Granularity of Time in Urban Design, Parametric Places 2020

Course Number, Time and Location: ARCH 4/523
Spring 2020, T + TH
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Human experience is sensory. Anthropocentric human/computer sensing shapes our behaviors.
Urban and ex urban behaviors are fundamentally being reshaped in scales of time.
We measure air, sound, light, water, energy, social interaction, housing, inclusion and now Covid19.

This course will focus on the use of Grasshopper GIS Visualization tool ("Elephant") and A other time-based data interfaces to measure, visualize, analyze and understand urban and ex-urban data. In parallel students will study urban sensing problems, understand local perception, read relevant theories, formulate qualities and indicators, collect data, analyze and ultimately design behavioral change. Environmental micro-climatic differences will be studied simultaneously across human scaled urban and non-urban spaces and compared to baseline conditions via EPW weather database files using Grasshopper plugins Ladybug and Diva, often situated at airport weather stations miles away.

Urban design needs to change. We need to measure the granularity of cultural diversity - not the mainstream or majority of market developments and capitalism. Emphasis will be places on visualizing underrepresented urban social conditions especially related to housing and jobs related to mobility.

*Introductory knowledge of Rhino Grasshopper is required or pre-course online tutorials.
https://blogs.uoregon.edu/523f17/ http://www.lcabcn2017uo.wordpress.com,

Scales of Time

METHODS

Class is about time-based urban visualization experimentation.

Basis is GIS VIZ TOOL (*Elephant*) Elk. Data gathering plugins: Galapagos, Mosquito, Leafcutter, etc.

Everyone should have immersive presentations: animations, axon GIFs, timelines/Gant charts, sound. Premiere 1m. Enscape. https://www.youtube.com/watch?v=OLBALarQ1dQ

Visualization makes obvious the problem + strategies for change: behaviors as blur, glow, color.

Organize scales of time across: day, week, year. By perspective / demographic groups

How to research problem, measure qualities and indicators, Google maps and analyze spreadsheet.

CONTENT / MEDIA OBJECTIVE

Granular visualization of underrepresentation. Fine Grained Urbanism: 1) Housing and 2) Jobs

Fun spaces of play, diverse social interaction, local nuanced culture near students: EUG, PDX, etc

Presentations on: Measuring and Visualizing Urban Public Spaces; Shared Streets: Fine Grained Urbanism and work spaces (Ben Prager)

Onsite is important (test with google street view, yelp, location based social media, real estate

ORGANIZATION

Grading basis criteria (average grade is historically an A-)

- Visual Communication- neatness, lineweight, meaningfully color, time / gifs
- Outline of Logic
- Effort / complexity / ambition

Short presentations. Workshops in breakout rooms. Group's findings. Comments on blog posts.

KEY READING

Food Cart book chapter + MIT Senseable Cities Lab

Schedule

W1 Intro and feedback

Time-based media, (Warm-up unit axon GIF)

W2 GIS VIZ TOOL, site visits, site documentation, place documentation.

Housing Problem, Ethnology Presentation Food cart and Food Truck Research

Business Fabric Presentation, Ben Prager

W3 GIS VIZ TOOL - with databases and explanation of process

Project Book Storyboard: project description and initial site documentation due with reference to 3 readings and 2 media precedents. **Thursday draft, 15%**

– Measuring and Visualizing Urban Public Space Presentation

– Social Phenomena, ecology timeline Presentation (Minard, Field Operations, SA+UD)

W4 Site visits and data acquisition

W5 Presentation of projects (midterm) 30%. Students identify plugins and apps

Individual responses from review (post).

W6 Workshop to develop urban problem and Visualization

W7 Project crits

W8 Presentation* 35%

Prepare for Presentation

W9 Workshops

W10 no class

W11 Final project submission and plan for Presentation.* 20%

Reading List

Nabian, N., Offenhuber, D., Vanky A., and Ratti, C. (2013) "Data dimension: accessing urban data and making it accessible." **Proceedings of the ICE - Urban Design and Planning** 166, no. 1: 60-75.

Franck, K and Speranza, P, (2015) "Food, Time and Space: Mobile Cuisine in New York and Portland," *Ethno-Architecture and the Politics of Migration* Edited by Mirjana Lozanovska, London: Routledge Press, pp 181-198.

Speranza, P. and Maher, S. (2017) **"**Social 'Coding:' Urban Processes and Socio-Computational Workflow**,"** Proceedings of the **Environmental Design Research Association Annual Meeting 2017**, **EDRA**, May 31-June 3, 2017, Madison: Wisconsin.

Speranza, P. (2017) "A human-scaled GIS: Measuring and visualizing social interaction in Barcelona's *Superilles*" *Journal of Urbanism: International Research on Placemaking and Urban Sustainability*"

Speranza, P. and Prager, B (2016), "Business fabric and Place, a Methodology to Measure Business Identity in Barcelona's New Superilles" *Strategic Place Branding Methodologies and Theory for Tourist Attraction*, Co-Edited by Can Usley and Ahmet Bayraktar, Pennsylvania: Hershey, IGI Global, pp. 157-180,

ATTENDANCE
The class will meet remotely at the designated times via Zoom, and at other times and remote "locations" with prior arrangement and approval. Participation in all remote classes is appreciated, expected and will be monitored via Canvas.

SPECIAL ACCOMMODATIONS / STUDENTS WITH DISABILITIES
The University of Oregon is committed to providing inclusive learning environments. Please notify your instructor if any aspects of this course result in barriers to your participation. You may also contact UO Disability Services in 164 Oregon Hall, 346-1155 or disabsrv@uoregon.edu. If you have a documented disability and require accommodations, please inform the instructor by forwarding your notification letter.

ACADEMIC INTEGRITY
Students should be familiar with University policies related to academic integrity and consequences for dishonest conduct. All work submitted should be your own and all sources should be cited. Questions about how specific assignments should be handled with regard to collaborative work, citations, or other issues raised in class. Principles of academic honesty and professional ethics also apply to any use of computers associated with the studio. This includes observing all software licensing requirements and respecting copyrights of intellectual property published on the Internet.

PROJECT OWNERSHIP, PUBLICATION, AND PUBLICITY
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