

Frameworks, Values, and the Glory of Dandelions

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the
nature
of cities





*“It is difficult to take
in all the glory of the
Dandelion, as it is to
take in a mountain,
or a thunderstorm.”*

Charles Burchfield
(1893–1967)



How do you
take in the glory
of a Dandelion?

Of a mountain?

A park?

A city?

A landscape?

Through acts of
imagination.

Whose imagination? What imagination?

- **Knowledge** imagination linking ideas to expression
- **Science** imagination connecting to policy
- **Policy** imagination connecting to the people's will and need
- **Design, artistic, and scientific** imagination that envisions new relationship to Place
- Imagination among the **people** about what is possible. What they deserve.

These modes of imagination can only find expression when they are more interconnected



Bangkok



New York



Portland



Rio de Janeiro

Value Values



Bangalore



Singapore



Mumbai



Amsterdam

Livable

Resilient

**Sustain-
able**

Just

**What kind of cities
do we want?**



Metaphor



Everyone can agree that “resilience” is a good thing –
but it really involves difficult choices.

- ✓ Resilience, sustainability, livability, justice *have* to be more than a metaphors
- ✓ What does “efficient” mean? “Safe”?
- ✓ Be specific. What is the action of the word?
- ✓ The application of specific responses to resilience often has winners and losers
- ✓ **For whom?**
- ✓ Resilience at one scale might be vulnerability at another

Just because we might share the same values, we don't necessarily share the same vocabulary

...and if we do share vocabulary, we might find we don't share the same values.

