

# GREEN

THESE 18 THRIVING
CITIES FEATURE GREEN
INITIATIVES OF THE
SUSTAINABLE KIND—
INNOVATIVE RECYCLING,
TRANSPORTATION,
CONSTRUCTION AND
RENEWABLE-ENERGY
SOLUTIONS FOR
21ST CENTURY LIFE—BUT
ALSO VERDANT
GREEN SPACES THAT
PROVIDE THE PERFECT
SPOTS FOR
WHILING AWAY A
SPRING AFTERNOON.

BY SHAWN GILLIAM

Illustrations by Dan Matutina





### **SINGAPORE**

Arriving in Singapore from Changi Airport, first-time visitors are often struck by the green expanses that greet them. But Singapore's "Garden City" nickname didn't sprout overnight; it's rooted in a four-decades-old vision of careful planning that's deliberately integrated urban development and nature, softening the effects of the concrete jungle. Singapore now boasts more than 700 square feet of green space per person, 70 percent higher than the average amount for other major Asian cities, despite its tight land constraints as an island. Yet it continues to develop new parks, even adding "eco-links" to help wildlife move

Not surprisingly, parks represent many of Singapore's top attractions. The newest of them line the Marina Reservoir in the heart of the city, formed six years ago by the Marina Barrage dam, a project that took the top prize in a competition from the American Academy of Environmental Engineers and Scientists. The dam's pump house, topped with a vast green roof and solar park (with 405 solar panels that provide about 50 percent of the daytime electricity needed for indoor lighting and power at the Barrage), takes in spectacular views of the Singapore skyline. Along the reservoir close by, the new Gardens by the Bay boasts

freely between them.

two dramatic conservatories and a grove of man-made "Supertrees," vertical gardens 82 to 160 feet high that double as exhaust systems for the conservatories: some of the Supertrees are fitted with solar cells that power exquisite evening light shows.

The vertical garden concept extends well throughout Singapore, most recently and notably at the sustainability award-

**Amsterdam** 

recycled furniture.

Three out of four Amsterdam residents own

a bike (the city's most popular mode of trans-

portation), the city recycles 43 percent of its

waste (in Europe, it's second only to Helsinki,

Finland) and everyone fiercely protects the

precious green spaces, including the famous

leafy tree-lined canals. All this green makes

for good restaurants, such as the delightful De

Kas on the outskirts of town, a lunch and dinner

spot housed in a 1926 greenhouse that once

belonged to the Amsterdam Municipal Nursery.

Many of its ingredients are harvested daily from

gardens on-site. Sustainable overnights at the

two sharp design hotels in the small Conscious

Hotels chain, on the other hand, come with

water- and energy-saving features and chic

winning Parkroyal on Pickering, a two-year-old hotel enclosed by 160,000 square feet of lush garden terraces, complete with rain sensors and photovoltaic cells. Green features beyond the gardens include energy-efficient motion-sensor LED lighting and water conservation practices that save enough water each year to fill 32 Olympic-sized swimming pools.

#### **STOCKHOLM** Ninety-five percent of

Stockholm's residents live within 1,000 feet of a green space, not surprising considering green spaces make up an astounding 40 percent of the city's land mass. Keeping the air clean are strong emissions standards and a mass transit system that runs 75 percent on renewable energy.

#### CHICAGO

The city is home to two famous green roofs: the 20,300-square-foot green roof atop City Hall (one of the first in the U.S. Midwest) and the popular 25-acre Millennium Park, with the world's largest green roof built above an underground parking garage.

ORTLAND: JORDAN SIEMENS/GETTY IMAGES YDNEY (BOTTOM): MURRAY FREDERICKS

SINGAPORE (THIS PAGE AND PREVIOUS SPREAD): MAU AM STERDAM: BUENA VISTA IMAGES/GETTY IMAGES



# PORTLAND

Recycling, bike commuters, farmto-table cuisine—plenty of green topics have made their way into sketches on the cult-hit IFC series Portlandia. Satire aside, conservation really is a big deal in Portland, and its roots run deep: A 1903 report detailed plans for parks, scenic boulevards and pedestrian pathways, beautifully guiding many to fruition. And the city's urban-growth boundary, in place since the 1970s, has successfully contained urban sprawl and protected 25 million acres of forests and farms from development.

ingly, the dining scene here is big on sustainability, too, with many restaurants sourcing ingredients primarily from the Pacific Northwest. And sometimes the two efforts collide: Popular counterservice restaurant Prasad, known for its top-notch vegetarian menu, gets its produce delivered daily by bicycle. The innovative ice cream shop Salt & Straw, with flavors such as strawberry honey balsamic with black pepper, makes it a point to purchase local ingredients whenever possible. And the award-winning Oregon craft beer Deschutes—served virtually everywhere in town, including at its own pub downtown—enjoys a sustainability track record going back to its first days of business.

