Urban Analysis 3

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Statement of Purpose

Draft:

I am studying the (re) conversion of inland, (natural) urban blue spaces into swimmable environments
because I want to find out what impact blue spaces can have on a city's social and environmental sustainability
in order to help my reader understand the importance of incorporating blue spaces in urban planning and development.

Notes:

- Doesn't include people's health
- I want to focus on public open space –¿ environmental justice?

General ideas for the research

- Methodology
  - Quantitative: survey data... would need a significant part of the population which will be hard
  - Qualitative: contact organisation, NGOs, etc. who work with the blue spaces
  - Interview questions:
    - Exposure: time of the day/year;
- Frameworks
  - What are the surrounding environments of the blue space? Do certain conditions make the blue space "better" (in terms of environmental benefits, usage...), like the facilities, the local environment, the wildlife? (ref. (Garrett et al. 2019))
  - How do we organise people's usage of blue space? For example, the accessibility of the space (incl. distance from home, transport access), indirect/incidental/intentional exposure (ref. (Garrett et al. 2019))
  - Do the type of activities carried out by the users matter, or does simple exposure matter (eg. type of activity, duration of exposure, direct contact with water...)? (ref. (Garrett et al. 2019))
- Sustainability
  - SDG 11: Sustainable cities and communities; Making cities and human settlements inclusive, safe, resilient and sustainable

    - 11.7 target: "By 2030, provide universal access to safe, inclusive and accessible, **green and public spaces**, in particular for women and children, older persons and persons with disabilities"
    - 11.7 indicator "Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities" → what about blue spaces?
  - SDG 3: Good health and wellbeing; Ensure healthy lives and promote well being for all ages
    - 3.4 Target "By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being"
    - 3.4 Indicator: "Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease"

Readings

Garrett et al., *Urban blue spaces and health and wellbeing in Hong Kong: Results from a survey of older adults*, 2019

(Garrett et al. 2019)

- What are the potential health benefits of being near to, seeing, using blue spaces? The study looks are the perceived well-being of elderly in Hong-Kong
- The benefits of green spaces in urban environments are known. Dense, stressful, polluted urban environments can cause physical and mental illnesses, and green spaces can help reduce these symptoms. Three main ways in which green and health are linked (according to Markevych et al., (p. 100)):
  - "Reducing environmental harms (eg. mitigating noise pollution)" → environment
  - "Supporting emotion regulation and the restoration of depleted cognitive capacities (eg. through stress alleviation)" → social
  - "Building capacities (eg. through supporting physical activity)" → social
- Blue spaces provide similar benefits, like reducing stress, heart diseases, making people more physically active, etc. But to what extent do you need to frequent the blue spaces to gain these benefits? How much blue/green space is required in order to get the benefits
- Three research questions: (p. 101)
  - "To what extent is self-reported general health and wellbeing in Hong Kong related to an individuals exposure to the city's blue spaces?"

  - "Which environmental factors predict blue space visit frequency in Hong Kong?". They looked at the safety, presence of wildlife, clean/free from litter, and good facilities like footpaths or toilets
  - "Are some visit and environmental characteristics associated with better short-term recalled wellbeing outcomes?"

- The conclusion, indirect and intentional exposure were associated with good health and high level of wellbeing; good facilities and wildlife are related to intentional usage; safety and wildlife are related to higher levels of wellbeing and g when visiting the blue space; visible blue space from home is related to better perceived health; those who regularly visit/see from home blue spaces are more likely to have good mental health and good general health.

- ⇒ This paper analyses the perceived health benefits that blue spaces can have on the population (it focuses on elderly residents). It defines three categories of blue space exposure: indirect (view from home), incidental (on commute route), and intentional (purposeful visit), and addresses different factors that could influence people's perception and use of the blue space, like safety, cleanliness, facilities, accessibility. They find a positive relation between blue space and overall wellbeing, including good health and good mental health. It recognises the particularities of Hong Kong: it is surrounded by water, has high quality and safe public space, a fantastic public transit system (which makes it easy for people to reach blue spaces if they don't live nearby). I think it is necessary to acknowledge these particularities in a city, because they can influence how people interact with blue (or green) spaces.

  Why is it relevant to me? It provides a categorisation of blue space usage, and a framework for analysing the benefits and quality of blue spaces. It focuses on the effect that blue spaces have on the physical wellbeing of people, and this falls under social sustainability.

Gascon et al., *Outdoor blue spaces, human health and well-being: A systematic review of quantitative studies*, 2017

(Gascon et al. 2017)

- Summarises the quantitative evidence from existing research on the positive effects of blue spaces on people's health, and concludes that there is a correlation between blue space exposure and benefits in mental health and in wellbeing. Says there is too few and too much heterogeneity in the studies

- There are claims of the positive effect of blue space on people's health and wellbeing, either by being **proximally or distally/virtually** (being in, on or near/being able to see, hear or sense water). The effects of blue spaces could be similar to that of green spaces, which include "stress reduction, increased physical activity, promotion of positive social contacts, increased place attachement and the reduction of extreme temperatures" (p. 1212)

- Differentiates outdoor blue space type into inland (rivers, lakes, ponds, streams, rivulets, wetlands, freshwaters) and non-inland (coast, beach, salt waters)
- ⇒ This paper reviews quantitative studies on blue space and associated health benefits. It reports the type of blue space, the environment of the blue space, and how the health outcomes were evaluated. What I found useful was the differentiation between inland and non-inland spaces, which I will use in my research. I also realised I don't want to focus specifically on the relation of blue space to human health (eg. general health, mental health and wellbeing, physical activity, other morbidities) because there is already good research in this area, especially in Europe. I still want to focus on the social aspect of blue spaces, but perhaps more on blue spaces as open, public and free spaces. Also, quantitative research will be hard because I don't think I would be able to reach enough participants (I assume in the scale of hundreds?) in both case studies

Raymond et al., *Integrating multiple elements of environmental justice into urban blue space planning using public participation geographic information systems*

(Raymond et al. 2016)

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References

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