



Carnegie Mellon University

School of Architecture

College of Fine Arts, CFA 201

Carnegie Mellon University

Pittsburgh, PA 15213



SoA CMU MSSD Thesis Projects 2021-22 (Students: Louis Suarez, Kirman Hanson, Colleen Duong, Longney Luk, Tanvi Harkare)

48732: Sustainable Design Synthesis

18/22 Units

Dana Cupkova

Sustainable Design Synthesis is a culminating course of the Master of Science in Sustainable Design (MSSD) program, following the pre-requisite 48731 MSSD Synthesis Prep. The MSSD program is a post-professional research-based graduate program focused on expanding innovative design methodologies that position the built environment as a vehicle of environmental stewardship, centered on architecture's response to climate change. Situated at the intersection of technology, environmental science, advanced manufacturing, computational design, and analysis, the MSSD program leads students to discover new socio-ecological approaches to regenerative, evidence-based design frameworks that operate across scales, while focused on circular economies of landscape systems, production of new materials and more equitable material system assemblies. The Sustainable Design Synthesis course leads students through an independent thesis development, co-advised by wider CMU faculty to develop a complete yearlong design-research project. It is expected that the students establish all precedent work in their area of study, with critical excerpts organized and professionally cited, as well as define their new contributions through field work, simulation, analysis, or prototyping.