Barnard and Columbia Colleges Architecture Department ARCH UN2103 | Summer 2021 | Online and Room 404, The Diana Center Monday and Wednesday 9:00am – 11:50am; Friday 9:00am – 12:50am; Instructor: Kadambari Baxi

Architectural Design: ENVIRONMENTS + MEDIATIONS



Student work: Christina Badal

STUDIO DESCRIPTION

This architectural design studio course explores modes of visualization, technologies of mediation and environmental transformations. These explorations will be used as catalysts for architectural analysis and design experimentation.

Introducing design methodologies that allow us to see and to shape environmental interactions in new ways, this studio course will focus on how architecture can operate as a *mediator* – an intermediary that negotiates, alters or redirects multiple forces in our world: physical, cultural, social, technological, political, and others. The semester will progress through three projects that examine unique atmospheric, spatial and urban conditions. Based on visual and spatial research and analyses, students work on design proposals at varying scales, including: *Micro-Climate Models; Care Field Stations; Communal Infrastructures*. The studio collectively reimagines architectures of inhabitable objects; emergency interfaces and common city-spaces towards critical environmental and social concerns today.

STUDIO PROJECTS

The studio assignments will utilize analog and digital drawings, collages, diagrams, sketches, digital and physical models, animation and videos, etc. The working process involves conceptual and critical thinking, design ideation and iterative experimentation, and architectural representational techniques. Students will work individually as well as collaboratively.

Project 1 | Schedule: 2 weeks *Micro-Climate Models*

Design Brief: An inhabitable object that depicts varying climate zones and macroscopic climate impacts Key Term: *FILTER*

Filters remove particles and impurities, parse data and information or transform optical and other sensorial parameters. Filters may act physically or conceptually. How might this term help us think and act towards addressing the climate crises? This project begins by exploring the art and science of filters. The next steps identify three spatial zones where students map different micro-climates, such as those produced by air, dust, gasses, light, noise, etc. These dynamic environmental factors are recorded using graphic diagrams. Additional layers to the diagram track physically absent but related factors, for example: material supply chains or other temporal conditions. The drawings are used as a guide to recreate micro-climate models that perform as inhabitable human-scale objects. Using material and conceptual filters, the object is designed to be responsive as well as responsible. It regulates climates as well as profiles (mis) information. Its purpose is to make users feel environments that are near-by, exist elsewhere or are yet to come.

Project 2 | Schedule: 1.5 weeks *Care Field Stations* Design Brief: An interface for mitigating crises in emergency Schedule: 1.5 weeks Key Term: *SUBTRACTION*

Care suggests tending aid, giving attention, providing comfort, often in emergencies. It often leads to slowing down, resting, pausing or healing. In a hyper-intense urban environment, an emergency could be momentary, for example, getting lost or finding a public bathroom. It could be event-based, such as getting tear-gassed in a public protest. And finally, it could be dangerous, resulting from accidents or medical incidents and requiring bodily protection. For this project, we will revisit one of the most intense, crowded, noisy, busy places in New York: Grand Central Station. After documenting aspects of its spatial and service infrastructures with moving images, we will design an interface for a *Care Field Station*. With enclosures that reduce sensorial or temporal intensity, the field station will create opportunities for slow, attentive, healing care that aids in mitigating emergencies. The key term for this project "subtraction" will be materialized with architectural strategies.

Project 3 | Schedule: 2.5 weeks Communal Infrastructures

Design Brief: City-Spaces for equal access leveraging interdependencies

Key Term: INFILTERATION

The final project revisits Broadway and 125th St. corner where Columbia University's "Forum" building and public housing projects straddle an overhead subway bridge. Extending what we learnt in the first two projects, we will consider how certain concepts and techniques might infiltrate this complex intersection. Here, monumental bridges, new and old buildings, indoor and outdoor "public" spaces, bring constituents together but also keep them apart. Using interstitial spaces and structural elements above and below the bridge, we will explore opportunities to insert additional *micro-climates* and *care field stations*. The aim will be to design *Communal Infrastructures* that take advantage of certain interdependencies.

LEARNING OBJECTIVES

Upon the completion of this course, students should be able to:

• Demonstrate an understanding of design method as a step-by-step, iterative and incremental process of research, synthesis, and feedback that requires experimentation and risk taking

- Visually communicate design concepts and design intent using discipline-specific techniques of representation
- Utilize analog and digital modeling and visualization techniques in the design process
- Demonstrate the ability to record relations, transformations, and environments

SEN	IESTER SCH	IEDULE		
01	03 May	MON	09:00-11:50	Project 1: MICRO-CLIMATE MODELS
	05 May	WED	09:00-11:50	Desk Crits: Drawings Workshop: Adobe Illustrator
	07 May	FRI*	09:00-12:50*	Desk Crits: Drawings Workshop: Adobe Illustrator
02	10 May	MON	09:00-11:50	Pinup: Drawings + Study Models
	12 May	WED	09:00-11:50	Desk Crits: Models Workshop: Physical Models
	14 May	FRI*	09:00-12:50*	Desk Crits: Models Workshop: Rhino + Physical
03	17 May	MON	09:00-11:50	Project 1: MICRO-CLIMATE MODELS - Review
	19 May	WED	09:00-11:50	Project 2: CARE FIELD STATIONS
	21 May	FRI*	09:00-12:50*	Physical / Virtual Site Visits & Documentation
04	24 May	MON	09:00-11:50	Desk Crits: Schematic Concepts Workshop: Adobe Photoshop / Premiere
	26 May	WED	09:00-11:50	Desk Crits: Concept Development Workshop: Models
	28 May	FRI*	09:00-12:50*	Project 2: CARE FIELD STATIONS – Review
05	31 May	MON	09:00-11:50	Project 3: COMMUNAL INFRASTRUCTURES
	02 June	WED	09:00-11:50	Pin up: Research
	04 June	FRI*	09:00-12:50*	Desk Crits: Schematic Concepts Workshop: Adobe + Rhino
06	07 June	MON	09:00-11:50	Desk Crits: Design Development Workshop: Adobe + Rhino
	09 June	WED	09:00-11:50	Desk Crits: Design Development Workshop: Final project
	11 June	FRI*	09:00-12:50*	Desk Crits: Design Development Workshop: Final project
07	14 June	MON	09:00-11:50	Desk Crits: Design Development Workshop: Final project
	18 June	FRI	09:00 AM	Project 3: COMMUNAL INFRASTRUCTURES – Review