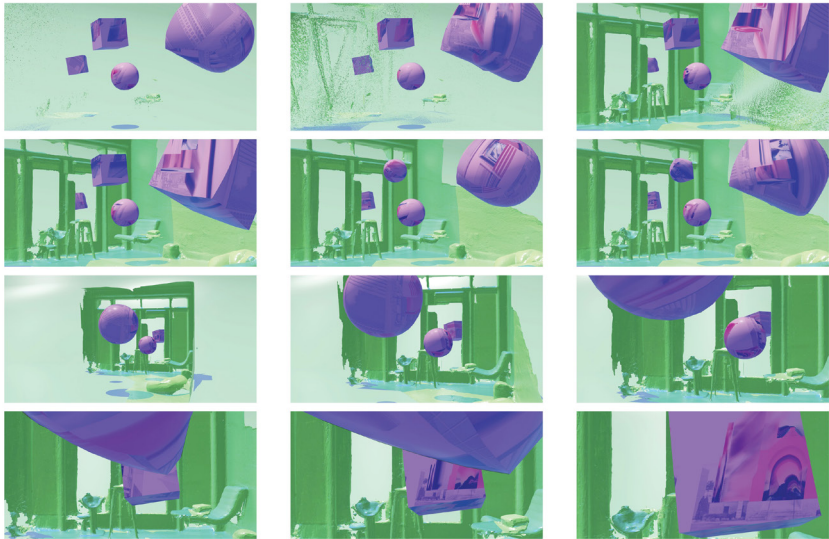


Atmospheric Animations

ARCH 4050/6306 | 3 Credit Hours | Fall 2023 | Instructor: Catty Dan Zhang (cattydanzhang@uncc.edu)

Thursdays 11:30am-2:00pm



Fictional space imagined through interactive webcam drawings, networked media, architectural contexts, morphing geometries and textures.
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Premise:

Atmospheric Animations offers advanced topics in digital media and representation. The course explores the discourse of animation in architecture. Gino Severini remarked in his Futurist Manifestos *The Plastic Analogies of Dynamism* that “speed offers an altered perception of all types of phenomena”, from physical to social and beyond. Given the capacity of machine vision on fathoming spatial and temporal data of swift movements with high accuracy and fine details, human perception of motion, on the other hand, still have great challenges being either quantitatively measured or qualitatively described. Coupling the actual and the perceptual aspects of dynamism, this course introduces theory and technology of constructing animations in virtual and physical environments, to translate time and motion into architectural considerations of form, order, materiality, texture, and event; and to discuss their social, cultural, political, environmental, and technological importance.

Objectives:

- To integrate techniques of computational drawing with principles of optical tools and time-based media;
- To understand the built environment through mediated vision;
- To examine space, time, and perception through theoretical texts, precedents, as well as emerging technologies;
- To explore mechanisms that unveil the relationship between the physical eye and the mind eye; as well as between the factual and the perceptual data of motion;
- To explore measured drawings and raster images as design agency.

Method:

This class consists of technological and theoretical lectures as well as hands-on workshops, including emerging motion graphics software and immersive technologies. Students will be working in groups for design exercises. This course welcomes all students who have interests in digital media and computation. Basic computational skill is a plus but not required.

Attendance:

Full attendance of each class is required. 2 unexcused absences will result in a lowering of your course grade by one letter; more than 2 unexcused absences constitute grounds for automatic failure of this course.

Evaluation:

Participation: 10%; Assignments: 30% (tutorials/exercises/presentations); Final Project: 60%.

Hardware/Software:

Arduino, TouchDesigner, Houdini