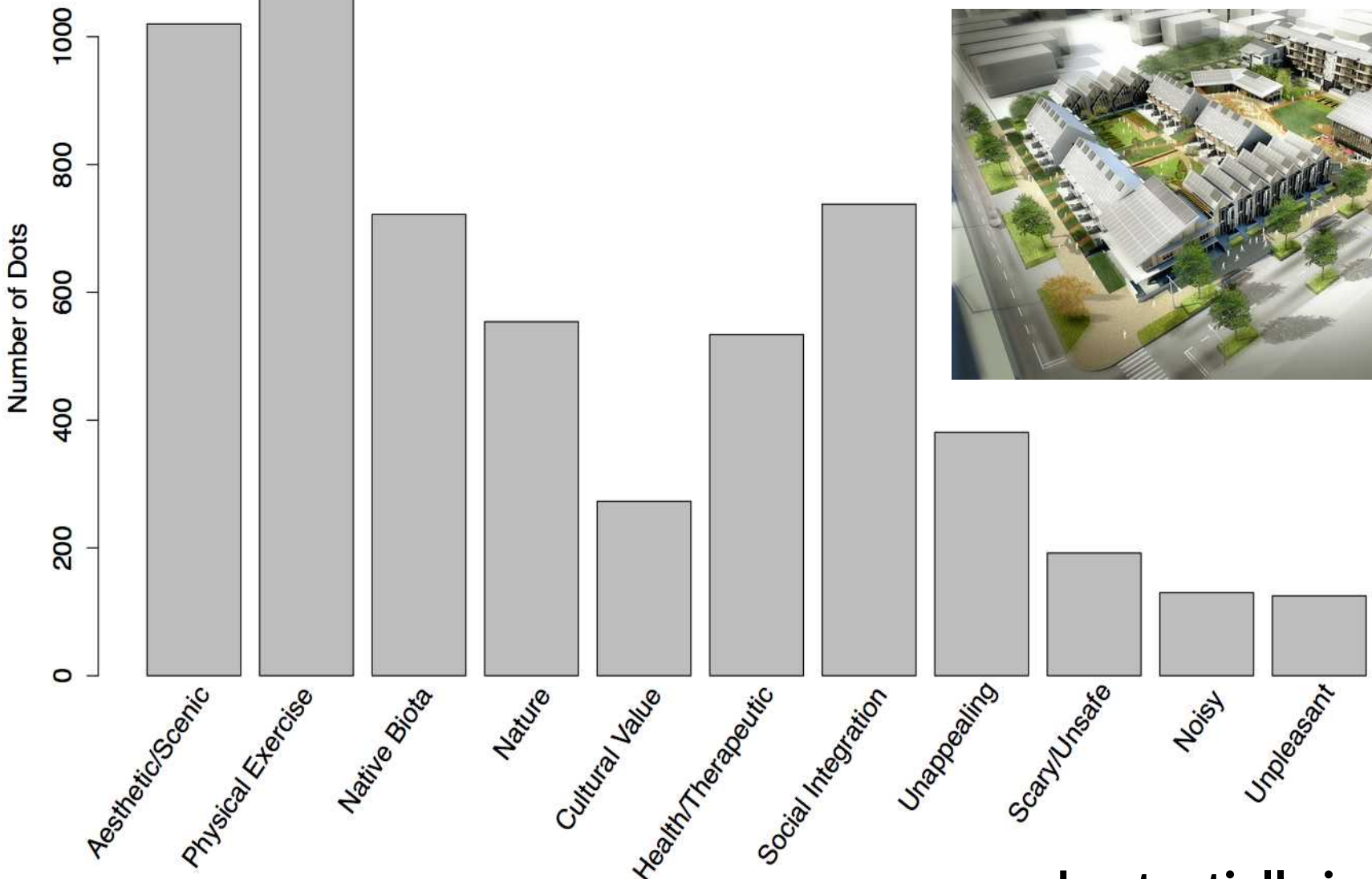
Designers (and / vs.) Ecologists

- Seems like a straightforward match, no?
- What is the goal of a place or design?
- Words like “wild”, “natural” mean...??
- What kinds of “evidence” suffices?
- Which Values are more important?
Yours or mine (or my client’s)?



What values do people assign to parks and natural areas...

...that can inform design



...and potentially improve conversations about conservation

Shared values ≠ Shared vocabulary

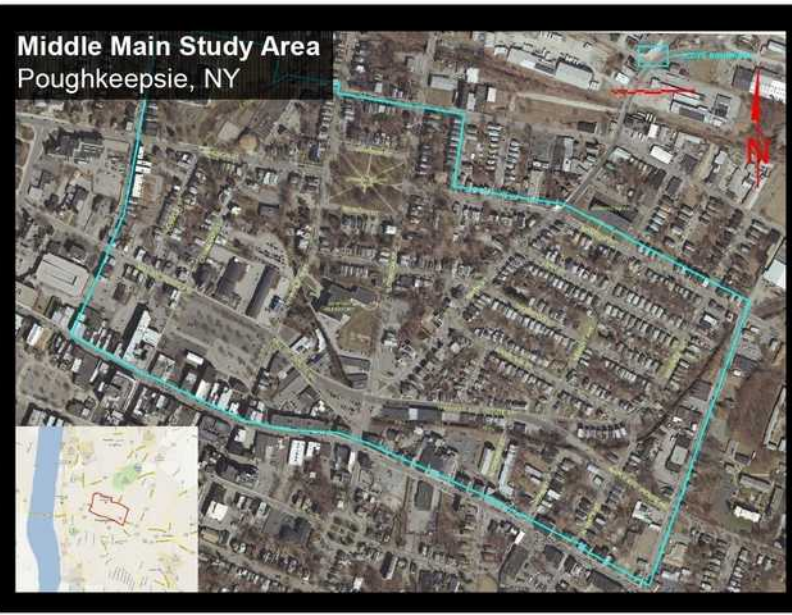
- ✓ We often don't mean the same thing with the same words
- ✓ We need a shared vocabulary to talk to people who may not agree with us
- ✓ Two-way conversation. It isn't just about "educating" or "disseminating". It's about engaging.
- ✓ Find a shared vocabulary that:
 - (1) help design spaces they want
 - (2) have conversations about shared values



