

Municipal & community forestry: A global perspective of growing people and tree relationships

Cecil Konijnendijk

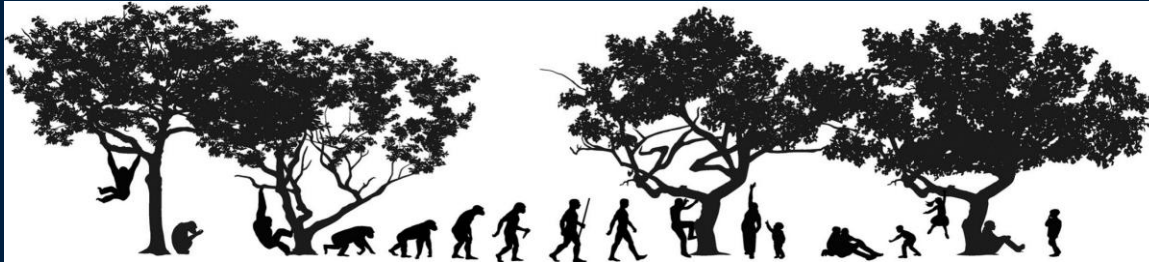
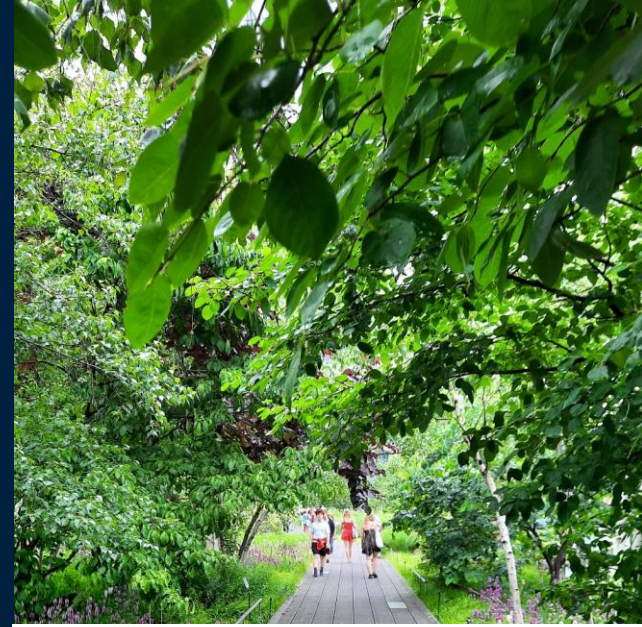


Illustration by Cathy Bedenbaugh, in Townsend and Barton (2018)

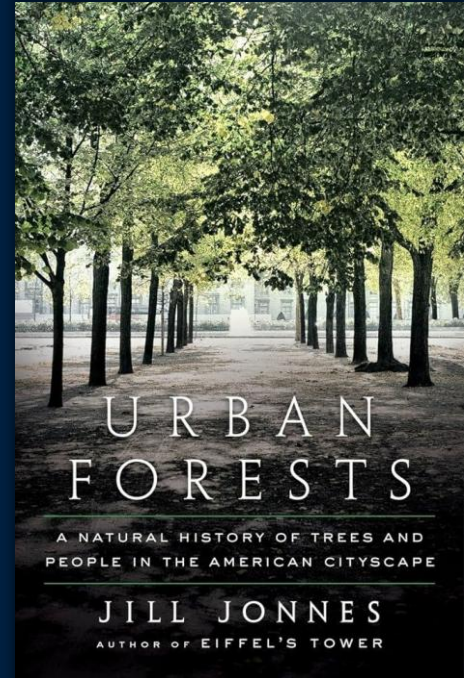
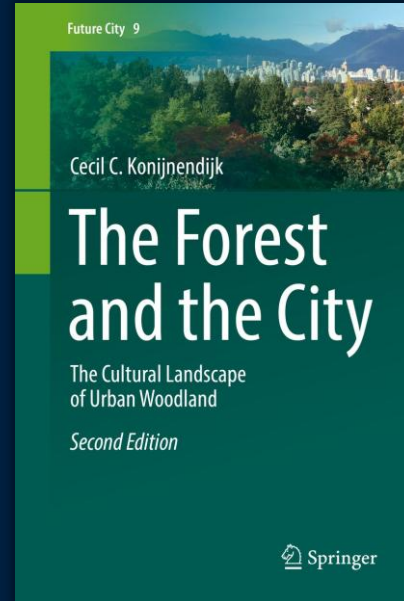


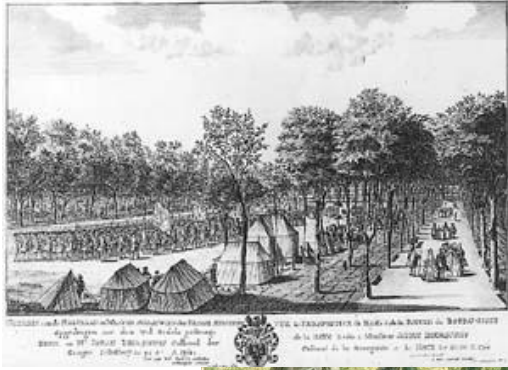
**NJ SHADE TREE FEDERATION
100th ANNUAL CONFERENCE**

October 16-17, 2025 | Harrahs, Atlantic City, NJ

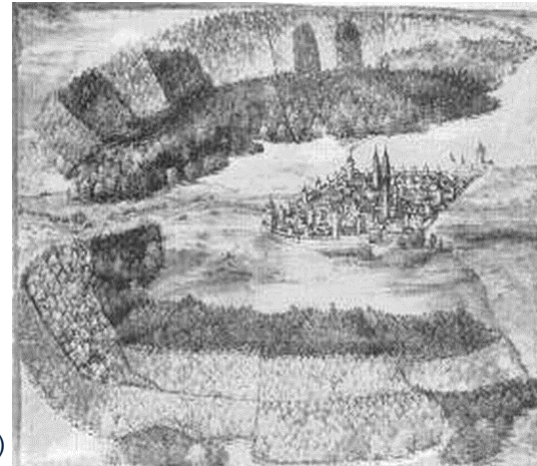
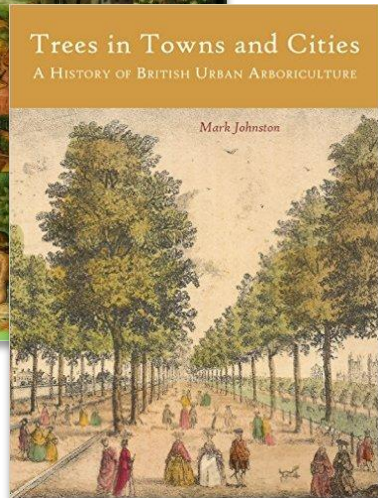
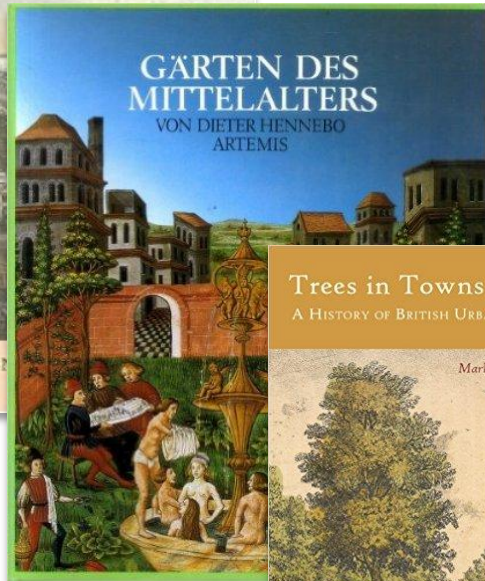
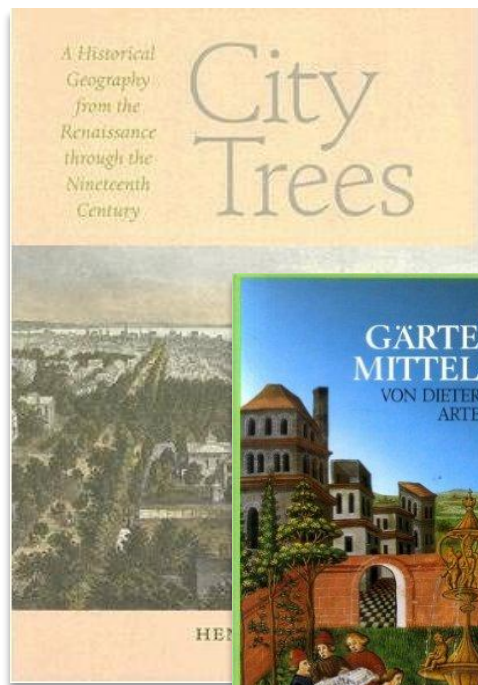


Historical roots





Paulus Constantijn la Fargue 1729-1782



Source: Schama (1995)

VERWALTUNG

Von Herren und Vorschriften



THE DEATH
AND LIFE
OF GREAT
AMERICAN
CITIES

JANE JACOBS

*Cities are an immense
laboratory of trial and error,
failure and success, in city
building and city design –
Jane Jacobs (1961)*

NINETEENTH
WESTERN CHAPTER
NATIONAL SHADE TREE
CONFERENCE

MAY 14, 15 and 16, 1952
PASADENA, CALIFORNIA

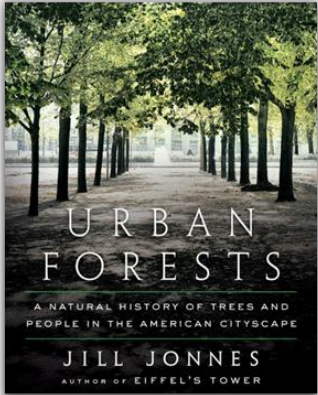
SHADE TREE
EVALUATION



INTERNATIONAL SHADE TREE
CONFERENCE

[https://commons.wikimedia.org/wiki/File:Dutch_elm_disease_in_Illinois_\(1967\)_\(20493912723\).jpg](https://commons.wikimedia.org/wiki/File:Dutch_elm_disease_in_Illinois_(1967)_(20493912723).jpg)

