Biophilic Pittsburgh

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Overview

• Introduction to Biophilic Cities movement
• Introduction to what other cities are doing
• Role of Biophilic Network at Phipps
• Introduction with Biophilic Organization Directory and event/volunteer listings
• Resilient Pittsburgh & Biophilia: City priorities
• Q & A
• Inventory of existing project and programs
• Wrap up and next steps
Biophilia
Biophilic Cities Movement
Biophilic Cities Network goal

• **Connect** people all over the world, both ordinary citizens and urban leaders, desiring to welcome more nature, and greater love of nature, into urban life. The network will **complement** existing networks and organizations, and offer a unique opportunity to **share** best practices and **develop** a stronger global attitude toward embracing nature in cities.

• Adopt a **holistic view** of the definition of “nature,” embracing all aspects of urban ecology, from the tiniest invisible microbes, to urban wildlife habitats, to increasing our connection with the wonders of the night sky.
Partner City Requirements

• Adopt an official resolution or other instrument
• Prepare a Biophilic Cities narrative statement
• Select and commit to monitoring a minimum of five indicators
• Designate a Biophilic Cities contact/coordinator
• Meet additional expectations as outlined in the document

Partner City status is initially awarded for 2 years and then renewable for periods of 2-5 years.
Partner City Requirements

• Adopt an official resolution or other instrument
• Prepare a Biophilic Cities narrative statement
  • Current things that already make the city biophilic
  • Goals and aspirations for the future with specific steps the city will undertake to enhance nature or the position of nature in the community
Partner City Requirements

- Select and commit to monitoring a minimum of five indicators across 4 categories:
  - Natural conditions, qualities, infrastructure
  - Biophilic engagement, participation, activities, and knowledge
  - Biophilic institutions, planning and governance
  - Human health/well-being

- Designate a Biophilic Cities contact/coordinator

- Meet additional expectations as outlined in the document
Partner City Requirements

- **Natural conditions, qualities, infrastructure**
  - Percent city population living (or working) within 300 meters of a green space, park, or other natural element

- **Biophilic engagement, participation, activities, and knowledge**
  - Percent population visiting parks or green spaces daily

- **Biophilic institutions, planning and governance**
  - Percent city budget devoted to nature conservation, restoration, education
  - Existence of a biophilic cities strategy, action plan, or the equivalent (e.g. a biodiversity action plan, green infrastructure plan or element in local comprehensive plan)

- **Human health/well-being indicators**
  - Measurable progress made to overcome inequitable or unfair distributions of urban nature through planning. An example might be increasing tree canopy coverage in neighborhoods with vulnerable populations.
Biophilic Cities- What’s currently being done
Partner Cities- Grandfathered in

- Milwaukee, WI
- Phoenix, AZ
- San Francisco, CA
- Portland, OR
- Wellington, New Zealand
- Birmingham, UK

- Oslo, Spain
- Victoria-Gasteiz, Spain
- Singapore
- Montréal, Quebec
- Rio de Janeiro, Brazil
Current Biophilic Cities- Grandfathered in

Phoenix, AZ
- Conserving 17,000 acres of desert land (1/3 of the city’s land); will be largest urban park
- Maintained by volunteers of the McDowell Sonoran Conservancy

San Francisco, CA
- Open spaces planning efforts (collaboration of city planning, Mayor’s office, Parks and Rec and other city agencies)
- Pavement to parks (collaboration dept of public works, planning, and municipal transit)
Wellington, New Zealand

- Biophilic team as part of the city council
- 80-90 rain gardens around the city
- Zealandia sanctuary - community driven eco-restoration project and educational facility
- Waitangi Park - wetland area treating stormwater and providing ecological habitats
Partner Cities- New adopters

• Philadelphia, PA
• Washington DC
Current Biophilic Cities- New Adopters

Washington, DC
• Signed resolution to set tone for future city projects
• Engage city council and government
• Focus more on biodiversity (not just green buildings)

Philadelphia, PA
• Launched in May 2015 with presentations by Tim Beatley and Bill Browning
• No resolution, working on a consensus statement
• Slogan: “BioPhilly, Growing Beyond Green”  Beyond green= combining sustainability with health
• Mayor’s Office of Sustainability
Role of Biophilic Network at Phipps
“To inspire and educate all with the importance and beauty of plants; to advance sustainability and promote human and environmental well-being through action and research; to celebrate its historic glass-house”
Biophilia Pittsburgh Network

Biophilia: Pittsburgh is the pilot chapter for a global Biophilia Network of creative minds dedicated to strengthening the bond between people and the natural world through education, discussion and action.