Even the Heathman Hotel, the first hotel downtown to complete energy-efficiency upgrades nearly 10 years ago, continues to raise its own sustainability bar. Thirty percent of its total energy use comes from carbon-neutral wind energy, 80 percent of all waste is recycled and the most recent remodel of its 155 guest rooms was 95 percent landfill-free.

#### SYDNEY

Construction of a new green neighborhood called Central Park is underway on the edge of downtown Sydney, its rooftops designed to turn rain into drinking water and its walls, in many cases, covered by vertical gardens. Attributes like these are helping bring new life to a blighted industrial site (a shuttered Foster's brewery) that will eventually house thousands of residents and workers. The MADISON project is the latest example of green thinking in this city surrounded by nature that boasts dozens of ecofriendly businesses, including Koskela, an exquisite home shop known for distinctive

Australian designs. On the

hotel front, the Sofitel Sydney

Wentworth gets high marks

for its sustainability efforts,

including a comprehensive

recycling program.

#### **NEW YORK CITY**

With the highest population density in the United States (more than 27,000 people per square mile, compared with an average of 8,100 for other cities), New York has preserved 20 percent of the city as green space. And it's getting greener: The 10-year Million Trees Program is well on its way to planting 1 million new trees by 2017.

The Dane County Farmers' Market, the largest produceronly farmers market in the United States, sets up shop in the shadow of the Wisconsin State Capitol every Wednesday and Saturday in the summer. More good news? The summer season gets underway this month.

Portland's relatively compact footprint eases navigation, helping a fourth of its workforce commute by public transit, carpool or bicycle. With 319 miles of bike paths, trails and lanes, not to mention an avid cycling population (8 percent of residents consider their bike their primary mode of transportation), the city regularly takes the top spot in Bicycling magazine's annual list of top cities for biking. Not surpris-



Svdnev's One Central Park buildings, designed by Pritzker **Prize-winning** starchitect Jean Nouvel, feature terraced gardens and living green walls.



#### 74 DELTA SKY / APRIL 2015

# **VANCOUVER**

Not satisfied with staking claim to the lowest per capita carbon footprint of any North American city, Vancouver has embarked on an action plan to become the greenest city in the world by 2020, complete with 150,000 new trees and the goal of having all residents live within a five-minute walk of a park or greenway. Its compact, high-density neighborhoods have set the city on the path to achieving that goal, as have its energy infrastructure (more than 90 per- inspired dozens of restaurants

cent of the city's power comes from renewable hydroelectric sources) and building initiatives (the building code here is the greenest of any major city in North America and all new building rezonings must meet the LEED Gold standard). City leaders years ago prioritized investment in walking, cycling and mass-transit infrastructure over building new roads.

Bountiful natural environs remain within easy reach and have

that source their food entirely from local farmers and fishermen. They include Fable, where customers line up for "canned tuna" (fresh albacore poached in olive oil with chervil and preserved lemon) and wild British Columbia salmon with sunchokes and pickled mushrooms, as well as The Parker, an intimate fine-vegetarian restaurant finished and furnished with products made of recycled wood, aluminum and plastic. It's just as green behind the scenes at Forage, where the energy-efficient appliances include an induction oven that transfers 80 percent of ts energy to the cooking surface versus the industry-standard gas oven's 20 percent. Even a stay at one of the city's most sustainable hotels, the Fairmont Waterfront, comes with the op portunity to get in on its green inner workings with a trip to the 2,100-square-foot rooftop garden and its 20 varieties of herbs, fruit, vegetables and, come summertime, daily apiary tours to see six beehives abuzz with half a million honeybees.



#### ZÜRICH

manufacturers, Freitag, sells bags and accessories sewn from recycled truck tarps at its flagship store housed in a dramatic series of stacked shipping containers. It's a fitting testament to Zürich's recycling rate, one of Europe's highest.

#### MINNEAPOLIS/ST. PAUL

The Twin Cities' popular bikeshare system-Nice Ride, with 1,550 bikes at 170 stations returns this month after its winter hiatus, paving the way for exploration on 92 miles of off-street pathways in Minneapolis and 73 in St. Paul.

As it readies for the 2016 Sum-



One of the city's hottest design

#### **RIO DE JANEIRO**

mer Olympics, Rio is redeveloping residential and commercial areas, including refurbishing historical buildings, boosting mass transit and adding bike lanes. It's building green spaces, too, planting some 11,000 trees along one green corridor alone.



visible to visitors. But businesses and residents know it well: black bins for garbage, blue for recycling, green for compost. Since becoming the first U.S. city to mandate composting and recycling six years ago, San Francisco has diverted 77 percent of its refuse from landfills. That same enterprising spirit extends to sustainability at businesses both big—the InterContinental San Francisco was the first LEED Gold hotel in the InterContinental chain—and small the James Beard award-winning bakers at Tartine Bakery use only locally milled organic flours and local produce for their breads and pastries.









