Pedagogy of the Fourth Wall

KEVIN MARBLESTONE
Massachusetts Institute of Technology

EMILY WHITBECK
Massachusetts Institute of Technology

COURSE DESCRIPTION

Contemporary design pedagogy has failed to produce architects that can operate effectively within today's time-based global crises. Embedded in (and dependent on) industries where 'permanence' is measured in 10-30 year warranties and sustainability is achieved by moving points around a spreadsheet, architecture has internalized many of these misconceptions about the nature of time. The type of architecture produced exists asynchronously to the vast temporal scale and complexity of the global climate crisis. The profession must educate a new generation of practitioners that engage a new critical eye on time and develop tools and methods for exploring its cyclical, recursive nature. This project, *Pedagogy of the Fourth Wall*, focuses on rethinking the true beginning of the design profession, the moment of inception, the first-year design studio.

The project is structured as a fictional studio course founded on a working methodology focused on time and perception, rather than program and form. This new framework around time mandates the use of time-based media at the very beginning of the design process. Students work through video and sound to employ abstract structures of composition through the montage and manipulation of image over time. The studio generates new, productive forms of abstraction that directly engage the underlying temporal principles of environmental exchange and material entropy on multiple scales.

ASSIGNMENTS

At the beginning of the course, students are asked to design three vessels that communicate with each other through time. Using time-based media, they define a perceptual language of communication between the vessels through methods of looping and repetition, and consider how this defines a spatial and temporal relationship between them. To respond to this prompt, students work through an iterative process of constructing material artifacts, capturing them through video and sound, editing the sequence of the video, and then redesigning

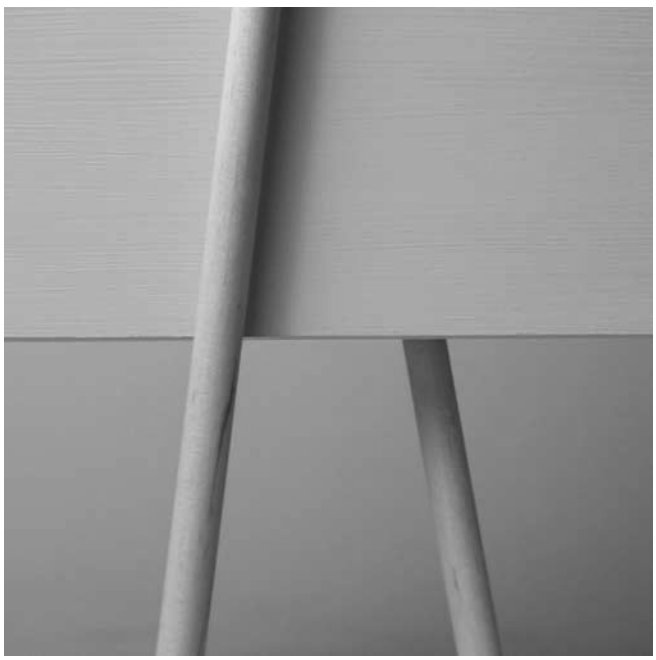

Figure 1. Still image from 30 sec. video: Perception.

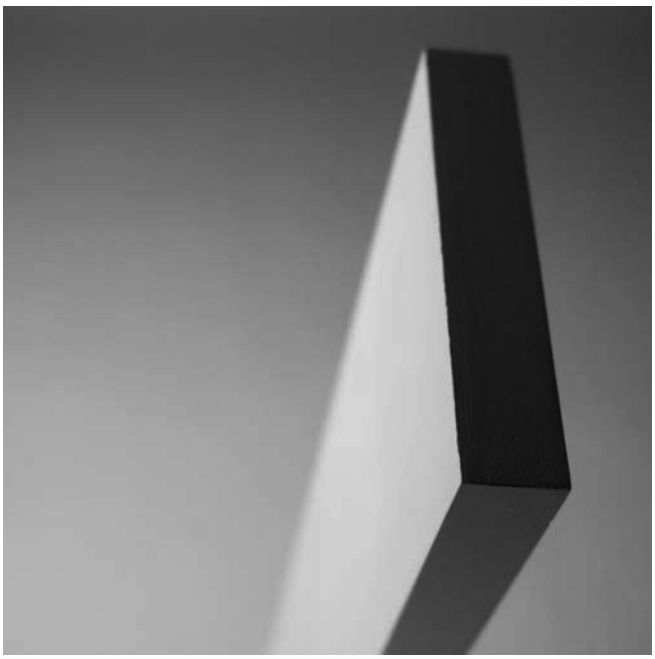

Figure 2. Still image from 30 sec. video: Perception.