Click here to access materials from our past meetings.

Our Goals
- To welcome and inspire others with the concept and principles of biophilia
- To foster collaboration and learning between professionals from a wide variety of disciplines
- To communicate biophilic principles in action-oriented ways to a wider audience for exponential and regional impact

What Is Biophilia?

The term “biophilia,” which literally means “love of life,” was coined by social psychologist Erich Fromm and popularized by biologist E.O. Wilson, who defined it as “the innately emotional affiliation of human beings to other living organisms.”

The implications of biophilia extend across a vast array of disciplines including design and engineering, nutrition, psychology, public health, education, biology and the humanities. Biophilia is expressed all over the world every day, through complex collaborations such as the design and construction of buildings and landscapes; and intimate, personal encounters including nature hikes and home gardening.
Love of Life is Human Nature.

Biophilia: Pittsburgh January Meeting: Envisioning Biophilic Pittsburgh

Phipps Conservatory and Botanical Gardens
3 Schenley Park, Pittsburgh, PA (map)

At our Jan. 7 Biophilia: Pittsburgh meeting, join Phipps Executive Director Richard Placitelli and Director of Science Education and Research Dr. Emily Kalnicki at a visioning session for "Biophilic Pittsburgh." Come for a lively conversation about all of the great biophilic initiatives already happening in the city and follow-up on the... Learn More

Hosted by: Phipps C. (Organizer)

Thu Jan 7
5:30 PM
RSVP
30 going
1 comment

Recent Meetups

December 3 - 5:30 PM
Biophilia: Pittsburgh December Meeting

18 Biophiles | ★★★★★
Biophilic Pittsburgh Directory
Biophilia: Pittsburgh Directory

- Listing of various organizations doing work related to biophilia
Biophilia: Pittsburgh Directory

Current organizations that have submitted information

- Blackberry Meadows Farm
- Carnegie Natural History Museum
- East Liberty Development Inc
- Fern Hollow Nature Center
- Friends of the Riverfront
- Grow Pittsburgh
- Learn Your Land
- Nine Mile Run Watershed
- The Outdoor Classroom
- Phipps Conservatory
- Pittsburgh Parks Conservancy
- Venture Outdoors
List of events and volunteer opportunities related to biophilia

Will be listed on the meetup page

Interested in adding an event or volunteer opportunity? email: biophilia@phipps.conservatory.org
Overview

1) Background on Resilience & ongoing initiatives

2) Resilience & Biophilia: Co-Benefits

3) City Priorities related to Biophilia

4) Climate Change & Climate Compact
What is resilience?

100 Resilient Cities defines urban resilience as the capacity of individuals, communities, institutions, businesses, and systems within a city to **survive, adapt, and grow** no matter what kinds of chronic **stresses** and acute **shocks** they experience.

Urbanization, Globalization & Climate Change
Key shocks and stresses

**Shocks**
- Climate change and extreme weather
- Infrastructure failure
- Hazardous materials accident
- Landslide and subsidence
- Economic collapse

**Stresses**
- Aging infrastructure
- Economic and racial inequity
- Environmental degradation
- Aging workforce
- Lack of mobility/transportation access
- Regional fragmentation
Value of being a 100 Resilient Cities Network Member

1. Staffing capacity
2. Planning consultant: The RAND Corporation
3. Membership in network of 100 cities
4. $5 million in pro bono services from platform partners
Long-Term Benefits of Resilient Pittsburgh Strategy

- Elevate and amplify existing plans and initiatives
- Target resource allocation
- Attract and direct funding to support city priorities
- Resilience dividend - 10% budget pledge
100RC Project Plan has two phases

**Phase 1**
Fall-Winter 2015

**Objective:**
- Evaluate state of resilience and city capacity, and generate broad support and engagement in discovery areas

**Process:**
- Data collection
- Stakeholder engagement

**Outcome:**
- Preliminary Resilience Assessment (PRA)

**Phase 2**
Winter-Summer 2016

**Objective:**
- Deep, rapid expert analysis, and generation of solutions through a resilience lens. Practical action, and multiple benefit decisions made

**Process:**
- Focused analysis
- Generate solutions
- Prioritization

**Outcome:**
- City Resilience Strategy
Extensive stakeholder engagement has informed the PRA

**Initial Workshop**
(June, 2015)
160+ invited participants identified shocks & stresses, strengths & weaknesses of the city

**Focus Groups**
(October, 2015)
Met with 50+ industry professionals: Philanthropy, Business, Neighborhood, Civic, Academic, Regional