Lydra simulation model



Middle Main Study Area
Poughkeepsie, NY














Innovate in knowledge based engagement



Middle Main Study Area
Poughkeepsie, NY



Step 3: Stakeholder Facilitated GI Scenario Building

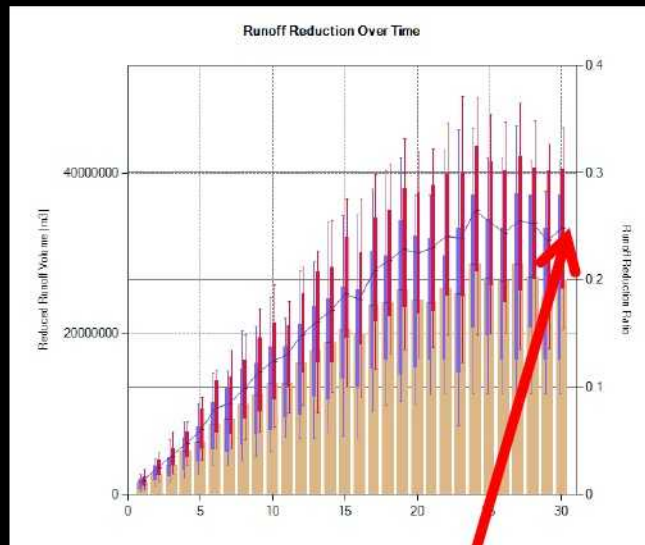
<p>Scenario 1</p> <ul style="list-style-type: none"> Install green roofs Convert half of the green space available to stormwater capture gardens that receive green roof discharge  <p>GREEN ROOF RAIN GARDEN</p> <ul style="list-style-type: none"> Convert all parking lots to porous pavement  <p>POROUS PAVEMENT</p>	<p>Scenario 2</p> <ul style="list-style-type: none"> Recontour back yard  <p>RECONTOUR</p>	<p>Scenario 6</p> <ul style="list-style-type: none"> Add street trees to public right of way within commercial corridors Add porous pavement to public right of way within commercial corridors  <p>STREET TREES</p>  <p>POROUS PAVEMENT</p>	<p>Scenario 7</p> <ul style="list-style-type: none"> Add porous pavement to edge of wide residential streets  <p>POROUS PAVEMENT</p> <p>+</p> <ul style="list-style-type: none"> Combine porous pavement installation with new bike lanes  <p>BIKE LANES</p>
<p>Scenario 4</p> <ul style="list-style-type: none"> Install green roofs Convert all parking lots to porous pavement  <p>GREEN ROOF</p>  <p>POROUS PAVEMENT</p>	<p>Scenario 5</p> <ul style="list-style-type: none"> Line residential streets with street trees  <p>STREET TREES</p>	<p>Scenario 6</p> <ul style="list-style-type: none"> Add bioswales to public right of way within commercial corridors  <p>BIOSWALES</p>	

Engaging

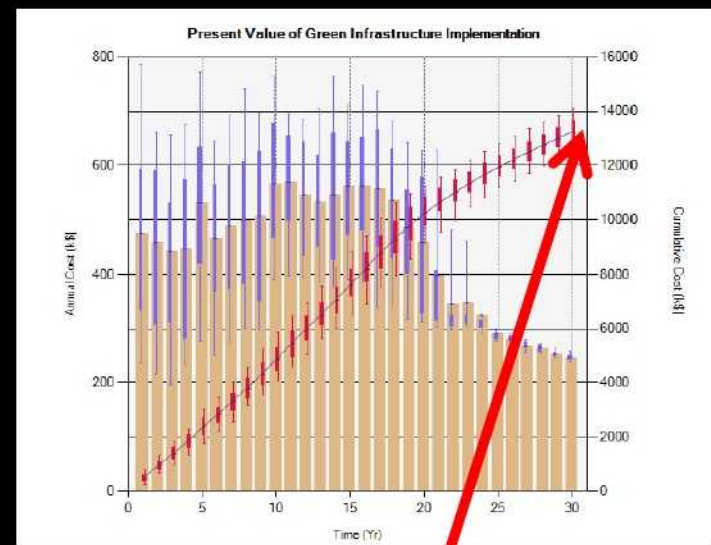
Immaginate

Step 4: Cost-effectiveness simulations

Sample results: Residential Rain Garden Program



Will have reduced runoff by about 25%



Will have spent about \$13.2 million in present dollars

**Do you believe in the
benefits of ecosystems
and their services?**

U.S. EPA's definition of "environmental justice"



