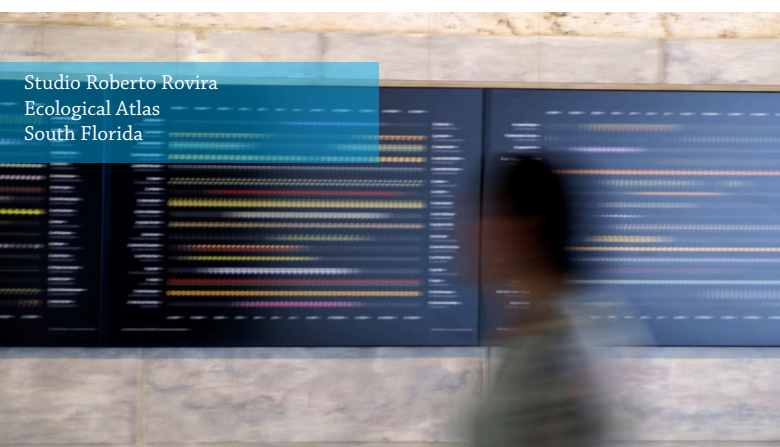
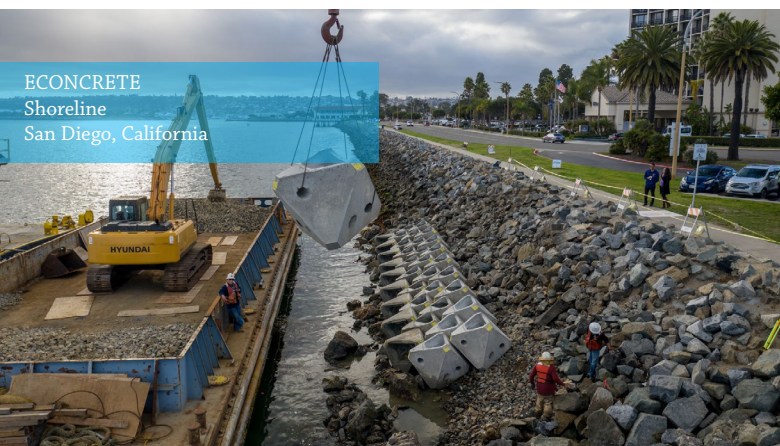


Using Design, Engineering, Education & Science to Support UN Sustainable Development Goals (SUN-B08)

Sunday November 21, 2021 // 2-3 PM // Room 106

OVERVIEW

The UN Sustainable Development Goals are an urgent call for action. By applying the principles of sustainable architecture, engineering, education, and science to the design of urban infrastructure, we can support these goals and sustain marine resources, enhance biodiversity, contribute to cleaner environments, broaden disciplinary boundaries, and reduce carbon emissions.



"Designing Shared Spaces"
The Music City Center in Nashville
November 19 – 22, 2021

SPEAKER BIOS

Ido Sella

CEO & Co-Founder, ECONcrete



Ido Sella is a marine biologist from Israel with expertise in the eco-engineering of coastal and marine infrastructure, and co-founder of ECONcrete®, is pioneering innovative and sustainable technologies to confront climate change and reinvigorate our coastlines world-wide.

Stephanie Dunn

Affiliate ASLA
Senior Landscape Designer, Cadence



Stephanie Dunn is a Senior Designer with Cadence, in Fort Lauderdale FL. Having initially earned a Bachelors of Architecture from Florida Atlantic University with a CPTED certification, she brings a unique perspective to the often incongruent fields of landscape and urban design. She possesses a passion for the State's unique flora, and has steadily contested conventional planting approaches in the urban context.

Roberto J. Rovira

ASLA
Chair/Associate Professor, FIU
Studio Roberto Rovira, Principal



Roberto Rovira is principal of Studio Roberto Rovira, Associate Professor, and Chair of Landscape Architecture + Environmental and Urban Design at FIU in Miami. Roberto has been recognized nationally and internationally for his work as an educator and professional by ASLA, CELA, IFLA and AIA, the Architectural League and Fast Company Magazine.

Using Design, Engineering, Education & Science to Support UN Sustainable Development Goals (SUN-B08)

60-Minute Education Session

Sunday November 21, 2021

2:00 PM – 3:00 PM

Room 106



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I. Introduction

II. Sustainable Cities and Communities - UNSDG Goal 11

- A. Protect and safeguard cultural and natural heritage
- B. Increase resiliency

III. Responsible Consumption and Production towards Climate Action- Goals 12 and 13 of UN Sustainable Development Goals

- A. Use of Recycled Materials and Byproducts (Goal 12)
- B. Reduced Carbon Footprint of Concrete Based Infrastructure (Goal 13)

IV. Life Below Water - UNSDG Goal 14

On global and local levels of action.

- A. Climate change mitigation and adaptation efforts
- B. Enhance contribution of marine biodiversity
- C. Increase scientific knowledge and develop marine technology
- D. Case Studies

V. Life on Land - UNSDG Goal 15

On place and people levels of action.

- A. Integrate ecosystem and biodiversity values into local planning and development processes
- B. Implement sustainable design and management
 - 1. Green infrastructure
 - 2. Using low-impact materials
 - 3. Ecological design
- C. Utilize indigenous plant because of the many benefits
 - 1. Low-maintenance and help combat climate change
 - 2. Healthier landscapes for all
 - 3. Ecologically beneficial
 - 4. Water conservation

VI. Quality Education and Sustainable Cities & Communities – UNSDG Goals 4 & 11

On educational efforts on ecological literacy

- A. Educational approaches and pedagogy that leverage technology and combine art and visualization with STEM
- B. A 21st century curriculum: cultural identity, resource efficiency and disaster risk reduction
- C. The Ecological Atlas as a tool to democratize environmental education for sustainable development and decision-making

VII. Questions and Discussion (5 minutes)

Learning Outcomes

1. Understand key environmental issues related to the design of coastal and marine infrastructure as these relate to the UNSDG, and how they impact natural habitat conservation in urban marine seascapes.
2. Address the means for applying principles related to "urban nature" that are commonly assimilated in terrestrial urban projects to urban seascapes.
3. Discuss how incorporating living elements and ecological design into local planning, development, and education can mitigate climate change and reduce vulnerabilities for local communities as outlined in the UNSDG.
4. Present innovative technologies and design strategies to communicate complex ecological information and increase public literacy and value of urban land and marine infrastructure.