On Vessels

Course Information
4.154 Arch Design Option Studio
MIT Department of Architecture
Instructor: William O’Brien Jr., Associate Professor
Teaching Assistant: Louna Bou Ghanem
Research Affiliate: Anne Graziano
Visualization Consultant: Justin Gallagher
Industrial Design Consultant: Chad Harber
Units: 0-10-11 G
Schedule: Thursdays and Fridays, 1:00-5:00 pm EST
Location: 3-415 Studio
Prerequisites: 4.153

Studio Description
On Vessels is a studio concerned with architecture as an act of subtraction and the articulation of voids, rather than a process of addition and the making of objects. Space-making will be conceptualized as acts of removal, displacement, carving, sculpting, excavation, and erosion of material in contrast to the more typical methodologies associated with building; those oriented toward the assembly and orchestration of parts, products, and construction systems. The studio will find inspiration outside of the western canon of architectural precedents in order to ground the studio’s research in, for example, industrial designed objects, works of land-art, and subterranean spaces not typically deemed “architectural.” At the outset of the studio, we will explore the “vessel” as a conceptual model for the containment of space, that will expand the way we imagine the shaping of space at an architectural scale.

The emphasis on the designing of voids is, in significant part, a pedagogical apparatus to draw focus to, and bring new modes of formal/figural rigor to, a relatively yet-undisciplined (this term to be unpacked and debated throughout the semester) realm of form-making in subterranean architecture. Historically, underground space-making has been informed by industrial, utilitarian, militaristic, apocalyptic, and sacred motivations. The studio will eschew programs that are deterministic and/or singular in their means to generate underground space, and instead identify programs that are more pliable, ambiguous, and enigmatic in order to prompt students to develop new forms of discipline/guiding principles for the designing of voids.

Another important aspect to the pedagogical apparatus of the studio is the aim to distill the architectural problem to fewer, yet-more-fundamental, layers of consideration within architecture studio pedagogy. On Vessels is a studio intended to focus students’ attention and effort on the conjuring of form, light, experience, atmosphere, and the engagement with myriad modes of representation that will aid in bringing students’ imaginations to life. Although this studio is one which is ultimately concerned with voids, the studio will be heavily invested in the modeling of objects as a way to depict the voids students are conceptualizing, designing, and developing. The reciprocal relationship between the making of casts and the making of molds/formwork will provide a conceptual space within which students will revel during the testing of, the rehearsal of, and the refining of underground worlds.
On Vessels

Studio Culture
We will aim to foster a culture around (1) intellectual generosity, (2) design and production methodologies that revel in the iterative process, risk-taking, and prolificness, and (3) an abundance of enthusiasm for the investigation and making of architectural form. The studio will support experimentation in different modes of design authorship. Students will be encouraged to consider alternative formats for making, outside of the sole-individual-author model. Modes of representation of great ambition will be entertained in the studio, and in turn, pairs and/or the making of groups of three or four students is possible at various stages throughout the semester, if appropriate to project goals.

The intellectual environment of the studio will be, in significant part, influenced by importance placed on our collective investment in experimenting with modes of representation. We will be looking at modes of representation from a technical, “how-to” standpoint (with consultants joining the studio to run workshops), and, of course, a conceptual, “what-if” standpoint. The studio will meet physically most of the time. We will also look for opportunities to take advantage of new forms of “proximity” enabled by virtual-meeting to bring in critics and consultants who would otherwise be unable to engage with the studio.

Key Dates
Our Mid-Review will be held on March 10th and 11th, and our Final Review will be held on May 6th.

Completion Requirements
At the end of the course students should be able to translate an idea into an architectural proposition and understand the intentions and consequences behind design decisions. Students should also be able to engage with an increasing level of design-research through iterative studies and move fluidly between different modes and scales of design. Conventions of architectural representation and communication through drawing and modeling should be engaged with clarity and intentionality. Students will need to demonstrate application of design skills, understanding of architectural conventions, and ability to sustain an increasing level of research in the projects over the semester. Completion of each of the exercises, rigor in process and clarity in representation, as well as the overall progress of the semester will be fundamental factors in the final evaluation.

Evaluation Criteria and Grading
The following criteria will be used for the evaluation of your work, both in terms of helping your progress and in final grading:

(1) Thesis: How clearly are you articulating your conceptual intentions?

(2) Translation of Thesis: How well are you using your thesis to develop an architectural response to given problems?

(3) Representation Appropriateness: How well matched is your choice of representational means to your intentions?
(4) Representation Quality: To what degree do your representations convey what they ought to?

(5) Oral Presentation Skills: How clearly are you presenting your ideas orally, whether at your desk, or to a more formal jury?

(6) Participation in Discussions: How actively and how constructively are you involved in class discussions?

(7) Response to Criticism: How effectively do you take advantage of criticism from instructors, your classmates and outside jurors?

(8) Auto-Critical Skills: To what extent are you able to critique your own work regularly and effectively?

A: Excellent - Project surpasses expectations in terms of inventiveness, appropriateness, verbal and visual ability, conceptual rigor, craft, and personal development. Student pursues concepts and techniques above and beyond what is discussed in class.

B: Above Average - Project is thorough, well researched, diligently pursued, and successfully completed. Student pursues ideas and suggestions presented in class and puts in effort to resolve required projects. Project is complete on all levels and demonstrates potential for excellence.

C: Average - Project meets the minimum requirements. Suggestions made in class are not pursued with dedication or rigor. Project is incomplete in one or more areas.

D: Poor - Project is incomplete. Basic skills including graphic skills, model-making skills, verbal clarity or logic of presentation are not level-appropriate. Student does not demonstrate the required design skill and knowledge base.

F: Failure - Project is unresolved. Minimum objectives are not met. Performance is not acceptable. This grade will be assigned when you have more than two unexcused absences.