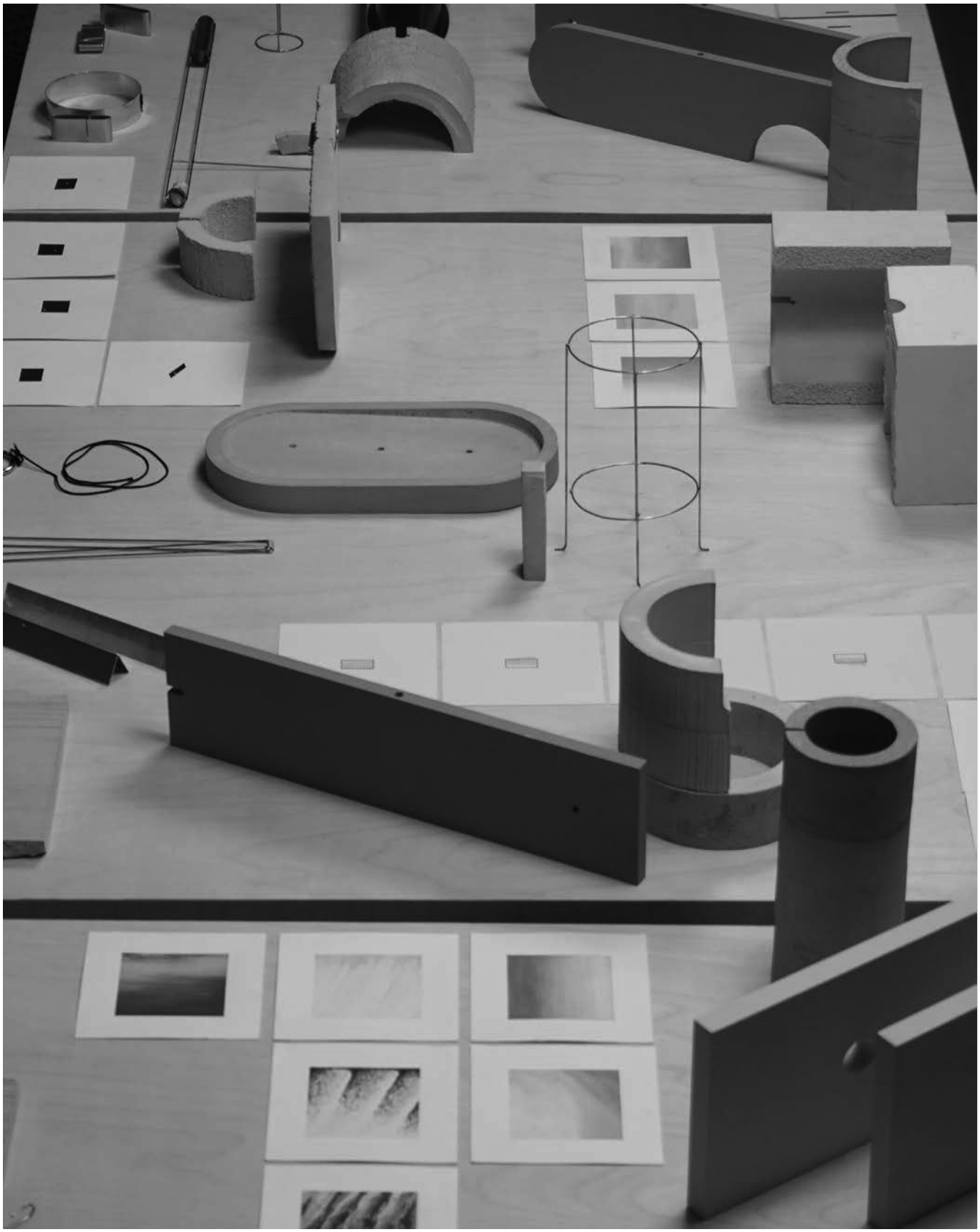

Figure 3. Table display of artifacts and props used throughout the semester. Photo by Kevin Marblestone.