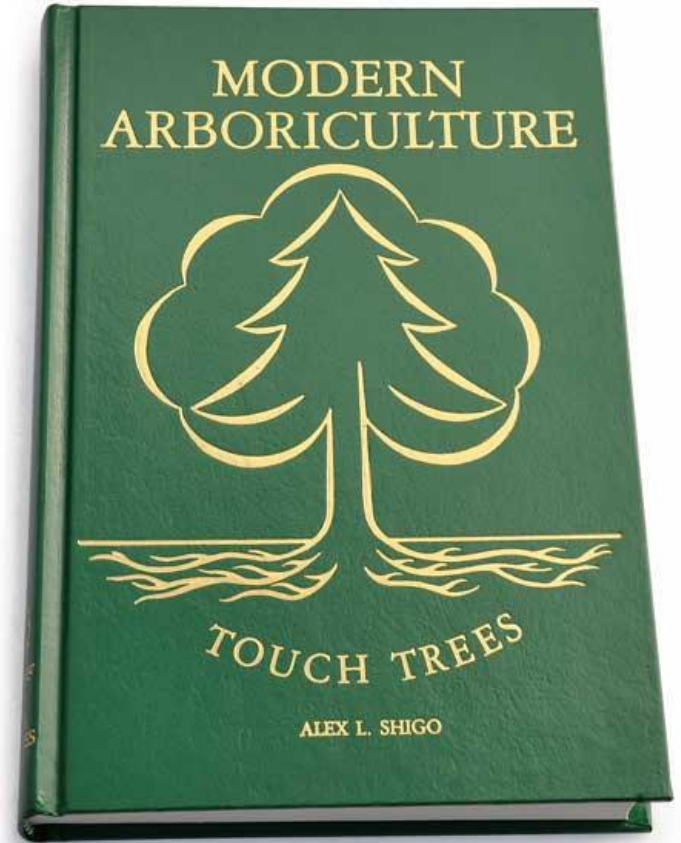
Carter, J. Cedric (James Cedric), 1905-; Illinois. Natural History Survey Division



Urban Forestry

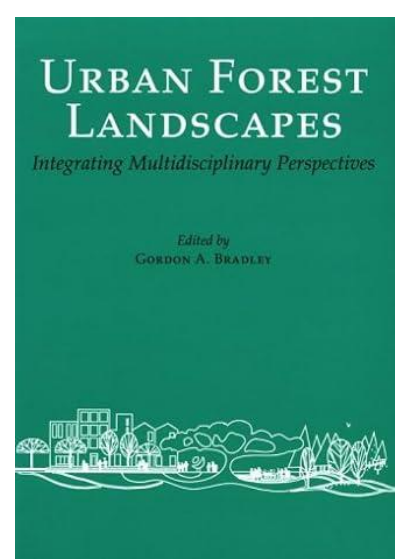
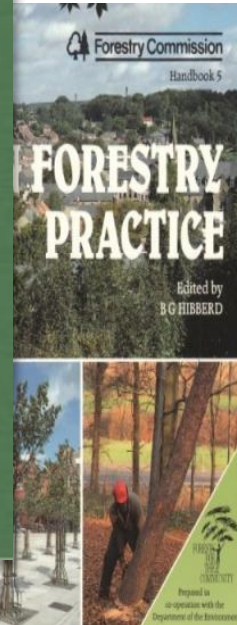
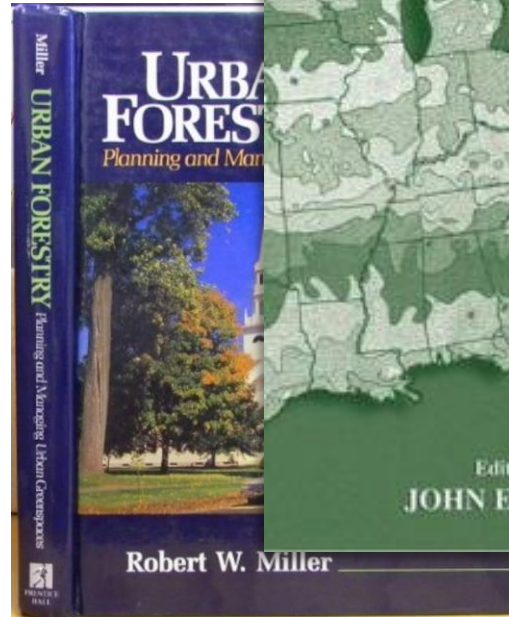
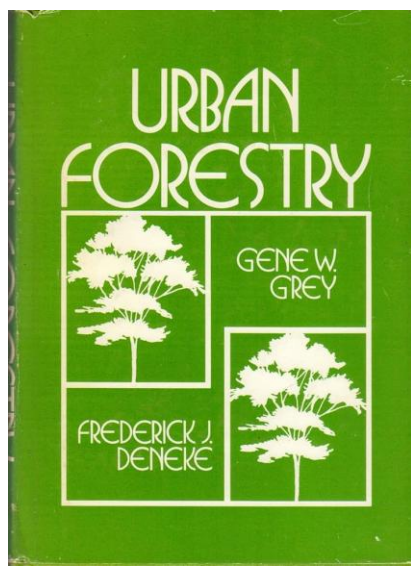
The art, science, and technology of managing trees and forest resources in and around urban community ecosystems for the physiological, sociological, economic, and aesthetic benefits trees provide society

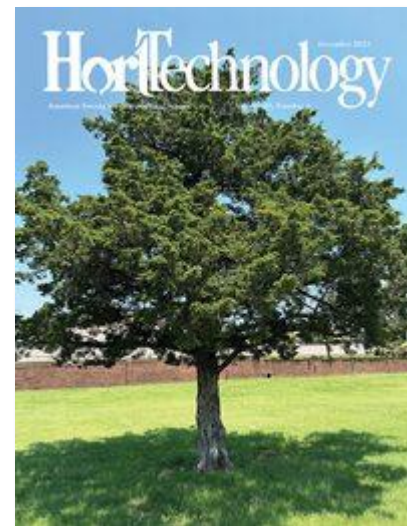
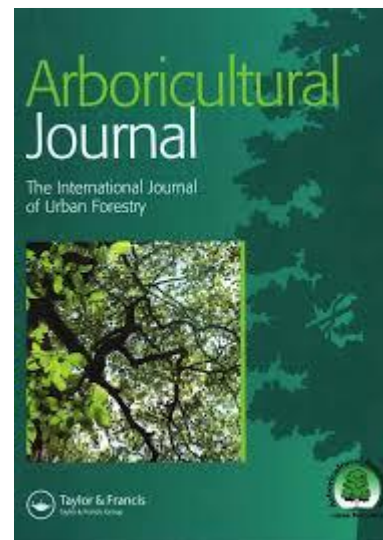
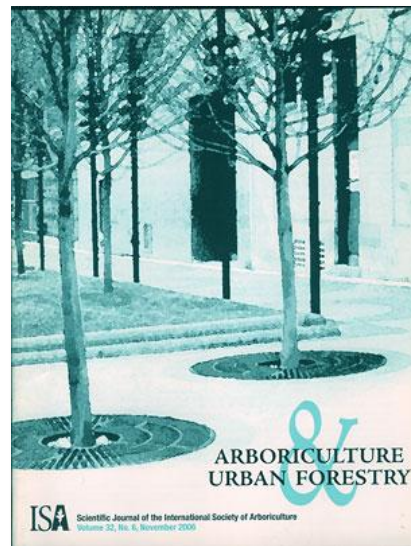
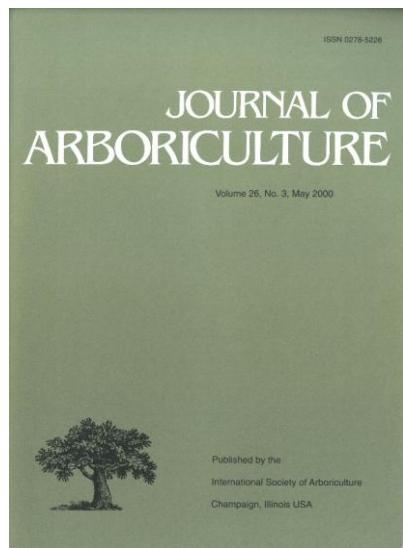
(Helms 1998, based on Miller 1997)



Gaining strength and becoming international







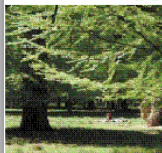




Forestry Serving Urbanised Societies

IUFRO European Regional Conference,
in collaboration with EFI
Copenhagen, Denmark, August 27-30, 2002

Organised in conjunction with the 9th EFI Annual Conference
Copenhagen, Denmark, August 26, 2002



Organised by:



IUFRO, International
Union of Forest Research
Organizations



European Forest Institute



Danish Centre for Forest,
Landscape and Planning

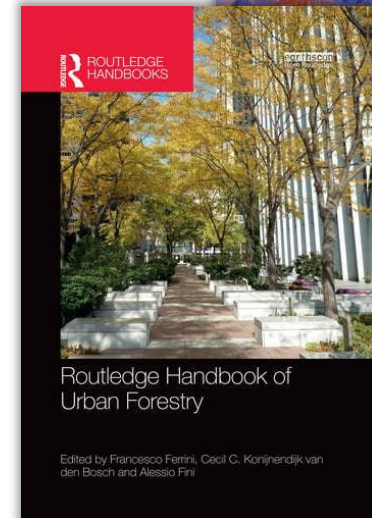
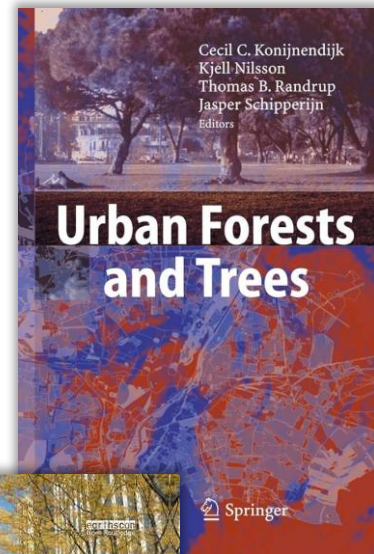


