Research Design

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TODO: explain more why swimming

Urban blue spaces have a positive influence on people's perceived mental and physical well-being - being near water makes people feel better and happier (Gascon et al. 2017). In particular, blue spaces have the potential to have a greater impact on the wellbeing of those living in socio-economically disadvantaged neighbourhoods. This is due to low socio-economic status being linked to poorer mental health and lower life satisfaction (van den Bogerd et al. 2021).

Many cities have natural water like rivers, lakes, harbours or canals. Unfortunately, over the last centuries, water bodies were polluted by industries and became unsafe to swim (???). Through public pressure or for environmental concerns (???), cities have invested resources into cleaning and restoring water and waterfronts into attractive natural places for people to enjoy. Making a body of water swimmable is a large public investment: the water itself has to be cleaned, which involves identifying and dealing with polluting sources; the waterbed and surrounding environments have to be rehabilitated to safely welcome people; and the waterfront has to be equipped with infrastructure for swimming, sitting, walking, and more. Since public space is a highly valued commodity in a city, reconverting blue spaces is a great way to take advantage of unused areas.

In reality, despite public blue spaces being almost always free to access - you do not need to pay to use them - they may not be fairly accessible to everyone. Firstly, physical accessibility. Those who are most likely to frequent a blue space are those living or working in the vicinity (???). The availability of public transport, bicycle infrastructure, the quality of the roads and footpaths around and in the space, also influence who visits.

Second, psychological accessibility. Blue spaces (and public spaces in general) can be more or less welcoming to certain groups of people. Specifically, gender, age, ethnicity, or general

preferences in aesthetics or activities influence who feels welcomed or attracted to a space. Discriminatory and exclusionary practices, such as being made to feel like spending money is necessary to fit in socially in the space, can make people feel unwelcomed (???).

Thus, even if a blue space is freely open to the public, this does not mean that people use and benefit from them fairly. This phenomenon is important to understand because because unequal access to blue space is an environmental injustice.

Environmental justice is a multi-faceted concept which brings together social and environmental concerns. Amongst other things, it advocates for the equitable access to environmental benefits, like the increased wellbeing that exposure to blue space provides.

Environmental justice itself can be broken down into three categories: distributional justice, procedural justice, and recognition justice. Distributional justice focuses on social consequences based on the location of blue space interventions in the city, such as environmental gentrification. Procedural justice deals with inclusionary and exclusionary ¡practices¿ in participation and decision making. Recognition justice is concerned with people and communities' perceptions and values attached to a space (anguelovski2020expanding).

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Public spaces are places of community, identity and attachment, and everyone in the city should have equal rights to them (agyeman2016trends). When someone's access to public space is restricted, this restriction is an act against the self-determination of the person's community and identity.

Given the above, my research aims to answer the following question: to what extent are the natural urban swimming spaces in Copenhagen (un)fairly accessible, and who benefits from them?

This will be approached with the following sub-questions:

- 1. Who are the users of the space, how do they perceive it and how do they feel in it?, which will help understand
- 2. What are the factors that make the space feel accessible to them?, which will help understand
- 3. How accessible is the space to a diversity of people (based on socioeconomic factors

like income, education, age, immigration background, etc. (Baró et al. 2021))?, which will help understand

4. How fairly accessible are the blue spaces, and why?

My research will be explanatory, because I aim to explain why the phenomenon of unequal access to blue space happens (or not),

I will take an inductive approach. whereby my theory will emerge from the data.

TODO: explain about perception/values of space; about perception/recognition justice; ie. general frameworks for guiding the research

(Kronenberg et al. 2020).

To answer my research question, I will need to collect data on people's experiences and perceptions of a blue space, which is subjective information, and link it to spatial data. To this end, I will use public participatory GIS (PPGIS) which allows for exactly this: linking qualitative data to objective GIS data. This method has successfully been used by BlueHealth to understand people's relationships to blue spaces (see https://bluehealth2020.eu/projects/softgis/)

The city I will focus my research on is Copenhagen. The reasons Copenhagen makes for an interesting case with regards to my research are as follows. Firstly, because of Copenhagen's location on the Kattegat strait, water features prominently in the city and is an important part of the urban landscape ("residents are never farther than x kilometres from the shoreline"). Second, due to the amount of shoreline in Copenhagen, there have been many blue space rehabilitation projects in the last decades. The XX, XX, and XX harbours have all been made accessible as swimming spaces, and the XX is currently undergoing a transformation. Thirdly, the socioeconomic landscape of the city makes it worthwhile to evaluate distributional justice. Since the early 2010s, the rate of immigration and the number of working-class households have increased, at the same time as racist and xenophobic discourses in the media and politics. Finally, Copenhagen's reputation as "the most liveable city" (VisitDenmark 2021), due in part to the swimming spots in the harbour, begs the question - for whom is the city liveable?

Then, Copenhagen, as a city in northern Europe, prides itself in its low-tolerance for inequalities - but really?

References

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