SAT A-05: 3D Modeling: Capturing, Creating, and Conveying

Type: Education Session
Time: 11:00 AM - 12:30 PM
Location: Boston Convention and Exhibition Center, 204

A landscape architect’s workflow typically involves three primary tasks, capturing the existing situation, creating a design to meet the client’s needs, and conveying the design intent to interested parties. While pen and paper will never be replaced, 3D softwares now extend our capabilities to become more efficient, accurate, and reach a broader audience.

Learning Objectives
Why high definition terrestrial laser scanning can save time, money, and astound your clients.

How recently released softwares can create efficient and realistic landscapes.

Which tools help you communicate most effectively with your client and interested parties.

Primary Topic
Technology

Daniel Tal
1. Introduction: Why 3D Visualization is not only desirable, but necessary to convey design intent, and to work out project complexities
2. SketchUp 2013
   a. What are some of the new features associated with SketchUp 2013
   b. How can these new features improve your workflow
   c. Recommended plugins for SketchUp
3. Lumion 4 new features

David Leonard
4. LumenRT 4 Advanced
   a. Proxy elements (animated trees, vehicles, people, animals)
   b. Import of Vue objects
   c. GeoDesign (CityEngine plugin)
   d. Revit plugin
5. Plant Factory
   a. Plant creation method
   b. Outputs
   c. Uses in landscape architecture
6. Vue 11.5
   a. Ecoparticles
   b. 360 Degree object population
   c. Illumination caching
7. 3DS Max 2014 Overview of new features
   a. Populate
   b. Photo perspective match
8. Future trends

Brian Laird
9. Capture: HD laser scanning
   a. Accurate capture of existing conditions for the best design
      i. Starting a design with the best information
      ii. Confident in physical dimensions
   b. Virtual Site Visits
      i. Return to the field from your desk
      ii. Enable all project team members easy access to the detailed information
   c. Process of a 3D laser scan
      i. Field procedures + office processing + production of deliverables
   d. Demonstrate several uses of a 3D laser scan
      i. This is cool, but how does a designer leverage the information
   e. Integrating with other design tools
   f. CAD, Revit, Sketchup, 3ds Max, Internet Explorer

Donnie Longenecker
10. Creating
    a. Use of HD scanning to facilitate design
       i. Start with the end in mind
       ii. Generating business with the efficiency of technology
11. Finding hidden objects in the landscape
12. Historic preservation
13. Additional softwares to process HD laser scan data

Daniel Tal, ASLA
Moderator
Ambit 3D Modeling
Lakewood, CO
United States
Daniel Tal, RLA, ASLA, is a licensed practicing landscape architect in Denver, Colorado, and a Trimble SketchUp specialist who conducts workshops and seminars on SketchUp for landscape architects and architects. Daniel also consults on SketchUp tools and future SketchUp developments to meet the needs of landscape architects and architects, and helps Beta test SketchUp releases.

David Leonard, ASLA, AICP, LEED GA
Presenter
KTU+A
San Diego, CA
United States
David Leonard is a Senior Associate with KTU+A Planning and Landscape Architecture, managing projects and workflow in urban design, visualization services, federal planning, and resource management services. He specializes in habitat planning and design, park master plans, GIS, and 3D modeling and animation.

**Brian Laird**  
Presenter  
Rick Engineering Company  
San Diego, CA  
United States

Brian has over 18 years of professional surveying and technology experience and is a Manager, leading the Civil Technologies Group, at Rick Engineering Company. This group includes GIS and 3D Laser Scanning specialties. He has worked through several positions in the company ranging from engineering CADD operator, Survey Analyst, GPS Survey Coordinator, Photogrammetry Coordinator, GIS Manager and Project Manager of 3D Laser Scanning and GIS. This broad background enables Mr. Laird to consider and understand all aspects of a project from conception to final deliverables and to streamline interdepartmental communication, resulting in a cohesive and imaginative on-time product. He is an expert at data collection, processing, display and publishing using a wide array of integrated technology tools. Mr. Laird is a licensed Professional Land Surveyor.

**Donnie Longenecker, ASLA**  
Presenter  
DTC, Inc.  
Hull, GA

Donnie Longenecker, the founder of DTC, has been involved the land development for over 20 years. In addition to his duties as founder and principle of DTC, he is a lecturer in the University of Georgia's College of Environment and Design. He teaches design studio classes in Computer Aided Design, Engineering, Land Planning, Environmental Planning, Recreational Design and Landscape Construction.