

# URBIS

## Urban Biosphere Initiative

### Abstract

We developed an inter-disciplinary research and extension program focusing on the science to policy interfaces between sustainability, biodiversity, and social-ecological systems resilience in cities. We developed and launched the URBIS global urban biosphere policy initiative, which has been endorsed by several international agreements and was presented at the Rio +20 UN Conference on Sustainable Development and the ICLEI World Congress, (the international association of over 1200 city and other local governments), in Brazil in June 2012.

Recognizing that cities are now the dominant human habitat, the effort addresses a gap left by other global sustainability initiatives which pay only minimal attention to urban ecosystems. The URBIS initiative projects a comprehensive participatory planning to address these gaps. The catalytic funding from ACSF enabled the launching of this initiative with Cornell University as a key player, and has resulted in commitments from over 45 cities, multinational organizations, and other signatories to step forward and participate in the program. The longer-term outcome of these efforts will be an applied urban sustainability and biodiversity research and planning network that is a partnership among multiple universities and international organizations.

## Introduction/Background

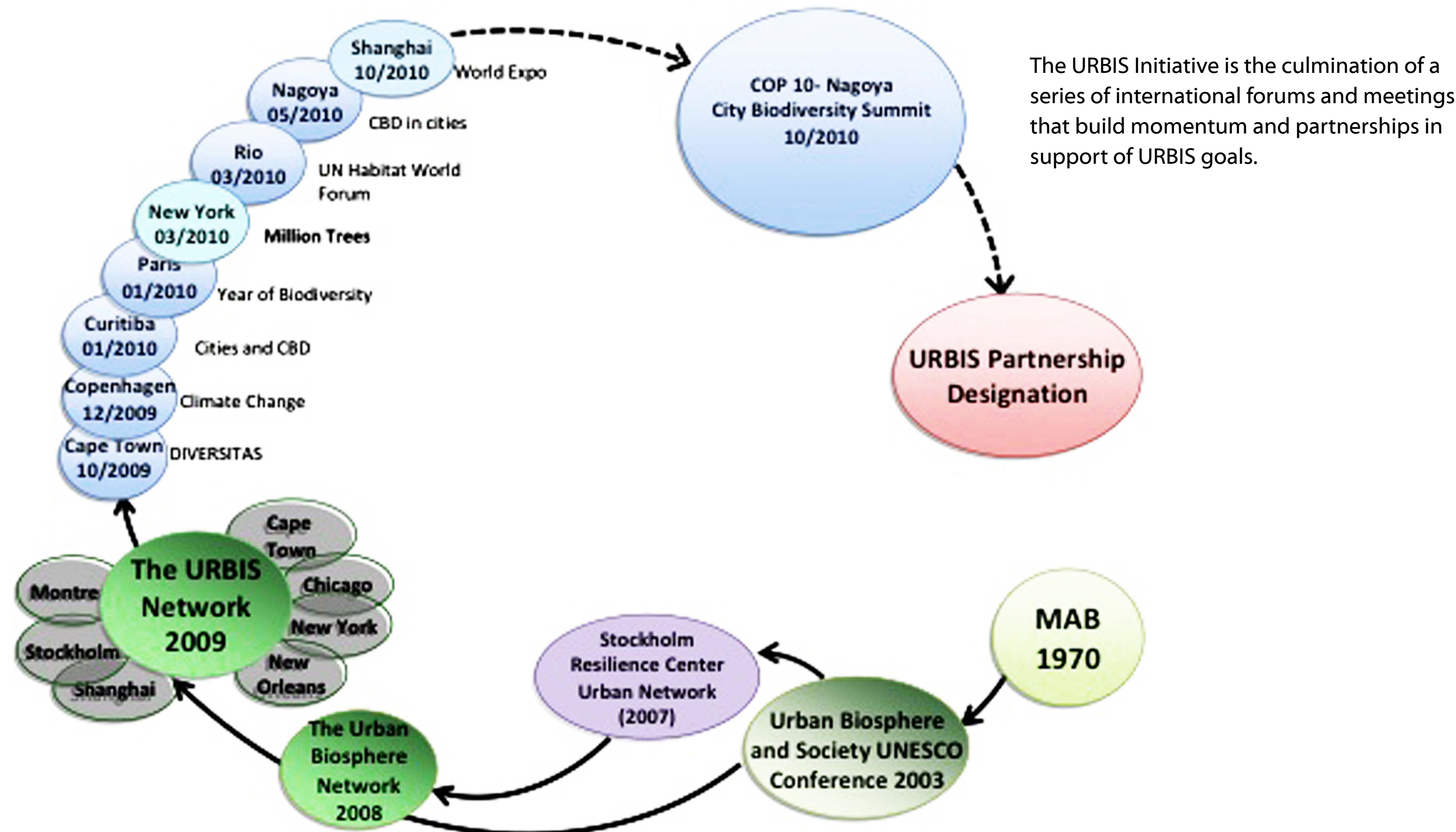
Over the past 4 years, Cornell's Civic Ecology Lab has worked with UNESCO, ICLEI, the International Union for the Conservation of Nature (IUCN), the Convention on Biological Diversity (CBD), and Stockholm University to develop the URBIS sustainability designation program for cities. In December 2011, The Civic Ecology Lab and Thomas Elmqvist, of Stockholm University, organized an ACSF topical lunch, where the importance of Cornell and ACSF participation at Rio+20 Conference and the 2012 ICLEI International Congress events was discussed. This project leveraged ongoing Cornell efforts in global urban sustainability policy and research to launch the URBIS initiative at these high-profile events, and further position Cornell As the land grant university to the world.