	Title	Type	↓ SJR Q1	H index	Total Docs. (2023)	Total Docs. (3years)	Total Refs. (2023)	Total Cites (3years)	Citable Docs. (3years)	Cites / Doc. (2years)	Ref. / Doc. (2023)	%Female (2023)	
1	Journal of Bioresources and Bioproducts 	journal	2.880 Q1	39	39	89	2470	1909	89	23.39	63.33	34.76	
2	Science of Remote Sensing 	journal	2.372 Q1	15	39	66	3014	529	65	5.73	77.28	26.25	
3	Current Forestry Reports	journal	2.316 Q1	44	32	62	3874	690	62	9.13	121.06	32.29	
4	Land Use Policy	journal	1.847 Q1	153	434	1919	31704	14434	1912	6.94	73.05	39.44	
5	Computers and Electronics in Agriculture	journal	1.735 Q1	168	862	2056	40643	21572	2056	9.27	47.15	30.69	
6	Agricultural and Forest Meteorology	journal	1.677 Q1	196	415	1130	31672	7255	1129	6.00	76.32	32.26	
7	Urban Forestry and Urban Greening	journal	1.619 Q1	117	274	989	20118	6877	984	6.45	73.42	45.16	

Large area also affected by urbanization. The dominance — and policy-makers from 40 countries stressed the need

Key Characteristics of Urban Forestry

- **Integrative:** *all* tree resources; urban and peri-urban; planning & management
- **Strategic:** long-term vision, multiple use
- **Inter-/multidisciplinary:** wide range of disciplines/fields
- **Participatory:** stakeholder involvement
- **Urban:** urban conditions; meeting urban demands





Groenblauwe ruimtes als bouwsteen van
veerkrachtige gezonde leefomgevingen

Onderzoeksrapport

DEPARTEMENT
OMGEVING



Groenblauwe ruimtes als bouwsteen van
gezonde en veerkrachtige leefomgevingen

Handboek voor planning, inrichting en beheer

DEPARTEMENT
OMGEVING

AGENTSCHAP
TOEGANG
GEZONDHEID

BUUR – KENTER – NBSI

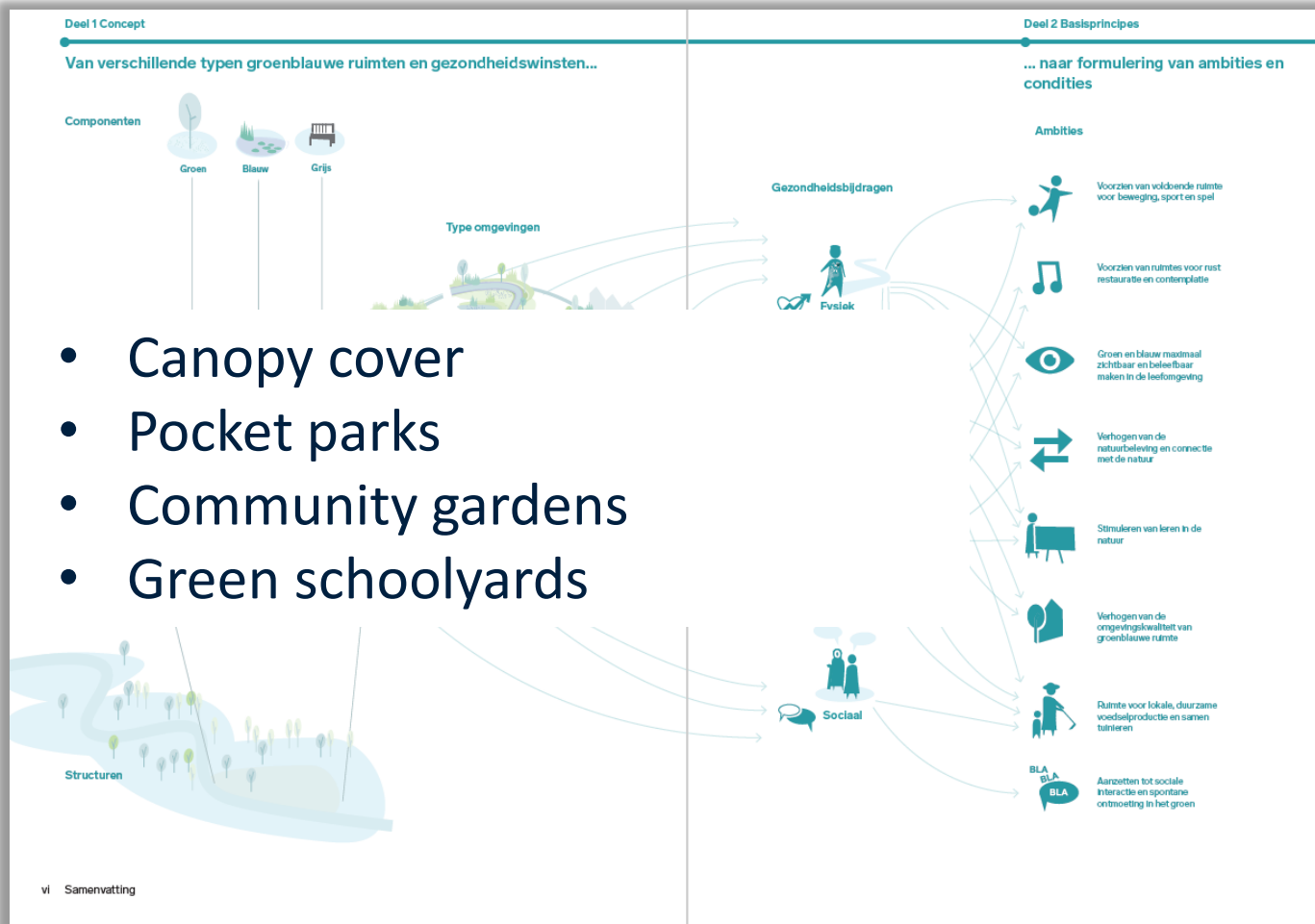
BUUR

Part of Sweco

KENTER



NATURE BASED
SOLUTIONS
INSTITUTE



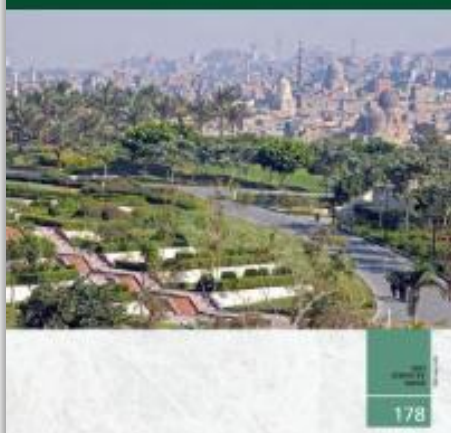


i-Tree

Tools for Assessing and Managing Forests & Community Trees



Guidelines on urban and peri-urban forestry



178

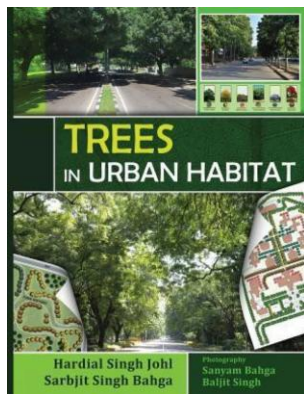
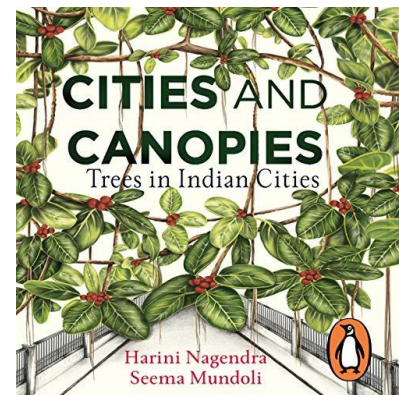
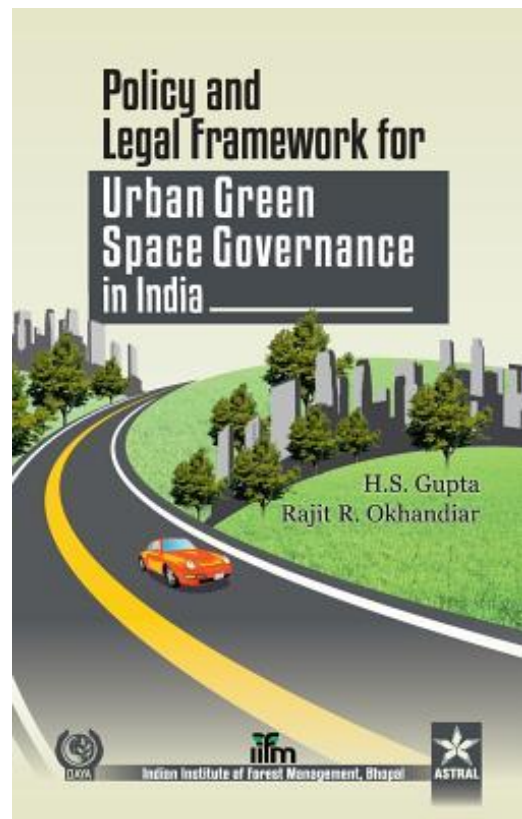
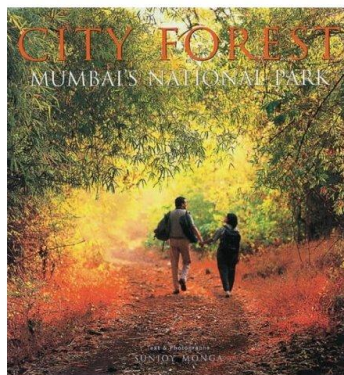
URBAN FORESTS: A GLOBAL PERSPECTIVE



Urban forestry and urban greening in drylands Improving resilience, health, and wellbeing of urban communities

A background document for the Green Urban Oases Programme







World Forum on
Urban Forests

2nd World Forum on Urban Forests

OCTOBER 16-20, 2023 | Washington, D.C.



