**UI UF CU**

**Working Notes**

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**Seminar**

MC - Kanar Welcome to the International Joint Studio and Seminar focusing on urban green infrastructure. We are looking at water and waste treatment and management. In the seminar, we are considering water, space and life interventions to enhance architecture.

**1. Setu Rawa Besar: Living Side by Side: Turning Water into Sustainability**

**Moderator: Dr. Jocelyn Widmer, University of Florida**

During the seminar today the purpose is to look at the site holistically and integrate your thinking. *Setu Rawa Besar* is a huge lake, surrounded by settlements. The first part is to take a micro outlook about this lake. We should be looking at the enhancement of the capacity of the lake, rather than problem solving. There are no absolutes in individual problem solving. If the problem of the whole system is not solved, then this will affect the water system, the transport system and the rubbish system.

**Presentation**

The policy system regulates that a 50-meter green belt occurs around the perimeter of the lake, but looking at the plan, the existing residential and school area make it is hard to push them into compliance. Our work will not solve the whole problem, unless the problems of the larger city are solved.

*Setu Rawa Besar* is in the center of Depok, which is nearly in the center of Jakarta. The place can be reached through public transport and by small buses. On the plan, details about accesssibility are shown by the red line, which indicates the walking path. The zoning functions are shown as housing (Yellow), schools (Green), etc. Observations on the site were undertaken to find out the real questions. By looking at the past activities, we find that there are many interesting economic activities, such a selling food and fishing. But, the water quality is in a really very bad condition, so our idea is that Water is the opportunity to improve the environment and create job opportunities. We wish to consider how people are related to the lake *(setu)* as fishermen and tour guides. If they see the *setu* as their home, then they will keep the water clean.

The method for the survey is to divide the lake area up into fixed zones and to survey the residents' awareness and considerations. There were 34 random respondents who indicated on average that they would keep the fishing boats and that they wanted to keep the environment as their own and not turn it into a tourist area.

In a diagram where the three circles of waste, water and living. The quality of life and the human environment is the indicator that intersects all three of the issues. Also considered are Land Use and Land Fill as well as dealing with waste problems, water flow and wetlands in the 50-meter deep setback. Current inhabitants of housing located in the slum areas expect to undergo relocation into vertical housing near the original location.

Living close to the water involves three strategies. The first strategy is to increase the living space and the public space. The second is to set up a solid waste management strategy. The third involves water treatment so that the wetland can deal with sewage from the houses and water quality in the lake. Water management is likely to involve a connected drainage and piping system, collection of rainwater and grey water and provision of septic tanks for the proposed vertical housing. There is likely to be a combination of an eco-wetland and an artificial wetland to filter the waste. The case study on Dongguan is an example of a wetland and a water treatment project.

The section drawing shows the inlet area with a solid waste filter to manage the trash that is dumped in the lake. The ground level is higher than the lake *(setu)* and there is a retaining wall to block flood waters. Different kinds of plants will be used to filter the water. Bamboo is particularly good for removing metallic impurities.

Regarding the drainage around the *setu,* a collective drain pipe from each house would be connected to a communal grey water tank where the water would be treated and then released into the landscape to eventually filter itself down as ground water into the water table. The black water would be collected in a septic tank, whereas the grey water will be dispersed into the soil.

In terms of solid waste management, several connection points for solid waste will be located in the neighborhood, near the residents' houses. The trash would be separated and then taken to larger collection points to be collected as organic, non-organic and hazardous waste to be processed by a cleaning company.

There will be areas for composting in a communal urban farming area around and near the *setu,* which will also serve to educate people about the importance of the environment. The border lands of the *setu* will be used as public space with additional docks for fishing, a 5-meter wide pedestrian walkway and a 10-meter public space and space for urban farming behind the houses.

