Digital Detailing is a 3-unit design media workshop that will immerse students in the concepts and techniques intrinsic to both procedural and associative digital design spaces.

In the preceding decades, the role of computing technology in architecture has reached a state of ubiquity, having assimilated into every conceivable corner of the profession, and at every stage of design. Techniques of representation, methods of construction, and approaches to formal exploration, discovery and manipulation have all been transformed by the high-level deployment of computing software in the design fields. This course seeks to interrogate these concepts and techniques in both the two- and three-dimensional realms, with manifestation in both physical and digital production.

Intermediate through advanced generative design strategies will be explored and developed, using the Grasshopper and Rhino modeling environments. The course will be conducted via three interrelated projects, incorporating intensive 3D modeling techniques, robust and flexible parametric design spaces, and hybrid drawing work flows. Additional emphasis will be placed on 3D visualization & rendering techniques.

A working knowledge of Rhino is assumed, however no GH experience is required.

OBJECTIVES & PROJECTS

This course will follow an ambitious trajectory across representational mediums. It is critical that you maintain the schedule and prioritize deadlines in order to keep pace with the course. There are three projects, each culminating in various reviews:

**Project 1 - Digital Detailing:** An intensive Rhino-based modeling assignment. Pick a real-world construction detail to precisely model and document. Develop drawings and photorealistic renderings of the detail, utilizing advanced / experimental linework and visualization techniques to create hybrid drawings.

**Project 2 - Parametric Precedents:** A Grasshopper-intensive workshop, in which we (as a group) develop a robust parametric definition for an existing pavilion structure. Each student will document the pavilion, exploring drawing output and diagramming strategies from parametric space.

**Project 3 - Remix:** An experimental design project, in which each student will identify, isolate and hybridize formal and systematic logics of the two case study projects into a single new tectonic formation. Workflows will focus on integration of GH plug-ins for structural optimization and form-finding.

THE INSTRUCTOR

John L. Brockway is an architect and educator based in Bend, Oregon. He holds degrees in architecture from Columbia University and the University of Oregon. His professional experience with award-winning firms in L.A. and NYC includes the offices of Michael Maltzan and Angelil / Graham, among others. As a design instructor, he has taught numerous courses in graduate and undergraduate architecture programs in California and Oregon. In 2014, John co-founded Lightfoot A+D, a young practice producing design, objects, and identity across scales. www.lightfootarchitecture.com