



Ryder

## Green space and activity

Part of the Urban Design and Mental Health series

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**Cathy Russell**  
Associate  
BA(Hons) MA Urban  
Design



**Amy Sullivan**  
Design Assistant  
BA(Hons)



Access and views to green space and nature are crucial to improving mental health, reducing stress, promoting exercise and providing a setting for social interaction. Keeping physically active has been shown to benefit mental health. The built environment influences an individual's route choice and travel mode and thus walkability and physical activity.

Humans have evolved for the most part within natural settings. The savanna hypothesis<sup>1</sup> suggests that our unconscious, autonomic response to natural elements is anchored in evolved habitat preferences.<sup>2</sup> For example, watersides and visible horizons may be seen as safe havens as they historically offered greater rates of survival.<sup>3</sup>

Recently, and particularly in urban areas, we have become divorced from these natural settings and from the stimuli which regulate our circadian rhythms. For example,

**47 percent of office workers surveyed globally have no access to natural light while at work.<sup>4</sup>**

This has repercussions for our mental health, including increased stress, sleep disorders and depression.

Studies on workers have shown decreased stress levels and greater job satisfaction with views of nature from the office. Studies on residents have shown greater life satisfaction and attentional capacity in residents who have natural views.

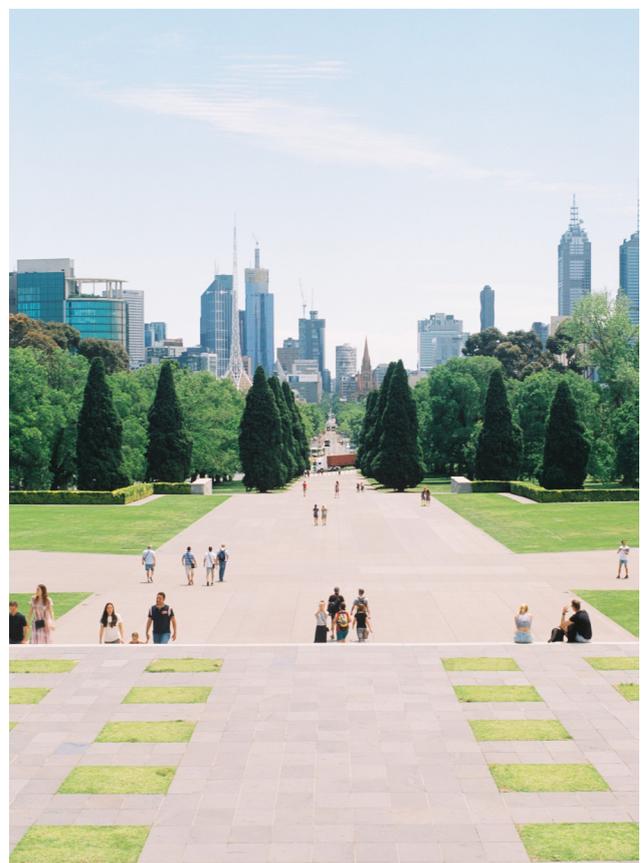


Several observational studies have shown a strong positive correlation between urban green space exposure and emotional health.<sup>5</sup>

Evidence indicates that participation in physical activity in a natural setting is associated with more improved mental health outcomes than participation in physical activity in an indoor setting.<sup>6</sup> Trees and plants can also reduce noise and air pollution, both of which are linked to improving mental wellbeing.<sup>7</sup>

This positive impact on wellbeing can be attributed to a combination of three main theories: Edward Wilson's Biophilia Theory (humans have a biological need to be in contact with other species); Roger Ulrich's Stress Reduction Theory (the appreciation of natural settings, which provide distance from daily demands); and Rachel and Stephen Kaplan's Attention Restoration Theory (the power of nature to replenish certain types of attention through unconscious, cognitive processes, which do not demand our constant attention in the way urban environments do).<sup>8</sup>

**Restoration is an important design consideration as typical urban views have been shown to drain our cognitive resources.<sup>9</sup>**





This growing body of research shows how important green space is for our mental health and, therefore, that it should be a key design driver, rather than simply nice to have or pleasant to look at. We should try to create a network of green spaces varying in function and scale and orientate buildings towards views of greenery where possible, especially residential and office buildings as these are the places we spend most of our lives.

