



material things

ARCH A4800-1, Spring 2018

Material Things

one if by hand, two if by machine

Tech Elective, 3 Credits

Wednesday, 7-9 PM, Avery 115

Workshop + Seminar

Instructor: Josh Jordan

This course introduces students to fundamental properties of materials and fabrication techniques, in the combined format of a **seminar and physical workshop**. It will provide hands-on experience in building skills, focusing on the connectivity of analog and digital methods, as well as encouraging a type of engagement with making physical things that is analytical and creative.

The title of the course is literal in that it is a fabrication workshop concerned with the nature and performance of materials, examined and tested through direct experience. The title is also a reference to our necessary attachment to materials and material things as designers, and a nod to the productive cultural institutions that emerge around the act of making.

As such, the course will examine the relationship between materials and methods by engaging (through discussion and workshops) the conceptual and historical themes that establish making as an **act of design thought**. This will include discussion of the history of making as part of design education, making countercultures, and the reexamination of craft vis a vis digital fabrication.

The semester will be broken into **three acts**, each centered on a fabrication theme and deliverable physical project. Each part will have an associated conceptual prompt, technical lesson, and design workshop. Activities incorporated into these acts may include but are not limited to: studio and workshop visits in the tri-state area, invited thinkers and experts, whole-class exercises, and multimedia-driven critical discussion.

ACT 1 : GARMENTURE

+ Project Runway: Bauhaus : intervention on body geometry, fabrication of a full-size garment.

ACT 2 : DIGITAL DETAILS

+ Every detail is a joint : the study and reimagining of a material joint and/or joinery system.

ACT 3 : MATERIAL THINGS

+ Beauty is (not) in things themselves : exploration of a material technique, making a material artifact.

Honoring the DIY ethos culturally entangled with 'making,' seminar discussions and project critiques will be largely student-driven, curated in formats conducive to student participation as productive self-critics. This will emphasize the use of multiple media and formats to present and critique work. Key points in the development of projects will be supported with the help of guest critics--subsequently, final project reviews will engage different audiences, both internal and public.

As such, **participation** forms the nucleus of the course and emphasis will be placed on opportunities for participation and conceptual engagement, in addition to the course's goal of the development of real fabrication skills.

Students will also be encouraged to feel at home as navigators of the Fab Lab and bearers of its knowledge and mission going forward.

General Schedule:

Week 1 - Orientation, Act 1 Intro:

Week 2 - (Wed + Fri) Act 1: Catwalk

Week 3 - Act 2 intro + CNC mini assignment

Week 4 - Act 2 Check in + TRIP one

Week 5 - Workshop 2 - Material Lab

Week 6 - (midterms begin) Act 2 Delivery

Week 7 - (Kinne) workshop+tutorials

Week 8 - SPRING BREAK

Week 9 - Regroup + Act 3 intro

Week 10 - Act 3 Check-in + TRIP two

Week 11 - Act 3 work session + consult

Week 12 - Final discussion

Week 13 - Act 3 delivery

Skills and Competencies:

+CNC routing, 3 and 4 axis

+CAM machining and tooling

+Power equipment proficiency

+Representation vis a vis making

+Tool handling and familiarity

+Alternative crafts, casting and forming

+Making and testing new materials

Inspirations + Instigations

(non-required background reading)

Architecture or Techno-Utopia?

+Felicity Scott

The Tell-Tale Detail

+Marco Frascari

Earth Moves

+Bernard Cache

The Projective Cast

+Robin Evans

(online architecture flame wars)

+*The Internet*