Fall Workshop: SUPER COMÚN, A Super-Scale Communal Sound Interface
Design/Build Belluschi Fellowship
Research and Exhibition
MIT Semester: Fall 2022

Instructor:

Deborah Garcia (deborahg@mit.edu)

Course Meetings:

Wed 2-5pm 3-329

Course Description:

This Fall workshop will work on the design and production of a paneling system for a sound installation designed by faculty and Belluschi Fellow, Deborah Garcia, for exhibition this Spring at MIT. The installation centers on the design of an interactive sound system and seating space. This course will focus on the design and fabrication of wood and mycelium panels to clad the surface of the project.

Course Organization:

This workshop is focused on the design and production of an installation resulting from the Belluschi Fellowship research period.As such it is carefully calibrated to material and structural concerns that include a tight schedule and budget. Students will work collaboratively with the faculty member as well as an engineer, a software developer, and a robotics fellow to define the project's formal and material details.

Course Objectives:

- Course Objective 1: Design of an installation for exhibition Spring 2023.
- Course Objective 2: Production of presentation materials for Keller Gallery satellite exhibition.
- Course Objective 3: Development of structure and material specification.
- Course Objective 4: Collaboration and engagement of public discourse.

Project Overview:

Phase A

Project 1: Material Testing in Collaboration with Ecovative Mycelium Foundry

Students will develop shop drawings, material tests, and a production plan for the fabrication of the installation's paneling system. We will work with material donated by the Ecovative Mycelium Foundry and will work closely with an engineer. Students will also participate in direct workshopping with teaching fellow Myles Sampson and engage with milling/robot resources at MIT and the Autodesk Seaport Center. All construction drawings and their production schedules as well as direct fabrication will be student-led. Students will have hands-on experience in conceptualizing building strategies while testing, challenging, and innovating in the face of real-world physical constraints.

Project 2: Development of Installation - Students will develop and fabricate a paneling system for the sound installation's first performance and recording period in Winter 2022. The recording residency period will be sited at the Midway Artist Studio's Production and Performance Lab followed by the project's first public installation in Spring 2023 with a satellite exhibition at the Keller Gallery.

Project 3: Presentation for Exhibit Columbus - In the case that we get the project, the Exhibit Columbus installation will build on the research developed in the MIT Fellowship period focused on sound and communal interactive experience. The proposal for Exhibit Columbus focuses on the weather and fireproofing of the sound installation for exhibition in Columbus, Ohio. The first presentation to the jury and community is scheduled for October 22, 2022. Students will help in the production of presentation materials that will include:

- Final model 1/16"
- Model film + animation composition
- Drawings 1/16" =1', Plans X2, Sections X2
- Renderings: Day View, Night View, Rain View
- Structural Diagrams and Fabrication Drawings
- Material Experimentation Documentation
- Schedule for Installation and Soundscape Recording
- Digital Presentation
- Bound Book

Tools and Techniques:

Techniques will acknowledge material cycles and properties, structural and fabrication efficiencies, as well as aesthetic and conceptual goals. Tools will include: Rhino 2D/3D, Maya, Maxwell/VRay Rendering, After Effects, Model Photography/Filming, CNC Milling, Programming, Controlled Fireproofing Techniques, and physical model making (paper, paint).

Course Schedule:

Week 1

- Wed Sept 14: Introduction to Workshop

Week 2

- Wed Sept 21: Material Research

Week 3

- Wed Sept 28: Material Research

Week 4

- Wed Oct 5: Assembly/Production

Week 5

- Wed Oct 12: Assembly/Production

Week 6

- Wed Oct 19: Milling

Week 7

- Wed Oct 26: Milling

Week 8

- Wed Nov 2: Robot Tutorial
- (Optional)Friday Nov 4: On-site Test

Week 9

- Wed Nov 9: Robot Tagging

Week 10

- Wed Nov 16: Robot Tagging

Week 11

- Wed Nov 23: On-site Test 2

Week 12

- Wed Nov 30: Burn Review

Week 13

- Wed Dec 7: Book Final Submission

Week 14

- Wed Dec 14: Printed Book display

Readings / Reference Material

Heschong, Lisa. Thermal Delight in Architecture. Cambridge, Mass: MIT Press, 1979. Print.

López, Francisco. (2004). Profound listening and environmental sound matter. Audio culture: readings of modern music. New York (NY): Continuum International Publishing Group, 82-87.

Vidler, Anthony. The Architectural Uncanny : Essays in the Modern Unhomely. Cambridge, Mass: MIT Press, 1992. Print.

Schafer, R. M. (1977). The tuning of the world.

LaBelle, Brandon. Sonic Agency : Sound and Emergent Forms of Resistance. London: Goldsmiths Press, 2018. Print.