4.154 Design Option Studio, SP22
T/TH 1-5pm

Instructor: Deborah Garcia
Studio Collaborator / Electronics: Nickolas Peter Chelyapov

Dynamic Suprematism, Kazimir Malevich, 1915 or 1916

LOUDSPEAKING MODELS:
Implementing Audio Technologies in Architectural Representation

Course Abstract:
This studio will design audio-focused building interventions, focusing on sites near or around the traditional territory of the Wampanoag Nation. We will consider site and landscape as narrative mediums. In the same way that we think of museums, galleries, monuments and archives as vessels of knowledge, we will equally acknowledge the stories that exist outside of them. We will inquire into the existence of counter-narratives in the land around us that require new forms of interpretation, display, and communication. This studio will emphasize site analysis, the development of building drawings, and the expression of an architectural character that intervenes in the physical environment, while incorporating an education in the fundamentals of electronics and acoustics. Students will learn how sound reproduction works, how to build circuits, and design and build loud-speaking architectural models.
Screenings, readings, and discussion are supported by hands-on workshops in capturing, manipulating, and reproducing sound for integration into architectural models. The live remix, as both media state and storytelling technique, will be employed as a presentation methodology as the studio will culminate in a listening party of architecture's ghost stories.

Course Description:
In this studio we are going to engage the loudspeaker as a space for speculation about parts, containers, apertures, volume, and more. We will begin by examining the history of loudspeakers, from tiny to megascale, contemporary and old, as well as the real-world scenes and events that they often accompany. We will then explore the realm of container articulation, color, scale, and style to begin to speculate on how to extend loudspeaker logic into a speculative exercise in model making. Beyond the loudspeaker as a machine we will look at it as a kit of parts, a 'cabinet of curiosities' or archive that aims to collect, organize, remix, and emit/transfer information into the world. We will focus on the loudspeaker/architectural model hybrid as our end product.

Course Organization:
The course will be organized in three phases leading towards the design of a multi-program architectural intervention on a site of the student's choosing. Every student will incorporate the design of a private dwelling and communal public event space into their project as well as additional programming that responds to site conditions. All programs must exist in pairs- in feedback loops.
The final model will incorporate site and building through a focused and articulated design of ground.

Exercise 01: *Soft Pressures I*, Sound Portraits

Exercise 02: *Soft Pressures II,* Interactive Groundscape

Exercise 03: *Soft Pressures III,* Model Kits

WK1		TH FEB 3	FRI FEB 4
		Introduction + Exercise 01	
WK2	TUE FEB 8	TH FEB 10	FRI FEB 11
	Lecture: Overview Launch: *Soft Pressures I* Tutorial: Introduction to After Effects/ Sound Editing	Desk Crits	
WK3	TUE FEB 15	TH FEB 17	FRI FEB 18
	Tutorial: Introduction to 3D modeling animation with sound	**Archival Visit/ MIT Special Collections**	
WK4	TUE FEB 22	TH FEB 24	FRI FEB 25
	No Class	PIN-UP: Final, Exercise 01 *Soft Pressures I* + **Electronics Workshop I**	
WK5	TUE MAR 1	TH MAR 3	FRI MAR 4
	Lecture: Models Launch: *Soft Pressures II*	Desk Crits Site Distribution/ Conceptual Diagram	
WK6	TUE MAR 8	TH MAR 10	FRI MAR 11
	Electronics Workshop II	**Electronics Workshop III**	
WK7	TUE MAR 15	TH MAR 17	FRI MAR 18

	PIN-UP: Midpoint, Exercise 02 *Soft Pressures II*	Desk Crits	
WK8	TUE MAR 22	TH MAR 24	
	<mark>SPRING BREAK</mark>	<mark>SPRING BREAK</mark>	<mark>SPRING BREAK</mark>
WK9	TUE MAR 29	TH MAR 31	FRI APR 1
	Desk Crits	Desk Crits	
WK10	TUE APR 5	TH APR 7	FRI APR 8
	Desk Crits	MIDTERM PIN-UP: Final, Exercise 02 *Soft Pressures II*	MIDTERM
WK11	TUE APR 12	TH APR 14	FRI APR 15
	Electronics Shop Talk	Desk Crits	
WK12	TUE APR 19	TH APR 21	FRI APR 22
	Desk Crits	Desk Crits	
WK13	TUE APR 26	TH APR 28	FRI APR 29
	Production	Production	
WK14	TUE MAY 3	TH MAY 5	FRI MAY 6
	Production	Production	
WK15	TUE MAY 10		
	FINAL		

Part I Schedule:

Week 1_*Soft Pressures I*_Establishing Language
- Tuesday Feb 8, Lecture: Soft Pressures
  Introduce Site Research + Tutorial
- Thursday Feb 10, Desk Crits

Week 2_Soft Pressures I_Establishing Language
- Tuesday Feb 15, Tutorial
- Thursday Feb 17, Archival Research Workshop

Week 3_Soft Pressures I_Establishing Language
- Tuesday Feb 22, Pin-Up
- Thursday Feb 17, Electronics Workshop I: Introduction

Soft Pressures I **Final Assignment Details:**
- Sound Portrait Drawing, 24" X 36" with Soundscape
- Conceptual Massing Model, 24" x 24"
- Site Research Booklet
- 10-15 minute presentation