Data killed the drawing star:
Data collection methods, representation and the changing scales of time and place in urban and territorial design

ARCH 423 / 523 Media for Design Development
LA 278, Tuesdays and Thursdays 10:00 to 11:50am
Associate Professor Philip Speranza: speranza@uoregon.edu

Sites change. How do architects and landscape architects measure and visualize site information that is changing?

While some site information is relatively fixed such as public road alignments and private parcel boundaries, other aspects related to urban health such as air, sound and light pollution change and are measured across the day, week and year for patterns of change and data normalization. How can architects and landscape architects critically identify, analyze and communicate new scales of time and scale in data driven design processes?

This class with use Arduino microprocessors for urban and ecological design problems. Specifically the use of new wifi enabled processors and modules will be explored. Sensors of sound, heat, humidity and barometric pressure, light and particulate matter will be used. Design methods will explore how to identify an urban health problem, how to contextualize the problem, how to collect data, visualize data and ultimately design with data in mind. Challenges will address weather, vandalism, privacy, equity and other modes of sensor use.

Site design that may include ground plane design, seating, actuated technologies, planting, materials and topography. Seminar aspects will include reading discussions to establish theoretical frameworks. Questions of data and perceptions of problems in public space, inclusion and accessibility will be explored.

The course will look at successful street designs in Barcelona Superilles as well as challenges there as they relate to local conditions in Oregon cities such as Eugene and Portland. Students will then design a public space.

This course builds on winter 2021 course Granularity of Time with video presentations in Adobe Premiere and printed material:  https://blogs.uoregon.edu/4523f20/category/4-0-final/ and Atmosphere + Design: https://blogs.uoregon.edu/523f17/

Introductory Rhino Grasshopper is required. We may use new plugins Elk, Ladybug, Bison and or Ground Hog. While basic prototyping materials will be available, students may wish to purchase their own starter kits and small sensors.

student work from “Atmosphere + Design” by William Franklin | Betty Lou Poston | Rachel Rimmer