only thinking about where the water is. Yes, it is under the plants. This green area has not been used by settlers. Do these plants have a positive effect on water quality?

Q4 For the manmade lake, what are the main obstacles to turn it into a viable, interactive lake?

Comment

Why not divide the two sites into two parts? No one lives on the one site. On the other site, many people live there. There are negative impacts. Divide the site not only because of the Toll Road projects, but it is also part of the process. We also have to look at the traditional market and its impact on the site.

Comment

Group 2B needs to consider the eco-social aspects of the people, much in the same way that Group 2A looks at the natural environment as green space and vegetation.

Comment

To highlight these comments, contact with people is necessary with tactics and strategies in how to approach the interviews and discussions in order to get more information from ordinary people.

### **GROUP 3      Setu Rawa Besar**

#### **Group 3A**

In the 1980's, the water was still clean enough for drinking and swimming. After the government housing project was built, the waste went into the lake. Now the lake is only used for fishing and rowing boats.

1. Garbage
2. Water Pollution
3. Slums

In terms of solid waste, what is happening to the lakes? What is the original size of the lake? The area is becoming smaller and smaller because of the waste. The solid waste is permeating the lake. The algae/oxygen ratio impacts the fish. Human waste (feces) pollutes the lake. The problems include the impact of solid waste, the silting of Setu Rawa Besar, water pollution, a shrinking lake and flooding risk.

All water pollution problems are related to human activity. Lots of rubbish is floating in the lake. There are natural, biological problems and geographical conditions that relate to the rainy and the dry seasons. Then, there are manmade reasons related to physical buildings and chemical dumping.

The damage to the lake results in negative effects on human health. The chickens eat rubbish and the people eat the chickens. (ecological cycle). We need to consider how to develop the economy, without damaging the livelihood of the people. There is a small pond, separated from the main lake, possibly by land fill. The local people made smaller ponds in-between the structures for fish ponds.

#### **Group 3B**

Setu Rawa Besar is located on 16.5 hectares. The water quality (BLH) is related to the Chemical Oxygen Demand (COD) and the Biological Oxygen Demand (BOD). The use of the lake concerns flood control, irrigation, fisheries, and spring water. Among the issues are conservation and sedimentation, dredging and retaining walls, waste filtering and trash pickup by the government. Land use issues are related to water boundaries. Housing types include informal settlements, private housing, government housing. Other land uses are educational facilities, government offices, retails, mosque (*mesjid*) and church.

The area is located in a transit exchange junction with *angkot* (mini-buses), ojeks (motorcycle taxis), trains and buses. Some of the local enterprises are small breeding (chickens) and fish ponds.

Key *interesting* categories are:

1. Waste and Water: Bottles are collected by residents. Trash recycling form upstream.
2. Housing: There is a huge gap in housing types, especially those built for low-income people.
3. Activity: An area is gridded off for fish pond breeding by the servants to make a profit. Racing boats are another example of how water becomes an enterprise.
4. Fishing: The sketch of people fishing along the lake reveals the interaction between various activities. The retaining wall is useful to sit on when fishing. Someone has added a bamboo frame to hold the fishing rods. The fishermen are drinking coffee. The warung nearby sells coffee to the fishermen, thereby inviting another activity.

## Questions and Answers

### Q1 Miktha

What are the spatial characteristics of the site? What makes the difference between the inlet and outlet to define the future potential of the site? Think more about the garbage leading to rivers of waste. This thought is more general so you can define the potential of the site. What is feasible? What is infeasible? What are the things you can measure? Think about the waste, not only the garbage.

### Q2 Dr. Li Yu

Regarding this area, there are two potential activities: 1. Water Quality and 2. Existing Slums. Think and then you can create potential research issues. What would it be like if they were resettled? What kind of job opportunities do they have? Do they wish to move to the government housing? This will define the research.

The second issue is the quality of water. Who are the polluters? What is the quality of the water? In the future, all will be resolved to ensure the quality of water. Beyond the 50 meter boundary, there are also factories that discharge waste water into the lake, which impacts the quality of the water.

After regeneration or renewal, it would be interesting for the second group to define whether the activities will be interesting for the local people. Consider the provision of public space into the existing activities related to land use.

## WRAP UP

### Kyle

In terms of environmental issues and water management, a common theme is bridging. The strengths are that the good presentations foster collaboration based on a foundation of green infrastructure and connectiveness, which takes a collective approach.

In focusing on the strengths, those presentations which express a strong spatial understanding look at the source of water: where inflows are and where the outflows are located. Many of the stronger presentations have a good understanding of vivid, visual designs. There is also a strong connection between human interaction and the environment. Further studies will explore the eco-cultural connections between humans and water.

The gaps occur among other projects in which the participants need to think about how they collect data. Although we may not have the technology, you can be innovative, for example with water quality. Besides finding the data that complement each other, a dynamic occurs in utilizing the expertise between members and with the strengths of this 50-person studio and seminar.

Taking advantage of our diverse backgrounds, other approaches would be to develop existing ideas, to spur new ideas and to develop and synthesize these ideas. The ideas and recommendations have real potential, i.e., with the new Toll Road across UI, recommendations could be made so everyone could see the actions happening, during and after the construction process.

### Dr. Andrew Flynn

It has been pleasurable and a real tribute to work together. I am excited about the sites and the ideas. The presentations meet our expectations relative to geographical scale on a micro level. Time

scale also needs to be considered, in order to analyze the present and to consider a future-oriented baseline. How far in the future do you wish to project an idea? What are the key dynamics: socially, culturally, and dynamically? Think about the issues in-depth. What sort of areas are those shaped by urban planners? Ask the communities how they want to be in the future.

The terms also need to be unpacked. What do we mean by the environment? Does it mean biodiversity? Do people have different understandings? – Fishermen, Local Residents, Traders, Visitors? A shared understanding is different than an individual understanding. You have to work to have meaning, to strike a chord with people. You have a great capacity. Rise to the challenge. There is still time left for unleashing and exchanging ideas – make the effort!

**Diane Wildsmith**

In reference to Manuel De Landa, there are three metaphors: geological, biological and linguistic. These metaphors are poetic in relation to the understanding of green infrastructure. What we have been doing in this seminar is adding layers of understanding, layers of knowledge and layers of exchange of ideas. In a biological sense, once the soil is ready the seed will be planted to define the sustainable relationship between nature and humans. We are from many different countries and different languages. With that diversity we have the chance to propose innovative ideas for sustainability.

**Dr. Andrea Frank**

With the incident today in Jakarta, we are asking you all to stay in the vicinity of the hotel. The Cardiff University officials are closely monitoring the Setuation and there is a great concern for our welfare. We will meet in the hotel at 8 am for an update for tomorrow's plans.

**Dr. Kemas Ridwan Kurniawan**

The seminar will continue at 8 am tomorrow and we will proceed as normally, unless we are advised otherwise. Depok is relatively safe and away from the commotion of Jakarta. Some of the groups may plan to visit the site and continue their interviews and research. We will reconfirm the seminar plans in the morning to make arrangements for *angkots* (mini-buses), taxis and other transport to the sites to continue the seminar process. Thank you all for your participation and excellent efforts.