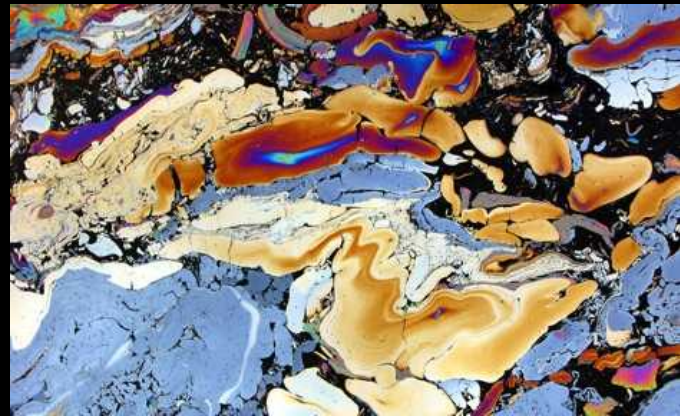
Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with

respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. EPA has this goal for all communities and persons across this. It will be achieved ...

when everyone enjoys the same degree of protection from environmental and health hazards and equal

access to the decision-making

process to have a healthy environment in which to live, learn, and work





A more complete definition of “environmental justice”

When everyone enjoys the same degree of protection from environmental and health hazards, the same access to the various services of the environment, and equal access to the decision-making processes for both to have a healthy environment in which to live, learn, work, and prosper



Trees are good

1. Clean Air
2. Jobs
3. Clean Water
4. Carbon Sequestration
5. Reduced Crime
6. Increased Property Values
7. Mental Health
8. Temperature Control
9. Flood & Stormwater Control
10. Wildlife Habitat
11. Beauty
12. Create place & community



Washington DC

Source: Washington Post

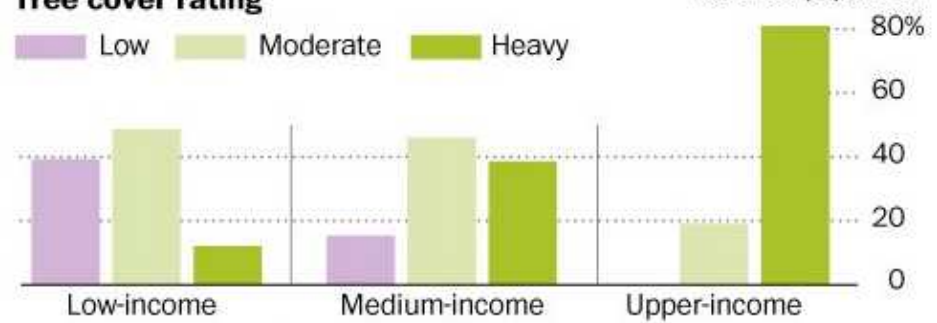
26 April 2013

Environmentalists face challenges trying to plant in less-green neighborhoods

Tree cover rating

Low Moderate Heavy

Percent of population



Tree-cover rating:

81%

Median household income:

\$205,750

Tree-cover rating:

64%

Median household income:

\$78,523

Tree-cover rating:

48%

Median household income:

\$36,250



There is a crisis of open space in the world's cities



- ✓ Private interests consume the public commons
- ✓ There is little data transparency
- ✓ This is a challenge of democracy and justice