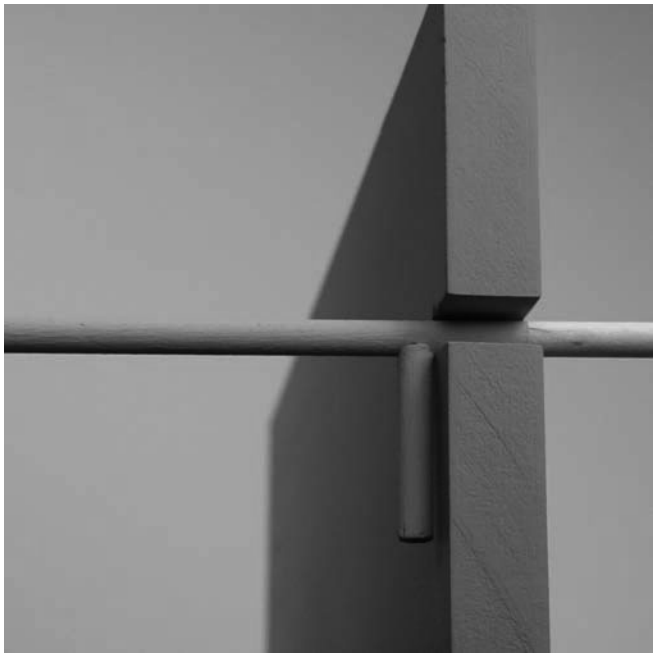

Figure 4. Still image from 30 sec. video: Perception.

Figure 5. Still image from 30 sec. video: Perception.

those artifacts with an evolved understanding. Each student produces three videos over the course of the semester, and each video scales up from the previous one in both duration and scope.

The first exercise is focused on *Perception*, where students explore methods of signaling change over time (see figures 1-5). They produce a 30 second video that employs abstract structures of composition and sequence through manipulation of image, content and rhythm. The students focus on editing strategies to embody, rather than represent or reenact, their language of change. To help contextualize this way of thinking, students are assigned readings like Sergei Eisenstien's *Methods of Montage*[3], and films like Charles and Ray Eames' *Tops*[2].

The second exercise layers in aspects of *Matter* including scale, texture, mass, sound, and energy (see figures 6-9). The students reflect upon the first video and fabricate new material artifacts to produce a 90 second video exploring how material qualities and interactions further define spatial relationships. Students are given precedents for working with aspects of matter in film like Peter Hutton's *Study of a River*[6], and James Gibson's writings[4] on objects and their perceived affordances.

The third exercise folds in aspects of *Environment* (see figures 10-13). Again, the students reflect upon the previous video and produce new artifacts for a 270 second video. This video focuses on systems of assembly and environmental exchange, and considers temporal aspects of soil, water and air at both micro and macro scales. Readings from Donna Harraway[5] and Bruno Latour[7] encourage students to think more deeply and tentacularly about the concept of environment, and films like Charles and Ray Eames' *Powers of Ten*[1] exemplify working at many different scales.

METHODOLOGY

In all of these exercises, relationships are generated between seemingly isolated instances in time, and his process allows the students to imbue their fabricated, abstract artifacts with new temporal capacities. This working methodology establishes editing as the primary tool of a student's design workflow. The exercise guidelines are built around 3 main components of editing: framing, sequence, and rhythm.

The first is *Framing*. Students are instructed to calibrate the relationship between frame composition and artifact tectonics to focus on significant details rather than an entire system. The act of cropping the video necessitates that the student intentionally set a boundary between what exists in frame and out of frame. The crop edge itself can therefore be used as a perceptual tool, as artifacts may enter and exit the frame, or exist only partially within the frame at any given moment. The exercise sets the proportion of this cropping boundary as a square.

