

A photograph of a person walking on a metal walkway that winds through a dense, lush green forest. The walkway is elevated and has a metal railing. The person is wearing a light-colored top and shorts. The background is filled with tall trees and dense foliage.

Biophilic Cities:

*Design for Planetary Health
and Human Flourishing*

Tim Beatley, UVA Urban and Environ
Planning



Cities + Nature?

BIOPHILIC CITIES PROJECT

Biophilia: “...the innately emotional affiliation of human beings to other living organisms. Innate means hereditary and hence part of ultimate human nature.” --E.O. Wilson





What Are We Drawn To?



Watching birds near your home is good for your mental health

People living in neighbourhoods with more birds, shrubs and trees are less likely to suffer from depression, anxiety and stress, according to research by academics at the University of Exeter, the British Trust for Ornithology and the University of Queensland.

The study involving hundreds of people



Being able to see birds, shrubs and trees around the home benefits mental health.

A large, leafy tree with people sitting on a bench underneath it. The scene is outdoors, likely in a park or campus setting. The tree is the central focus, with its dense green foliage filling much of the frame. Several people are sitting on a low stone wall or bench in the foreground, some looking towards the camera and others looking away. The background shows more greenery and a clear sky.

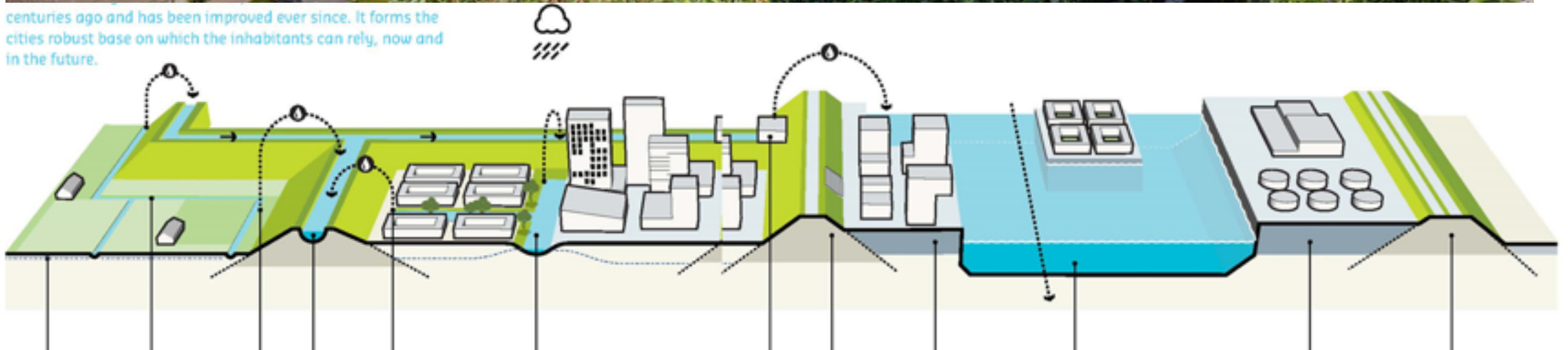
Nature Associated With... Flourishing!

Lower Depression and Anxiety
Lower Levels of Stress
Improved Mood /
Increased Happiness
Increased Physical Activity
Lower Crime / Gun Violence
Reduced Social Isolation
Lower Childhood Asthma
Higher Cognitive Performance
Higher School Test Scores
Higher Worker Productivity
Higher Creativity
Greater Generosity
Greater Cooperation
Longer Term Thinking
Increased Laughter and Joy

Biophilic Cities Are Resilient Cities



centuries ago and has been improved ever since. It forms the cities robust base on which the inhabitants can rely, now and in the future.





PHIPPS CONSERVATORY

“...[E]very occupied space includes a view of nature and is within 30 feet of an operable window. Plants are located throughout the building. The building was designed to maximize natural daylight and each of its three floors open out into peaceful garden spaces. The green roof is accessible to staff and visitors.” –Richard Piacentini

BIOPHILIC DESIGN: A LIVING CASE STUDY AT PHIPPS CONSERVATORY, PITTSBURGH

“WE CURRENTLY SPEND AN AVERAGE OF 90 PER CENT OF OUR LIVES IN BUILDINGS, SO WHAT HAPPENS IN THEM CAN HAVE A HUGE IMPACT ON OUR HEALTH AND HOW WE RELATE TO THE WORLD.”

BY RICHARD PIACENTINI, EXECUTIVE DIRECTOR, PHIPPS CONSERVATORY

- RICHARD PIACENTINI

Photo courtesy Paul G. Weisman

When we think of green roofs, many benefits come to mind such as capturing stormwater, insulating buildings and creating habitat for wildlife. One other important benefit often overlooked is that green roofs can help satisfy our innate desire to connect with nature. This

We currently spend an average of 90 per cent of our lives in buildings, so what happens in them can have a huge impact on our health and how we relate to the world. Unfortunately, these same buildings isolate us from nature and the other species that we share this planet with. This is exacerbated by technology: If we go outside, one does not have to walk far to see many people walking while glued to their cellphones.

developed by the late Dr. Stephen R. Kellert, who organized a biophilic design classification system in six primary areas: 1) environmental features 2) light and space 3) natural shapes and forms 4) place-based relation-

Incorporating biophilic elements into the built environment can have profound, measurable benefits for human performance, including improved productivity, emotional well-being, stress reduction,

Biophilic Cities?

