The lost and hidden water of São Paulo

THE STRATEGIC VALUE OF LANDSCAPE-BASED GREEN-BLUE INFRASTRUCTURE

MASTER THESIS URBANISM - TU DELFT

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Reflection

In this reflection I will reflect on my way of working and the preliminary results of my thesis. The thesis is part of the graduation studio urban metabolism. Thinking in systems and flows is one of the characteristics of urban metabolism. Because the project was focused around the relation between the landscape, water system and urban system, the analysis did not account for administrative borders, but instead used systematic borders. The systematic borders were defined by the water system, because the main system or flow that was used by the strategy and design was the water system. However, the thesis did not try to research a complete urban metabolism for São Paulo. It only focused on the flow of water, and how this affected the urban system. Other flows such as waste and energy, were not considered. Further research might try to combine the strategy based on the water cycle with other aspects of urban metabolism.

My subject choice was based on my personal interest in São Paulo due to an earlier visit. Furthermore, a first analysis of the city showed the potential in using São Paulo as a case for developing my project. However, during my thesis the choice to pick São Paulo as a case brought some difficulties which influenced my planning, process and products.

When I initiated the research, I based my expectations on previous projects I encountered and worked on in the Netherlands. Therefore, when starting up my project and planning I assumed that I would have a lot of data available to develop a landscape-based strategy. However, I underestimated the difficulties that working on a city abroad would bring. This has several reasons. First, when I started the project I planned on getting in touch with the university of São Paulo to help me with the gathering of data and other information. Unfortunately, after multiple e-mails to the university, I never got a reply back. This was a disappointment. Still, I was determined to find workable data, and found the website of the municipality which includes GIS data of the city. This was a great start to develop a large-scale analysis of São Paulo, however, a lot of the data was hard to use and had to be manipulated. Furthermore, the GIS data limited me in taking a step to smaller scales, because the only maps I possessed were maps based on GIS lines, which had not all needed information. I was able to determine large-scale relations between elements, but this was more difficult for the smaller scales.

Besides the limitation of the maps available, I further underestimated the language barrier the project would bring. I tried to search for a lot of information regarding the water system, current strategies and other information to get to know the city and its systems better, but because all documents (apart from a summary about the city strategy) were in Portuguese, it took me a lot of

time to understand and deduct information from the documents. Every time I wanted to know a topic more in-depth, it took extra time. Furthermore, I might have missed a lot of potential data and information due to the language barrier.

Eventually I was able to take the step to the smaller scales, but looking back I realized that I should have made the step sooner and even smaller than I did. Initially, it took me a lot of time to take the step to a smaller scale because all data I possessed involved the complete city, which gave me an extreme amount of information to analyse and understand. This caused an endless cycle of trying to understand the city better, while the scale was simply too large to understand it all and I got lost in the extreme scale of the metropolis. I wanted to scientifically substantiate my choice to zoom in on a certain part of the city, but because of the scale of the metropolis it was hard to fully substantiate this choice. When I finally made the choice to focus on the Aricanduva watershed, the choice was based on many different aspects and I still think this was the right choice. However, I was blinded by the fact that the maps of the municipality didn't include smaller scale watersheds. This caused me to focus on the Aricanduva watershed for too long again, because I assumed that I had made the step to the small scale, but when developing a strategy I noticed that the scale of the watershed was still far too big to make substantiated choices about developing a strategy. Instead of zooming in further, because I lacked data and maps, I decided to analyse the watershed further hoping that it would give me enough information to take the next steps. This caused that my strategy and design are not as detailed at this stage as I would have liked them to be, because they needed to be developed on a smaller scale earlier in the process.

The next time I would be involved in a project abroad with a limited amount of data, a language barrier or an extremely large scale, I would make assumptions sooner, rather than substantiate every single step I make. This would allow me to know a small part more in-depth, which in turn could help me in understanding the larger scales better. Looking back, I think there is more value in knowing a small part very well, than knowing the whole city just not well enough. Especially for the development of a detailed design, it is needed to be able to design up to street level.

For the final part of my project I will focus on the smallest scale that I missed for the most part of my thesis. This gives me the opportunity to be able to make a more detailed strategy and design which can then translated back to a revised strategy for the Aricanduva watershed and potentially other watersheds of the metropolis. It also allows for a better reflection of the results.