Research Proposal

Carla Hyenne

Contents

Abstract

Literature review

Most large cities are located around water, either inland water like rivers, lakes or harbours, or salt water on the coasts. This is because water is important to the city. It serves as a life source, a communication channel, a motor for industry and the economy, for recreation and exercise, for cultural and spiritual practices, and for community forming and belonging.

Through urbanisation, water in cities became polluted or transformed by industries (Kampa et al. 2016), disrupting the relationships people had with waterfronts and the surrounding environments. The waterfront became less attractive, and the water unsafe to swim. In the last few decades, the importance of water in the city has entered public consciousness due to concerns for the climate. Through (international) political pressure and public demand, governments have invested significant resources in rehabilitating 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 the city, reconverting blue spaces is a great way to take advantage of unused areas and proves to be valuable for a multitude of reasons.

Firstly, in the context of climate change, blue spaces play a crucial role in mitigating pollution, heat stress, etc., similarly to green spaces

1. Blue spaces act as heat sinks (Lin et al. 2020)

2. Blue and green spaces can work alongside each other, and in tandem

3. Urban planning projects to revitalise, rehabilitate, reconnect urban water and waterfronts- includes “pollution mitigation, coastal restoration, climage change adaptation, rezoning, economic development, and increased public access to waterfront areas” (Toomey et al. 2021)

Secondly, blue space has the ability to improve people’s physical and psychological wellbeing. Being exposed to water makes people feel better, happier, and more active (Gascon et al. 2017), much like green spaces. There is an extensive repertoire of quantitative studies looking

into the health and wellbeing effects of blue spaces, which can be summarised as "stress reduction, increased physical activity, promotion of positive social contacts, increased place attachment and the reduction of extreme temperatures" (Gascon et al. 2017). Qualitative studies have also shown that exposure to water improves mental health, regardless of whether or not people intentionally interact with the water or just experience it from their apartment window (Garrett et al. 2019). In deprived areas in particular, people tend to have poorer mental health and lower life satisfaction compared to wealthier areas (van den Bogerd et al. 2021). Projects that increase access to high quality waterfronts in socio-economically disadvantaged neighbourhoods have the potential to greatly influence the wellbeing of their residents.

Thirdly, waterfronts provide people with the opportunity to connect with each other and with nature. People develop a strong sense of place attached to water. Even polluted or degraded waterfronts can play a central role in the community, providing refuge, connection, entertainment, and even food (Toomey et al. 2021). Furthermore, waterfront revitalisation projects can be an opportunity to create community bonds by engaging residents in the design and building process. In the "urban acupuncture" intervention done by BlueHealth in a deprived area of Plymouth, UK, residents who participated in the project reported a greater sense of wellbeing and life satisfaction due to feelings of community belonging and safety (van den Bogerd et al. 2021).

Despite the undeniable benefits of urban blue spaces, interventions can have harmful consequences on people and the environment. In a stark contrast to the social bonds that can be fostered when residents are involved in revitalising a waterfront, when the local community's perceptions and values are not understood by the planners, changes can disrupt human-to-human or human-to-water connections (Toomey et al. 2021). In perverse cases, cities prioritise growth rather than wellbeing and community. With "flashy glitzy green (blue)" (todo:ref) infrastructure like the XPROJECT in CITYX, cities try to attract a new creative class rather than addressing public blue spaces as a common good and prioritising the concerns of existing residents (Wessells 2014, Anguelovski et al. 2020). Such projects privilege the values of new groups over that of existing residents, who risk displacement. Those who can afford to live near green or blue spaces will move in and price out the lower classes, who will be forced to move to neighbourhoods with worse access to attractive natural spaces. Paradoxically, quality waterfronts can appear to reduce social and environmental inequalities while at the same time causing gentrification.

Thus, how do we make sure that everyone in the city benefits equally from high quality blue spaces? The benefits are well known by governments, planning offices and academics; we see this through the promotion of waterfronts (eg. Madrid Río (EsMadrid 2022), or Oslo's urban waterfront promenade (VisitOslo n.d.) on the city's tourism website), as well as by the numerous qualitative and quantitative studies on health and wellbeing or climate adaptation. On the other hand, the social and environmental consequences of revitalisation projects are not systematically taken into account by planners. If cities are to reduce inequalities associated to access to natural spaces, the social and environmental consequences and trade-offs must be understood.

Environmental justice provides a lens through which to understand these inequalities. By bringing together social and environmental concerns, the environmental justice paradigm advocates for the equal access to the benefits offered by natural spaces; and, in turn, sharing environmental burdens. == talk about sustainability not being only enviro but also eco and social == The environmental justice paradigm is traditionally broken down into three dimensions: distributional justice, procedural justice, and recognition justice (**todo:cite schlosberg**).