The policy measures to be considered for wastewater treatment include septic tanks and an artificial wetland. For solid waste management, the policy includes waste separation into communal trash bins. Other policy measures might include improving the quality of public living space in the 50-meter setback as a transitional zone. Vertical housing is proposed to replace the displaced slum dwellings. Future policy considerations would encourage provision of employment opportunities. Additionally, enhancing the power of the community groups to act as a medium between the government and the people would be advisable for policy realization. Policy measures are a way to face the problems and the obstacles and to provide for many opportunities within the community.

**Questions and Answers**

1. Question - Dr. Andrea Frank

   Thank you for the wonderful summary. I like how you approached being humble in your inquiries in order to enhance your understanding of the complexity of the site. From a systems level approach, the scale of the challenges range from the intimate scale to the larger scale. What happens in the future in the context of a larger scale? What are the opportunities for water to act as a democratic space? How do you define the fluidity between the communities and the center of the lake when you cannot access the water unless you are in the middle of the place? Also I didn't see the connection between the social data and the eco-wetlands. How do you ground the data in the solutions? Lastly, engagement with the community is moving forward with a cross-section of stakeholders, resulting in heterogeneity.

2. Question - This is a wonderful presentation. What do you want to achieve with an eco-community? Alright, there is enhancement, but how do you achieve the plan with the community? If you move people out of the area to build a new building, how do you engage the community? I just want to ask how to address the program with human beings to build an eco-community?

   *Answer - The public space problem is answered with the vertical housing to give a better quality of space.*

3. Question – Dr. Jocelyn

   I would like to weigh in here to say that to enhance the green space does not mean that you have to displace the green spaces, but it can be done in a familiar social context.

   *Answer - Also we can focus on the urban farming and the community involvement to participate in the maintenance. It is important to engage the community in all parts of the plan. People are generally very happy within their communities.*

4. Question – Prof. Li Yu

   This is a very interesting presentation, especially in terms of treatment for a systematic view that is not just about the lake. My question is, "Why do you suggest landfill on the site for the solid waste?"

   *Answer - For the waste management system, the orange squares shown on the plan are locations for the smaller bins set with a 50-meter gap in-between, so each part of the community can easily access the bins. Then, the trash will be taken to the waste collection area. The idea is just to collect the small scale trash and then take it away to the city landfill for further processing.*

5. Question

   What is your main challenge? Is it the social aspect of transferring from illegal to legal status? Did you cover this in your questionnaire?

*Answer – Basically, we also asked whether people were satisfied with the living spaces or not.*

6. Question

   Do you think it is because of the physical conditions or is it because of the intangibility of the area?

   *Answer - People said they would like to move as long as they could stay with their neighborhood.*

7. Question

   What impresses me most of all is: "What in this area makes the community so particular? What needs to be preserved and how do you use it to regenerate this place?"

   *Answer - In the past there was a strong connection between the people and the setu. Today this is not the case. There is a lot of activity in the setu with lots of people fishing, but we have no idea if the fish are edible. People in the setu area are not well-educated about the environment, so that the idea is about having a community base to keep the connection alive. It is a change of tact to focus on the environmental issues.*

8. Question

   I am impressed with the wetlands proposal to build up the slope and to add a pumping station. Technically, this works. Will this place remain as a wetland or is there a risk that it will be invaded by future urbanization? How do you see that can be managed?

   *Answer - The wetland is proposed due to the situation with water pollution. The question is, "How to remand this area in the future? There is a projection that Jakarta will continue to expand and we also know about the floods so Setu Rawa Besar can be used as part of a 'sponge city'.*

   *Answer - Another point of prevention is government policy with the 50-meter setback, so people can make a connection in the public space to protect the lake with 5-meter, 20-meter pedestrian and 15-meter public space, etc. Also in cooperation with community groups, there could be measures taken to limit the number of people migrating to the area. The proposed vertical housing is for the current residents.*

   *Answer - Education is very important so the people will understand how important the wetland is for the quality of life, so people need to take ownership.*

9. Question – Adam

   I have a question regarding the urban farming. Your proposal is awesome. Are people interested in utilizing the space for that reasons or would they use it for something else?

