



Design Research Studio; HJA Experimental Forest with DBB

Fall 2021

LA 4/594

Time: Monday, Wednesday, and Friday. 1-5pm

Location: Lawrence Hall, room TBD

Instructor: David Buckley Borden (he/him)
Lawrence Hall, Room 381
dborden4@uoregon.edu

Teaching Assistant: NA

Curricular Context: Required studio in the
BLA and MLA degree programs

Studio Prerequisites: Successful completion
of (3) 489 or 589 studios

Office Hours. Immediately following studio on
Mondays and Wednesdays, or by appointment.

Credits: 6

Mid-term Review: TBD

Final Review: TBD

Studio Description

This design research studio is organized around “maker-based” research methods that actively employ solution-driven creative workflows within an iterative design process. Students will learn a variety of “research through design” skills that will be transferable to a range of landscape architecture applications and scales. The site, inspiration, and initial community partner for the studio will be the HJ Andrews Experimental Forest (HJA) in Blue River, OR.

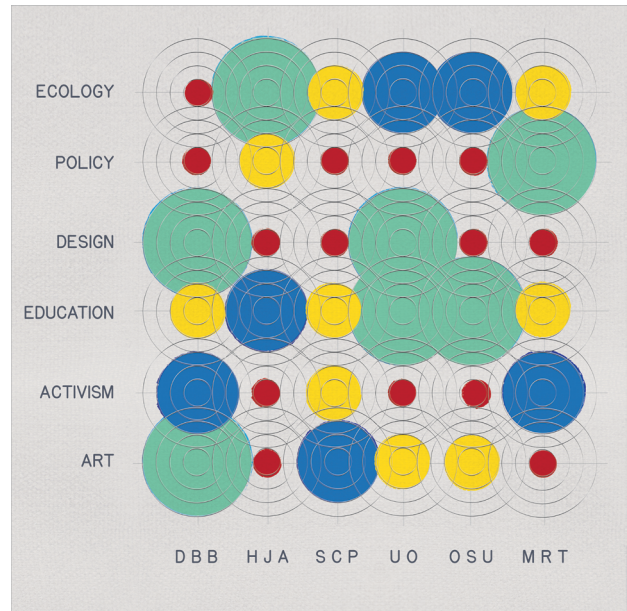


Students will select their own design research topics in response to the place, research, and community of the HJA. Potential topics of inquiry include forest management, watershed stewardship, carbon dynamics, and natural and man-made disturbances, including wildfires. A list of HJA research programs can be found [here](#). Building off HJA’s research efforts, successful studio projects will foreground pressing environmental challenges of the Anthropocene, in terms of both design problem and final solution.

Final self-directed studio projects will vary in response to student interests and goals, and will likely manifest in a variety of design products ranging from functional prototypes to landscape installations to other place-based projects. Examples of potential final projects include: science-comm landscape installation at local satellite site with similar ecological conditions, or a “direct-action design” for public-facing research-driven installation in an urban park.

Design research methods will be incorporated in all stages of the design process and include both indirect (literature, case study, and precedent review) and direct methods of design inquiry. Direct design research will include site inventory and analysis, but also employ research tools to drive concept generation and the application of concept to site. **“Research through making” will be central to the studio experience.** The studio’s process will expose students to a diversity of design research approaches, and includes artistic, adaptive, analytical, and systematic methods.

Students are welcome to leverage this studio to support their final “comp” or master’s thesis, provided it is its own discrete project.



HJA Design Research Drawings by DBB: Context map, inventory diagram as stakeholder research tool (top), and sci-comm installation concept drawing as community outreach (bottom).

Context

The [HJ Andrews Experimental Forest](#) (HJA) is a landscape of inquiry. Its mission is to support research on forests, streams, and watersheds, and to foster collaboration among ecosystem science, education, natural resource management, and the humanities.

The HJA is a center for ecosystem research in the Pacific Northwest. The research program has its roots in the establishment of the HJA in 1948 by the US Forest Service. The Andrews Forest became a charter member of the National Science Foundation's Long Term Ecological Research (LTER) program in 1980. Long-term measurement programs continued on experimental sites and watersheds with a focus on questions about climate, streamflow, water quality, vegetation succession, biogeochemical cycling, and effects of forest management.

HJA research is ongoing, and continues to reveal surprising and important information relative to landscape architects and other allied professions proactively engaged in environmental stewardship.

Also relative to the design research studio is the [Long-Term Ecological Reflections \(LTEReReflections\)](#) project, an arts and humanities program that takes place at the HJA and will continue for 200 years (2003 to 2203). The mission of the Long-Term Ecological Reflections program is to bring together writers, humanists, artists, and scientists to create a living, growing record of how we understand the forest and the relation of people to the forest, as that understanding and forest both change over time.



HJ Andrews Experimental Forest Research: landslide simulation flume (top), decomposition research cookie (middle), and heavily instrumented old growth tree (bottom).



Studio Format

The studio format will be organized around rigorous project work, one-on-one critiques, pin-ups, peer reviews, guided class discussions, presentations, and guest lectures from HJA, Harvard Research Forest, Rios, and other professionals actively engaged in design research as part of their creative practice.

The studio will be organized around a variety of hands-on design research methods that include the creation of drawings, models, and props, as intentional research methods for concept development, community engagement, and final design proposal. This studio will emphasize physical making in and outside the Lawrence Hall wood shop with Tom Coates.

Outside of studio time, students are expected to complete exercises, develop drawings for intermediate submissions, and prepare for the final reviews.

The studio will generally follow a regular schedule as follows.

- Monday: lecture and or workshop
- Wednesday: desk critique and discussion
- Friday: desk critique, pin-up and reviews, and **weekly submission** of week's assignments.

Learning Objectives

By the end of this design-research studio, you should be able to demonstrate the following:

- An understanding and working knowledge of design-research methods and practices in transforming environmental research into a solution-driven, place-based design project;
- Knowledge of research-by-design methods including both direct and indirect modes of practice, including experimental workflows in both digital and analog media;
- The ability to clarify communicate your design-research in support of your final design project through effective graphic communication and written narrative;
- Proficiency in designing in a professional setting, including project organization, workflow, file preparation, and final presentation of a professional quality research-driven design project;
- Ability to balance the demands of a rigorous design-research project while simultaneously enjoying the creative process; specifically, have fun.