How to create Age-Friendly Communities through Setting New Parameters for Landscape Environmental Design

OVERVIEW

Abstract. Explore new methods of older adults' engagement within city planning and landscape design. A combination of theoretical and empirical research methods were used to bridge disciplinary practices and opinions. Objective. 1. Identify deficiencies and successes in the current practice of inclusive landscape architecture and design with a focus on the physical and psychological needs of the aging population within Canadian demographics. 2. Explore the contributing catalysts of sustainability, environmental awareness and ecological efforts. 3. Connect and redefine the investigated current concerns within the older adult demographics compared to industry research.

Methodology. A comprehensive review of literature was investigated concerning aging characteristics and landscape development to provide base for the two types of empirical research applied. Survey. The end-user survey of 30 participants of ages 55+ was conducted to specify their present day physical and psychological requirements, concerns of comfort and accessibility levels, and their lifestyle preferences or needs for inclusive design. This reflects responses of current and future demands. Interviews. The interviews were conducted with professionals in several disciplines, such as: ecology, interior design, architecture, lifestyle-care consulting, aging organizational members, and care facility end-users to investigate successes and deficiencies within environmental sustainability, landscape practices, and aging.

NOTE: Female results are represented in orange and male results are in green. Responses are ranked from greatest to least. Results were averaged to count for uneven gender participation.

Bibliography. References available from presenter.

LANDSCAPE CORRELATION

Participants rated the importance of the criteria listed below to evaluate the current needs

Perception
Consider the outdoor as “stress free” 80% 79% 74%
Feel happy when outdoors 78% 75% 73%
Consider the outdoor as an “escape” or “retreat” 78% 75% 73%
Use the outdoor to maintain physical activity and to “keep fit” 78% 75% 73%
Want to participate in the planting, maintenance or gardening when outdoors 78% 75% 73%
Outdoor spaces are added to remember certain emotions 78% 75% 73%
Ability to remember what plants were seen after visiting an outdoor place 78% 75% 73%
Not likely for outdoor visit from the age group were present 78% 75% 73%
The outdoor is reassuring and relaxing 78% 75% 73%
Physical capability restrains access to outdoor spaces 78% 75% 73%
Feel safe when outdoors 78% 75% 73%

Preferences
Ability to sit down outdoors 84% 80% 79%
To sit depends on shade 78% 75% 73%
Enjoy outdoor walking without a vehicle 67% 64% 61%
Lack of greenery makes one feel better 67% 64% 61%
Hope to smell or touch plants 67% 64% 61%
Enjoy outdoor activities to walk alone 67% 64% 61%
Enjoy the outdoors for privacy 67% 64% 61%
Enjoy the outdoor at the amount of time 67% 64% 61%
Enjoy the outdoors for the tranquility 67% 64% 61%
Enjoy hills 67% 64% 61%
Enjoy small circles 67% 64% 61%
Outdoor maintenance affects enjoyment 67% 64% 61%
Enjoy the outdoor based on the amount of flowers 67% 64% 61%
Feel good walking sound music while outdoor 67% 64% 61%

Characteristics of Respondents

Physical
Severe Physical Pain 21% 20% 19%
Loss of loved One 19% 18% 17%
Accidents 18% 17% 16%
Traumatic Event 15% 14% 13%
Thoughts of death 11% 10% 9%
Memory Loss 9% 8% 7%
Depression 8% 7% 6%
Difficulty in Learning 6% 5% 4%

Psychological
Bipolar Disorder 6% 5% 4%
Depression 7% 6% 5%
Choice of Safety 9% 8% 7%
Fear of Life 10% 9% 8%

Top Assistive Devices Used

Derivative from the numbers of months of assistance used, these were:

Sitting/ Ring 16% 14% 12%
Cane 6% 5% 4%
Walking Aids 5% 4% 3%
Mobility Device 10% 8% 6%

LANDSCAPE REFLECTIONS

Participants rated the important areas of improvement within the criteria listed below to the associated image.

Additional Flowers
Additional Trees
Bench Seating/ Permanent
Parking
Additional Signs
Walkway
Movable Seating/ Chairs
Canopy/ Structure
Shade by Tree
Washroom
Additional Shrubs
Additional Trees
Canopy/ structure
Additional Trees
Walkway
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Feel safe when outdoors 78% 75% 73%

Preferences

Design Criteria

Legend

Female
Male

Respondent Barriers

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Memory Loss 9% 8% 7%
Depression 8% 7% 6%
Difficulty in Learning 6% 5% 4%

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Additional Trees
Canopy/ structure
Additional Trees
Walkway

Conclusions

The analysis concluded that the aging population’s requirements differentiate from the professional design solutions – particularly considering the psychological needs – within landscape design. Social scientists, researchers, and older adults are concerned about the disruption of cultural and psychological factors that connect people to locality, which reflects the ecological standpoint of “leave it the way it is.”

Integral Psychological and Physical Needs

1. Universal and accessible landscapes promote active aging in regards to improvement, growth, and inclusivity for people of all abilities.
2. The cognitive response data to landscapes prove that they administer feelings of contentment and good memories. It instills independence and freedom, which provides dignity to people – an essential factor for healthy older adult living.
3. The aging population use the outdoor environment to obtain and maintain physical activity (fitness) and as a therapeutic atmosphere for stress-relief. Daylight is required, which determines their visit and social areas are critical requirements.
4. The promotion of ecological awareness and landscapes to remain in the original state support user and environmental sustainability.

Recommendations for Improvement

The results of the interviews are as follows:

a. There is a large gap in knowledge within the application and functionality of sustainable Landscape Design from a designer and ecological perspective
b. Current Landscape Design does not meet the demands and desires of the present older adult demographic or administer appropriate strategies for future growth.
c. Design should encourage independence and end-user choice while promoting safety.
d. Sense of purpose and variety of options for differing abilities are critical.
e. Inclusive Design principles within built landscapes are established as “very important” from all practices, which establishes the understanding for cross-disciplinary solutions.

INTERVIEWS

The results of the interviews are as follows:

1. The most significant attributes to implement for outdoor landscapes are supportive spaces for the user. These are washroom facilities, walkways with proper circulation, wide path space, and designated areas for rest with bench seating. Wayfinding and signage and directional communication are critical to allow for user choices and confidence. Shade and parking are held important for improved experience.
2. Visual, aroma and tactile stimulation of additional flowers and shrubs supply the valuable sensory experience the aging population demand. The data of visual impairment and dependence of visual assistance supports this development.
3. Additional evidence-based design and quantitative research is vital to update standards and provide for accurate projected studies.