   *Answer - For the urban farming itself, we did not specifically ask that question in the survey. If people are given compost and if we make guidelines for urban farming within their own houses then this is a possibility.*

10. Comment – Jocelyn - One aspect has to do with daring people to change their aspects.

11. Question – Bill Whiteford

    Top notch information – if approximately 1,000 families will be displaced in the slum area, where will they go and what will happen to them?

    *Answer - From the data, it is not 1,000, it is more like 100. We propose that they are relocated to vertical housing and have jobs, such as home gardening skills or cleaning skills for tourist destinations, which are provided in the same vicinity.*

12. Kyle Dost – Wrap-Up

    This is a great job in capturing a holistic perspective. The design captures the benefit of eco-system services. How does this relate to the planning cycle in terms of collecting data? How do you formulate an implementation plan and when can you rely on making the solutions come to life?

    *Answers - Your question is related to our processing and collecting the data and what we should do to implement it. People don't see this as a problem. The government does not necessarily know why there is a 50-meter setback.*

    *We think that the regulation is not strong enough, so we decided to go beyond that and look at the people's capacity.*

    *In order to improve the environment, first we need waste treatment. The government needs to pay attention as they will put a lot of money into the plan. In terms of education, people need to deal with the environment and how to manage their lives.*

    *Farah – Our ideas and plans are based on the government plans.*

    *Answer – For a top-down approach there needs to be a middle man between the government and the people. The people need education so they can understand the overarching requirements.*

    *Answer – We talked a lot about this in the working groups, but currently, these (community groups) are not active, so they need to be re-activated.*

13. Question - Frank Sedular

    This is a very interesting approach. Could you explain the design process of working with the poor communities in Central Jakarta? There has been a lot of push-back from the informal residents. What is the decision to move the poor people into vertical housing – is it a quick fix?

    *Answers - Most of the time the rumah susun is too far away from their current working and living space, which costs time and money to travel back and forth. That is why we propose vertical housing around their current working space.*

    *The biggest reason is that the population is too big.*

14. Question – Dr. Andrea Frank

    This is a quick interjection. How long does it take to build the 3-level housing? How much space do you need? How will you solve the problem of temporary space? During the process while it is being built, where do you move the people and how do you manage them?

    *Answer - The vertical housing is planned to be 720m2 with 25 rooms on each level. I am not sure how long it will take to build three floors.*

    *We didn't consider where the people will live temporarily. In China, this might take about a year and the people have move to another part of the city.*

15. Question – Dr. Kemas Ridwan Kurniawan

    The government plans to return the lake from 15 ha currently to 25 ha previously. What do you think about this planning from the government? In relation to the outlets of the lake, sometimes there is flooding involved. What are your thoughts regarding this scheme that you propose here?

    *Answers - One response regarding the government plans to expland the setu is that this will be very hard to do because the settlements are very dense. This kind of expansion won't keep up with the urbanization trend.*

    *Near the bridge and the government housing, the gutter system in that area of Setu Rawa Besar is kind of clogged. There are retaining walls along the setu, so that area floods. The setu itself never floods regularly, only during peak flooding. What causes the floods is that the gutter is clogged in the front of people's houses, so the water doesn't flow properly.*

    *Answer – Only the slum areas are flooded by the setu. The water is approximately knee-height during the flooding. In the government provided housing, the retaining walls block the flooding.*

    *Comment – Actually vertical housing is too radical at the present time.*

## 2. Connecting Blue and Green Spaces to Create a More Resilient Future: UI Lakes & Surroundings

**Moderator: Dr. Andrea Frank, Cardiff University**

**Presentation**

This group is looking at the ideas and problems related to the UI Lakes and their tributaries. The methodology follows a logic of identifying problems and then considering issues and then proceeding to the solutions for the UI Lakes and their surroundings, which have significant aspects that reflect water quality.

