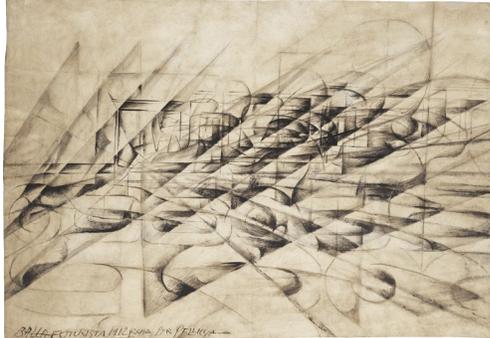


# Atmospheric Animations: Collaborative-Vision in Motion

ARCH 4050/6050/6307 | 3 Credit Hours | Fall 2019 | Instructor: Catty Dan Zhang (cattydanzhang@uncc.edu)

Storrs 272, Thursday 2:00pm-4:45pm



Giacomo Balló  
DISGREGAZIONE X VELOCITÀ, PENETRAZIONE DINAMICHE D'AUTOMOBILE

“Speed opens a way into the entirety of the contemporary world and offers a key for reading it.”

— Paul Virilio, *Paul Virilio interview with Jerome Sans*.

## **Premise:**

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. Empowered by technological innovation, both the spatial and temporal data of swift movements could be fathomed with high accuracy and fine details. Nevertheless, the experiential aspects of mobility still have great challenges being either quantitatively measured or qualitatively described. Through a design-driven process, this class investigates how the power of speed mediates vision from a human-centric perspective, and how such shifted perception might transform the notion of designing architectural spaces and urban forms.

## **Content and Objectives:**

With off-the-shelf technologies that are available to capture and analyze motion, students will experiment with various strategies of perceiving the built environment through the collaboration of machine and human visions. Spatial information will be captured through 3D scanning technologies. Through the action of looping, sweeping, layering, omitting, and scaling, participants in this seminar will customize “speed scanners” and speculate architectural scenarios based on perceptual scans which will hybridize drawing, fabrication, and projection techniques.

## **Method:**

This class consists of technological and theoretical lectures and hands-on workshops. Students will individually complete exercises on tutorials in class, and will be working in groups of three for a multi-phase project. This course welcomes all students who have interests in technology and making, and are passionate about motion graphics, robotics, and interactive design. Basic scripting 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%.

## **Texts and Tools:**

Readings will be available in PDFs. Suggested texts include Paul Virilio, *The vision machine* (Bloomington, IN: Indiana University Press, 1994); Marina Warner, *Phantasmagoria: Spirit Visions, Metaphors, and Media into the Twenty-First Century* (Oxford, New York: Oxford University Press, 2006); Sean Cubitt, *The Practice of Light: A Genealogy of Visual Technology from Prints to Pixels* (Cambridge, MA: MIT Press, 2014); Jones Mather Uchill, eds. *Experience: Culture, Cognition, and the Common Sense* (Cambridge, MA: MIT Press, 2016); Andrew Witt ed., *Light Harmonies* (Ostfildern, Germany : Hatje Cantz, 2014); Madeline Schwartzman, *See yourself Sensing: Redefining Human Perception* (London, UK: Black Dog Pub., c2011).

Softwares and Hardwares include Grasshopper Firefly, Processing, Arduino, Kinect, OpenCV, VisualSFM.