

MON-B06 - Why Are Soils a Problem in Landscape Design and Construction

Monday, October 22
10-11:30 AM

Session Overview:

There is a soil–plant continuum—an ecological symbiosis—that is essential for the growth and sustainability of all vegetation. Healthy plants and soil are inseparable and exist as one living system. This session will demonstrate how soil principles are essential components of the landscape system.

Learning Objectives:

- Understand why soil physical structure, chemistry, and biology work together to support planned vegetation (and why they may differ between various plant communities).
- Understand how climate interacts with plants and soil to contribute to and build the health of the soil and vegetation system, using the plant as the "power plant."
- How small- to large-budget projects benefit from simple soil-plant strategies to increase landscape success, and how standard practices and today's technology are used to monitor success of the soil-plant system.
- Learn why it is important to work with contractors to understand the system prior to bidding and execution of the contract.

Moderator:



Tim Kirby, ASLA
Principal
Surfacedesign, Inc.

Tim is a principal with Surfacedesign, Inc. in San Francisco, CA. Tim brings a design rigor to each project, amalgamating spatial and emotive ideals into well crafted and finely executed projects. He is investigative and incessantly curious about emerging technologies and operational strategies. As an integral part of the firm's leadership, Tim serves as technical director for many of the firm's projects, including the Uber Mission Bay Campus, Detroit Hudson's Site and Expedia Headquarters in Seattle.

Panelists:



James Sottilo
President/Owner
Ecological Landscape Management

James Sottilo, founder of Ecological Landscape Management, is a nationally recognized lecturer, arborist and consultant. James has built his career around his passion for the natural rhythms of nature and has continued to pioneer the industry through his design of innovative landscape ecology practices, research and technology. James has served as a key speaker at conferences such as the ASLA's Annual Meeting and Expo, Atlanta's Organic Land Care Symposium, and New York's Botanical Garden presentations; his ideas and experiences have been highlighted in publications such as the Boston Society of Landscape Architects Fieldbook and Landscape Architecture Magazine.



Theodore Hartsig
Senior Scientist
Olsson Associates

Ted is a professional soil scientist with expertise in natural resources, urban environments, and ecosystem restoration. He is a leader in the development of soil and plant management strategies in both urban and rural landscape projects. Ted's experience includes working with the design teams in for landscapes at the George W. Bush Library in Dallas, the Gateway Arch in St. Louis, native landscapes at Notre Dame University, and Tulsa's Riverside Park, among many other landscape development projects. Ted has developed and conducted workshops for the design and construction of stormwater BMPs, native landscapes, sustainable cities, and soil restoration and management.

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Annual Meeting
and EXPO
October 19-22
Philadelphia

Part One:

Introduction and Overview:

A review of the past decade of soil science within the Landscapes Architecture community. *What has worked? What has not? How does it all fit into sustainability?* We will look closer at the importance of plants in creating soil and how the two are actually one living and breathing organism.

Part Two:

A review of soil structure, the importance of clay, understanding compost and the organisms that make the system work.

- Why clay is the heart and soul of soil
- Soil texture and soil structure mean different things - why structure is more important than texture
- Why quality compost is important - immature vs. mature compost and carbon retention
- Mycorrhizal fungi - part of the plant and part of the soil. Understanding the importance of these fungi and how to set performance parameters based around these organisms
- Microbial Soil Sequestration - creating carbon sinks in your landscapes

Part Three:

How to recycle “poor” site soils, understand water management and encourage plant health.

Case Studies:

- Houston Botanical Garden
- Rockefeller Center - historic rooftop landscape modification
- Residential Landscapes - simple soil management
- Pier 45 - a study into 16-year-old sand-based soils and their impact on plant systems
- St. Louis Arch - mycorrhizal fungi development in Plane trees - a statistical study
- St. Louis Arch - dealing with compaction

Part Four:

The voice of the people. Popular topics and common questions among Landscape Architects and Designers.

Part Five:

Q&A