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The Water Hub

Celebrating Diversity Through a Water Infrastructure

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2024-25 Public Condenser, Copenhagen
Final Reflection

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Introduction

For the graduation studio, the assignment was to design a public condenser located in Bispebjerg, Copenhagen. In architecture, the term “public condenser” is a conceptual metaphor rather than a physical object. It typically refers to a building or space that concentrates and intensifies public activity, drawing people together to interact, engage, and coexist.

For this, the immediate surroundings and the needs of the local community were extremely important to take into consideration. The building did not only need to contribute to the well-being of the neighborhood, but also had the task to bring the community together.

This led to the immediate question: what are people’s needs at this specific location, and how can a community building play a role in this? Taking into consideration the new hybrids of today’s public buildings, a vision needed to be created. A personal position. After conducting research and analysing the location, I came to the conclusion that my taken position

was clear: connecting people by water as common theme.

When walking through the streets of Copenhagen in the end of September, it was pouring. This is the moment I also saw how many surface projects in Copenhagen were designed as a comprehensive strategy aimed at tackling the growing threat of extreme rainfall and urban flooding in the future. This led me to learning more about the Copenhagen’s Cloudburst Management Plan, introduced in 2012 as a result of the devastating cloudburst in the summer of 2011 that caused approximately 1,6 billion euros in damage.

Going to the site, I realised that Bispebjerg was not necessarily a neighborhood reflecting my stereotypical ideas of Copenhagen. It is a neighborhood that is ethnically diverse with over a quarter of the residents in the Bispekvarteret having a non-Western background. This neighborhood was also experiencing increasing gentrification, leading to significant and often unnecessary cultural displacement. When talking to people on the streets, I found out about the so-called “Ghetto” plan that Non-Western residents felt as extremely discriminatory and potentially racist.

After researching the documents we obtained from talking to Rikke Lequick Larsen, the communal architect and the chief consultant at the Copenhagen city Council, I also found out that above this, Bispebjerg is an older urban area with several buildings that do not meet today’s standards. Some properties in the area are currently lacking either a bath or a toilet, or both. These properties are mapped in Figure 3.

After gathering all these insights after the excursion to the site, talking to people, researching literature and analysing the location, I found my own clear vision and personal standpoint.

These problems all share a unique relation with water. Architecture can tackle these three problems on environmental, cultural and health levels through water as common theme. With regard to pluvial flooding by heavy rains, rainwater can be collected and reused by a public condenser. With regard to negative biases to migration, it is important to celebrate water as the common ground between different cultural groups. And lastly, with regard to service disruption, providing an accessible water infrastructure can overcome health problems.

Figure 1: Percentage of Ethnical Diversity in Bispebjerg



Figure 2: Project Surfaces of the CMP in Bispebjerg



Figure 3: Properties with Water Service Disruption in Bispebjerg



Reflection

So, what is the relation between the graduation project topic, the master track and the master programme?

This year, the overall aim of the Public Building studio was to investigate how public architecture can improve the quality of living in city neighborhoods. More specifically and as mentioned before, the immediate surroundings and the needs of the local community were extremely important to take in consideration when designing a public condenser.

My chosen graduation (project) topic focuses on how water as a theme can connect the neighborhood, bring people together, but maybe most importantly - meet the current needs of the local community. During my graduation year I attempted to find answers to how a public condenser can celebrate cultural variety through water and at the same time provide a water infrastructure for the neighborhood in Bispebjerg, Copenhagen.

This research topic is a direct consequence of the Public Building master track's overall assignment. The vision behind my research topic was a result of all the insights I gained by the excursion to the site, talking to people, researching literature and analysing the location. Throughout this whole graduation year, I constantly searched for the best possible answers and valid arguments to design for actual societal, environmental and technical problems.

Research by Design is a methodology that goes hand-in-hand with my studio's approach. In this approach, the process of designing and creating is both a means of exploring research questions and a way to produce insights, rather than just a way to create a final product. This approach is commonly used in fields such as architecture. Also, because of this approach I am currently doing research by design through mapping, diagramming, using ArcGis, etc

Focusing on how public architecture can tackle these problems on environmental, cultural and health levels through water as common theme, created guidelines for me. Guidelines that were needed to investigate how architecture can improve the quality of living in the neighborhood of Bispebjerg, Copenhagen.

These guidelines in different domains were the following:

1. Environmental

With regard to pluvial flooding, rainwater can be collected and reused by a public condenser.

2. Cultural

With regard to negative biases to migration, it is important to celebrate water as the common ground between different cultural groups.

3. Health

With regard to service disruption, providing a new water infrastructure can encourage water accessibility.

The approach throughout my graduation year is also in line with overall master programme. Tackling problems in different domains - social, environmental, technical - and designing integral was a very important focus point that I experienced throughout this graduation studio. I was constantly encouraged to reflect on my own design decisions and to think critical when it comes to all these different domains.

Discussing these themes in a critical way with the different graduation tutors, helped me incorporating collaborative methods and tools to encourage and enable the different areas to work together to produce an integrated final design.

Improving the quality of living by public architecture touches different domains answering technical, social and spatial questions with regard to architecture. All of this is in close relation with the Architecture master track of the TU Delft, which teaches to develop creative and innovative building projects that use design as a means to deal with the technical, social and spatial challenges encountered in the built environment.

Reflection

So, what is the relevance of my graduation work in the larger social, professional and scientific framework?

With my project, I have designed a public condenser that is not only relevant for my graduation work, but also in the larger social, professional and scientific framework. This project is a result of focusing on solving problems of this specific site, but the findings may be applied at more locations within the future or create more insights into how to tackle these (future) problems elsewhere.

It can create a point of departure how to connect people and different cultures through water, while finding a common ground. But also, it gives more understanding in how pluvial flooding can be tackled within the future and how to reuse rainwater in a way that is beneficial for the whole local community. Creating opportunities and giving public services and a water infrastructure back to the neighborhood.

Also, looking at the future, a looming crisis threatens the health and livelihoods of billions: the scarcity of clean drinking water. Despite being fundamental to life, access to safe water is becoming an increasingly precarious privilege.

Experts warn that this challenge, driven by climate change, population growth, and mismanagement of resources, could define the global narrative for the decades to come. Thus, examining how rainwater management can provide a clean water infrastructure creates more insights for future social, professional and scientific research.

I think it is time to think about water differently, how we can re-use it, how we can celebrate it and how we can overcome mismanagement in the future. I hope that, despite it is only a departure point within the scientific framework, it brings a new conversation to light. It points out certain future problems and difficulties we are facing as a society, which has a potential to be tackled by architecture.

For now, I at least know that I learned a lot about a new and exciting topic. All as a result of the overall aim of the Public Building studio to investigate how public architecture can improve the quality of living in a city neighborhood.