How can conditions of the environment affect water quality and the quality of life? Besides the facts of water and population, we are looking at the master plan. The goal is how to improve the water and the surrounding environment through social and physical intervention. The methodology involves participation with various actors (the university and the community) and how the whole water system will be more dynamic if both the upstream and the downstream are affected.

The Agathis Lake is in the western area. We also consider the upstream area of Kenanga Lake. In determining how we are going to solve the issues, we are considering community collaboration and water resilient management to activate the future plans, as one idea.

Kalibaru and Agathis Creek have two upstream rivers. The problems have the same source through the traditional market of Kermer. Traders in the market are known to throw black water and grey water into the river, which occurs concidently while children are playing.

The key problems in the UI Lakes have to do with floating vegetation, rainwater treatment, trash thrown directly into the river from the commercial area, residential areas and the impermeability of movement and market chaos.

In re-arranging the built environment, we are presenting imaging of how the future might be. The Toll Highway cuts the site in two, which will affect the water quality. Our task is how to improve the water quality. Rearranging the built environment means addressing the wetlands, the relationship between waste and water, urban farming and the presence of solid waste supporting the household activities. Localized solutions are focused on the market.

Our methodology starts with approaching the major areas, then considering the minor areas. The traditional market stalls are located along the river and they throw their trash directly into the river, so the river is polluted. One possibility is to change the layout of the market. We also propose to add a communal green open space and a garbage net along the river to collect trash. Additionally, we propose to add socialization about how to take care of the place.

In terms of a localized solution in the residential area, the trash is found along the river, but it is from upstream, not directly from the residences. One solution is to add a simple filtering system to catch the trash in each area. Hydroponic systems (to grow vegetables) could be located in-between the houses. Another proposal is to make water gardens to collect the rainwater and to use porous pavement blocks. Another solution is to add vertical green walls and blue space for the river.

Localized solutions for the commercial area next to Kali Baru include adding an angle board to the side of the restaurant so people cannot throw their trash directly into the river. The section show a new plumbing system where plants are used as a biofilter to trap the grease from the restaurant and leftover food is used for compost.

In thinking about reconnecting the lake and the river, Kenanga Lake is used only as a container or reservoir for rainwater. Rainwater collection could be decontaminated for daily use.

In terms of social approaches, it is not just a top-down question. The residents know their living space, so the solutions can be derived from real needs. We are also considering how the design can be developed for resilient futures. Education and financial support along with controlling laws are important. A social approach towards waste management is a holistic idea. The communities currently may not know about the solutions. The waste management system in the informal housing area, depends in part, on who holds the land certificate. We cannot deny this issue because it plays such an important role for housing. There are different conditions and different treatments, both formal and informal. The task is how to get reconnected.

Negative aspects, such as usually burning the trash near the river results in a bad impact on water quality. The formal housing has access to the government container service; however, this is not a sustainable way as homeowners do not take responsibility for their trash.

Conclusions

Physical and social approaches to solutions can be applied in a similar way to both areas. The lack of awareness means that implementation requires public support and government policy. The problem is in integrating the many different factors. We think there are solutions for a holistic system.

Comment Dr. Andrea Frank

There was very little time to survey the vast area and to travel around to view the two kinds of rivers. It is not just one river which influences the water quality and what happens downstream. There are a lot of actions for intervention or policy. For the focus on waste management, there needs to be some intervention, but it is not so easy. Highlighting the informal sector, it is a way to make a living and if you rationalize this situation, then people will lose their livelihood. It is a tricky problem to make this intervention, either for gray infrastructure or for transport issues, but not for the water or the green spaces. As you pointed out, there is more detailed work to be done.

**Questions and Answers**

1. Question - Febe - I would like to know who are the actors that will make the proposal happen?

   *Answer - Who are the actors that can support the process? The main actors are the community themselves so the solutions are from the bottom to the top. Actually, the community has a system, but it is not working, so maybe it is not the best one.*

2. Question - Who is the Community? Comment Andrea – There seem to be multiple communities. I think the main actors in each area are different.

