UNIVERSITY OF TORONTO Urban Greenspaces and Bluespaces: How Cities Can Use Them to **Encourage Community Building**

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Objectives

- ☐ To determine comprehensive definitions of blue and greenspaces, and their role in urban environments.
- ☐ To understand the role greenspaces have in community building.

Defining blue and greenspaces:

 Green infrastructure is a well defined term, while greenspaces lacks an accepted definition across disciplines (11). Bluespaces is a recent term that focuses on creating an identity for eco-water features to ensure policy makers and researchers are including blue-ideas.

This study defines *greenspaces* as:

 Public, urban space that is undeveloped, with some vegetation (3) that has adequate space for social gatherings and is designated by institutions as a place of communal nature.







This study defines *bluespaces* as:

 Greenspace areas that have an emphasis on a water feature (2), (6) and compromise as the main attraction of the site.





References

- 1. Barnett, D. W., Barnett, A., Nathan, A., Cauwenberg, J. V., & Cerin, E. (2017). Built environmental correlates of older adults' total physical activity and walking: A systematic review and meta-analysis. International Journal of Behavioral Nutrition and Physical Activity,14(1). doi:10.1186/s12966-017-0558-z 2. Gunawardena, K., Wells, M., & Kershaw, T. (2017). Utilising green and bluespace to mitigate urban heat island intensity. Science of The Total Environment, 584-585,
- 4. Kabisch, N., Frantzeskaki, N., Pauleit, S., Naumann, S., Davis, M., Artmann, M., . . . Bonn, A. (2016). Nature-based solutions to climate change mitigation and adaptation in urban areas: Perspectives on indicators, knowledge gaps, barriers, and opportunities for action. *Ecology and Society*, 21(2). doi:10.5751/es-08373-210239 5. Kaźmierczak, A. (2013). The contribution of local parks to neighbourhood social ties. Landscape and Urban Planning, 109(1), 31-44.
- 7. Pataki, D. E., Carreiro, M. M., Cherrier, J., Grulke, N. E., Jennings, V., Pincetl, S., . . . Zipperer, W. C. (2011). Coupling biogeochemical cycles in urban environments: Ecosystem services, green solutions, and misconceptions. Frontiers in Ecology and the Environment, 9(1), 27-36. doi:10.1890/090220
- 8. Peters, K., Elands, B., & Buijs, A. (2010). Social interactions in urban parks: Stimulating social cohesion? Urban Forestry & Urban Greening,9(2), 93-100. 9. Smith, M., Hosking, J., Woodward, A., Witten, K., Macmillan, A., Field, A., . . . Mackie, H. (2017). Systematic literature review of built environment effects on physical activity and active transport – an update and new findings on health equity. International Journal of Behavioral Nutrition and Physical Activity, 14(1).
- 10. Stewart, W. P., Gobster, P. H., Rigolon, A., Strauser, J., Williams, D. A., & Riper, C. J. (2019). Resident-led beautification of vacant lots that connects place to community. Landscape and Urban Planning, 185, 200-209. doi:10.1016/j.landurbplan.2019.02.011
- 11. Taylor, L., & Hochuli, D. F. (2017). Defining greenspace: Multiple uses across multiple disciplines. Landscape and Urban Planning, 158, 25-38.
- 12. Twohig-Bennett, C., & Jones, A. (2018). The health benefits of the great outdoors: A systematic review and meta-analysis of greenspace exposure and health
- outcomes. Environmental Research, 166, 628-637. doi:10.1016/j.envres.2018.06.030
- 13. Wolch, J. R., Byrne, J., & Newell, J. P. (2014). Urban green space, public health, and environmental justice: The challenge of making cities 'just green enough'. Landscape and Urban Planning, 125, 234-244. doi:10.1016/j.landurbplan.2014.01.017

Urban Greenspaces Economic Growth Recreational Ecosystem health Use **Public Health** Community Building

Fig. 1: Interactions between urban greenspaces, and community building

Connection between Greenspaces and Community Building

- To be impactful, greenspaces need to be maintained and provide recreational facilities, which provide support for social ties (5), (8).
- Sense of security, events, activities and amenities are key for community building (5), (8).
- Social interactions along with place attachment lead to a sense of community (5), (7), (8).
- Residents deciding on blue and greenspace interventions empower communities (7), (8)
- Children and pets have been found to be facilitators for social interactions(5).

Conclusion

- Greenspaces are vegetated, undeveloped land with adequate space for social gatherings as styled by cities for community use; while as bluespaces have an emphasis on water interventions within greenspaces.
- Policy makers might consider taking a holistic approach, incorporating four critical factors into greenspace design to further the development of community: 1) maximizing space efficacy and value to the local community, 2) considering the significant role that residents play in blue and greenspace interventions, and its positive impact on community wellbeing and life quality through 3) improvements in a sense of security, social cohesion, and greenspace attachment (7), (8) and 4) promoting interactions through events, amenities and maintained greenspaces (5), (8).

Benefits of Green and Bluespaces in the Urban **Environment**

Ecosystem Health

- Reducing heat for blue and greenspaces is best under canopy cover (2),(10), (13).
- Trees found in greenspaces reduce air pollutants and increase shade for users (13)

Economic Growth

- Inclusion of greenspaces leads to increase property values (6), (13).
- Commercial destinations in greenspaces correlated to an increase in physical activity (1).

Public Health

Greenspace exposure has demonstrated to improve multiple health aspects (12), (13).

- Significant improvements in blood pressure, heart rates, type II diabetes, CVD, HDL cholesterol and respiratory mortality (12).
- Neighbourhoods with greenspaces are found to have a high perception of wellbeing within residents (6).

Recreational Use

- Long-term activities should be a focus on all blue and greenspace interventions (2), (4)
- Strong research evidence shows physical activity in greenspaces is positive with the exposure of outdoor fitness equipment, child play equipment, recreational facilities and multiple components for walking and cycling (9).

Limitations & Suggestions

The study suggests for future research to focus more on community building aspects of greenspaces, specifically on what various ethnic groups demand in their greenspaces as traditional western parks with open spaces are in decline.

Although multiple studies identified the prevalence of bluespace-related insecurities, future studies should attempt to discover the underlying mechanisms to improve bluespace intervention efficacy and outcomes.