CO-ORGANIZERS



Food and Agriculture
Organization of the
United Nations



Smithsonian Gardens

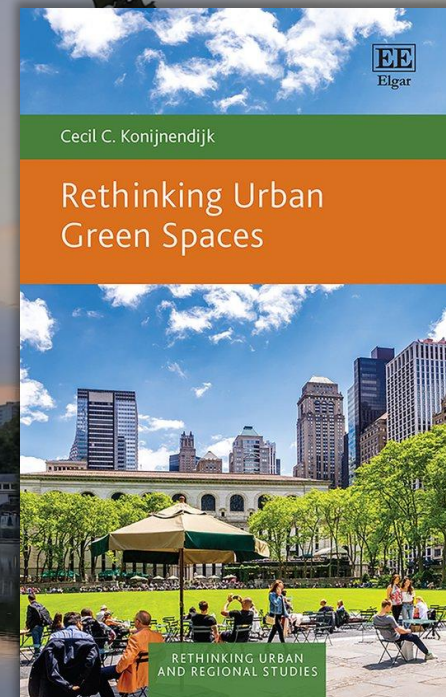


Australia, Austria, *Belgium*, Bosnia-Herzegovina, Bulgaria, **Canada**, China, Croatia, Czech Republic, **Denmark**, Germany, **Finland**, *Hong Kong*, Iceland, Iran, Ireland, Israel, Italy, Japan, Malaysia, **Netherlands**, Poland, Portugal, Russian Federation, Saudi Arabia, Serbia, South Africa, Slovenia, **Spain**, Norway, **Sweden**, Switzerland, United Kingdom, *United States*



The 12 Cs for better urban and municipal forestry

- | | |
|------------------|----------------|
| 1. Connection | 7. Creativity |
| 2. Collaboration | 8. Courage |
| 3. Community | 9. Champions |
| 4. Communication | 10. Cash |
| 5. Clarity | 11. Context |
| 6. Competence | 12. Complexity |



INNER FORESTS

Cooler Cities
Less Noise Pollution
Access To Nature
Better Health

NEARBY FORESTS

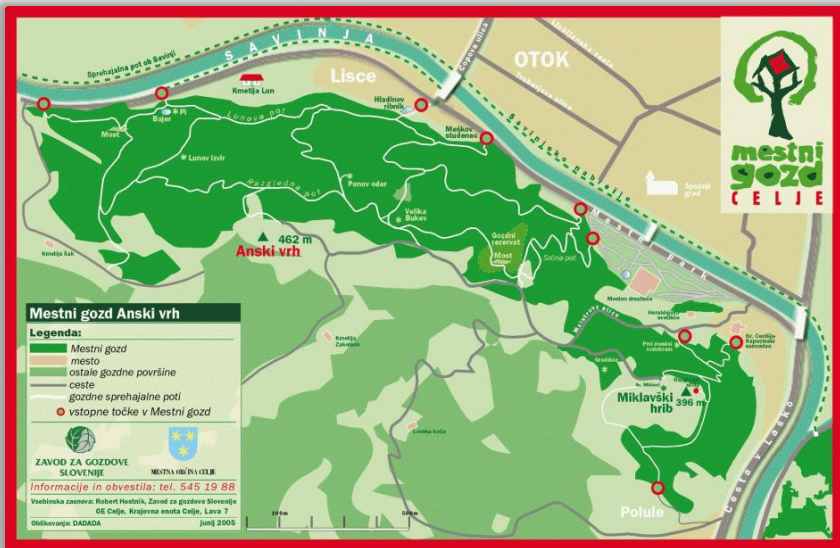
Clean Water
Reduced Flooding
Less Soil Erosion
Recreation In Nature

FARAWAY FORESTS

Carbon Sequestration
Responsible Timber
Medicinal Compounds
Biological Diversity



Connection



Trees for Seattle

Trees for Seattle is the umbrella for all of the City of Seattle's urban forestry efforts. Our commitment is to ensure that Seattle's forest is healthy, vibrant, supported, and growing. You can find information through our website here, or you can contact us at treesforseattle@seattle.gov or **206-684-TREE (8733)**. You can also [follow us on facebook](#) and [Instagram](#) or add your email to [sign up for our monthly newsletter](#).

Collaboration



TreeFolks

FRIENDS of the Urban Food
Forest at Browne Mill





trädkontoret.



EVERYONE DESERVES TREES.

tree equity is making cities cleaner,
safer, and healthier for people and
the planet.

#forestproud



Community

GLOBAL MOVEMENT FOR TREE EQUITY



American
Forests™



WOODLAND
TRUST



CENTRE for
SUSTAINABLE
HEALTHCARE
Health • Research • Education



How Many People are Killed by Falling Trees Every Year in the U.S.?

Los Angeles Tree Injury Lawyer

California is a state known for its beautiful native trees. The last thing anyone expects is an injury from a falling tree or tree branch, but falling trees and limbs have the potential to cause great harm, including property damage, injury, and death. But did you know you might be entitled to compensation for a tree-related injury?

The majority of falling tree or tree branch cases in the Los Angeles area fall under [California's premises liability law](#) — the same law stating that property owners are liable in slip and fall accidents occurring on their property, also applies to injuries caused by trees located on both private and public properties.

Tree Fall Injury Lawyer

[START YOUR FREE CONSULTATION](#)

Communication



Cecil Konijnendijk, expert
stedelijk groen: 'Een boom is
essentiële infrastructuur, net
zoals een waterleiding of een
school'

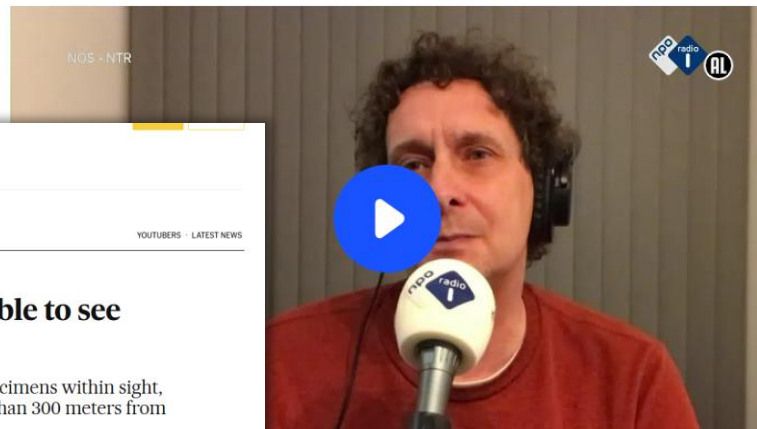
EL PAÍS

Society

HEALTH >

The mental health benefits of being able to see three trees from home

The 3-30-300 rule for healthier cities includes having three specimens within sight, living in a neighborhood with 30% plant cover and being less than 300 meters from a park



ion Sport Culture Lifestyle

The Guardian

Asia Australia Middle East Africa Inequality Global development

This article is more than 1 year old

Why a Belgian insurer studies the impact of air pollution on health

Mutualités Libres says improving air quality ensures sustainability of the social security system

Advertisement

CNBC

Search quotes, news & videos WATCHLIST

MARKETS BUSINESS INVESTING TECH POLITICS VIDEO INVESTING CLUB PRO LIVESTREAM

SUSTAINABLE ENERGY

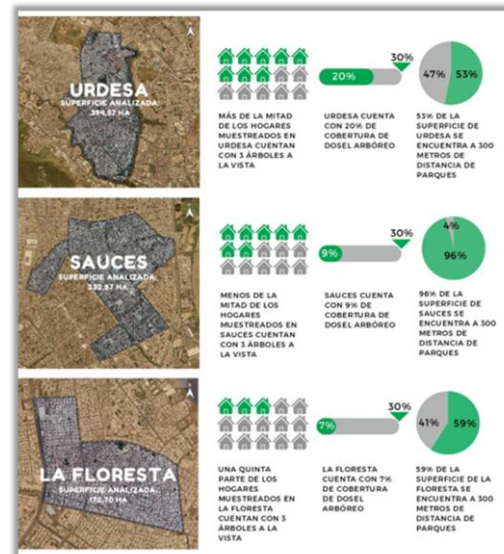
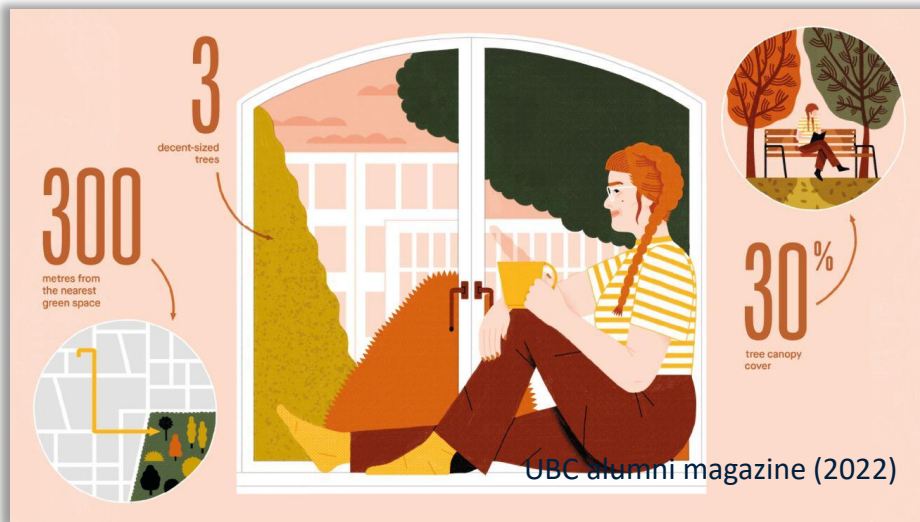
SUSTAINABLE ENERGY | TV SHOWS |

How the mass planting of trees could transform our cities and tackle air pollution

PUBLISHED FRI, APR 17 2020 12:00 AM EDT | UPDATED FRI, SEP 17 2021 3:46 AM EDT

Anmar Frangoul

SHARE f x in e





Search



Log in



For You

Explore **New**

Following

LIVE

Profile

Log in to follow creators, like videos, and view comments.

