



# A Green Cities Checklist

A Subjective Rating Rubric

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## INTRODUCTION

*"That we need new models of urbanization—that is, sustainable urbanization—is especially clear here in the U.S. Where to look for new models is always a question, and as this book [Green Cities of Europe] argues, European cities remain a powerful source of potent ideas and inspiring practice."*

—Tim Beatley  
***Green Cities of Europe***

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When Beatley's *Green Cities of Europe* was published in 2012 it struck a resonate chord: Our architecture program had been looking toward Europe as inspiration for successful green urban design solutions for more than a decade. Unlike the United States, the European Union has taken a proactive stance on combating climate change, first by signing the Kyoto Protocol in 1998 (ratified in 2002) and second by enacting regulations that set strict energy and emissions goals that municipalities and individual design firms have sought to achieve.

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## RESEARCH OBJECTIVES AND HISTORY

We sought a simple, subjective way to rate the “greenness” of cities. London prep seminars in 2013 and 2015 began developing a method...

<b>2013</b>	<b>Draft Checklist developed</b>
<b>2015</b>	Refined Checklist developed
<b>2017</b>	Final Checklist sought



Could the rating system be based on the Freiburg Charter?

Instead we used Beatley’s section headings in the introduction to *Green Cities of Europe*—Sustainable Mobility, Walking Cities, Biophilic Cities, Climate Change and Renewable Energy, Sustainable Urban Metabolism, Green Cities/Green Governance, and Models for the Future.

### The Freiburg Charter for Sustainable Urbanism

The Twelve	Guiding	Principles
<b>Spatial</b>	<b>Content</b>	<b>Process</b>
Diversity, Safety, & Tolerance	Education, Science, & Culture	Long-Term Vision
City of Neighborhoods	Industry & Jobs	Communication & Participation
City of Short Distances	Nature & Environment	Reliability, Obligation, & Fairness
Public Transport & Density	Design Quality	Co-operation & Partnership

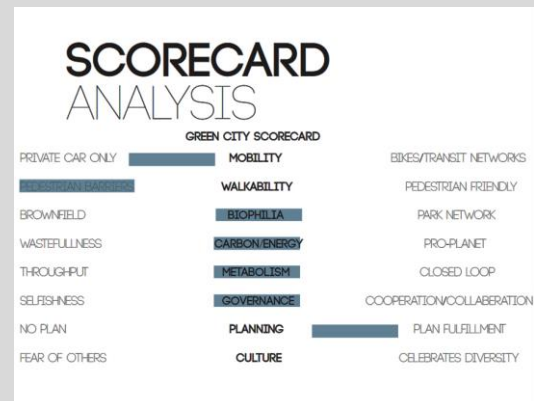
Tested the draft checklist against cities presented in Beatley's book.

Beatley's Green Seven	
Paris, France	Venice, Italy
Freiburg, Germany	Vitoria-Gasteiz, Spain
Copenhagen, Denmark	London, England
Helsinki, Finland	



A Copenhagen hotel

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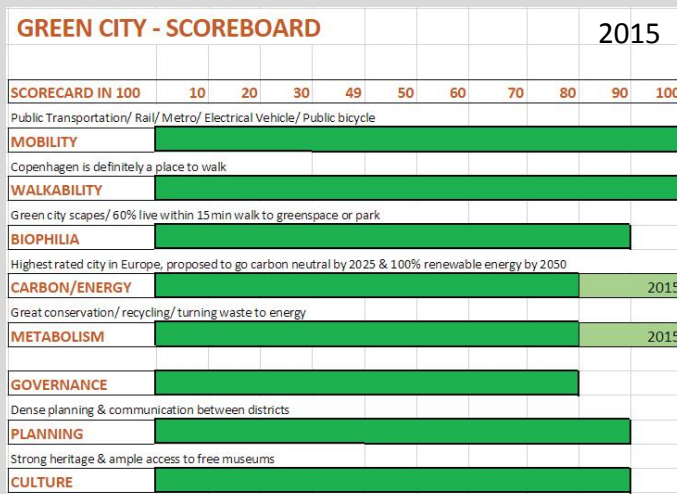
2013 Seminar rated Copenhagen very green and Venice not so green.

