

# LIFE AFTER CARBON

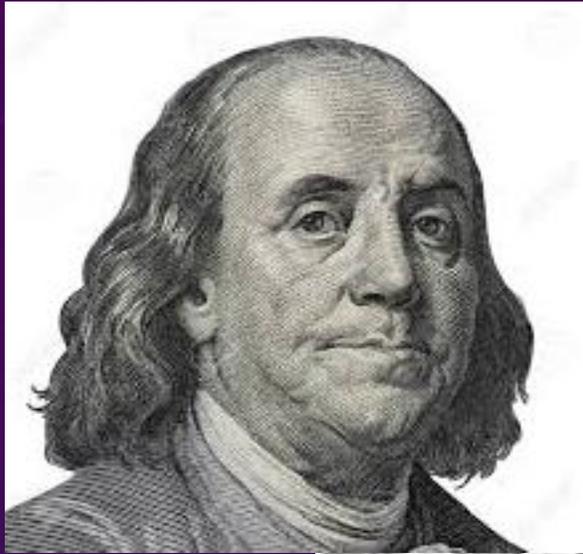
*IDEAS THAT ARE CHANGING THE EVOLUTION OF CITIES*  
PLUS

**THE CLIMATE EMERGENCY & CITIES**  
**THE PANDEMIC & LOCAL CLIMATE ACTION**

PETER PLASTRIK

APRIL 28, 2020

# LONDON 18<sup>TH</sup> CENTURY



**"OF ALL THE GIN JOINTS  
IN ALL THE TOWNS  
IN ALL THE WORLD,  
SHE WALKS INTO MINE"**

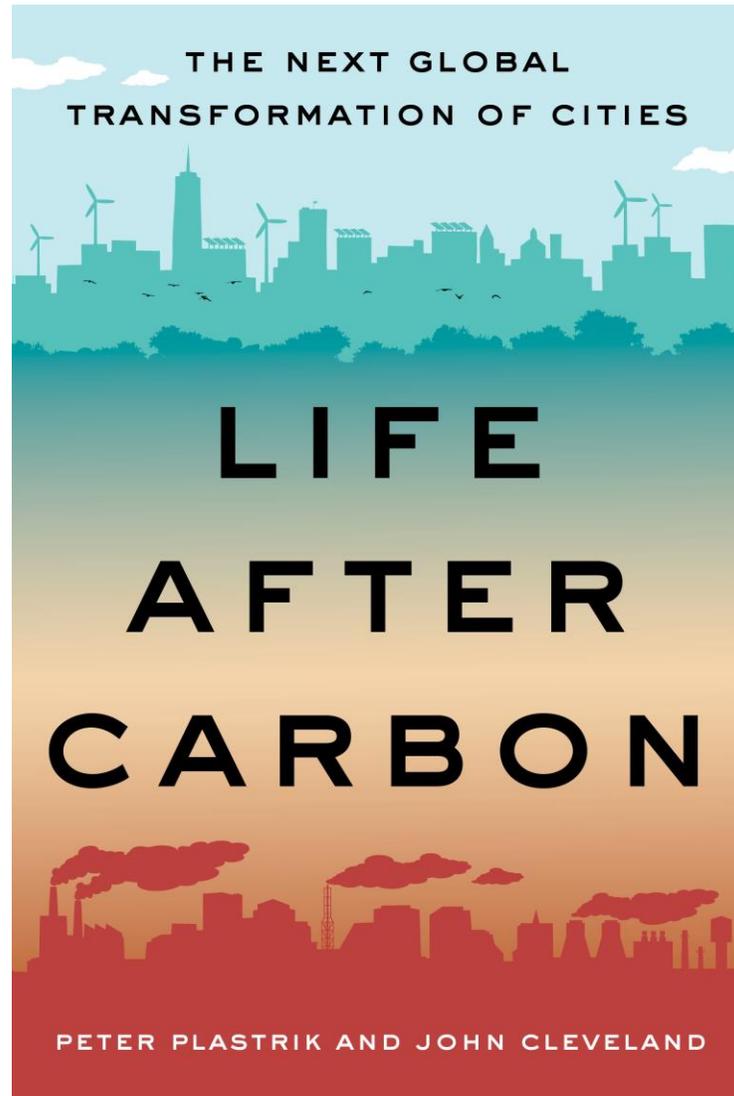
**RICK BLAINE  
"CASABLANCA"**

