Research Proposal

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Contents

Abstract

- A lot of studies on geographic accessibility/proximity

- However, accessibility is a multidimensional and complex concept which cannot be reduced to the spatial distribution of natural spaces.

- Particularly interesting with natural blue spaces is that they are fairly immobile. It is harder to move a river or lake, than it is to create a public green park. Given that users visits are determined most importantly by perceived accessibility compared to geographical distribution and proximity to the space, it is worthwhile to study people's perceptions and experiences of blue space visits

Literature review

This section reviews the academic literature on blue spaces, and incorporates literature from wider concepts such as greening. It also introduces concepts that are central in understanding equity with regards to urban blue space, namely environmental justice and accessibility. These two concepts will be central to the research.

The benefits of urban blue spaces

In an urban context, blue spaces have undeniable positive effects which Gascon et al. (2017) summarise as "stress reduction, increased physical activity, promotion of positive social contacts, increased place attachment and the reduction of extreme temperatures". The benefits fall under three categories. First, being exposed to water makes people feel better, happier, and be more active. There is an extensive repertoire of quantitative studies demonstrating these effects on people's health and well-being (Gascon et al. 2017, Britton et al. 2020). Qualitative studies also show that exposure to water improves mental health, regardless of how people interact with it (Garrett et al. 2019, van den Bogerd et al. 2021). Second, waterfronts give people the opportunity to connect with each other and with nature. Waterfront revitalisation projects can be an opportunity to create community bonds by engaging residents in the design and building process. For example, the "urban acupuncture" intervention conducted in a deprived area of Plymouth, UK, showed that participating residents reported a greater sense of well-being and life satisfaction due to feelings of community belonging and safety (van den Bogerd et al. 2021). Lastly, in the context of climate change, blue carbon ecosystems can naturally alleviate pollution, heat stress, flooding or drought, and increase the climate resiliency of cities (Lin et al. 2020, O'Donnell et al. 2021).

Given the potential of water, and that public space is a highly valued commodity in the city, revitalising blue spaces into usable, attractive environments is a great way to take advantage of unused areas.

The social and environmental consequences of blue urban renewal

Despite the undeniable benefits of water in the city, transforming waterfronts into high-quality public space can have harmful consequences on people and the environment. Two mechanisms of action are exclusionary planning, and neoliberal urban renewal ~~which can~~

~~displace people by way of gentrification.~~ These reinforce socio-spatial inequalities by discriminating against people on the basis of socio-economic and cultural differences, or by way of racist and sexist practices.

First, in stark contrast to the social bonds that can be fostered when residents are involved in revitalisation projects, when the local community's perceptions are not understood by planners, changes can disrupt human-to-human or human-to-water connections (Toomey et al. 2021). This is particularly susceptible to happen when a community's social practices do not fit with the social norms (Wessells 2014). Moreover, 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: wealthy, white, males may not be capable of understanding the experience of 'others' (Anguelovski, Brand, et al. 2020). To this end, Toomey et al. (2021) propose using language like "place-disruption" and "place-protection" to promote mutual understanding and avoid privileging the values of mainstream groups over those of marginalised communities.

Second, cities are prioritising economic growth over well-being and community. Local governments are exploiting nature-based solutions to brand their cities as green and liveable[1], and to promote greening as a win-win strategy where "no one is left behind by the trickle-down of benefits from green infrastructure" (Anguelovski and Connolly 2021). Anguelovski et al. (2021 explain that with "glitzy green" renewal projects, cities try to attract a new creative class rather than addressing public blue space as a common good and prioritising the concerns of existing residents (Wessells 2014, Anguelovski, Brand, et al. 2020). These strategies perpetuate inequalities by privileging the values of white, environmentally privileged upper classes who can afford to live near nature, thereby pricing out residents who will be displaced to neighbourhoods with less attractive nature.

The environmental justice principle

To articulate the phenomenon whereby natural spaces provide social and environmental benefits but at the same time discriminate against vulnerable populations, scholars have used the concept of environmental justice. Environmental justice is based on the principle that everyone should have equal opportunities to access clean, healthy, unpolluted spaces, and in

[1]For example, Madrid promoting the Madrid Río project on the official tourism website (EsMadrid 2022), or Oslo advertising its new urban waterfront promenade along which "you find yourself surrounded by some of Oslo's world-renowned architectural gems" (VisitOslo n.d.).

turn, share environmental burdens. As Agyeman et al. explain (2016), it started as a social movement in the US in the 1980s at a time when it became obvious that ethnic minority and low-income populations were disproportionately exposed to polluted and degraded land. Since then, environmental justice has concretised into an academic discourse and is typically broken down into three categories: distributional justice, procedural justice, and recognition justice.

When applied in the context of urban public blue and green space, distributional justice focuses on where these 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, Brand, et al. 2020). Procedural justice deals with questions of discrimination in public participation and decision making. Finally, recognition justice addresses individual and community perceptions and preferences which may influence how people interact, or not, with the space.

It follows that environmental (in)justices take place in public. Although there is no direct economic barrier to public blue-green space (public space has no entrance fee), rarely is it fairly accessible to everyone. There exists both physical and non-physical barriers which can prevent individuals, or whole communities, from benefiting from urban nature.

Geographical vs. perceived accessibility

To date, studies that evaluate the degree to which people can make use of urban blue-green space have focused on measuring geographical accessibility, such as spatial distribution and proximity to people's homes. However, this ignores the fact that accessibility is a multidimensional concept which cannot be reduced to purely a physical dimension (Wang, Brown, and Liu 2015). Perceived access is also important to consider when studying social benefits of blue-green space. Are people happier and healthier because they live near nature, or because they can afford to? As Anguelovski et al. (2020) put forward, environmental justice must go further in understanding "how [...] people's experiences of place shape their perception of access".

To this end, Wang et al. (2015) suggest focusing on perceived accessibility, ie. "the quality, diversity, and size of the green spaces or socio-personal characteristics including age, income, safety, and cultural concerns". Comparing this approach to geographical accessibility, researchers studying two neighbourhoods with differing socio-economic status in Brisbane,

Australia, concluded that perceived accessibility was better suited to explain park-use than their proximity to home (Wang, Brown, Liu, and Mateo-Babiano 2015). This shows that in the context of environmental justice, recognition can be more influential than distributional justice in detecting unequal access to nature.

Research intention

Although evidence shows that perceived accessibility is significant in determining use of green space, there are limited studies that translate this idea to blue spaces. However, blue spaces are particularly interesting because natural water bodies like rivers or lakes are relatively immobile and cannot be planned in the same way as public parks. Thus, when it comes to providing equal opportunities for people to access waterfronts, perceived accessibility becomes more relevant than geographical distribution. This makes it worthwhile to explore subjective experiences of those who frequent public waterfronts.

Given the above, my research aims to answer the following question: **to what extent do subjective experiences shape how (un)fairly accessible high quality, public blue spaces in the city are, and what does this mean for the environmentally just city?**

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