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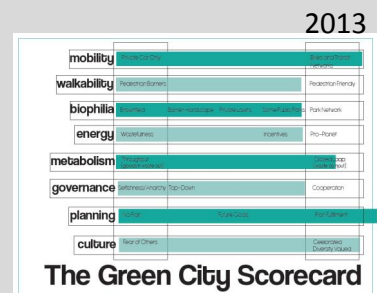
The 2015 seminar aimed to add more detail to the checklist, e.g. Biophilia detail:

GREEN CITY CHECKLIST																
	INDIVIDUAL			HOUSEHOLD			NEIGHBORHOOD			CITY			REGION			
	ISOLATED			REACTIVE									INTEGRATED NETWORK			
BIOPHILIA																
WHEN WHAT	P	IP	C	P	IP	C	P	IP	C	P	IP	C	P	IP	C	
	P=PAST			IP = IN PROCESS			C = COMPLETED									
green spaces	hardscapes, lawns			private gardens, xeriscapes			community gardens, allotments			public park system			network of parks and greenbelts			
building features	pavement, dark rooms			shake/shingle roofs, permeable pavement			green roofs, green walls, incentives			garden roofs, green corridors, habitat			brownfield conversions			
water	excessive use			low-flow fixtures, grey-water recycling			living-machine water treatment			municipal water conservation initiative			constructed wetlands network			

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**2015 Seminar also rated Copenhagen very green.**



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### DISCOVERY 8: RAILWAY STATION EVOLUTION

The sites for this experience are Euston, King's Cross, Paddington, and St. Pancras train stations. You may augment the work with study of other railway stations throughout the UK.



### DISCOVERY 9: CITY MARKETS

The sites for this experience include Borough Market, Covent Gardens, Leadenhall Market, Shepherd's Market, and Smithfield Market. You may also include borough markets such as those at Camden, Greenwich, Nottinghill, and Oxford.



For summer 2013, discovery exercises were added to the London curriculum to encourage students to engage in critical investigation of their new milieu.

### CITY MARKETS: [Borough]

located within the urban built neighborhood of South Bank, Borough Market is one of London's greatest sources of local, fresh produce & meat. Welcoming chefs & restaurateurs of all abilities, the Borough market has one common theme: a passion for good food & collaboration. Upon visiting the market, we were overwhelmed by a sense of community. While it was certainly overwhelming, it was also very fun to be a part of such a vibrant community of local shoppers. Different areas offered different foods: seafood, bread, cheese, meat, flowers, and chocolate were often the scents of our path through the market. The Market offers seasonal recipes as well as cooking classes, demonstrations, and portable dining to its users, ensuring its usability and ability to reach the masses. The Borough Market had many characteristics that echoed those of the Rose & Mason food coop: a friendly, lively place that charmed health, community, and buying local. While it was a more temporary structure (glass, steel frame) than that of the Rose & Mason food coop (CMU blocks), the atmosphere that it created was very reminiscent of home. While it was a success, it felt welcomed and appreciated, a trait that seems to be common of local food markets.



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The opportunity to discover was embraced by the students...

### UK PROGRAM | SKYE WOODHOUSE

For a month, our group travelled from the damp but cozy outreaches of Edinburgh and Glasgow to London to Wales and back. I loved the refuge of the Royal Parks, the grandness of the Rail Stations, the chaos of the markets, and the delight of the evening theatres.

Wales offered just the right amount of a break from the city while providing interesting vegetarian meals, glorified camping, and a closer look on how to conserve energy and live sustainably.

My favorite moments were usually the small moments that took me by surprise, but sometimes they were the ones I would have expected; seeing Les Miserables or A Midnight Summer's Dream or visiting Stonehenge.

Mostly, I will miss walking the city, discovering the places not found on a map, the local pubs, the strange markets, or the perfect view. It seems to me that London is a city worth living in, even as it grows and changes and especially as it takes on the challenges of being more sustainable.

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**DISCOVERY 7: THE DOCKLANDS REVIVAL—PLANNING**

The site for this experience is Canary Wharf and its Museum of London Docklands, Victoria Docks and its Crystal Exhibition and Emirates Air Line, and/or the North Greenwich Peninsula with its O<sub>2</sub> Centre.

**DISCOVERY 8: RAIL CONNECTIVITY—MOBILITY**

The sites for this experience are Euston, King's Cross, Paddington, and St. Pancras train stations and their connections to public transit—Boris bikes, bus, tube, and overground. You may augment the work with comparison to other railway stations throughout the UK.