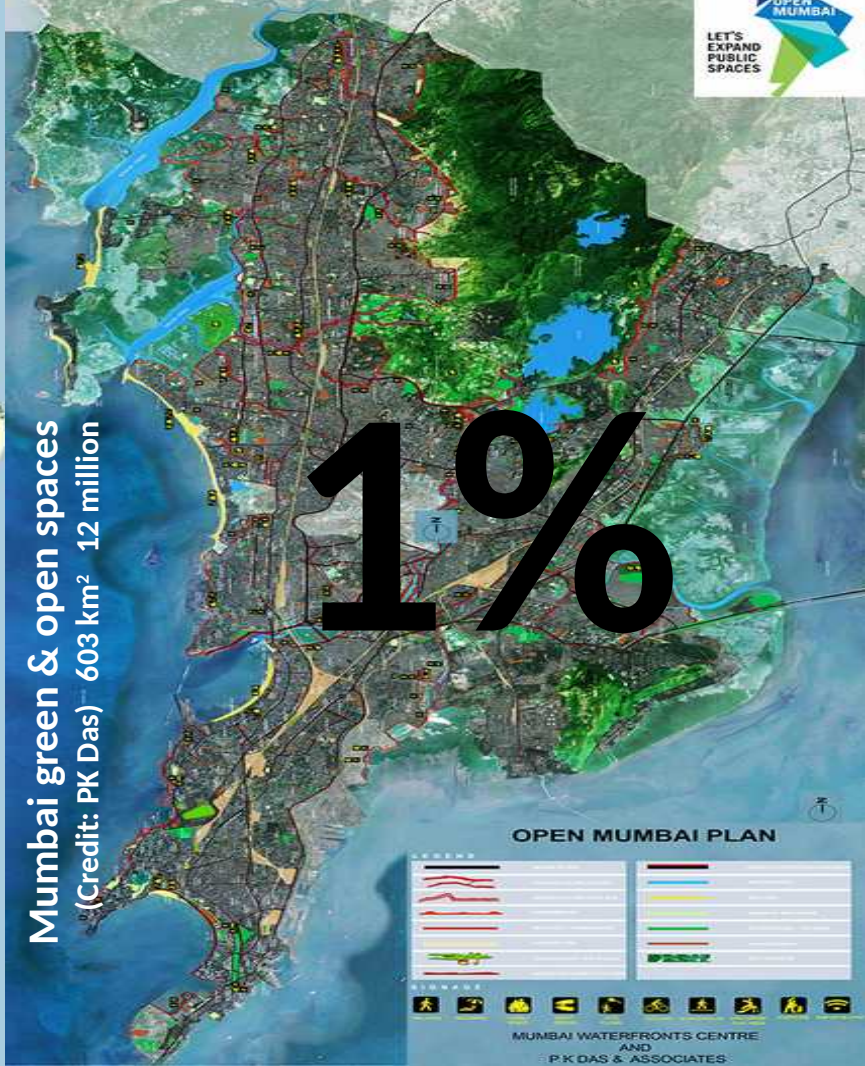
