

Literature review

The benefits of blue spaces

Blue spaces have undeniable positive effects in cities, 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” (Gascon et al. 2017).

Climate adaptation and mitigation 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, Manteghi et al. 2015, O'Donnell et al. 2021). This is because blue spaces have a surface temperature lower than green space, high evaporation and thermal capacity which creates a cooling effect, and a spillover mechanism which extends the cooling effect inland (Lin et al. 2020). However, the potential of blue spaces for climate mitigation is not well known relative to green spaces. As a result, less urban planning recommendations exist, not to mention that they are more difficult to provide and maintain (Manteghi et al. 2015, Völker et al. 2013).

Health and well-being The best known way in which blue space has a positive impact is on people's physical and psychological health. 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). In deprived neighbourhoods in particular, people tend to have poorer mental health and lower life satisfaction compared to wealthier areas. Projects that increase access to high quality blue spaces in socio-economically disadvantaged neighbourhoods have the potential to significantly influence the well-being of their residents (van den Bogerd et al. 2021).

Connection and community Lastly, waterfronts give people with the opportunity to connect with each other and with nature. People develop a sense of place attached to water, and 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, blue space revitalisation projects can be an opportunity to create community bonds by engaging residents in the design and building process. During the “urban acupuncture” intervention conducted by BlueHealth in a deprived area of Plymouth, UK, residents who participated

in the project reported a greater sense of well-being and life satisfaction due to feelings of community belonging and safety (van den Bogerd et al. [2021](#)).

Social and environmental repercussions of urban renewal

Despite the undeniable benefits of water in the city, transforming waterfronts into high-quality public spaces can have harmful consequences on people and the environment. They can cause environmental damage and loss of biodiversity, disrupt human and nature relationships, displace people by way of gentrification, and reinforce social inequalities by excluding individuals and communities on the basis of socio-economic differences, or racist and sexist practices. Promoting nature-based solutions for the sake of environmental sustainability ignores wider social, economic, and cultural needs which need representation if a city is to be ‘sustainable’.

Exclusion through discrimination Due to historical but ongoing racial, sexist or ethnic discrimination, some groups may choose to avoid public spaces altogether. They may feel more vulnerable and less safe in public, especially in blue spaces that are most popular in the warmer months and where people have less coverage. When public space is designed for the mainstream, it discourages a wider range of people from using the space. Alternative experiences are invisible and not normalised because they happen privately. Ultimately, the right to the city is not exercised, further discriminating vulnerable groups.

Disrupting community In stark contrast to the social bonds that can be fostered when residents are involved in revitalisation projects, when the local community’s perceptions and values are not understood by planners, changes can disrupt human-to-human or human-to-water connections (Toomey et al. [2021](#)). This is 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’. This of course does not mean that minority communities do not attach meaning to place - on the contrary, people are inextricably linked to place, and disrupting this relationship threatens their belonging or even existence.

Neoliberal urban renewal In perverse cases, cities prioritise growth over well-being and community. City officials 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). With “glitzy green” renewal projects (ibid.), 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, del Pulgar 2021 on revitalising the Amsterdam Noord waterfront). These strategies perpetuate inequalities by privileging the values of new groups over existing residents, who risk facing displacement. White, environmentally privileged upper classes who can afford to live near nature will move in and price out residents who will be forced to move to neighbourhoods with worse access to attractive natural space. This phenomenon challenges the well-being benefits observed in visitors of the waterfront - do they feel happier and healthier because they are using blue spaces, or because they can afford to and choose to live near them?

Achieving equity and justice in urban blue spaces

By ignoring the social consequences of urban renewal projects, cities are increasing inequalities and marginalising socio-economically disadvantaged groups. Therefore, the challenge lies in providing equal physical and psychological access to high-quality urban blue spaces, so that everyone in the city can share the benefits of nature.

If cities are to reduce inequalities and improve access to blue space, the social and environmental trade-offs of renewal projects must be understood and accompanied by “bold, progressive social policies” (Anguelovski and Connolly 2021). Marginalised groups need to be actively included in planning, and natural spaces need to be designed specifically for vulnerable communities rather than the privileged few who already have unhindered access to natural environments. Those who are in power need to want to listen to and understand alternative voices, and distinct groups need a common language to communicate their experience.

¹For 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.).

Conclusion

TODO

References

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