Keith Tidball speaking at the 2012 ICLEI Urban Nature Forum in Belo Horizonte, Brazil

## Goals and Context

- The majority of all people now live in cities, placing pressure on urban ecosystems and the important services they provide
- Many municipal communities are concerned with the loss of biodiversity, the plight of natural capital and the degradation of ecosystem services that underpin human wellbeing
- Cities can play a pivotal role in the pursuit of a greener, safer and more prosperous future
- Potential for pathways to the future exist through the collaborative design and implementation of participatory, integrated and sustainable urban development solutions to enhance urban ecosystem services for the benefit of cities.
- Urban metropolitan regions themselves are in the best position to lead the process towards an international designation of urban social-ecological resilience.



## The URBIS Initiative

The concept of urban biosphere (URBIS) emerged amidst increasing awareness that cities are not discrete, self-contained entities, but rather are dynamic nodes of activity, absorbing vast quantities of natural resources, producing massive amounts of waste, interacting profoundly with their encompassing bioregions, and substantially altering both near and distant ecosystems. At the same time, modern cities offer unprecedented and often untapped opportunities for innovation, efficiency-gains, leadership and social organization.

The imperative for action to harness such opportunities and render extractive cities more ecologically restorative spurred the birth of an international initiative to address the design and governance of urban regions and surrounding ecosystems. Today, the URBIS initiative comprises a global alliance of partners aspiring to reconcile urban development with the conservation of biodiversity and the sustainable use of natural resources to build inclusive green urban economies.

The URBIS Partnership takes a unique approach to these efforts by enabling stakeholders to actively participate and subsequently be recognized for planning and managing for urban resilience. Throughout this process, sustainable management practices will be developed and then catalogued for sharing and dissemination as part of a global knowledge network.



Dignitaries in the URBIS ceremony (left to right):

**Kumar Emami** - Executive Director, ICLEI South Asia office, **Babu M.T. Krishna** - Commissioner of Hyderabad, **Gino van Begin** - Deputy Secretary General, ICLEI, **Thomas Elmqvist** - Professor, Stockholm Resilience Center, ICLEI, **David Cadman** - President, ICLEI, **Braulio Ferreira de Souza Dias** - Executive Secretary, CBD Secretariat, **Kobie Brand** - Global Biodiversity Coordinator, ICLEI, and **Oliver Hillel** - Programme Officer, CBD Secretariat

## Outcomes

I. Funding from ACSF enabled the participation of Cornell University faculty and staff as participants in the Rio+20 and ICLEI World Congress events, including:

**KEITH TIDBALL, Associate Director, Civic Ecology Lab and Senior Extension Associate, Department of Natural Resources**  
Presenter: History of the Urban Biosphere initiative. ICLEI Urban Nature Forum. Belo Horizonte, Brazil. 14 June 2012.