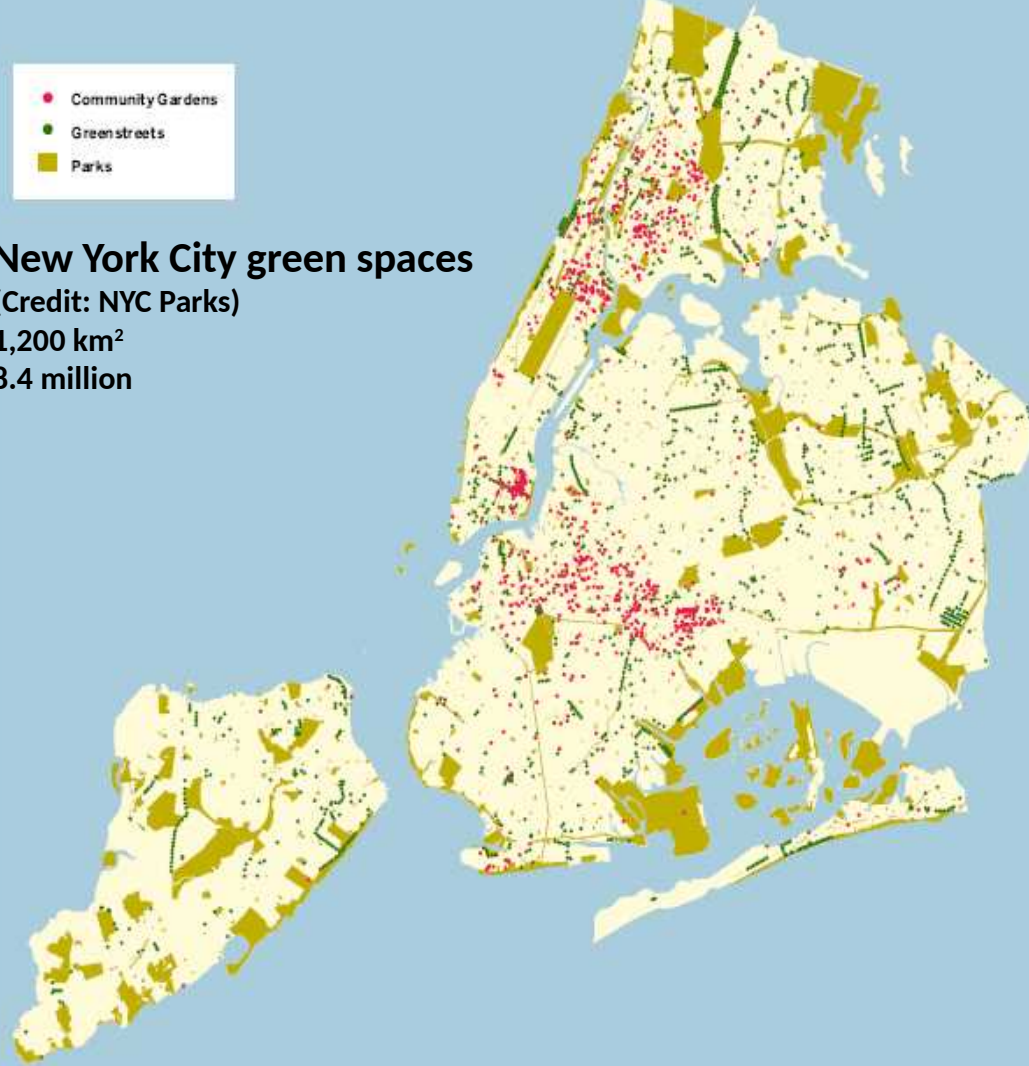