This ties into the second editing component, *Sequence*. The cropped nature of the students' videos allow them to be visually open-ended, and thus interchangeable with one another. The act of sequencing videos creates relationships between each one that exist beyond the edge of the frame. Therefore, students can iterate through perceptual and material relationships by shifting image and sound in the editing process.

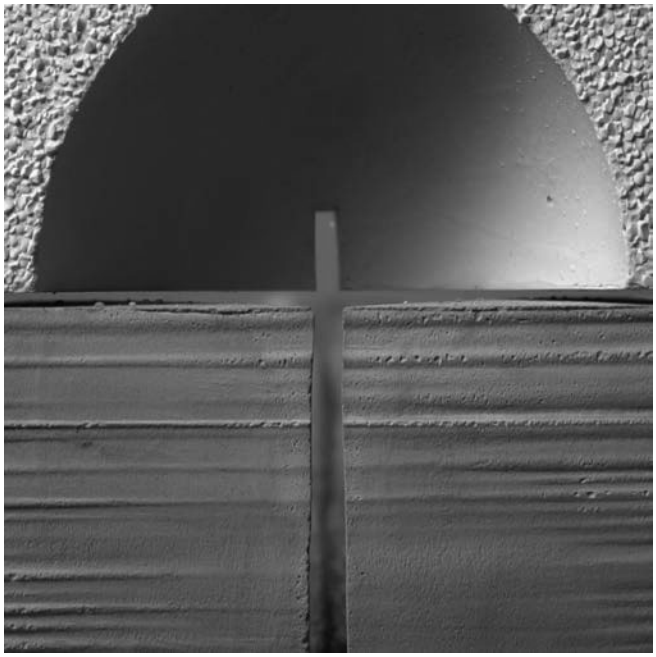

Figure 6. Still image from 90 sec. video: Matter.

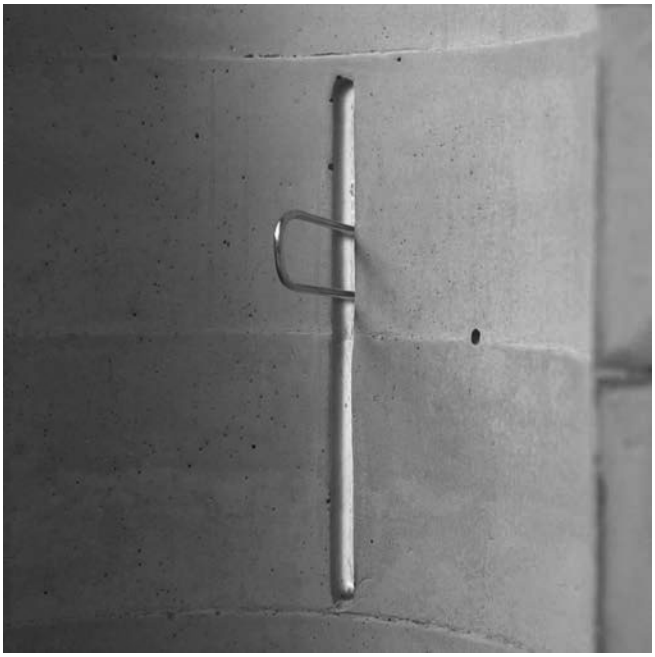

Figure 7. Still image from 90 sec. video: Matter.

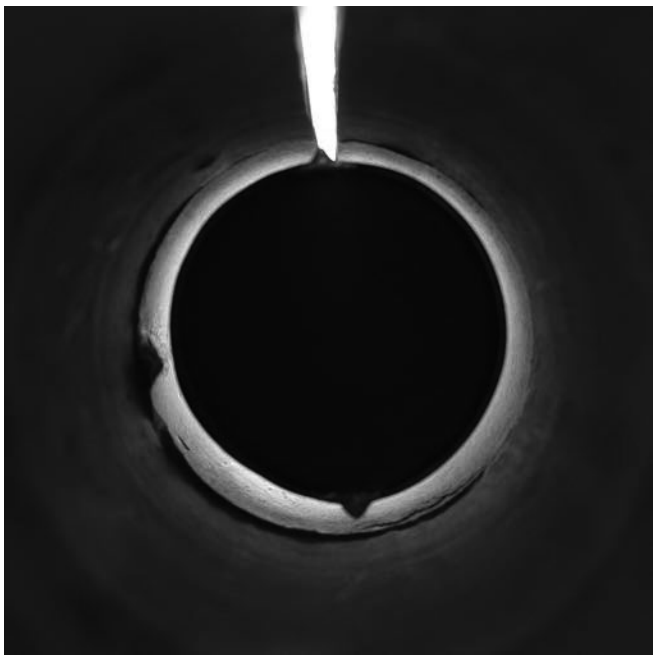

Figure 8. Still image from 90 sec. video: Matter.