Cities That Connect Us to Nature

Buildings+ Gardens, Trees and Outdoor
Nature, Birds and Wildlife, Trails and
Landscapes, Rivers and Hydrology, ETC

Biophilic Cities?

Nature CONNECTIONS

Urban Nature CONSERVATION

Coexistence and CARE for nature



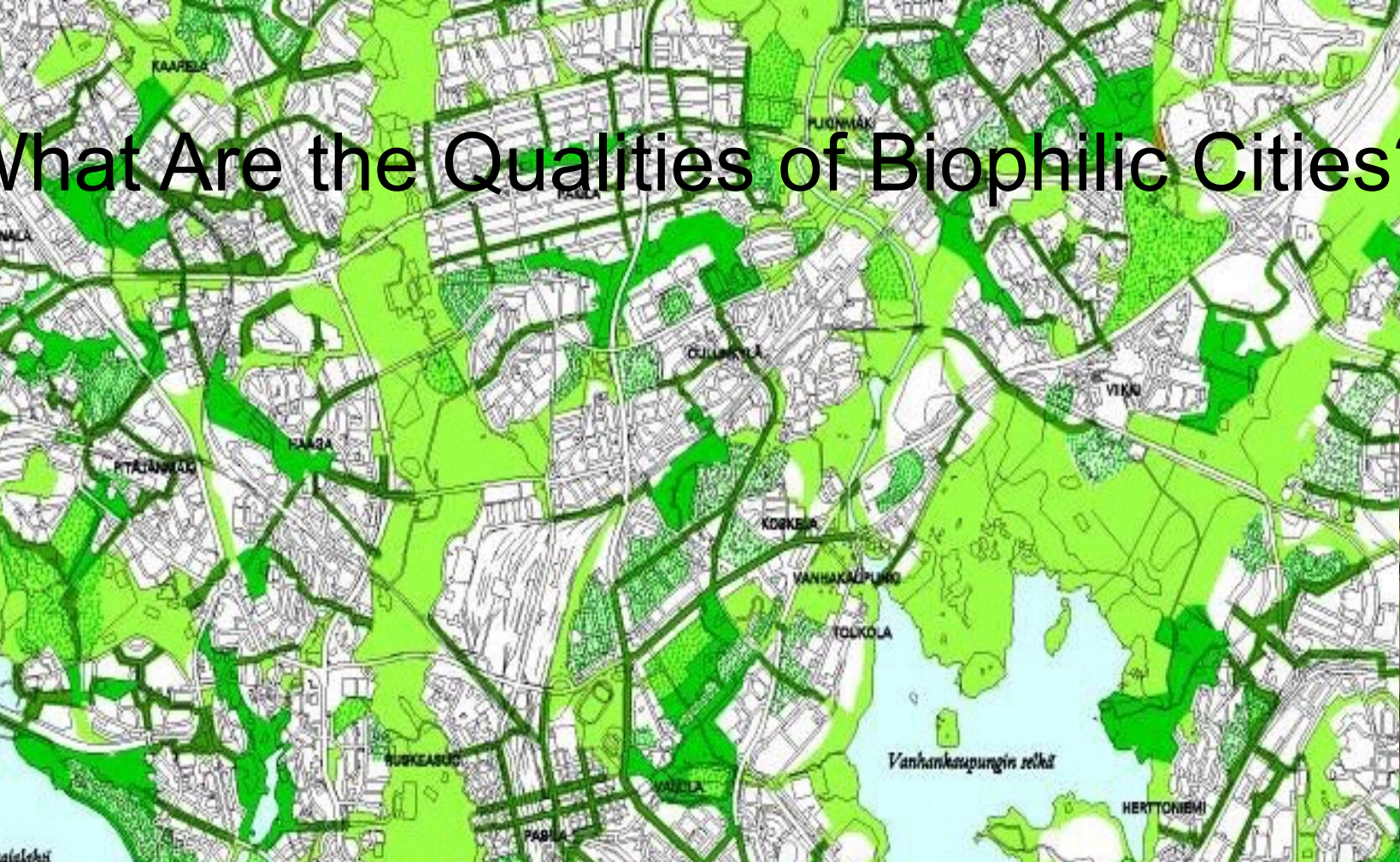
The

Vision

Singapore: City in a Garden

PARK ROYAL at Pickering
WOHA architects

What Are the Qualities of Biophilic Cities?



Networks of Interconnected Nature Whole-of-City Approach