Providing opportunity for easy access to and engagement with green spaces is how, as designers, we can encourage people to interact with nature. For example, a pleasant outdoor space with benches and planting gives nearby office workers the option to leave the office and spend their lunch break outside.

**Well integrated and maintained green spaces can become havens of restoration to counter the hustle and bustle of the city.**

**These spaces should be overlooked, open and along main pedestrian routes to avoid negative consequences, such as making pedestrians feel unsafe.**

Existing green spaces can be improved. Aesthetic park improvements, for example, can attract users and encourage physical activity.

Spaces which engage the senses and facilitate a range of activities, such as birdwatching, outdoor games tables, artwork, sculpture and gardening, can be particularly beneficial to those living with dementia, as well as the general population.<sup>10</sup>

Food growing, for example in allotments or urban agriculture, can result in mental health benefits.<sup>11</sup> Landscapes should be natural, social and active to help improve mental health.



## Activity

Designing places that increase walkability, promote public transport and have easy access to facilities and amenities improves social engagement and mental wellbeing, particularly amongst older adults.<sup>12,13</sup> Access to recreational space is particularly important in encouraging walking and improving wellbeing amongst adolescents.<sup>14</sup>

Mobility as routine should be promoted in the places we design so that physical activity, with its mental health benefits, is the easiest option for people on the trips they make every day to work, school, shopping, socialising and errands.<sup>15</sup> Transport could mean walking, running, cycling or scootering for all or part of these trips.

The NHS says that regular exercise can boost your mood, and recommends it for depression.

**Any exercise is good, “even a brisk 10 minute walk can clear your mind and help you relax”.<sup>16</sup>**

Suburban developments often suffer from decreased walkability compared to cities, where amenities and public transport are easily accessible on foot. The wider transport strategy for large scale suburban housing developments must be carefully considered as they can leave residents dependent on cars as their only method of transport.<sup>17</sup>



Active travel can be encouraged by public transport, good walking / cycling infrastructure and programmes, such as cycle lanes and bicycle parking. Street networks should be legible and permeable at a human scale. As discussed in the second article of this series, on stimulation and restoration, streets along pedestrian routes should prioritise pedestrians rather than traffic, so people can safely walk or cycle to work.

Greenery and nature can encourage walking and cycling by creating pleasant routes and offering an enjoyable alternative to driving along roads that are often slow, congested and stress inducing.

The needs of different street users should be considered, including vulnerable groups. For example, for the elderly or visually impaired, their experience can be improved by wide, clearly marked pavements, regular safe pedestrian crossings and physical barriers between pedestrian and vehicle routes, such as planters. Overlooked routes and street lighting are important for feelings of safety.

**Today's urban lifestyle is so different from the active, outdoor life for which our bodies and minds have evolved.**

**As designers, it is vital that we recognise this.**



We can counteract the drawbacks of urban life for mental health by integrating greenery where possible, so the opportunities and joy that can be gained from urbanity are not undermined.

We would love to hear from you if you are interested in collaborating.



[research@ryderarchitecture.com](mailto:research@ryderarchitecture.com)



15 Bennett, K., Gualtieri, T., & Kazmierczyk, B. (2018) Undoing solitary urban design: A review of risk factors and mental health outcomes associated with living in social isolation. *Journal of Urban Design and Mental Health*, 4(7).

16 NHS (2018) Exercise for Depression. Retrieved 13 July 2019 from <https://www.nhs.uk/conditions/stress-anxiety-depression/exercise-for-depression/>

17 Gayle, D. (24 October 2018) Planning incentives 'lead to housing estates centred on car use'. *The Guardian*. Retrieved from <https://www.theguardian.com/politics/2018/oct/24/housing-developments-planning-incentives-cars-new-homes-transport-report>

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Newcastle

London

Glasgow

Liverpool

Hong Kong

Vancouver

Amsterdam

[info@ryderarchitecture.com](mailto:info@ryderarchitecture.com)

[www.ryderarchitecture.com](http://www.ryderarchitecture.com)

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