



PARAMETRIC DESIGN WORKSHOP

Revit + Rhinoceros + Grasshopper + Sketchup

Student workshop | 9/28/2020, 5:00 PM - 7:00 PM

Patrick Chopson, AIA, co-founder

Focusing on the crossover between architecture and technology, Patrick Chopson leads cove.tool, a web-based software company delivering daylight, cost, and energy modeling for buildings. He oversees product development and customer acquisition as a co-founder. cove.tool optimizes cost vs building performance to power data driven decision making. He graduated in 2014 with a Master's in High Performance Buildings from the Georgia Institute of Technology. Multiple publications have written about Patrick's impact in the AEC industry including Architect Magazine, Tech Crunch, Site Selection, ArchDaily, and more. He is a licensed architect with over 16 years of experience in both architecture and mechanical engineering firms. His undergraduate in architecture is from Kennesaw State University in Marietta, GA.

Objective

This workshop will showcase a simple automated parametric methodologies to make data driven, early stage design decisions while optimizing for cost and performance. Course will demonstrate how to use automated energy, daylight, glare, radiation, views, embodied carbon, water, COVID score, and run cost vs performance optimization for their project. Participants will learn through case studies on successful application and will have the opportunity to create their own analysis using cove.tool, guided by the software co-founder, Patrick Chopson. This is an excellent session for all architectural practitioners, researchers and students that have the passion to gain knowledge in the latest tech in architecture.

Please have an account and a 3d Model with the cove.tool plugin installed before logging into the workshop.

Agenda:

1. Performance in Buildings [45 minutes]

- Understanding the need for early stage analysis
- Daylight
- Glare
- Radiation
- Views
- COVID Social Distancing Score
- Energy
- Water
- Weather diagrams
- Passive strategies

2. Cost vs Performance Optimization Workflow [15 minutes]

- Overview
- When to use it
- When to not use it

3. Case Studies [15 minutes]

- Emory University/Georgia Tech Student Center
- Tampa Tower Project

4. Hands On Workshop and Discussion [45 minutes]

Technology Requirements

Cove.tool Account: www.covetool.com

Cove.tool Plug-in: <https://www.cove.tools/plugins>

Participant may use Revit, Rhino, or Sketchup for 3D import:

Rhinoceros 6: <https://www.rhino3d.com/download/rhino-forwindows/6/evaluation>

Revit: <https://www.autodesk.com/education/free-software/featured>

Sketchup: <https://www.sketchup.com/plans-and-pricing/sketchup-studio-forhigher-education>

Organizers

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