LOOKING FOR THE WORLD'S MOST SUSTAINABLE CITY? MOVE TO FRANKFURT.

The communities featured here are finding innovative ways to be environmentally responsible—but they're also wonderful places to visit for their cutting-edge cuisine, natural green spaces and cultural offerings. If it's all-around sustainability you're after, a new index from the Dutch design firm ARCADIS looks at various indicators of social, environmental and economic health in the world's 50 biggest cities. The one that came out on top? Frankfurt, Germany. In fact, many of the top 10 cities are located in Europe: Coming in at No. 2 was London, followed by Copenhagen, Amsterdam, Rotterdam, Berlin, Seoul, Hong Kong, Madrid and Singapore. While many cities performed well in one or two categories, few did well across the board, with the "people" or social category falling behind in many cities where real estate has become more expensive and education is lagging. To see the full report, go to sustainable



## **COPENHAGEN**

Copenhagen's most ravedabout and reviewed restaurant, Noma—honored four times as best in the world by *Restaurant* magazine—became a hit thanks to its sustainable new Nordic cuisine. Sustainability is almost a matter of course in Copenhagen, last year's recipient of the European Commission's Euro-

pean Green Capital award. And a comprehensive climate strategy has the city on track to become the world's first CO2-neutral capital by 2025.

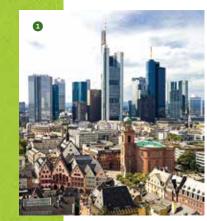
Getting there won't be that huge of a stretch: The city has long been powered in good part by renewable resources, and its residents naturally embrace

a green lifestyle. Well over a third of Copenhageners cycle to work, and the city's Dronning Louises Bro, or Queen Louise's Bridge, is said to be the busiest spot for bicycles in the Western world. One of the city's top family sights, the interactive science and technology museum Experimentarium City, focuses several of its exhibits on sustainability. Even its shops—including Denmark's first organic perfumery, Pure Shop, with its two levels of organic beauty products—naturally lean green

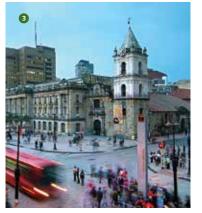
Just as Noma's award-winning take on sustainable cuisine has trickled down to other restaurants in town, Copenhagen's tradition of design innovation has fed sustainability efforts at its hotels, including the new, carbon-neutral Crowne Plaza Copenhagen Towers. Built to be one of the world's greenest hotels, its technologies include solar panels, a groundwater-based heating and cooling system that reduces energy consumption by 90 percent and the opportunity for guests to get with the program by generating energy on an exercise bike in the hotel gym (and earning points toward a meal at one of the hotel's restaurants). Even established hotels such as the Scandic Webers near Tivoli Gardens are going green—it offers 100 percent organic food and drink, ecofriendly textiles and a plan to make the hotel completely carbon neutral by 2025.

# Seattle

Seattle has earned its place on the green scene thanks in part to a healthy supply of LEED-certified buildings and a track record of sustainable energy production (90 percent from hydroelectric plants) that's cleared the air significantly since the 1970s. Many of its hotels are green, too, including the Sheraton Seattle, which recycles 12 tons of waste a month, and Hotel 1000, where central energy controls help reduce consumption. And factory tours at the area's leading chocolatier—Theo Chocolate, whose bars are sold at Whole Foods throughout the U.S.—come not only with samples but also with the backstory of how only the purest ingredients, grown in the most sustainable ways possible, make their way into the chocolate.







#### FRANKFURT

• Frankfurt's green land-use policies, among the best in Europe, have successfully contained urban sprawl, helping 64 percent of its residents commute by public transit, bicycle or foot. Also impressive: The city recycles nearly 50 percent of its waste, a rate significantly higher than the European average.

#### REYKJAVÍK

Nearly all of Reykjavík's heat, hot water and electricity come from renewable geothermal and hydroelectric sources. And the city (not to mention all of Iceland) is on track to adopt a hydrogen economy, with a goal of becoming fossil fuel-free by 2050. In fact, some cars and buses in the city already run on hydrogen.

#### **BOGOTÁ**

Nearly 200 miles of dedicated bike lanes, many linking to the TransMilenio bus rapid transit system (at about 70 miles, one of the world's most extensive BRTs) have helped Bogotá transform into a greener city. So have *ciclovías* that close roads to cars and open them to 1 million cyclists, runners and skaters every Sunday.



citiesindex.com.