Log in

Create TikTok effects, get a reward



Company

Program

Terms & Policies

© 2025 TikTok



#trees

1M posts



#foryou #scenery



Hey lets plant some



Changing seasons 🌿



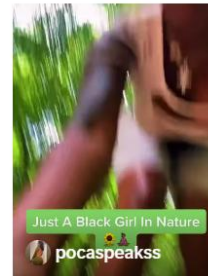
The tree had pink



#foryou #scenery #tree



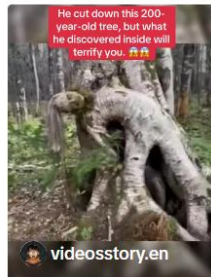
🌳 🌳 🌳 🌳 🌳 🌳 🌳 🌳



- Nature Gives The Best



parityproject



videosstory.en



bluegang603



carolinethebug



naturelover222



intinature



PROBABLY
coolclips

Get app



CITY OF
VANCOUVER



**GREENEST
CITY 2020**

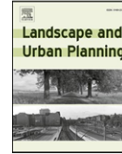


ELSEVIER

Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Landscape and Urban Planning

journal homepage: www.elsevier.com/locate/landurbplan



Research Paper

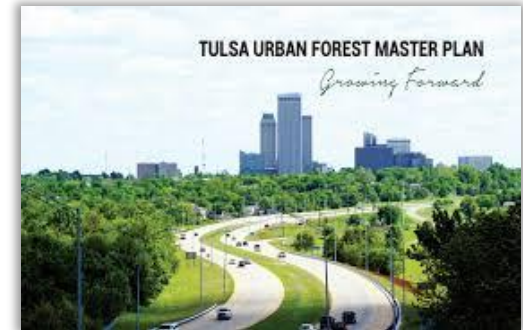
A content analysis of urban forest management plans in Canada: Changes in social-ecological objectives over time

Camilo Ordóñez Barona^{a,b,*}, Annick St Denis^c, Jackson Jung^a, Corinne G. Bassett^d,
Sylvain Delagrang^e, Peter Duinker^f, Tenley Conway^a

HIGHLIGHTS

- We analysed the content of 74 Canadian urban forest management plans.
- Ideas referring to increasing tree abundance dominate.
- Ideas related to increasing tree abundance and climate change increased in 20 years.
- Administration and tree maintenance ideas are more mentioned in smaller cities.
- Increasing urban forest abundance may have management trade offs.

Clarity



03 Targets, Priorities and Actions

T1 Relative Tree Canopy Cover

Canopy cover, which is often also referred to as tree canopy cover or urban canopy cover, can be defined as the area of leaves, branches, and stems of trees covering the ground, across a given area, when viewed from above. Canopy cover is a two dimensional metric, indicating the spread of canopy cover across an area. Assessing canopy cover is popular because it is relatively simple to determine from a variety of means and it can be calculated at relatively little expense.

Several studies have already been undertaken on estimating the canopy cover in Birmingham, including the Forest Research 2017 i-Tree Canopy survey, the 2020 urban canopy cover citizen science survey and the Bluesky National Tree Map data already held by BOC. However, these studies are not directly comparable with each other as they used different methods, definitions (of what constituted urban tree canopy cover) and project boundaries. Going forward Birmingham will identify a suitable project area and method of assessment so that repeat surveys can be compared in order to track and monitor performance.

Canopy Cover	Study type	Study Year	Source
23%	i-Tree Canopy	2012	www.urban-treecover.org
18.6%	Forest Research Canopy Assessment	2016	BOC website and Birmingham's tree policy
10.5%	Bluesky NTM	2019	Bluesky National Tree Map
21.2%	i-Tree Canopy Ward level	2020	https://www.forestresearch.gov.uk/research/i-tree-eco/urban-canopy-cover/

Table 1: Historic Urban Tree Cover Estimates for Birmingham

Actions

1. Assess and determine which sets of data are best to use for establishing Birmingham's relative tree canopy cover;
2. Determine what the potential and actual tree canopy cover are at the ward level.

Percentage Canopy Cover
10-12
13-14
15-17
17-19
19-21
21-23
23-25
25-27
27-29
29+

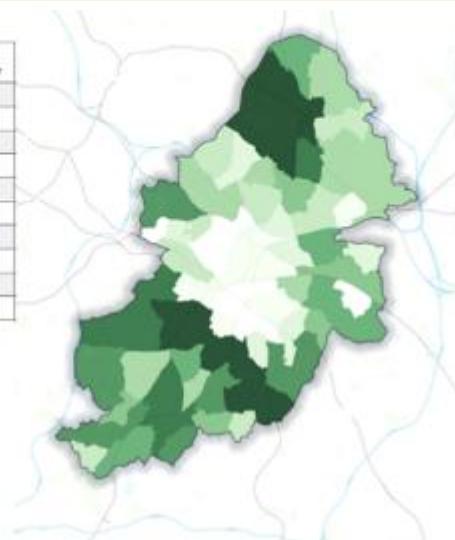


Figure 1: Birmingham's Existing Canopy Cover By Ward measured with Sentinel Satellite Data

Priority	Responsibility for Action	For Review:
High	1. BOC will collate the available information from various sources including the Woodland Trust, Birmingham University and Forest Research. 2. BTP will commission a piece of work to ascertain how the existing tree canopy cover compares with the potential canopy cover.	April 2022 - Short term project

Performance level	Performance Indicators			
	Low	Moderate	Good	Optimal
Data source decision required	The existing canopy cover equals 0-25% of the potential.	The existing canopy cover equals 25-30% of the potential.	The existing canopy cover equals 50-75% of the potential.	The existing canopy cover equals 75-100% of the potential.

An Urban
Master
Birmingham
2021-2026

Executive Report



TREES FOR LIFE

Master Plan for Barcelona's Trees
2017 - 2037



Ajuntament de
Barcelona



TREE DENSITY

Trees per person

TREES MANAGED BY THE CITY COUNCIL



TOTAL TREES IN BARCELONA



MANAGEMENT OF
BARCELONA'S TREES

8%

Managed
by others

10%

Tree cover for
Collserola

15%

Tree cover
in the city



70%

Managed by the
Collserola Natural
Park Consortium

22%

Managed by the
Municipal Institute of
Parks and Gardens



75%

of the city
without tree
cover

Competence

OBJECTIVES: SFI URBAN AND COMMUNITY FOREST SUSTAINABILITY STANDARD



OBJECTIVE 1:
COMMUNITY,
PEOPLE, AND
INDIGENOUS
PARTICIPATION



OBJECTIVE 2:
HUMAN HEALTH
AND WELL-BEING



OBJECTIVE 3:
PROTECTION AND
CONSERVATION OF
BIODIVERSITY



OBJECTIVE 4:
STEWARDSHIP OF
NATURAL RESOURCES,
INCLUDING AIR,
WATER AND SOIL



OBJECTIVE 5: URBAN
AND COMMUNITY
FOREST AND TREE
HEALTH AND
VITALITY



OBJECTIVE 6:
SPECIAL SITES,
INCLUDING
NATURAL AREA



OBJECTIVE 7:
CLIMATE-SMART
MANAGEMENT



OBJECTIVE 8:
URBAN AND
COMMUNITY
FOREST
PLANNING



OBJECTIVE 9:
MANAGEMENT AND
CARE OF URBAN
AND COMMUNITY
FORESTS AND TREES



OBJECTIVE 10:
DISASTER
READINESS,
RESPONSE AND
RECOVERY



OBJECTIVE 11:
CAPACITY BUILDING



OBJECTIVE 12:
URBAN WOOD
AND COMMUNITY
FOREST
UTILIZATION



OBJECTIVE 13:
COMMUNICATIONS



OBJECTIVE 14:
RESEARCH, SCIENCE,
AND TECHNOLOGY



**OBJECTIVE 15. LEGAL
AND REGULATORY
COMPLIANCE
INCLUDING
INDIGENOUS
PEOPLE'S RIGHTS**



OBJECTIVE 16:
REPORTING



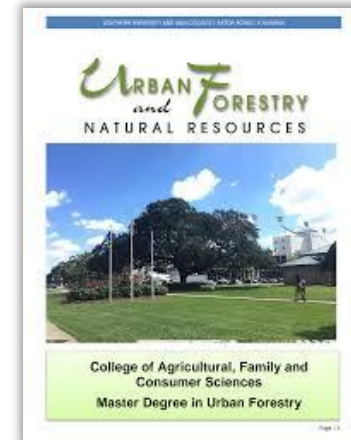


RUTGERS

School of Environmental and Biological Sciences
Urban Forestry Program



First MSc Arboriculture and Urban Forestry on-line students graduate from Myerscough, July 2016





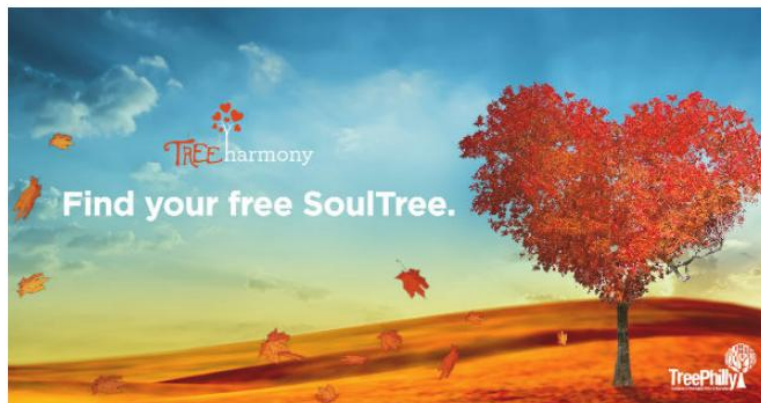


Creativity



📅 SEPTEMBER 10, 2014

Find your SoulTree at TreeHarmony.org



Having trouble choosing a yard tree to love? Check out [TreeHarmony](http://TreeHarmony.org), where you can take a fun personality quiz to get matched with your SoulTree. That's right – the yard tree of your dreams is just a few clicks away.. After getting matched with the leafy single that's just right for you, register to pick up your tree at one of our yard tree giveaways. Remember to share pictures of you and your new SoulTree using [#treeharmony](#) on Instagram and Twitter! If you want to skip the match-making, [you can go straight to the](#)