Presenter: Greening in the Red Zone. Cities and Biodiversity Outlook Workshop. Rio+20 meetings. Rio de Janeiro, Brazil. 18 June 2012.

**KATHERINE BUNTING-HOWARTH, Associate Director, NY Sea Grant and Cornell Cooperative Extension**

Panelist: Putting Words to Action: Implementing the Rio +20 Fisheries Recommendations, U.S. Side Event at Rio +20, 16 June 2012.

Participant: Global Oceans Day at Rio +20 (sponsored by the Global Oceans Forum and IOC-UNESCO) (a parallel event), 18 June 2012.

Participant: Advancing Sustainability through Communication and Collaboration, (an official UN side event hosted by the University of Colorado), 19 June 2012.

Participant: Oceans at Rio+20: Toward Implementation of the Rio Ocean Commitments (an official UN side event), 20 June 2012.

**JOSHUA CERRA, Assistant Professor, Department of Landscape Architecture**

Presenter: Interdisciplinary collaboration for meeting urban ecological goals. ICLEI World Congress. Belo Horizonte, Brazil. 15 June 2012.

Facilitator: ICLEI Urban Nature Forum Session: Sound Science for Sound Policy. Thursday, June 14, 2012

**MARIANNE KRASNY, Chair, Department of Natural Resources**

Presenter: Environmental Education and Social-ecological Systems Theory. ICLEI Urban Nature Forum. Belo Horizonte, Brazil. 14 June 2012.

Presenter: Resilience, Learning, and Environmental Education. ICLEI World Congress. Belo Horizonte, Brazil. 16 June 2012.

Presenter: Urban landscapes as learning arenas for sustainable management of biodiversity and ecosystem services. Cities and Biodiversity Outlook Workshop. Rio+20 meetings. Rio de Janeiro, Brazil. 18 June 2012.

II. Keith Tidball of Cornell University is also part of the core team from UNESCO, ICLEI, Cornell, Stockholm Resilience Centre, CBD, and City of Jerusalem that prepared the Urban Biosphere (URBIS) designation system, which was signed on to by about 45 signatories at the ICLEI side events and endorsed by the Secretariat of the Convention on Biological Diversity.



Image by: Emily Bauer, Jesse Nicholson & Gabriel Farell, LA 6020 Urban Design Studio, Professor Josh Cerra, Cornell University Department of Landscape Architecture

**We build upon Cornell efforts in global urban sustainability policy and research.**



Katherine Bunting-Howarth speaking at the Rio+20 event.

### Signatories to the URBIS Initiative Include:

Vacoas Phoenix, Mauritius

Kaohsiung, Taiwan

Jerusalem, Israel

São Paulo, Brazil

Instituto Sustentat, Belo Horizonte, Brazil

Municipality of Walvis Bay, Namibia

City of Auckland, New Zealand

The Nature of Cities, Sound Science LLC, New York, USA

Hyderabad Municipal Corporation, India

City of Mandurah, Australia

New York Sea Grant, USA

Swedish Society for Nature Conservation, Stockholm, Sweden

Tishman Environment and Design Centre, The New School, USA

Cornell University

Windhoek, Namibia

AMA Pangea, Brazil

Cape Town, South Africa

Inverde, Brazil

Petaling Jaya City Council, Malaysia

Lake Victoria Region Local Authorities Cooperation (Entebbe), Uganda

University of Tunku, Abdul Rahman, Malaysia

Fortaleza, Brazil

Ekurhuleni, South Africa

IPSA, USA

Dar es Salaam, Tanzania

Brasília (SRNU - MMA), Brazil

Sol Plaatje, South Africa

City of Niore du Rip, Senegal

City of Manaus, Brazil

City of Cascais, Portugal

## Future Work/Research Opportunities

New York City was an initial URBIS pilot city, and is where the initiative itself began. NYC provides an opportunity to leverage URBIS, with the help of Cornell and ACSF, to positively influence projects with compatible goals in this metropolitan area. As an initial signatory and primary supporter of URBIS, Jerusalem will continue to be a source of project support and research opportunity in urban social-ecological sustainability.

