**Choreographing Form: Composition / Anti-Composition**

Term: Spring, 2020
Instructor: Hans Tursack, 2018 - 2020 Pietro Belluschi Fellow
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Office #10-417
Meetings: Wednesday 6:00 - 9:00pm, Room 3-329
Credits: 3-0-6 U/G

“Thus every line already demands of me that inner motion which includes the two impulses: expansion and delimitation. In addition, however, every line, by virtue of its direction and shape, makes all sorts of special demands on me.”

“The first animation type is material: it represents changes and transformations in the substance of objects, transitions from the organic to the inorganic, from animal to vegetal to mineral and so on.”
- Spyros Papapetros On the Animation of the Inorganic (2012)

**Yuri Masnyj Insomnia Bouquet #4 (2003)**
**Richard Tuttle System, VI (2011)**

**ABSTRACT**

This workshop explores the construction of architectural compositions as time-based events using motion graphics, physics engines, and scale models. Design exercises will be supplemented by readings and lectures that track intersections between abstract painting, color theory, choreography, video game physics, and architectural space. The suite of digital videos and models generated during the course of the workshop will make an argument for animation software as an architectural form-generation-technique.
COURSE SUMMARY
Using the Maya animation suite, we will work through simulations and rendered animations using libraries of architectural forms to perform diagrams of movements. These geometric ballets might evoke—on the one hand—known architectural precedents such as El Lissitzky’s *Prouns* and Peter Eisenman’s early *House* series, and artistic experiments in the vein of Hélio Oiticica and Lygia Clark’s Neo-Concrete geometries; zero-gravity arrangements of points, lines, and planes suspended in immaterial, compositional non-space. On the other hand, our work will set elements into choreographed operations borrowed from the movements of human figures. In this, disparate sources such as athletic diagrams, Étienne-Jules Marey’s photo-sequences, and the movements of objects in video games and popular animations will provide kinetic scaffolds for our experiments. Such exercises will imagine fields of primitive surfaces and volumes performing carefully orchestrated postures, falls, and transitions from state-to-state, in pursuit of novel formal arrangements that ask the viewer to project figurative qualities into platonic, abstract constructions.

![Image](https://example.com/image1.png)

MOS, SAND Software (2009)

PROJECT DESCRIPTION
The final deliverables for this course will include one exhibition-quality physical model, and a series of animations (to be executed and rendered in Maya). The scale physical model will attempt to reconcile a stereotomic (cast resin or plaster) construction (read: the "ground" of the project) and a wireframe figure that expresses an animate or choreographed movement.
GUEST LECTURES / WORKSHOP CONVERSATIONS

Guest lectures will supplement normal reading slide-talks and in-class critiques of design exercises.

*Pending

READINGS *ESSAYS/BOOK CHAPTERS SUBJECT TO REVISION

Structure Systems Heino Engel (1967)
Model Perspectives: Structure, Architecture, Culture Mark R. Cruvellier, Bjorn N. Sandaker, Luben Dimcheff (2016)
Moving Vision Michael Schreyach
Abstraction and Empathy Wilhelm Worringer
Accident Andrew Zago (2018)
Jose Dâvila: The Feather and the Elephant (2018)
Carol Bove: Polka Dots (2017)
*The Form of Disorder* Umberto Eco (1962)

**Automatic Architecture: Motivating Form After Modernism** Sean Keller (2018)

**REQUIREMENTS**
This course is designed to investigate visual, conceptual and material principles. Intuition, craft and concept will be privileged over quantitative analysis. It is not designed to fulfill a structures requirement, nor will students be asked to demonstrate a technical knowledge of structures.

**GRADING**
20% Attendance
10% Class Participation
30% Warm Up Assignments (Individual or in pairs)
40% Final Project (Individual or in pairs)

**ACADEMIC POLICIES**

**ACADEMIC INTEGRITY**
From: Office of Student Citizenship, W20-507, (617) 258-8423

In this course, I will hold you to the high standard of academic integrity expected of all students at the Institute. I do this for two reasons. First, it is essential to the learning process that you are the one doing the work. I have structured the assignments in this course to enable you to gain a mastery of the course material. Failing to do the work yourself will result in a lesser understanding of the content, and therefore a less meaningful education for you. Second, it is important that there be a level playing field for all students in this course and at the Institute so that the rigor and integrity of the Institute’s educational program is maintained.

Violating the Academic Integrity policy in any way (e.g., plagiarism, unauthorized collaboration, cheating, etc.) will result in official Institute sanction. Possible sanctions include receiving a failing grade on the assignment or exam, being assigned a failing grade in the course, having a formal notation of disciplinary action placed on your MIT record, suspension from the Institute, and expulsion from the Institute for very serious cases.

Please review the Academic Integrity policy and related resources (e.g., working under pressure; how to paraphrase, summarize, and quote; etc.) and contact me if you have any questions about appropriate citation methods, the degree of collaboration that is permitted, or anything else related to the Academic Integrity of this course.

**SPECIAL ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES**
From: Kathleen Monagle - Associate Dean, Student Disabilities Services
If you need disability-related accommodations, I encourage you to meet with me early in the semester. If you have not yet been approved for accommodations, please contact Student Disability Services at sds-all@mit.edu.

I look forward to working with you to assist you with your approved accommodations.

**STUDENT MENTAL HEALTH**

As a student, you may experience a range of challenges that can interfere with learning, such as strained relationships, increased anxiety, substance use, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may impact your ability to attend class, concentrate, complete work, take an exam, or participate in daily activities.

Undergraduates: Please discuss this with Student Support Services (S3). You may consult with Student Support Services in 5-104 or at 617-253-4861.

Graduate Students: Please reach out to the deans for personal support in the Office of Graduate Education.

For urgent or after-hours concerns, please contact MIT Police.

**DIVERSITY**

MIT values an inclusive environment. I hope to foster a sense of community in this classroom and consider this classroom to be a place where you will be treated with respect. I welcome individuals of all backgrounds, beliefs, ethnicities, national origins, gender identities, sexual orientations, religious and political affiliations – and other visible and nonvisible differences. All members of this class are expected to contribute to a respectful, welcoming, and inclusive environment for every other member of the class. If this standard is not being upheld, please feel free to speak with me.