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PROGRAMME IN
AGEING URBANISM

Curating a green landscape for active ageing

Age-friendly Neighbourhoods[1]

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A big determinant of one's activity habits is the quality of one's immediate surrounding environment. This is especially true for older adults who are bound to their local neighbourhood, consequently having less options for fitness and leisure in comparison to younger people. Research has further pointed to the important role of green landscape in promoting a more active lifestyle, as well as providing mental and emotional wellbeing (Milligan, Gatrell and Bingley, 2004; Gong et al, 2014; Waburton, Nicol and Bredin, 2006). The effective design of parks and green landscape should thus be a priority in the development of age-friendly neighbourhoods. This article will elaborate on the importance of greenery at the

[1] This is an evolving database. We will be adding more examples and cases over time.

neighborhood scale, and touch on some key design concepts to curate an ideal environment for active ageing.

Benefits of Green Landscape in the Neighbourhood

Parks, gardens, and greenery in general may provide older adults with positive impacts on various aspects of health. Gardens and parks located in residential areas positively impact mental health as they often reinforce a sense of place and belonging for older adults (Alves and Thompson, 2008). For older adults who feel estranged by the rapid changes in the larger urban environment, gardens and parks can have the positive impact of providing them emotional security. Natural landscapes can also positively impact one's mood. Merely looking at photos of natural landscape has been shown to reduce negative feelings such as anger and fear, and enhance positive aspects of wellbeing such as a sense of optimism and revitalization (Coon et al., 2011). Thus, being in green spaces can boost emotional and mental wellbeing for older adults.

Green space is further a key determinant of exercise and physical health (Gong et al., 2013). Studies have shown that people who live in neighbourhoods with more green space are found to exercise more consistently over a long period of time, as green space provides an enjoyable environment for exercising. As regular physical activity is critical to healthy ageing and inactive lifestyles are contributing to an epidemic of diabetes and cardiovascular disease (Warburton, Nicol and Bredin, 2006), this positive correlation between the abundance of green space and the level of physical activity one partakes in is noteworthy for the design and planning of residential neighbourhoods. A study in Japan of senior citizens found that the presence of parks and green streets have a positive correlation with longevity, independent of a person's age, sex, marital status, baseline functional status, and socioeconomic status (Takano, Nakamura and Watanabe, 2002). Some direct outcomes of spending time amongst greenery are lower blood pressure, improved cognitive function, lower rates of diabetes and heart attack. Master plans for urban development should thus pay attention to maintaining and increasing greenery filled public areas that are accessible and within easy walking distance of every household. Especially in dense urban environments where there may not be an abundant of nature, close and effective collaboration amongst various government and private organisation is

crucial in creating living environments that are conducive for active ageing.

In addition, parks and greenery add to the creation of a therapeutic environment, which may aid in the management of certain age-related illnesses, such as Alzheimer's disease (AD). AD patients suffer from impairments to many cognitive abilities, including memory, spatial disorientation and communication. Elements such as dead-ends or over-crowdedness can easily trigger disorientation and anxiety in AD patients, while landmarks for navigations and soothing colours can provide security and ease of mind. A study with AD patients showed that exposure to greenery reduced negative behaviours (e.g. agitation), promoted positive memories, and enhanced social skills and increased interactions of AD patients with others (Rappe & Topo, 2007). A successful example of a therapeutic garden is the Memory Garden in Portland, Oregon (See Box 1).

Box 1: Portland Memory Garden

Portland Memory Garden is a unique and purposeful space curated not only for relaxation purposes, but also to support those with AD. It contains specific features that are not only age-friendly, but also dementia friendly, such as:

- landmarks to aid navigation;
- no dead-ends in the garden so as to avoid confusion for older adults;
- plants that were common in gardens in the past so as to evoke childhood memories and plants that have distinct and strong scents so as to provoke and retain experiences and memories. Visitors can also touch the plants, thus encouraging curiosity and interaction.

The garden was a result of collaborative efforts between many parties in the local neighbourhood. It involved the American Society of Landscape Architects (ASLA), the Alzheimer's Association, The Center of Design for an Aging Society, Legacy Health System, Portland Bureau of Parks and Recreation, and the Institute on Aging/School of Urban Studies and Planning at Portland State University. There was active involvement of local programmes, such as the Boy Scouts and the Youth Builders, together with local businesses and suppliers. Thus, projects such as the Portland Memory Garden are not only beneficial to older adults, but also bring a sense of joy and identity to the community at large.

Source: Portland Memory Garden Official Website. http://www.centerofdesign.org/pages/memorygarden.htm

Curating the Ideal Landscape for Active Ageing

To design an ideal living environment for health, it is important to keep in mind the effects of the environment on the individual, the network that it hosts, and the level of physical activity of inhabitants (Steemers, 2017). Especially when designing for older adults, the abundance of vegetation and greenery is not enough; design needs to cater to the specific needs and preferences of older adults, including those with reduced motor functions, cognitive functions and mental capabilities.

A review of relevant literature reveals some key elements that one should keep in mind when designing natural landscapes for age-friendly neighbourhoods (Alves et al, 2008). These ideas are summarized into three main themes, namely Independence and Agency, Social Interaction, and Physical Design:

- Independence and agency: even though older adults may be more frail and susceptible to accidents and illnesses, we should not underestimate their independence and ability to cope with the environment. In fact, independence and agency should be encouraged via the built environment. Having easy navigations with large fonts and icons helps older adults to independently find their ways. Legible park layouts without dead ends, benches with supporting structure to assist older adults to get up after resting are some elements that will give older adults more control over their environment.
- Social interaction: neighbourhood parks and gardens are great places for fostering interactions and community bonding. There should be common spaces within parks with seating for conversations. There should also be a promotion of intergenerational activities, perhaps having children playgrounds near activity corners so as not to isolate older adults. A variety of options for leisure, from sitting to exercising, to simple games and therapeutic walks so as to diversify the range of exercises for older adults - is also crucial in promoting physical activity amongst older adults.
- Physical design: the location and layout of green landscapes matter greatly in promoting their usage. There should be the right park-to-resident ratio; if parks are too deserted, safety may be compromised and the sense of social vibrancy would be lost. At the same time, crowded parks also cause claustrophobia and discourage use. Parks and gardens should be accessible and near enough to

residential areas so that older adults do not have to travel far to enjoy these amenities. The design of the parks should also allow for a sense of security and comfort - benches should be within visual distance from one another, resting places should be wheelchair-friendly, there should be plenty of tactile indicators, colour themes to help with orientation, as well as vegetation that is non-poisonous and allow for interaction. Equipment and exercise amenities need to be easy to use and have a high tolerance for error so as to minimise the risk of self-harm when using these facilities.

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