**COPENHAGEN**  
**21<sup>ST</sup> CENTURY**  
**First Carbon Neutral**  
**Capital by 2025**



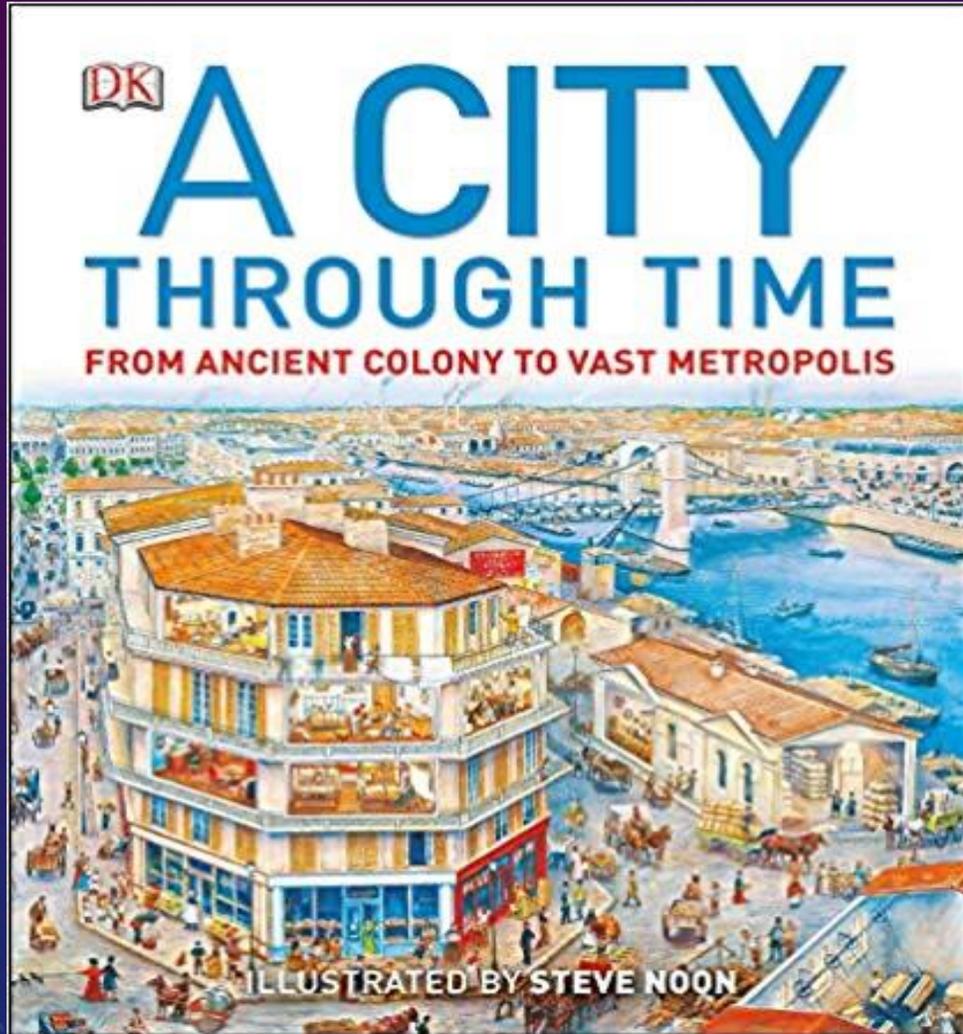
**WASTE-TO-ENERGY PLANT**  
**WITH DRY SKI ROOF**

# 300-year Arc of Urban Development



Cities responding ambitiously to climate change are changing themselves in fundamental ways

# How do cities change?

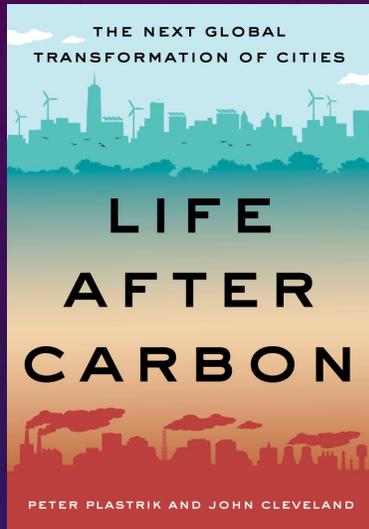


- Technology
- Natural Disaster
- Conquest
- War
- Culture
- Economy
- Disease
- Population Migration
- Design & Architecture