Courage



https://en.wikipedia.org/wiki/Lee_Myung-bak



<https://commons.wikimedia.org/wiki/File:Korea-Seoul-Cheonggyecheon-2008-01.jpg>



<https://www.youtube.com/watch?v=jNvZNKW02K4>

NL EN

OKRA

MEETING OKRA

NIEUWS

PROJECTEN ▾

BURO ▾

HOME > PROJECTS > BUITENRUIMTE > CATHARIJNESINGEL

Opdrachtgever: Gemeente Utrecht

Oppervlakte: 4,2 ha

Jaar: 2020

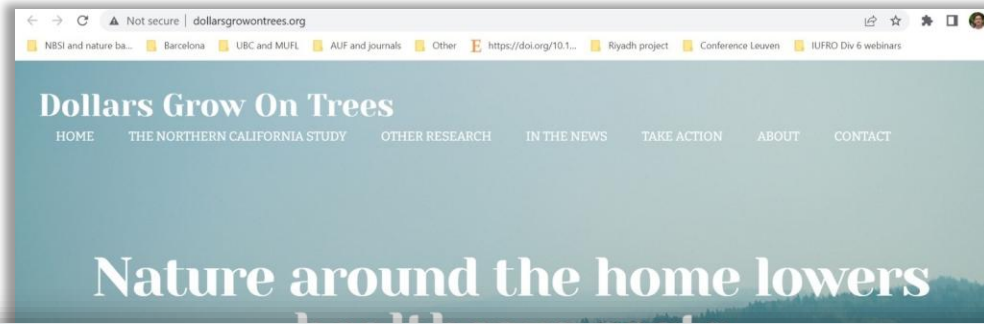
Samenwerking:
Gemeente Utrecht, Witteveen+Bos, D. van der Steen BV

Prijs:

CATHARIJNESINGEL
UTRECHT

De Catharijnesingel is weer rond!
De singel is weer rond! Sinds september 2020 is de binnenstad van Utrecht weer helemaal omsingeld door water en groen. Het herstel van de singelstructuur rond de oude binnenstad is een belangrijk onderdeel van het Masterplan Stationsgebied. Hiervoor is de oorspronkelijke, historische waterstructuur hersteld door de gracht opnieuw te graven waar deze in het verleden is gedempt. In 2015 zijn de eerste delen





We found that individuals living in the greenest neighborhoods incurred, on average, \$374 less per year in healthcare expenditures, than their peers living in the least green neighborhoods (Van Den Eeden et al., 2022)



Cash



EMPLOYMENT

More than **500,000** people are employed as a result of urban forestry activities.



INVESTMENT

Communities enrolled in the Tree City USA* program invested an average of **\$7.37 per resident** in tree planting and care in 2017, compared to just **\$3.00 per resident** in nonparticipating communities.



ECONOMY

The urban forestry sector has an annual sales and employment footprint worth **\$64 billion**.

<https://www.arborday.org/urban-forestry-economic/#:~:text=The%20urban%20forestry%20sector%20has,employment%20footprint%20worth%20%2464%20billion.>





Context



<https://www.treesatlanta.org/news/1911-2/>



Chapter 11 SDG 11: Sustainable Cities and Communities – Impacts on Forests and Forest-Based Livelihoods

Tahia Devisscher,* Cecil Konijnendijk,* Lorien Nesbitt, Jennifer Lenhart, Fabio Salbitano, Zhaohua Cindy Cheng, Shuaib Lwasa and Matilda van den Bosch

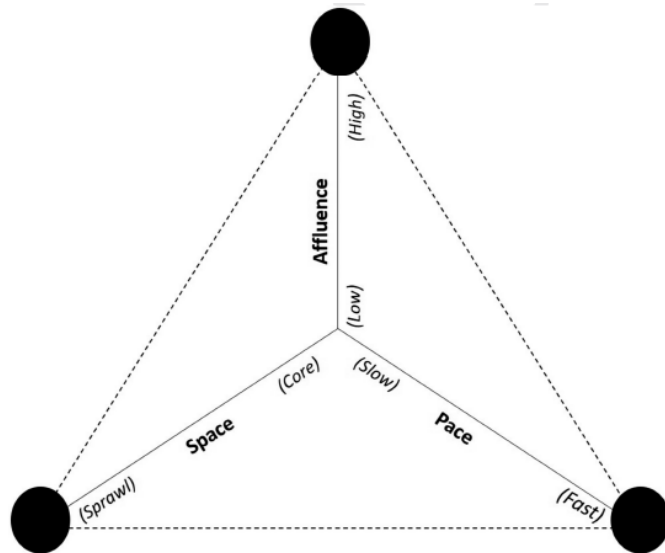
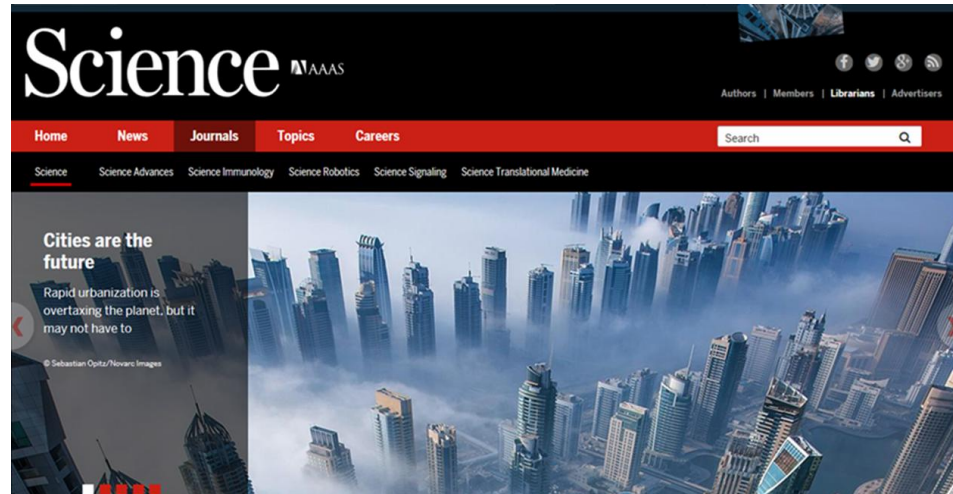


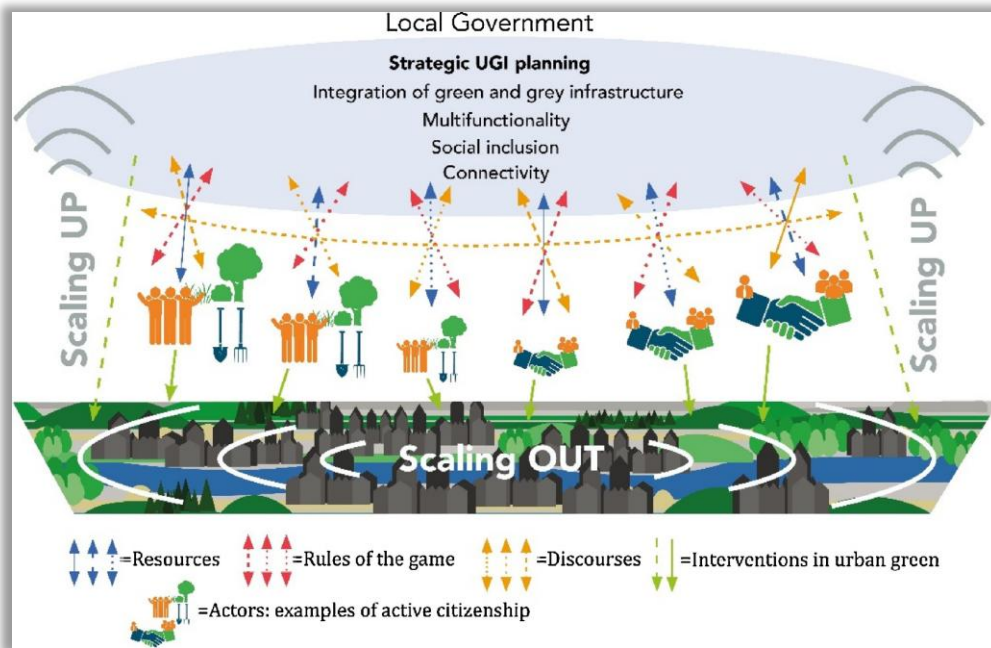
Figure 11.2 Framework used to categorise cities according to interrelated city growth dimensions and development characteristics.



Mosaic governance for urban green infrastructure: Upscaling active citizenship from a local government perspective ☆

Arjen Buijs ^{a,*, 1}, Rieke Hansen ^b, Sander Van der Jagt ^c, Bianca Ambrose-Oji ^d, Birgit Elands ^a, Emily Lorange Rall ^b,
Thomas Mattijssen ^{a,*, 2}, Stephan Pauleit ^b, Hens Runhaar ^{a, 3}, Anton Stahl Olafsson ^a, Maja Steen Møller ^a

Mosaic governance: “the diversity of processes that may facilitate existing active citizenship and stimulate its upscaling through a mix of governance modes and policy interventions tailored to the socio-ecological context of urban landscapes”.