*Answer – The main actor is from the government. There needs to be some kind of guardian for the market. We could approach the RT neighborhood leader to lobby for our solution.*

3. Question - What I am trying to ask about is who are the specific actors for the community and for the traditional areas? By knowing this, it will make it useful and easier to proceed.

   *Answer - Who will manage and maintain the proposal? In the commercial area it should be the person who 'owns the plumbing' to manage it. The actors should be responsible also for the legal management of the market.*

4. Question - My understanding of the area in the beginning is that there are two different administrative areas. Does this cause any difficulties, especially in terms of administration?

   Andrea: There are different administrations. Can we hinder or help? – That is the question.

   *Answer - This is a long term development so some of the design may have to be negotiated. Together we have to negotiate with the administrations about the designs.*

   *Answer - All of the proposals are catalysts to trigger all the stakeholders.*

   *Answer - In our opinion, it is better to do minor innovations in Indonesia. We are going to do the interventions. The people are close together, so one neighborhood will copy the other.*

5. Question - Prof Li Yu

   The main actors, these people are already in the community sector, but they pollute. How do you expect them to change? How can you deliver education? Are there any laws or policies existing. How do they function and why don't they function? What is the main problem?

   *Answer - How to deliver ideas is through education to show how the design will benefit their life. If they have an awareness, it is easier for the community to deliver that proposal.*

   *Answer - Actually, there are many laws that happen, but the community does not know the laws or know what is important.*

   *Answer - For the area of Kali Baru River, there is the law, but there is not enough infrastructure to support it. There is a garbage collection system, but it is chaos and there is no room to pass by. So the physical environment has to change. The policy is hard to deliver. The government has a policy to collect trash, but the local people do not want to pay, so the policy is hard to deliver.*

   *In summary, the laws exist, but can't be implemented. Poverty exists so the poor cannot pay in an orderly way.*

6. Question - Jocelyn – It is more interesting from a stakeholder's perspective. What are your thoughts? You ae part of the chattering and the solution. How do you see the Unviersity in terms of education? Maybe there should be an outside mediator contributing to that education piece.

*Answer – The campus has a community engagement group for interaction. There are education movies and family gatherings. We conclude that there are many creative student groups developing. It is not only the lecturers and the stakeholders. The students have more time.*

7. Question – Bill Whiteford

   Kudos on pulling yourself together in such a good team for re-arranging the built environment into a past and future scenario. In terms of the waterway under the toll road, how can these ecological processes continue to exist after the toll road is built?

   *Answer - There are many ideas. Actually, the water channel will flow below the highway project. It is challenging to consider how the water can flow. We will not be able to reach the water because it will be concretized. In the old plan, the water flow is connected. In the new plan, the water channel is bigger than before, but the first one will be closed. The other channel is how we can filter or reach the underground channels.*

   Comment - Andrea - We assume that how to improve the quality specifically is that we can facilitate the filtering and the management of the system.

   Comment - Bill - Now that the highway is being built, the objective is to turn it into an opportunity, instead of an obstacle.

8. Question - How can you improve the water quality? You concentrate on the physical garbage, but you don't solve the problem of water quality, which is due in part to algal bloom.

   Comment - Andrea – Okay, this is a challenge.

   *Answer - We have analyzed the UI Lakes in relation to the algae and the water hyacinth. Our solution is to consider the use of a wetland before the water enters the lake. Actually, historically speaking, the area was formerly a rice paddy. We discussed and considered this problem.*

9. Question – Andrew Flynn

   I am very intrigued as to the title: "Resilient". It is very topical, but you have to explain what you mean by social, economic and environmental resilience. Think about what is the best scale for analysis. Group 1 looks at water supply; Group 2 looks at a neighborhood. What is the best scale for understanding resilience?

   What is your recommendation for the other researchers about methodology for the local community and the environment? What is resilience and what kind of resilience is there? Resilience from our perspective is related to social, ecological and infrastructure issues. There is low impact development. There is green infrastructure for ecological development. They (the community) will have their own ability to recover from policy regulations and the laws. The public can recover from disaster and they will be stronger after the recovery. The social side can support us to change.