**PHASE I: Preliminary Resilience Assessment (PRA)**
January, 2016

**Deliberative Forums**
(November, 2015)
Two sessions, 140+ city residents to identify shock & stresses, strengths & weaknesses in city neighborhoods

**Stakeholder Perceptions**
(October, 2015)
Workshop with 20 City department heads to dig into strengths, weaknesses and capacity of the City
Stakeholders noted strengths and weaknesses of the city

Strengths
• Natural, Economic and Social Assets

Areas for improvement
• Inclusive Community Development
• Transportation, Zoning and Land Use
• Economic diversification

Weaknesses
• Fragmentation
• Marginalized Populations
• Lack of Redundancy
Resilience and Biophilia: Co-Benefits

How can biophilic principles and projects reduce stresses and shocks in Pittsburgh?

Tree
- Carbon sink
- Social benefits: happiness, crime reduction, etc
- Soil Revitalization & Stabilization

Reduced urban temps
Improved air quality
Food source
Stormwater flow reduction/ improved water quality

Many native trees
Connects greenspaces
Wildlife habitat
Improved biodiversity
Better resistance to biological threats

Soil Revitalization & Stabilization

How can biophilic principles and projects reduce stresses and shocks in Pittsburgh?
<table>
<thead>
<tr>
<th>PROJECTS</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>Open Space Plan - DCP</td>
<td>Optimizing Pittsburgh’s open space, parks and recreation system – manage green space, brownfields, vacant lots to create a green network</td>
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<td>Pittsburgh applied for a grant to facilitate connecting 10,000 children from all 90 neighborhoods to nature</td>
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<td>EPA / ioby / TPL / GMF</td>
<td>Organizations supporting Pittsburgh projects relating to biophilia, resilience and sustainability</td>
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Resilience & Climate Change

Mayor Peduto – 2030 Goals

- 100% renewable energy use
- 50% building energy use reduction
- 50% water use reduction
- 100% fossil fuel free fleet
- 100% waste diversion
- 50% transportation emissions reduction
- Divestment strategy
Climate Action Plan 3.0 & Pittsburgh Climate Compact

Climate Action Plan Groups

• Land Use & Transportation

• Buildings

• Energy & Utilities

• Water

• Waste

• Sequestration

Pittsburgh Climate Compact

• Aggregate climate action commitments & progress

• 2030 Districts, GWC

• Hospitals, Schools, Utilities

• Track data & publish annually
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<td>iTree Analysis – shade trees (STC) and urban canopy (TreePGH)</td>
<td>Analysis of all trees in the City-type, health, susceptibility, stormwater capture, CO2 storage</td>
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<tr>
<td>Key Performance Indicators</td>
<td>Facilities-wide monitoring of indoor air quality, energy and water use, water quality, employee commute</td>
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<tr>
<td>Greenhouse Gas Inventory</td>
<td>Measures GHG emissions in City facilities and City-wide</td>
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<tr>
<td>Open Space Plan</td>
<td>Inventory of Open Space, access &amp; proximity</td>
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<tr>
<td>Western PA Regional Data Center</td>
<td>Open data from local government and community sources</td>
</tr>
<tr>
<td>Southwestern Pennsylvania Regional Indicators Report</td>
<td>Report in 2004, considering which indicators to track in future reports</td>
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<tr>
<td>Pittsburgh Survey 2.0</td>
<td>Comprehensive sociological study of Pittsburgh. 1907 seminal study focused on the people, place and work</td>
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<td>EPA / USFS / ioby</td>
<td>Mapping tool combining use of natural resources with stewardship programs and crowd-funding</td>
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Questions?
Inventory of existing projects and programs
## City Priorities Related to Biophilia

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Create an inventory of current projects and programs

- Use the sticky pads to write things you/your organization is already doing related to the 5 city priority areas
  - These can be current or planned initiatives
  - Try to be specific with numbers/stats if available
  - Use one sticky note per project or program
- Write out names of organizations that should be included in the directory
Create an inventory of current projects and programs

- Go around the room and read what’s been posted
- Take two strips of dots, and vote on your top 2 under *each* initiative
- When you’re done voting, please have a seat
Wrap up and next steps
What’s next?

• Compiling inventory generated today
• Compiling briefing for the Mayor
• Drafting official resolution
• Continued events and opportunities to be involved
For more information:

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• Rebecca Kiernan: rebecca.kiernan@pittsburghpa.gov
• Dr. Emily Kalnicky: ekalnicky@phipps.conservatory.org
• Biophilia directory/events: biophilia@phipps.conservatory.org