Urban Green Space and Mental Well-being: Evidence-Based Design

Presenters
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Learning Objectives:
1. Appreciate what environmental psychology research brings to the design of urban space for wellbeing.
2. Understand the meaning of evidence-based design and how to employ it for best effect.
3. Discover which physical attributes (content & spatial configuration) of a green space design are preferred.
4. Explore examples of wellness parks built by TKF that exemplify design attributes related to wellbeing.

I Introduction

A Where we’re going - It is well known that the experience of nature produces an array of positive benefits to mental wellbeing.

B Much less is known about the specific attributes of green space which produce these effects.
Consequently, the design of restorative urban green space is challenging, particularly in dense urban areas. This team presentation explains the latest research on defining which physical components, characteristics, and collective arrangements of nature will best meet criteria for psychological wellbeing. Examples illustrating the connection between design attributes and restoration and preference come from the portfolio of 130 healing parks in the US built by TKF, a foundation dedicated to providing urban spaces that support mental and spiritual health.

C Evidence-based design help define what type of nature pill is effective
Successful evidence-based design happens when a design is informed by relevant research outcomes, as well as aesthetic vision and client goals. For example, evidence from the field of environmental psychology has established that nature settings are more preferred and restorative than urban settings. Using this knowledge, a residential development might be designed with naturalistic structure and content. Evidence-based design. However, in our increasingly dense cities the option for nearby nature experiences is shrinking, and evidence that “more nature is better” is not sufficiently helpful. So the question emerges, how do we as landscape architects and planners most effectively design urban nature experiences when the space for nature is limited? Our presentation will explain one way of building an evidence-base to answer this question.

II The role of TKF in the development of evidence-based design for wellness spaces in cities

A Mission, history, and legacy of the Foundation.
Over the past 20 years, more than 100 intimate, urban green spaces in the mid-Atlantic region have been built with funding from TKF. By offering nearby nature spaces in urban areas, TKF intends to
provide users with opportunities for respite, restoration, contemplation, and connection. TKF calls these small insertions of nature into busy urban settings - Open Spaces Sacred Places, or OSSP for short. Each OSSP was founded on TKF’s Nature Sacred Principle -- a belief that exposure to nearby nature environments offering sanctuary, solace, reflection, and mindful interaction delivers transformational benefits to users and the surrounding communities. But how do we know if that design intent is being realized?

B The role of research in design
TKF’s research started with the identification of key design features by analyzing the character of existing places of urban respite. This resulted in the identification of four key physical design features. A sampling from the TKF portfolio of wellness parks illustrates these 4 design features and offers evidence of their success in supporting mental well-being.

C The role of TKF in the development of evidence-based design for wellness spaces in cities.
TKF envisions a time when every urban area in the U.S. will provide people with opportunities for intimate, intentional daily doses of nearby urban nature through the creation of a system of nature spaces. In support of this, the Foundation is providing advocates, activists, and people of influence (people like you – LAs and planners) with information, motivation and inspiration to better establish accessible, public, intimate urban green space systems for city dwellers. TKF has recently extended its commitment to establish a stronger evidence-base about what type of design is more effective in bringing restoration to city dwellers. This is happening in two ways. First, successful competition for TKF funding requires that the design include a program for post occupancy evaluation that assesses how well the site fulfills its goal of creating the sense of sanctuary. Second, TKF is funding scientific research to identify design attributes of successful, restorative spaces based on attributes of existing OSSPs.

D Preference testing: one approach for getting evidence about people’s response to urban nature
The audience will participate in a mini-experiment that deciphers people’s response to a visual experience. We will use scenes from OSSP sites.

III Foundations for Effective Wellness Designs: Basic Research

A What environmental psychology scientists say about environmental features that support wellbeing
Key generalization emerging from research in environmental psychology about the value of nearby nature to wellbeing. Recent support found in a study of Neighborhood greenspace and health in a large urban center.

B Definition of attention restoration and the role of nature in helping people recover from attention deficit. Recent support found in a study that compares the restoration capacity of viewing images of nature versus the city.

C The challenge of identifying the stimuli that lead to restoration

D Latest news: Defining low level features. Recent support about their importance in preferred environments.

E Testing the validity of low level features as design attributes that support wellness in urbanscapes using examples of scenes from OSSPs.
IV Jumping the Hurdle: Translational Research Products for Evidence-Based Design

A Translating basic research outcomes for application in landscape design
A designer cannot readily use low level features as a design tool. This is where translation of basic research outcomes becomes essential for application.

B Latest news: Identifying which attributes of site design are critical to wellbeing outcomes based on theory and empirical work from the fields of environmental psychology and design.

C Testing the validity of semantic features as design attributes that support wellness in urbanscapes using examples of scenes from OSSPs.

V Conclusions- Reaching the Ultimate Goal of Evidence-based Design

A Creating design guidelines for wellness outcomes derived from translational research.

B Getting the word out.
As urban density increases worldwide, so does the domination by built objects and the loss of ecosystem services, including psychological ones. It is in our capacity as designers to bring supportive nature design into cities - now. Instead of waiting for a cultural shift in attitude or tax dollars to support it, landscape architects and planners can initiate a grassroots effort by creating designs that include an evidence-base about how to make places that people like and are, at the same time, restorative. We can also use communication strategies that convey the results of cross-discipline efforts to policy makers and heighten the relevancy of this collaborative work.

Resources
Online:
Nature Sacred, the TKF Foundation website:  http://naturesacred.org/

Nature for Cities: a public education website:  http://natureforcities@snre.umich.edu/

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