## 19<sup>th</sup> & 20<sup>th</sup> Century Technologies

- Aircraft
- Bicycles
- Cars
- Steamships
- Street Lighting
- Telephones
- CCTV
- Computers
- Mobile phones
- Plastics
- Prestressed Concrete

**Burn, baby,  
burn**



**IDEAS HAVE THE POWER  
TO TRANSFORM CITIES**

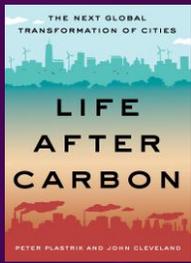
**... AND CLIMATE CHANGE  
IS CHANGING OUR IDEAS  
ABOUT CITIES**

# RISE & SPREAD OF THE MODERN CITY

- 1800: 30 million people worldwide in cities
- 2020:
  - 300 US cities with 100,000+ people
  - 500 cities worldwide with 1 million+
  - Greater Tokyo = 35 million
- 2050: 2/3 of people in cities

"As we became an urban-dwelling species, **we made cities in the same basic modern image**. Whatever a city's age, history, location, affluence, stage of development, economic niche, or governance model, it has developed and manages massive, complex systems for buildings, transportation, energy supply, waste, water, etc. And these systems use pretty much the same technologies and processes and are professionally managed in much the same way everywhere."





## Ideas that built the modern city

"These ideas worshipped the use of **markets and capital** to create massive wealth and meet social needs. They celebrated the role of **ever-increasing material consumption** in producing personal and social benefits. They revered the **control of the planet's natural systems** through science and engineering. And they admired **acts of will** that sought to shape the future.

"These ideas had an underlying theme: **the power of human beings to shape their individual and collective well-being.**"

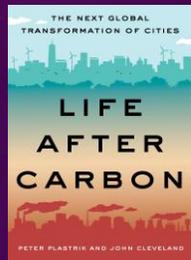
# MELBOURNE, AUSTRALIA 1835-2020

The arc of the modern urban paradigm



Dean Stewart

"Listen. These are exactly the same sounds you hear in any major city around the world. These modern city sounds can drown out our ability to connect with country, to connect with place. One of the biggest challenges for us, as city slickers, living our urban lifestyle, is to make some of those connections. Two hundred years ago, you'd be hearing the sound of this ancient river tumbling over the waterfall right here."



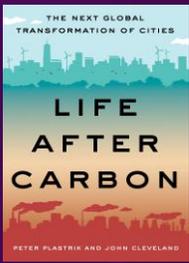
# The Rise of Urban Climate Innovation Laboratories

Austin  
Berlin  
Boston  
Boulder  
Cape Town  
Copenhagen  
London  
Melbourne  
Mexico City  
Minneapolis  
New York City  
Oslo  
Paris  
Portland  
Rio de Janeiro  
Rotterdam  
San Francisco  
Seattle  
Singapore  
Stockholm  
Sydney  
Toronto  
Vancouver  
Washington

"Cities that have **come to understand themselves, their place in the world, in a new way** and act boldly on their changed awareness. They take to heart the challenge of climate change. They publicly commit to do more about it than many national governments have pledged. They immerse themselves in figuring out what they can do. And they start doing it, despite the many technical, political, economic, and social difficulties involved.

"**They are changing just about everything in the city**—the buildings, streets, neighborhoods, and other physical infrastructure; the supply and use of energy, water, transportation, green spaces, and other land; as well as the consumption of resources and the disposal of waste. They are changing the economic opportunities and the costs of doing business and living in the city. They are changing the minds and habits of their residents. They are changing the identities of their cities.

"In these cities, **there has been enough convergence of thought and vision to permit each city to step off the business-as-usual path . . . and align** around the need to act boldly on climate change."