   Describe resilience based on your field study and what it means.

*Answer – The hierarchy is about laws and policy. For ecology and insfrastructure restoration it is better to put it in the context of a smaller scale related to real things that we can touch or feel in our daily lives. The community includes allowances for all three issues.*

10. Question – How would you advise other researchers to understand resilience through data collection?

    *Answer – As for the methodology for other researchers, it is to analyze the problem and to find out how other people respond. Then to determine how people, or our target reacts to the problem.*

11. Comment - Isti

    My comment is geared towards making your project deeper and more integrated. What happens in-between? I ask this question so you can use some imagination about how you move the people and why you are doing this research. As far as I understand, you are dividing the social and the physical. Consider how to integrate these two issues to provide more options. For example, the residential area may put up a gate, while the community throws away the leftovers. But, if you want to improve the social, you have to design options.

12. Comment – Andrea

    On this wonderful concept, it is very valuable to go back to the community. On this positive note that is some way to take comfort from these projects.

3. **Setu Babakan:**
   **Building an Innovative Model of Cultural and Economic Sustainability**

   **Moderator, Diane Wildsmith, University of Indonesia**

**Presentation**

Setu Babakan is attractive because of the Betawi culture. We believe that Setu Babakan can look forward to a sustainable future. Our findings reveal an innovative model of a sustainable *kampung* as well as making recommendations about the gaps in the masterplan applicable to the future. If we compare the green space and the size of the lake in 2005 to 2015, the lake size has increased. The 2005-2020 Master Plan is comprehensive with zoning around the lake. The sustainable *kampung* model is based on the Betawi culture. If we think of a structure like a house where the roof is sustainability, the environment and the economy are the pillars and culture is the platform, we have the relationship for a virtual cricuit between management, the economy and sustainability. The management of water and green open space will transform *Setu Babakan* for educational and research opportunities. Even though the red zone in the master plan is fragmented, there is continuity in the overall master plan and it is just a matter of how to fill in the gaps.

The methodology is based on observations to the physical effects on culture and lifestyle. We don't getting the feeling of the Betawi culture here. The main idea of the Betawi culture is not exposed. Water is contaminated by organic waste and domestic waste. There are issues about the separation of domestic waste. Green space is greatly valued. The lack of public transportation causes more and more vehicles to come to the site. We are explaining about the gaps, which we are trying to complement in the master plan development and with the buildings. We don't see continuity, again it seems to be fragmented.

Our planning recommendations are first to add a promenade to create continuity by adding a food court with Betawi food. The promenade will pass over to the island. The current master plan proposes a guest house on the island. Instead, we are proposing to use the island as a museum and also as a farm to engage the community in urban agriculture. By using wetlands, we can add better water quality to the lake. This may well be a good way to revitalize the lake and as a way to reinforce the Betawi culture, which appreciates open space. We also plan to add meeting points along the lake. The green space will raise an awareness for the people to take care of their environment. With the addition of Betawi food, a research center and meeting points we are seeking to connect people and their culture. The research center would also have a performance area. There is a 14-meter band proposed around the lake to add green space as a continuation to the spacious feeling. There will be parking areas added and from an environmental point of view the wetland will increase the capacity of the lake.

We propose to manage the trash with a barrier wall as a kind of dike to prevent waste from entering the lake and to add bigger trash bins with international symbols for organic, non-organic and hazardous waste. We propose offering a Betawi handicraft souvenir as a prize for good trash management.

To sum up and reinforce our model fo sustainability there are three categories: socio-cultural, economic and environmental. On the socio-cultural side, we plan to link cultural performances with nature. In terms of political engagement with the community, a bottom-up approach is preferable. In conclusion, we propose a system and a model as an approach towards sustainability.