Distributional justice focuses on where blue spaces are situated in the city and whether they address social, economic, racial or ethnic inequalities by striving to"avoid displacement and new negative green, ecological, climate and health effects" (Anguelovski et al. 2020).

Procedural justice deals with questions of discrimination in public participation and decision making situations. Nonetheless, even ideal participation doesn't prevent spaces from being captured by gentrifiers[1] (Anguelovski et al. 2020).

Finally, recognition justice addresses individuals' and communities' perceptions, values and preferences which may influence the ways in which they interact, or not, with public space (Anguelovski et al. 2020). Marginalised or stigmatised communities may find it hard or impossible to communicate their experience to the mainstream because they lack the words to articulate their reality. And vice-versa: white, heteronormative societies may not be capable of understanding the experience of 'others'. This of course does not mean that minority communities do not attach meaning to place, but that two or more groups with distinct value systems need a common language to communicate. To this end, Toomey et al. propose using language like "place-disruption" and "place-protection" to promote mutual understanding and avoid privileging the values of mainstream groups over those of

[1] urban community gardens

marginalised communities (Toomey et al. 2021).

Recognising the experience of those who do not fit into the 'norm' also means acknowledging that some practices take place in the private and not public sphere. This is due to historical racial, sexist, ethnic discrimination. For example, women who disproportionally carry out domestic and care work have a different daily pattern which does not match that of the average 9-5 worker, and the spaces and mobility options should be adapted for them to reach blue spaces with ease. Or, they may feel more vulnerable and less safe in public, and prefer private spaces (Wessells 2014). How can blue spaces be inclusive of a diversity of people, carrying out a diversity of activities at all times of the day, week, or year?

Problem statement and research question

Ideal- everyone can access blue spaces equally in the city, this is important because interacting with blue spaces is good for mental and physical health Real- physical and psychological barriers can restrict access to blue spaces () Consequence- , ultimately leading to environmental injustices (not everyone benefits fairly from blue/natural spaces), discrimination (racism, sexism...), displacement (green/blue gentrification)

Reviewed RQ: to what extent are the perceptions and values of Copenhagen's communities represented in the blue spaces?

Research design

- specific context of copenhagen, similar to hongkong

References

Anguelovski, I., Brand, A. L., Connolly, J. J., Corbera, E., Kotsila, P., Steil, J., Garcia-Lamarca, M., Triguero-Mas, M., Cole, H., Baró, F. et al. (2020). Expanding the boundaries of justice in urban greening scholarship: Toward an emancipatory, antisubordination, intersectional, and relational approach. *Annals of the American Association of Geographers*, *110*(6), 1743–1769.

EsMadrid. (2022). Madrid río park. https://www.esmadrid.com/en/tourist-information/madrid-rio-park

Garrett, J. K., White, M. P., Huang, J., Ng, S., Hui, Z., Leung, C., Tse, L. A., Fung, F., Elliott, L. R., Depledge, M. H. et al. (2019). Urban blue space and health and wellbeing in hong kong: Results from a survey of older adults. *Health & place*, *55*, 100–110.

Gascon, M., Zijlema, W., Vert, C., White, M. P., & Nieuwenhuijsen, M. J. (2017). Outdoor blue spaces, human health and well-being: A systematic review of quantitative studies. *International journal of hygiene and environmental health*, *220*(8), 1207–1221.

Kampa, E., Langaas, S., Anzaldua, G. et al. (2016). Rivers and lakes in european cities: Past and future challenges. *European Environment Agency*, 13.

Lin, Y., Wang, Z., Jim, C. Y., Li, J., Deng, J., & Liu, J. (2020). Water as an urban heat sink: Blue infrastructure alleviates urban heat island effect in mega-city agglomeration. *Journal of Cleaner Production*, *262*, 121411.

Toomey, A., Campbell, L., Johnson, M., Strehlau-Howay, L., Manzolillo, B., Thomas, C., Graham, T., & Palta, M. (2021). Place-making, place-disruption, and place protection of urban blue spaces: Perceptions of waterfront planning of a polluted urban waterbody. *Local Environment*, *26*(8), 1008–1025.

van den Bogerd, N., Elliott, L. R., White, M. P., Mishra, H. S., Bell, S., Porter, M., Sydenham, Z., Garrett, J. K., & Fleming, L. E. (2021). Urban blue space renovation and local resident and visitor well-being: A case study from plymouth, uk. *Landscape and Urban Planning*, *215*, 104232.

VisitOslo. (n.d.). Oslo's new harbour promenade. https://www.visitoslo.com/en/articles/the-harbour-promenade/

Wessells, A. T. (2014). Urban blue space and "the project of the century": Doing justice on the seattle waterfront and for local residents. *Buildings*, *4*(4), 764–784.