The summer 2015 discovery exercises in London were reconceived to be keyed to a specific checklist criterion (e.g., Planning or Mobility) to investigate their usefulness. Students were asked to analyse at least one additional criterion to evoke the complexity inherent in such assessments.

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**RAIL CONNECTIVITY**

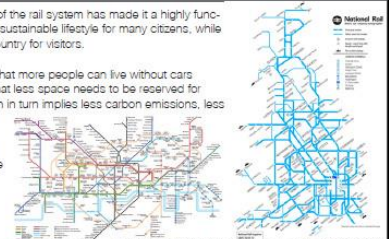
Rail connectivity is a crucial part of the British transportation system. It moves millions of people every day, and is highly linked to other forms of transit both within and between the many communities of the UK. A vast majority of the country can be reached without every getting into a car, and in many cases the use of a rail system is more efficient, speedy, and economical than driving a personal vehicle.

London greater metropolitan area, being ancient, densely populated, and geographically expansive, does not easily lend itself to overground trainline construction, and thus is serviced primarily by the London Underground. The Underground is supported by the ubiquitous red double-decker buses for which the city is known. Its network runs with extreme frequency on lines that span the city and intersect often, making movement around town relatively convenient. The ten overground rail terminals, which are arranged around the center of the city, each has an underground station within it, making cross-country, and even international travel, accessible almost entirely by rail.

The expansive nature and integral role of the rail system has made it a highly functional part of life in the UK, facilitating a sustainable lifestyle for many citizens, while also creating an extremely navigable country for visitors.

Concerning green design, this means that more people can live without cars or with a ride share service, meaning that less space needs to be reserved for vehicular storage and movement, which in turn implies less carbon emissions, less infrastructure constructions (thus, less spending and less embodied energy), and more room for uses that are more conducive to living and regenerating the environment.

Green Cities Score:  
Terrific Train Travelability



2015 Discovery Exercise on Rail Connectivity by Ryan Erstad.

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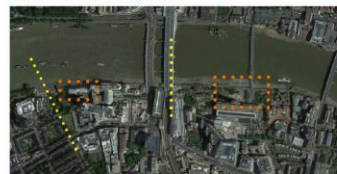
## ON WALKABILITY A CONTRAST

Starting at the Jubilee bridge, and walking east, the South Bank is generous in pedestrian amenities. Below is the pinnacle of amenities, including pedestrian seating, generous pedestrian space, pedestrian friendly stairs, that lead to the patio entrance of the National Theater and its neighbors. Most striking is the double colonnade of mature street trees, offering a complete canopy to relieve pedestrians of sun, or as often, rain.



## ON WALKABILITY A CONTRAST

The language of trees, generous walkways, stairs, and streetwall permeability ends abruptly. It is then followed with sort of a promenade language. Though boasting less width for pedestrians, it remains a lively environment, rich with coffee stops and art galleries. It is after the Grayfriars station that things shift once more.



Walking in the rain, or the hot sun, I one quickly notices the lack of large street trees (the clusters of trees are either ornamental, or not yet mature), the lack of street furniture, and places of repose. Through an urban liveliness is generated by the Millennium Bridge, connecting the Tate Modern and St. Paul's Cathedral, there is nothing but the Tate Modern and street performers to keep anyone in the public space.

The Tate does have a piazza in front of it, but it lacks any place to sit and relax. The grassy area flanking it looks as if it gets half the water it needs, but does offer the one place in the area to linger. Often this is in the form of naps.



2015 Discovery Exercise on Walkability by Kelton Berrett.

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## CONCLUSION

The Green Cities Checklist is being developed as an instructional tool for stimulating critical thinking and subjective analyses of purported green cities as well as serving as a hands-on tool for exploring specific features of our London studies abroad course. So far the checklist development process has been successful in stimulating in-class discussions, critical thinking, and analytic presentations, but has yet to be proven viable as a hands-on tool for analysing and understanding sustainable urbanism.

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## SMART CITIES CONNECT

***We're not alone in our concern.***

We used to live in silos where the role of certain sectors was clear. Companies provided products and services to generate a profit. Nonprofits and NGOs performed selfless acts to save the world. Cities silently made the world run in ways that most of us never even noticed. With the advent of smart cities, things look quite different. Cities are now at the epicenter of the technology evolution with the integration of the Internet of Things (IoT), big data and connected technology.

*—Chelsea Collier, Editor-At-Large, Smart Cities Connect*



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