**Questions and Answers**

1. Question - Diane Wildsmith

   Nezar AlSayyad (UC Berkeley) writes about the risk of commodification and 'Disneyfication' in relation to culture and tourism. Do you think the Betawi culture in Setu Babakan will be able to survive commodification?

   *Answer - People want to know more about the Betawi culture. There are dances and performances, but people are also hired as dancers and performers, which raises doubts about the integrity of the culture. There are many ways to improve the culture. Visitors do not sense Betawi culture when the younger generation disobeys the community laws. Commodification is known, but it is not a visible mark. The Betawi people know what they want in terms of an arts and crafts center, which is a desire that comes from the people.*

2. Question – Kyle Dost

   Your holistic approach questions the culture, the environment and the economic means to sustain the area. If we think in terms of the regional watershed, Setu Babakan is the northern most lake. Since the water flows from south to north, there is an accumulation of problems. How does that effect come into your reconnection with pollution upstream and downstream?

   *Answer – From possible observations beside the lake, there is an accumulation of sediments besides the water. Water pollution will go to the other side. There is a need for conservation of the environment as a filter, both upstream and to downstream.*

   *Answer – Setu Babakan, especially downstream is close to heaven on earth. There is a good quality of lake water, but at the intersection between the sewage outlets and the water outlet downstream, there is some pollution. There is a proposal to add capacity to rectify that problem.*

3. Question – Prof. Li Yu

   It is a very interesting presentation that reviews and identifies the importance of the existing culture and how culture can promote the economy and the environment.

   Why didn't you talk about the society, the whole of society and the relationship between the culture or the whole community? First, there is the relationship betwen the economy and culture. Then, there is the relationship between the environment and the lack of culture to promote the environment. Can you further examine these issues?

   The second question is: "Can your model be used for other areas? Can you list the advantages in delivering your plan to other areas?

*Answer – Related to culture and the environment, it is not just about tradition and the arts, but also about lifestyles. We see for the first time that we have an island. There is a view of culture from the other side and how the Betawi people are open and welcome other people. Tourists are not just sitting around, but also can interact and feel welcome.*

*The island offers a possibility to make a research center for bio-diversity and this is a way for local people to become experts in the environmental field on the island. In terms of architecture, there is also a link with the culture in that the veranda offers ventilation, open air and protects people from the sun.*

*To sum up, the traditions and the lifestyle that the Betawi people appreciate and like, have to do with open space. This foments green space and walking around in the natural environment with a sense of identification with the Betawi culture.*

*Answer - For the Betawi, it is a reminder to value and preserve their culture with an emphasis on daily activities. Every Friday, members of the community volunteer and work cleaning up the public areas.*

*Answer – In answering your question, "How to export the master plan?' This answer is based on the culture of Indonesia that has its own diversity. One way to do this is to create jobs that would build up the environment and the economy. The environment and the culture of Indonesia has to do with the outdoors, being outdoors, talking with people, and socializing.*

4. Question – Isti

I really appreciate your presentation and your approach through an ethnographic method. I would like to point out that the ethnographic method is "tricky". Do you take their quotes oe what individuals say and then romanticize their quotes? I would like to point out that it could be viewed as a "threat". If so, how did you take the quote from the micro scale context?

*Answer – As soon as we entered the conservation area, we asked ourselves, "What makes a Betawi, a Betawi?" The answer was that, "We are very open people." By mixing origins with Dutch, Chinese, Portuguese and Arab, etc., it is a very diverse, open space. In our proposal, we wanted to have the area being representative of that openness, so that when you enter the place you feel different. You can then experience culture in an open way.*

*Our teachers told us tht we are conducting research with a fresh eye as foreigners. We have mixed feeling about the Betawi culture. We are trying to envision what makes Betawi culture really distinctive? We surveyed 60 respondents and we tried to complete the full survey. We found answers, but there may be other reasons. It is ordinary to have differences.*

5. Question – Miktha

In terms of food and what you mentioned previously about Betawi culture, there is the physical nature of the Betawi house itself. It will need codes to preserve the materials as well as another need for maintenance codes.