- Community Gardens
- Green streets
- Parks

New York City green spaces

(Credit: NYC Parks)

1,200 km²
8.4 million



Mumbai green & open spaces
(Credit: PK Das) 603 km² 12 million

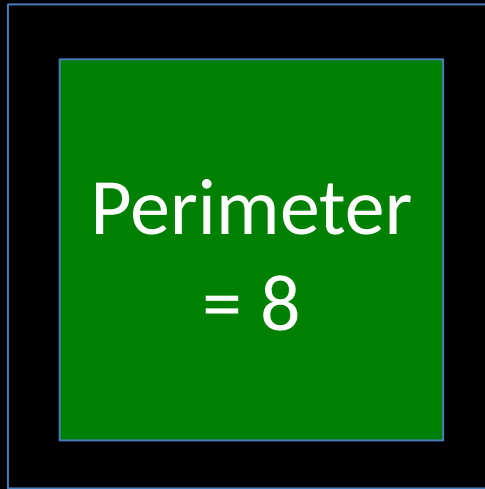
1%



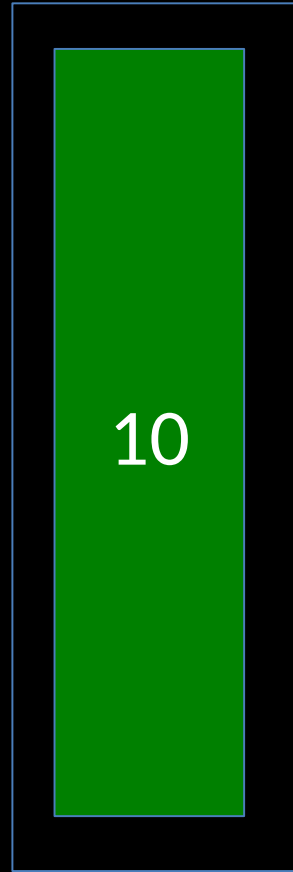


Justice Geometry

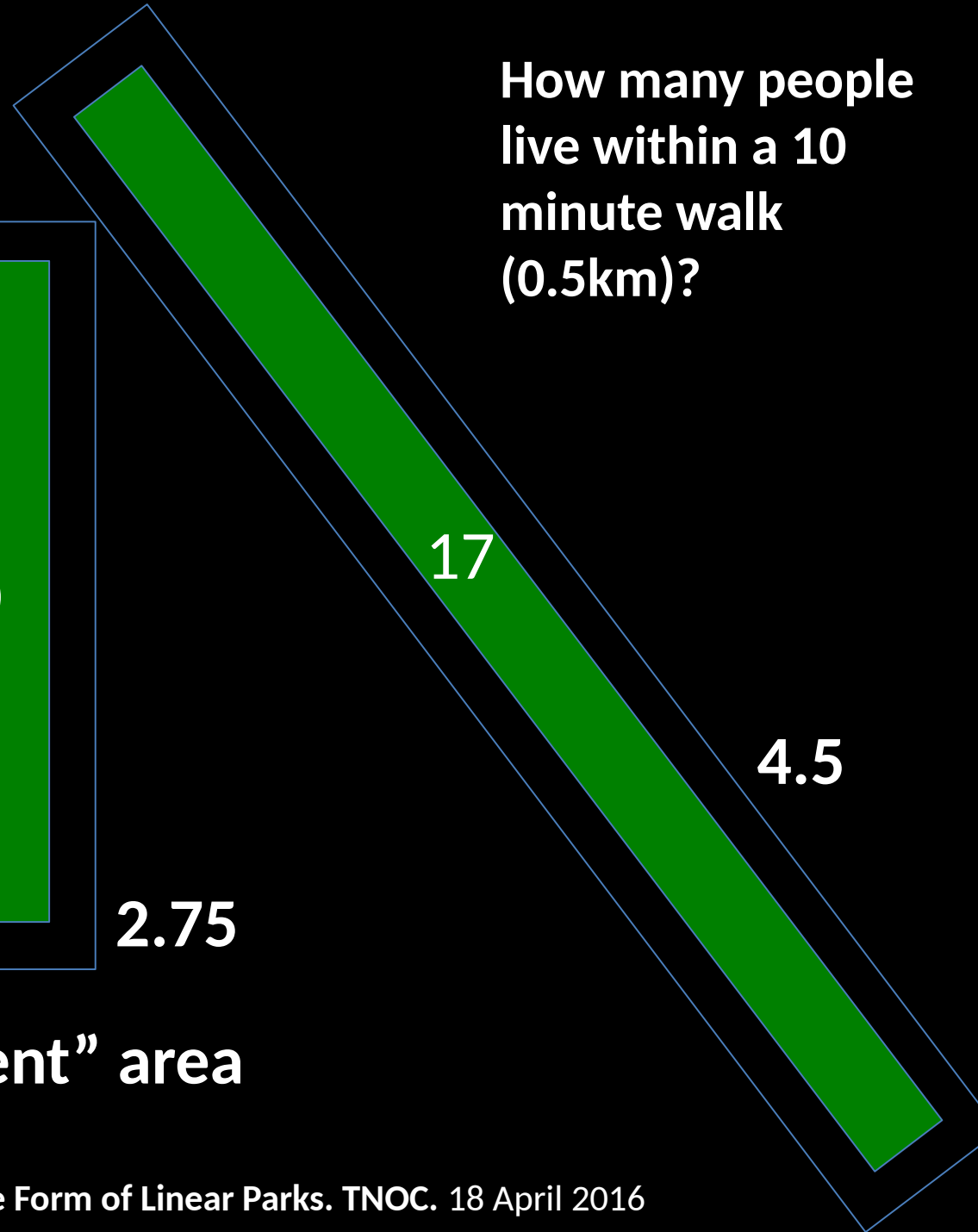
Perimeters of four equal-area (=4) shapes



Catchment area = 2.5



2.75



4.5

How many people live within a 10 minute walk (0.5km)?

The people "catchment" area

Access: How many people live within 0.5km of a 5 x 0.5km linear park?



Image: PK Das

Data source: <http://www.citymayors.com/statistics/largest-cities-density-125.html>

City	Mumbai	New York	Seoul	Rio	Bogotá
Population (millions)	14.3	8.4	17.5	10.8	7
Size (km ²)	484	1,200	1,049	1,580	518
Density (people/km ²)	29,650	7,000	16,700	6,850	13,500
People served by a 2.5km ² linear park (5 x 0.5km) (people within 0.5km)	177,900	42,000	100,200	41,100	81,000
To serve that many with a square park	12.25 km² park (3+ km per side) ... 1,225 hectares				