Figure 9. Still image from 90 sec. video: Matter.

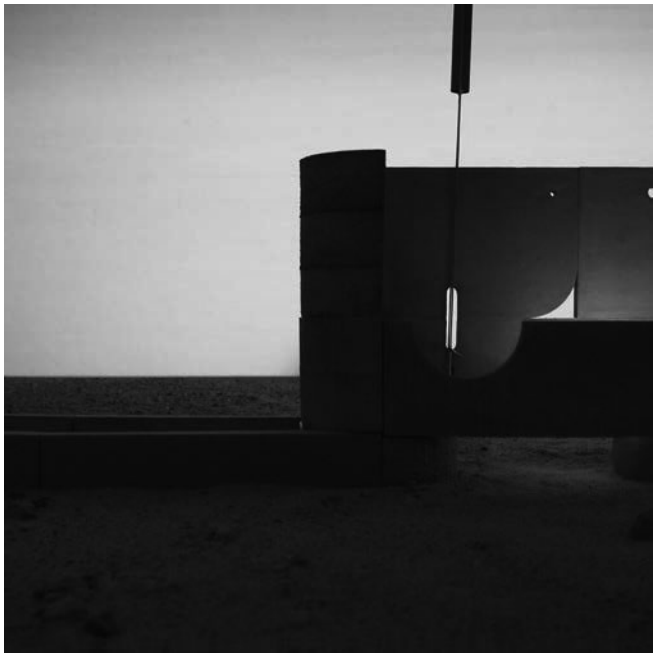

Figure 10. Still image from 270 sec. video: Environment.

Figure 11. Still image from 270 sec. video: Environment.

The final editing component is *Rhythm*. The exercises provide a template for a looping temporal structure for students to begin with and eventually build from. This framework requires students to continuously return to previous frames in their videos, but each time with slight alterations in content and perspective in order to suggest specific physical and temporal relationships between their artifacts over time.

This methodology resulted in the accumulation of artifacts or props that were designed with compatible dimensions to fit together in a variety of ways (see figure 14). On their own, each piece has no specific purpose, they are only given meaning when assembled within the frame of the video.

LOOKING FORWARD

The media students work through directly impacts how they think and grow as designers. These exercises are structured to move beyond inducting students into the profession through static conventions of orthography, instead using time-based media to foster their aptitude for temporal thinking. The videos and artifacts in this project represent only one student's approach to this studio, but deploying these exercises in a full-scale academic context would increase the quantity and diversity of approaches. While these are first year, foundation-level exercises, their impact could propagate through the entirety of an architectural education.

ENDNOTES

1. Eames, Charles, and Ray Eames, dir. *Powers of Ten.* Eames Office, 1968.
2. Eames, Charles, and Ray Eames, dir. *Tops.* Eames Office, 1969.
3. Eisenstein, Sergei. *Film Form: Essays in Film Theory.* Translated by Jay Leyda. New York: Harcourt, 1969.
4. Gibson, James J. The Ecological Approach to Visual Perception. New York, NY: Psychology Press, 2015.
5. Haraway, Donna J. *Staying with the Trouble: Making Kin in the Chthulucene*. Durham: Duke University Press, 2016.
6. Hutton, Peter, dir. *Study of a River.* 1997.
7. Latour, Bruno. "Give Me a Gun and I Will Make All Buildings Move : An ANT's View of Architecture." In *Explorations in Architecture: Teaching, Design, Research*, edited by Reto Geiser, 80–89. Basel, 2008.
8. Richter, Hans, dir. *Rhythmus 21*. 1921.