## 4 Ideas replacing the Modern City ideas

Every innovation is an idea wrapped in a mechanism

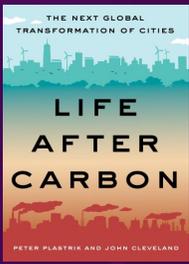
	Idea	Applications
<b>Carbon-Free Advantage</b>	Cities can employ their unique advantages to <b>turn the emerging renewable energy economy into urban wealth and jobs</b>	<ul style="list-style-type: none"><li>• Green business clusters</li><li>• Local renewables production</li><li>• City green branding</li></ul>
<b>Efficient Abundance</b>	Cities can more efficiently use energy, materials, natural resources, and space to <b>generate a new kind of urban abundance</b>	<ul style="list-style-type: none"><li>• Reducing consumption</li><li>• Circular economy</li><li>• Compact living</li></ul>
<b>Nature's Benefits</b>	Cities can restore and tap the power of natural systems to <b>enhance and protect urban life</b>	<ul style="list-style-type: none"><li>• Green infrastructure</li><li>• Ecosystems &amp; biodiversity</li><li>• Immersion in nature</li></ul>
<b>Adaptive Futures</b>	Cities can cultivate the capacity of inhabitants and core systems to <b>adapt successfully to the future's new requirements</b>	<ul style="list-style-type: none"><li>• Adaptive management</li><li>• Social vulnerability</li><li>• Bouncing forward</li></ul>

## Summing to an Urban Vision (From 3 Communities' "Climate Emergency" Plans)

When **BARCELONA** embraced a climate emergency, it proclaimed that what was needed was nothing less than a “change of the urban model.” By 2050, the city declared, “we want to be a metropolis with **balanced neighbourhoods** that foster **habits of short distances and healthy mobility**, with a much more **efficient and sustainable building stock**. We want a comfortable, **traffic-calmed city** with lots of **green spaces** that contribute to people’s good health and well-being, and **biodiversity**.”

This vision of the urban future—shared by many communities that have shifted into emergency mode—points to the numerous benefits of decarbonizing. **MORNINGTON PENINSULA SHIRE’S** version included a **circular economy** with zero waste; an **active, educated, and inclusive community** “where consideration of climate change is business as usual”; a thriving and diverse local economy “where **businesses are part of the climate change solutions**”; and easy, affordable access to **locally grown food**, thanks to **sustainable land management**.

**SAN FRANCISCO** heralded that achieving its climate goals would allow the city “to enjoy the benefits of **cleaner air, fewer vehicles** on the road, a more **reliable transit system**, more **bike lanes and pedestrian-friendly networks**, highly efficient homes and businesses powered by **100% clean electricity**, and a healthy, well-developed **urban canopy** and green spaces.”



# These ideas for the next urban model are spreading and will continue to spread

"A world that is more renewable, efficient, green, and adaptive: nearly every day brings news that these ideas and their innovations are advancing—and not just in cities."

- **Businesses**—large corporations, small local enterprises, and entrepreneurial startups--are creating products and services out of these new ideas
- **Professionals**—architects, engineers, real estate developers, water- and electricity-utility managers, city planners, financiers—are developing new practices and standards of practice.
- **Consumers, community activists, city residents**—are demanding that cities embrace innovations in local policies and make investments based on these ideas.
- **State/provincial & national governments**—also embracing these ideas as promising policies.

# LESSONS FROM THE CLIMATE EMERGENCY

- More cities are becoming highly intentional urban climate innovation laboratories
  - Learning from and benchmarking with the world's best
  - Sustained alignment of
    - Courageous elected officials
    - Skilled bureaucrats
    - Innovative businesses
    - Mobilized communities
- More cities are embracing and applying big new ideas at system scale:
  - Carbon-free economic advantage
  - New abundance - holistic, sustainable, equitable
  - Nature's benefits
  - Adaptive futures

"Many of the world's cities will not transform their systems until they have no other choice. They will change eventually, but instead of inventing the future, they will be ensnared by it."

# LESSONS FROM THE PANDEMIC FOR LOCAL CLIMATE ACTION

Will the pandemic starve resources and attention from the battle against climate change? Or will it provide a new sense of urgency for climate action and new insights about how to do it faster, better and more fairly?