*Answer- To make the whole area Betawi would be very costly. (The architecture with its veranda) is just to communicate how there is no boundary between the guests and the community. The traditional houses often use ornaments of the Betawi culture and style.*

*Actually in conclusion, but not to go to deeply into the topic, the regulations about Betawi architecture extend to new houses built on the site, but there are gaps. Some of the existing houses apply some aspects and are fully designed as Betawi houses.*

6. Comment – Diane

Benedict Anderson, (historian and political scientist) from Cornell University wrote about the idea of an 'imagined community' as the basis for constructing a nation. In our own way we have become involved in 'imagining communities' with the Betawi people in Setu Babakan. The way the students huddle together to discuss and then answer questions is a kind of community action. This collaboration and way of working together about green infrastructure can continue once we return home to our respective universities.

7. Question – Andrew Flynn

I am thinking through to the future when the community thrives and becomes successsful. However, tomorrow the community may become the victim of its own success. How do you manage demand and what might that mean in terms of equity? In terms of generation of capital, the more success there is, the more likely it would be to have investors with external capital. These are two forces that may begin to undermine the success of the community.

How does the community deal with the increase of success and with the increase in tourism. Of the 200,000 people, there are only a small percentage of foreigners. How do people get to this place? If it is by motorcycle and private cars, where are the parking lots and how will the community handle the increase in tourism? Will there be a limited number of tickets for daily entry so it is not too crowded?

*Answer – If it attracts more investors, there is always a pull of power to make this investment. If the community conservation area is handled by the locals, they will take over the preservation of the place. They need new infrastructure so they have to wait for the government. If they have the money, they can go ahead faster. The key is that they want to be able to have a voice.*

8. Question – Andrea

There are two issues concerning how the culture can link with the environment. One is the building and the building materials and the other is the local environment, for example, there is not much air conditioning. I am not yet clear about the Betawi lifestyle. Do young Betawis adopt a lifestyle that will fit into that cultural pattern? For example, in the Alps in the summer, the local farmers take their herds up to higher ground. With the cows stepping on the grass, it means that the land won't slip off in the rainy season. But young people today in Europe do not want to have such a hard lifestyle. How could you adapt this idea to an environmental style?

*Answer – It is a good question that we ask ourselves. Before the conservation area, people remember making more of a connection with the place. As far as the younger generation goes, one person commented, "I tell them to go that way and they go the other way. The younger generation is changing in response to the surrounding urban area. We don't expect them to do farming or to work in 'green' jobs."*

*Answer – The lifestyle is different now. If we look back at the time before computers and the advances that society has made now, it is a totally different situation than in the past. When there were no TVs, people used to talk a lot. When the young people marry outside of the Betawi community, they are homesick.*

9. Question – Prof. Abimanyu

   If you look at the macro, Setu Babakan is outside the campus and the toll road. But in this case you have to talk about the same area related to culture. If I am a foreigner and I want to learn about the Betawi culture, how should I learn about it there? What scenario can you make so the space/time of learning about culture is there? What kind of culture can I learn about there and how can I learn there? Space is limited there.

   One of the obvious things are the arts and crafts. You can also show this. On the Master Plan you show a Guest House, a Museum and a Cultural Centre. What makes the Betawi interesting? You have to consider: what, where, why and long because it is too small a scale.

   *Answer – What makes the Betawi culture interesting is their openness to foreigners and not just to the Betawi themselves. Guests can experience the cultlure directly first hand.*

10. Comment – Kyle Dost

    There is one more point to consider. Case studies are used as an overarching idea to take a model and a framework to be applied elsewhere to rejuvenate an area. I believe that where the places of interaction intersect with the space of the environment is a way to make it sustainable, believable and resilient. In a more general way, the model is the based on the culture, nothing to do with the economy or the environment, so you have a cultural sense at the end.

End of Working notes 26 01 2016 DW