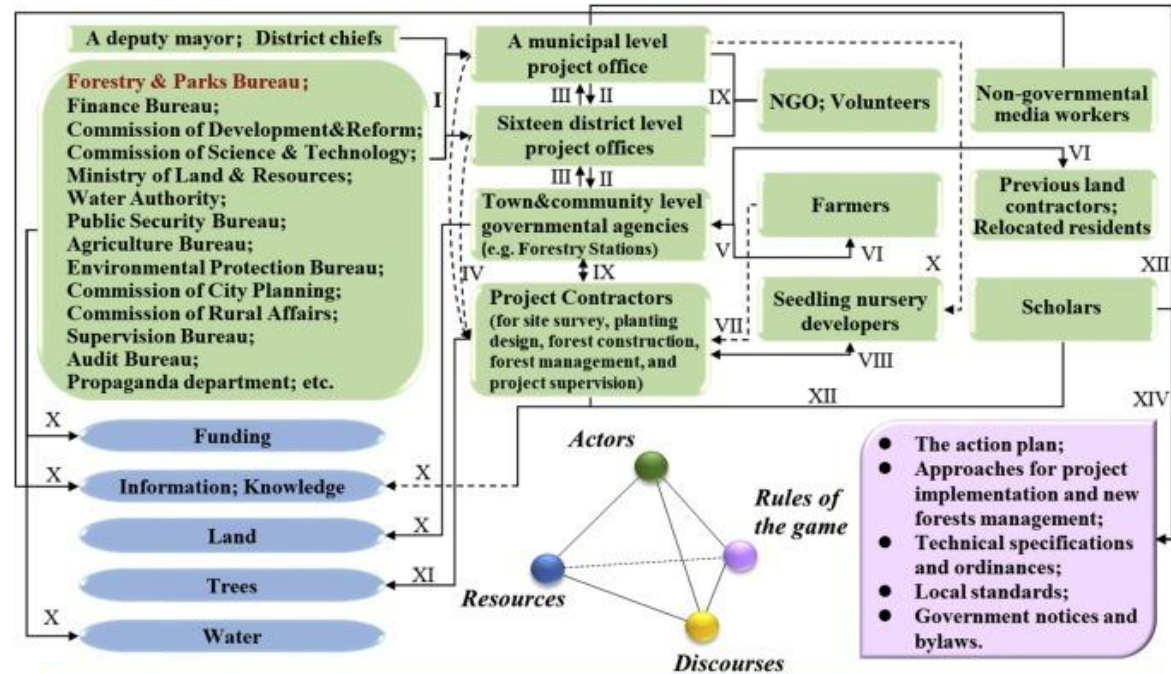
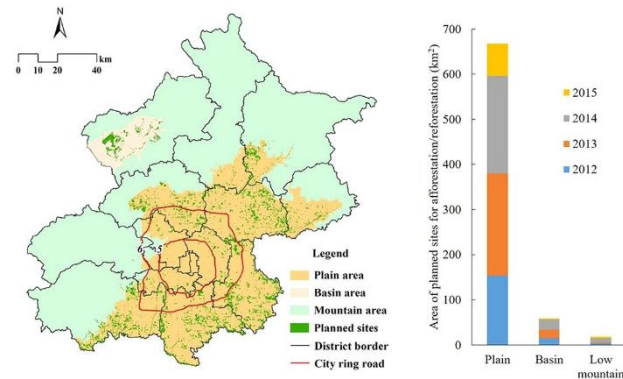
Complexity



Original article

Beijing's 50 million new urban trees: Strategic governance for large-scale urban afforestation

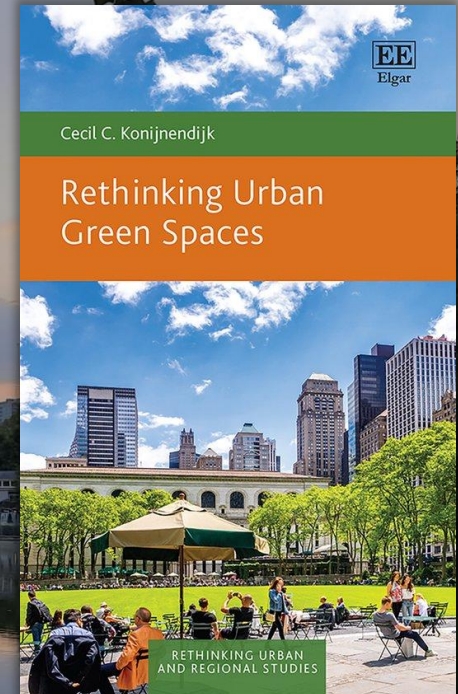
Na Yao ^{a, b}, Cecil C. Konijnendijk van den Bosch ^b, Jun Yang ^c, Tahia Devisscher ^b, Zach Wirtz ^b, Liming Jia ^a, Jie Duan ^{a, d}, Lvli Ma ^{a, d}

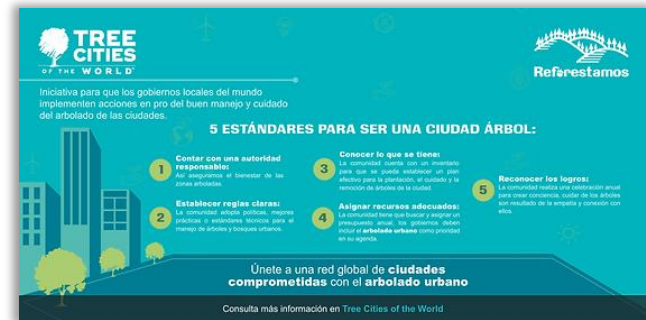
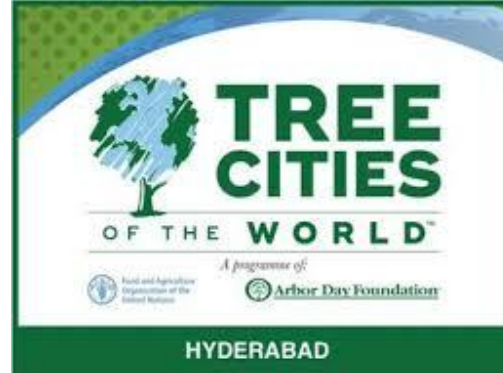


A) Reverse the deficiency of forest cover in Beijing's plain area and set up a 'green' image for the capital city; B) Improve urban forests' ecological services in Beijing; C) Promote residents' livelihood and boost ecological civilization; D) Industry relocation, population decentralization, ecological restoration, landscape renovation, etc.

The 12 Cs for better urban and municipal forestry

- | | |
|------------------|----------------|
| 1. Connection | 7. Creativity |
| 2. Collaboration | 8. Courage |
| 3. Community | 9. Champions |
| 4. Communication | 10. Cash |
| 5. Clarity | 11. Context |
| 6. Competence | 12. Complexity |
| 13. Celebrate | |
| 14. Care | |





NEIGHBORHOOD NEWS > INDIAN COUNTRY



Blackfoot Nation becomes first tribal nation recognized as a 'Tree City of the World'

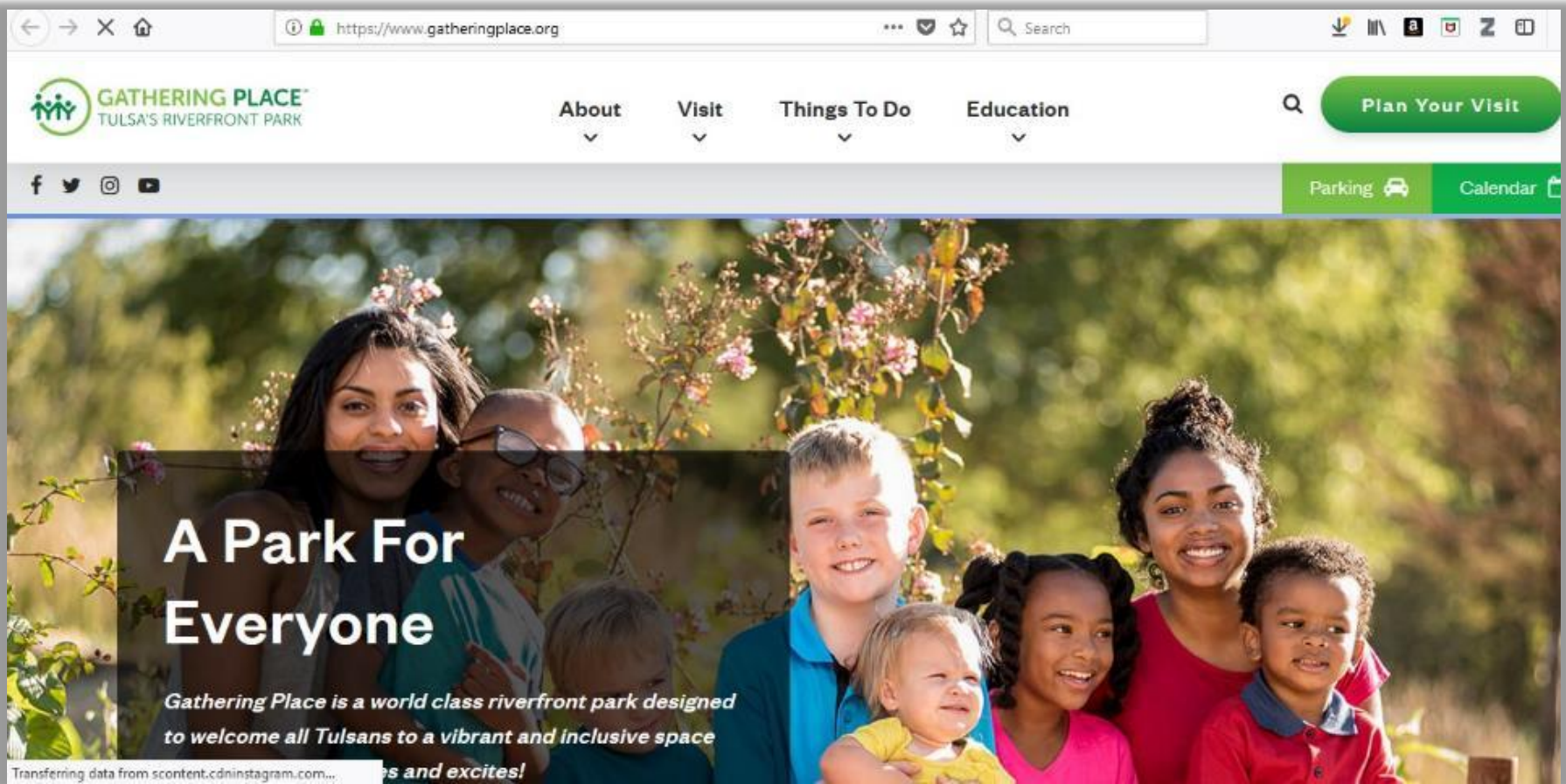
Regina acknowledged as a 'Tree City of the World' for consecutive year