## FOUR THINGS CITIES MUST DO

**1. Articulate how the pandemic crisis increases the urgency of acting to avoid climate catastrophe.**

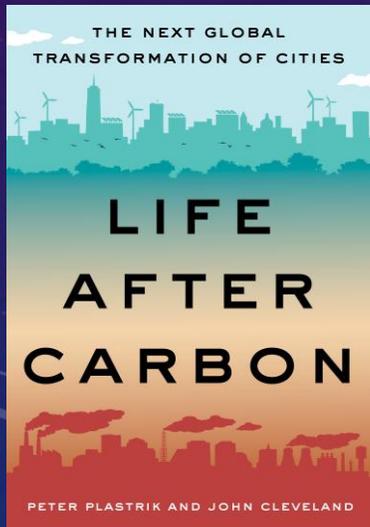
**2. Identify how to maintain the climate gains and reverse climate losses that have been caused by the pandemic.**

**3. Insist on economic and social equity in federal and state climate policies.**

**4. Use the pandemic stimulus to strengthen and accelerate local climate work.**

# THE NEXT GLOBAL EVOLUTION OF CITIES

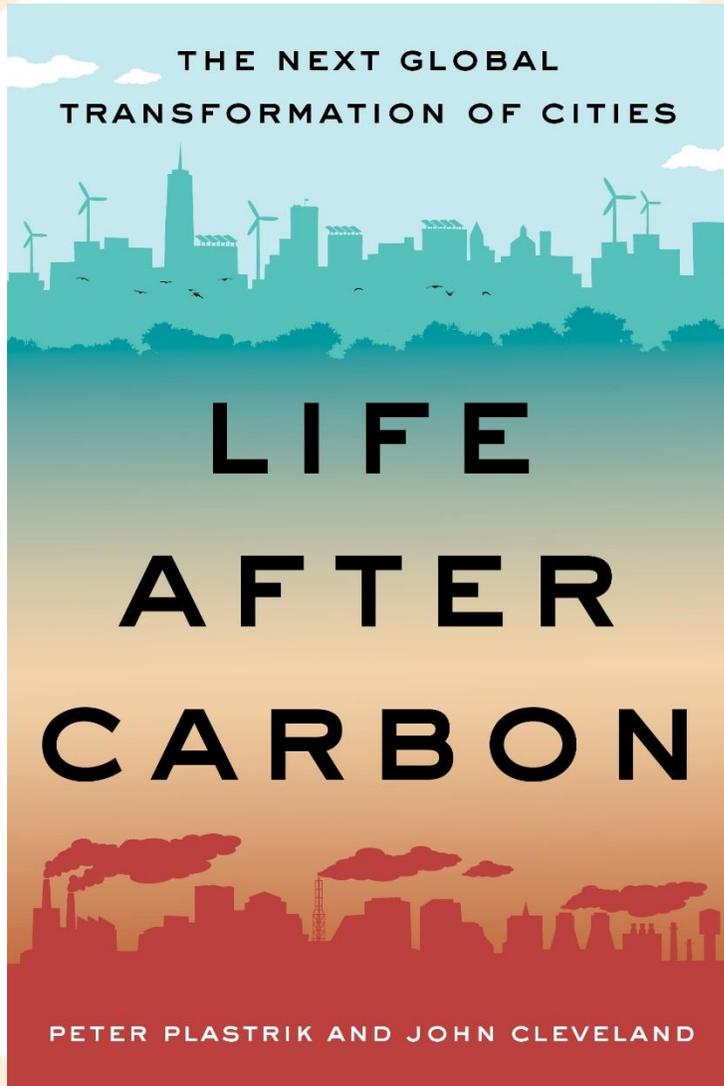
## DRIVEN BY CLIMATE CHANGE



The 30 years that will pass before we reach 2030 may sound like a long time, but it is not. Some of them is being determined now. Many of today's decisions will live on for the rest of the century.

The need to change the fundamentals of city life is evident. A feasible vision for the next city is forming.

**THIS IS NOT THE FIRST TIME CITIES HAVE REINVENTED THEMSELVES. IT IS THE NEXT TIME**



# Life After Carbon

Use discount code **WEBINAR**  
to **save 30%** at  
[www.islandpress.org/after-carbon](http://www.islandpress.org/after-carbon)

Reports & blogs on urban climate  
action at [www.lifeaftercarbon.net](http://www.lifeaftercarbon.net)