L’ARCHITECTURE ET L’URBANISME, DES ALLIÉS POUR RÉDUIRE LES ÉMISSIONS DE GAZ À EFFET DE SERRE

Carl Elefante
1er vice-président et président élu 2018, American Institute of Architects
25 May 2017

Sustainable Collectives Rendez-vous
Planning for a Low Climate Impact Urban Growth

Design Impact Matters

Carl Elefante FAIA
2017 AIA First Vice President
2018 AIA President-elect
“First, we shape our buildings; thereafter, they shape us.”

Winston Churchill
Design Impact Matters
Architects Shape Lives

1870 Deaths from Infectious Disease in NYC: 64%
1940 Deaths from Infectious Disease in NYC: 11%
“The 20th century will be chiefly remembered by future generations not as an era of political conflicts or technical inventions, but as an age in which human society dared to think of the welfare of the whole human race as a practical objective.”

Arnold J. Toynbee
Population Growth

1.35 Billion by 2030 (19%)

3.3 Billion by 2050 (47%)

Urban Impacts

2% Land

70% GDP

60% Energy

70% GHG Emissions

Joan Clos
Paris Agreement Targets

Cap Global Temperature Rise to:

2°C
above pre-industrial levels

1.5°C
preferred target

Reach Zero Net Carbon (ZNC)

2050

Karen
Christiana
Figueres Olsen
Compulsary Global Cooperation

1945

2017
"Cities...have been engines of innovation since Plato and Socrates bickered in an Athenian marketplace.

Edward Glaeser

Triumph of the City
The New Urban Agenda

10. Ingredients

1. Natural, Ecological & Biophilic City
2. Fit & Healthy City
3. Food City
4. Material City
6. Secure, Resilient & Adaptable City
7. Connected, Mobile & Accessible City
8. Culture & Heritage City
9. Affordable, Equitable, Diverse & Inclusive City
10. Beautiful, Inspiring & Joyful City
1. Natural, Ecological & Biophilic City

Janine Benyus
Biomimicry
Urbanism & Natural Systems

Peter Calthorpe
Urbanism in the Age of Climate Change
2. Fit & Healthy City

Boris Lushniak
Acting Surgeon General 2013-4
Designing for Wellness

High Line

Dr. Richard Jackson

Designing Healthy Communities
3. **Food City**

**Vandana Shiva**

**Soil Not Oil**

**University of Arkansas**

**Fayetteville 2030**

**Food City**
Urban Policy & Public Health

Race  Poverty  Obesity  Food Deserts
4. Material City

Peter Busby
Architecture’s New Edges
Holistic carbon accounting means the “embodied” carbon **MUST** be addressed.
Paris Agreement
Building Sector Framework

- The building sector is the most reliable path to predictable carbon reduction
- The building sector holds the potential for the largest carbon reductions within the 2050 timeframe
- Holistic life-cycle carbon accounting is required to achieve carbon reduction targets

Ed Mazria
Roadmap to Zero Emissions
Since 2006 the US building sector has added **20 billion sf** without increasing carbon output.
US targets can be achieved by:

- Using best-available technology
- Reducing Current Emissions by 50%
- Doubling current renewables
6.

Secure, Resilient & Adaptable City

Hurricane Sandy

The BIG “U”
7. Connected, Mobile & Accessible City

Janette Sadik-Khan
Street Fight
“The General Theory of Walkability explains how, to be favored, a walk has to satisfy four main conditions: it must be useful, safe, comfortable, and interesting.”

Jeff Speck
Walkable City
“How will we know it’s us without our past?”

John Steinbeck
The Grapes of Wrath
2050 Roadmap includes targets for deep energy retrofits

For US to meet its target, 3x to 4x current rate of renovation must be achieved.
Projected Growth
Projected Rehab

Millions of Square Feet

35%  28 Billion Sq Ft

75%  54 Billion Sq Ft

2006 Architect Magazine
The Boom to Come – America Circa 2030
Affordable, Equitable, Diverse & Inclusive City

9.

Alejandro Aravena

Quinta Monroy Housing
Iquique, Chile
“Whole” City

- People live in a “good enough” place
- People **feel settled** in home, neighborhood, and region
- People **contribute to caretaking** of the personal and shared portions of the environment
- People **know their neighbors** and interact with them to solve problems

Mindy Thompson Fullilove
Urban Alchemy
“Sorted Out” City

Hill District Urban Renewal

Pittsburgh Redlining Map
“Whenever and wherever societies have flourished and prospered rather than stagnate and decay, creative and workable cities have been at the core of the phenomenon.”

Jane Jacobs

The Death and Life of Great American Cities
Cities for People

Jan Gehl
Cities for People
City Beautiful

World Columbian Exposition 1893

Sophia Gregoria Hayden

Daniel Burnham & company
“Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it’s the only thing that ever has.”

Margaret Mead