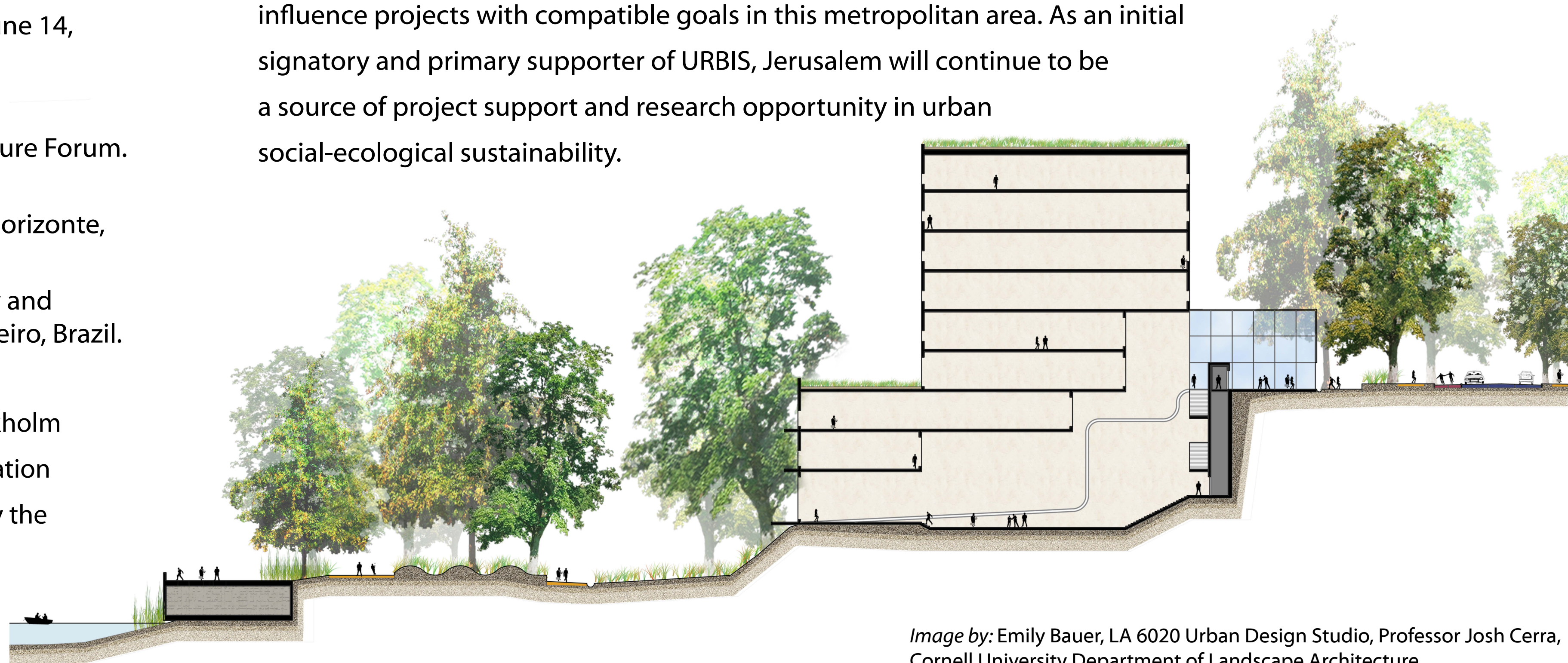


Image by: Emily Bauer, LA 6020 Urban Design Studio, Professor Josh Cerra, Cornell University Department of Landscape Architecture