Los Angeles



Emerald Necklace Forest to Ocean Expanded Vision Plan with 2005 Vision Plan

Calí

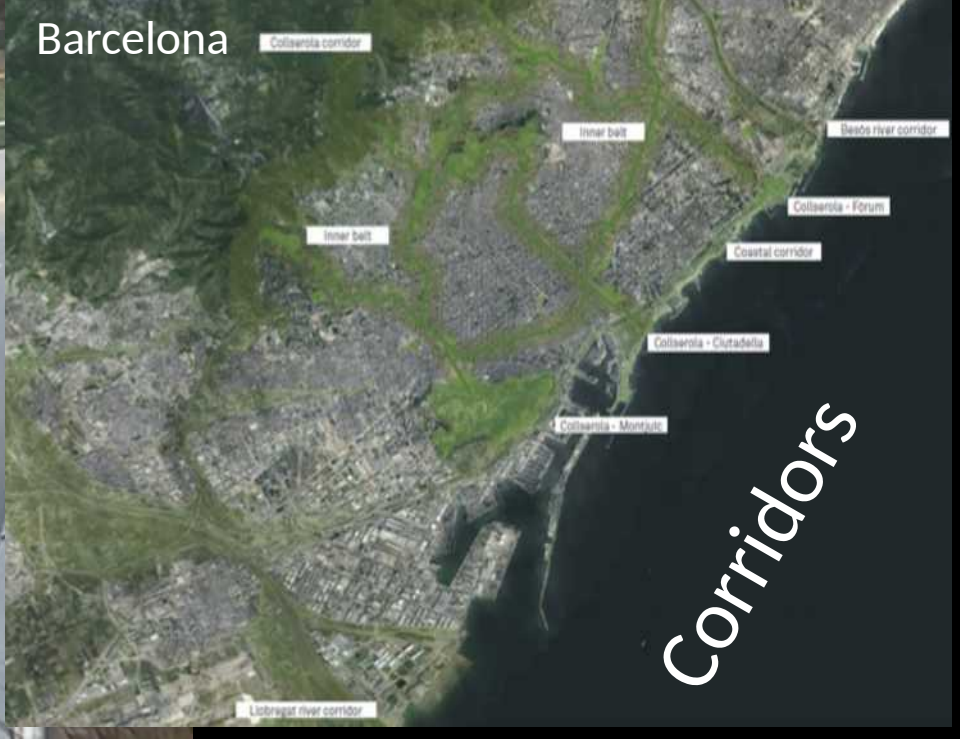


Seoul



Tel Aviv

Barcelona



Corridors



Livability

Government



Justice

Designers

© Richard Friend 2015

Goals

Civil
Society

The
built
city

Planners

Goals

Business

Scientists

Artists

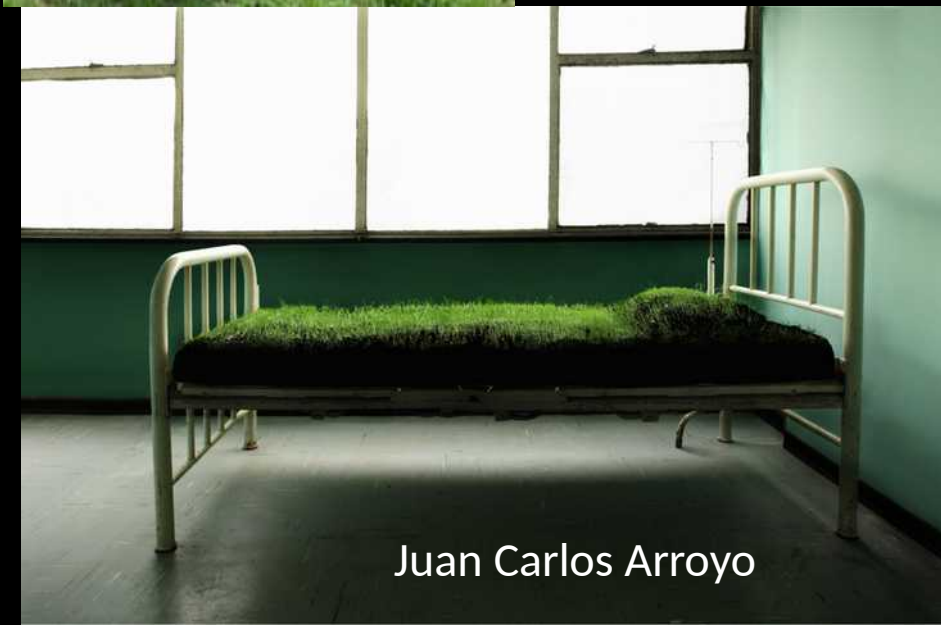
Resilience

Sustainability



The key framework is one based on shared (or at least negotiated) values.

Our most important work is to find or create such shared values



Juan Carlos Arroyo





Values

Improvisation

Intuition

Interaction

Perspective

Imagination

REVOLUTION
LOVE



2000



New York



Atlanta



Stockholm



Sao Paulo

Thank you



Nairobi



Tehran



San Francisco



Christchurch



Cape Town