Regina / 980 CJME

CJME News

Mar 3, 2021 | 7:28 AM

Celebration



Care

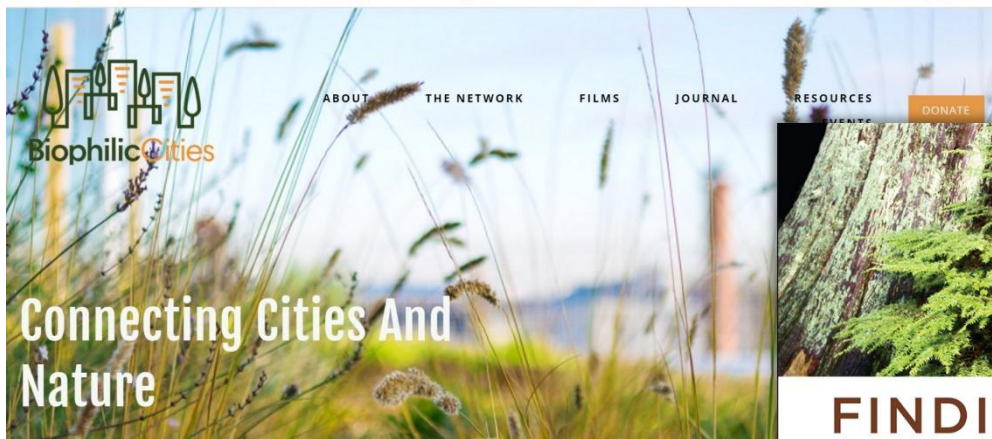
Place Keeping

- Just **making** a place is not enough to ensure longer-term sustainability, use, success – place also has to be **maintained / kept / developed**
- ‘Place-keeping’: first coined by Wild et al. (2008)
- **Long-term management** which ensures that the social, environmental and economic **quality and benefits** the place brings can be enjoyed by **future generations**



What's Next for Global Municipal and Community Forestry?

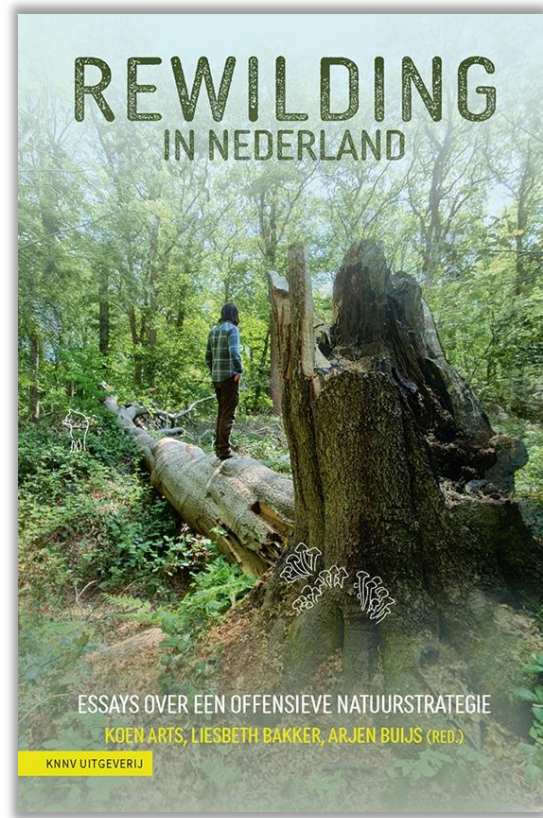




FINDING THE MOTHER TREE

Discovering the
Wisdom of the Forest

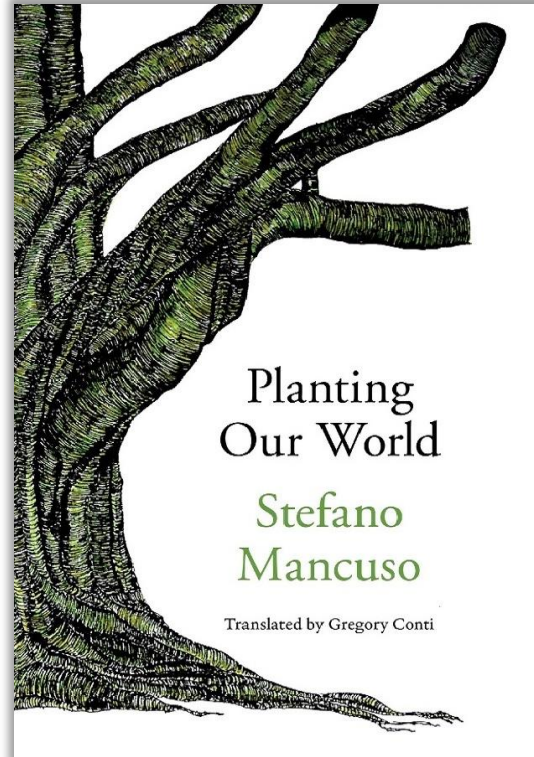
SUZANNE SIMARD



Stefano Mancuso
Fitopolis, la città vivente



Editori Laterza

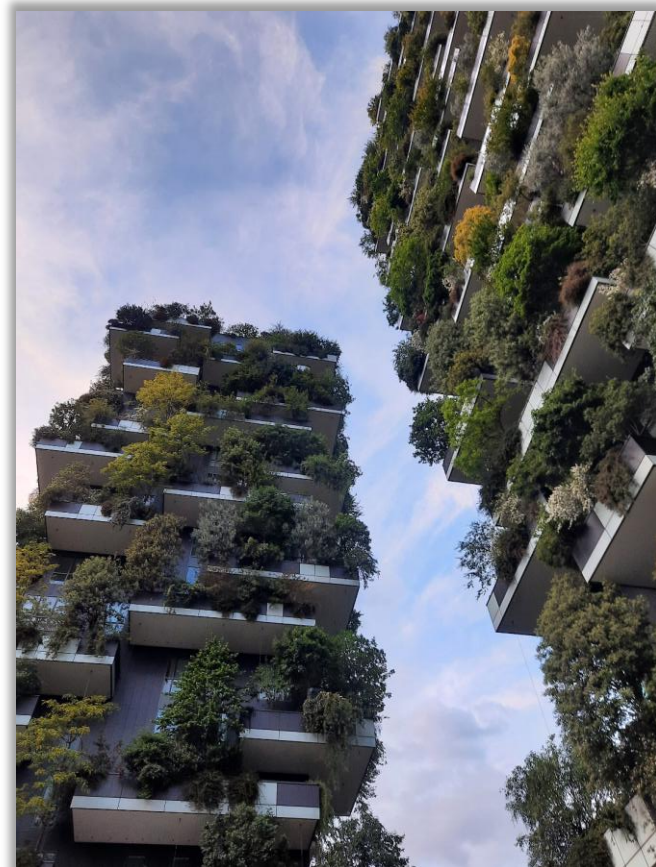
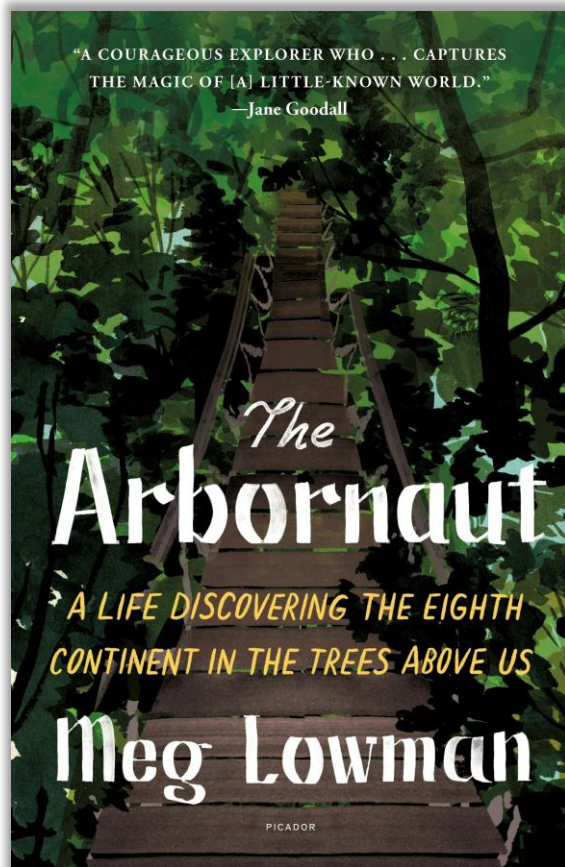


- Structure cities like plants
- Co-habitation with plants and other beings
- Primary thing to do: more trees!
- Tree Streets

Future Role of Urban Foresters & Arborists

- At frontier of (re)connecting people and trees, communities and nature
- Trees as core expertise – from individual to tree systems
- Experts in delivery, instilling a sense of realism
- Good practice from tree planting to long-term maintenance
- Knowledge and expertise built up over the years
- Long-term, socio-ecological perspective
- Embracing technology (with care)
- Health care professionals, chief happiness officers, critical infrastructure managers, storytellers, ...







AIPH



PaRx
A Prescription
for Nature

Cities4Forests

ASCE AMERICAN SOCIETY®
OF CIVIL ENGINEERS



IFLA
INTERNATIONAL FEDERATION
OF LANDSCAPE ARCHITECTS



World Green
Infrastructure
Congress 2024
Auckland,
New Zealand



American Planning Association
Creating Great Communities for All





Our chestnut tree is in full blossom. It is covered with leaves and is even more beautiful than last year.” – *Anne Frank, 13 May 1944*



Wikimedia Commons

Actions for Trees - From new book *From Tree Loss to Tree Love*

- Learn how to see and appreciate trees
- Enhance tree knowledge and curiosity
- Talk about trees
- Advocate for trees
- Take care of our trees
- Collaborate for trees
- Grieve for our trees
- Celebrate trees

Live with trees, fully!



A Bright Perspective?



cecil@nbsi.eu

<https://www.linkedin.com/in/cecil-konijnendijk-2038201/>