Figure 12. Still image from 270 sec. video: Environment.

Figure 13. Still image from 270 sec. video: Environment.

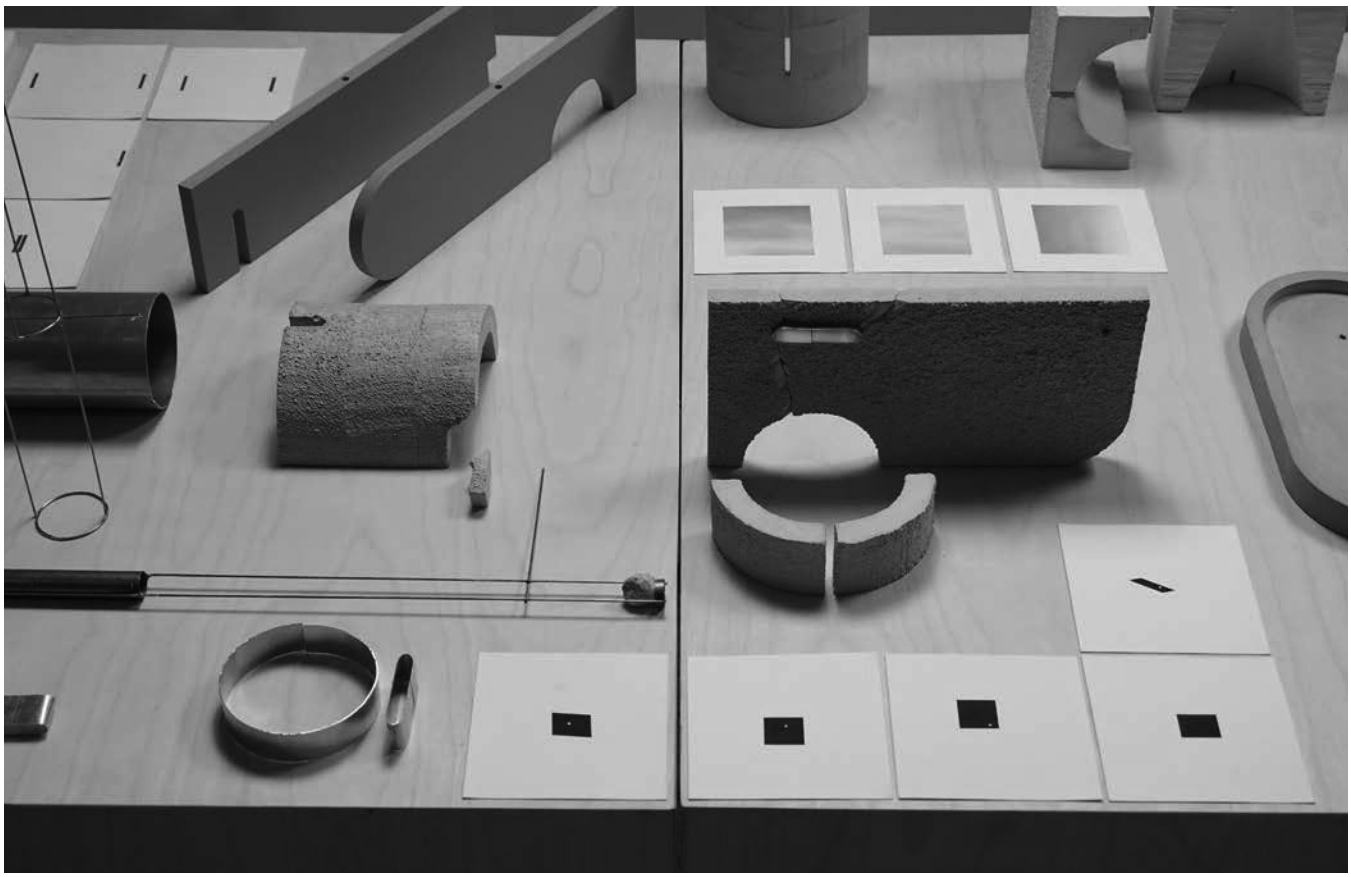

Figure 14. Table display of artifacts and props used throughout the semester. Photo by Kevin Marblestone.