Course Name
LA Tech City: Digital Technologies and Spatial Justice

Course Number
Digital Humanities 30 (DH 30)

Units
5 (GE and Diversity Credit)

Schedule
3 Seminars per week, 2 ½ hours each
3 Studio per week, 1 ½ hours each

Instructor
Prof. Todd Presner

Course Objectives:

• Learn to use and critically assess a suite of digital tools and spatial technologies for studying urbanism, inequity, and “spatial justice” in Los Angeles, by engaging with and appreciating the profound diversity that characterizes our megalopolis.
• Study Los Angeles’s built environment and socio-political spaces through history, cultural studies, and speculations about the future.
• Understand how the history of Los Angeles is intimately and unevenly linked with the history of technologies
• Combine urban, architectural, digital, and humanist perspectives to understand racial and ethnic narratives of the divided city.
• Develop a multi-layered understanding of urban transformative processes and learn innovative methodologies that will allow students to explore, analyze, and present findings related to social, cultural, and economic stratifications.
• Learn transferable skills through action-oriented and project-based research, while engaging in multidisciplinary inquiry.
• Learn to conceptualize, frame and deliver persuasive arguments through writing and visual media.

Course Description:
The intersections between richly diverse cities and spatial technologies are evolving in increasingly significant and creative directions. The next generation of students must be intellectually, meaningfully, and technologically prepared to address complex issues arising within daily cosmopolitan life. “LA Tech City” brings together urban studies, architecture, and the humanities in a hands-on engagement with digital technologies and spatial justice in the city. Innovative forms of investigation and communication, from digital mapping to video-sensing, integrate the interpretative and historical approaches of the humanities with the material, projective practices of design. The course explores creative techniques to study, intervene, and speculate on subject matters that can best be understood by connecting forms of spatial analysis to humanist considerations in Los Angeles.

Students will investigate spatial justice and injustice in the multi-ethnic city through the lens of three thematic technologies that have literally built and transformed LA into a global metropolis: cars and highways; networking technologies culminating in the internet and World Wide Web; and film and broadcast media. Through seminars, critical readings, fieldwork, and applied projects, students explore new ways to understand, describe, and speculate research findings related to social stratifications, racial and ethnic complexity, and unequal access to information, technology, as well as housing and urban space.
**Requirements and Evaluation:**

All students are required to attend weekly seminars and one studio session per week. Projects will be team based (most likely in groups of three). Students will be asked to upload the material they create to a digital portfolio website that will document the learning process and serve as the class archive of ‘LA Tech City.’

50% = Four digital projects with written reflections that include discussion of research design, research methodology, and analysis. Note: the second and fourth projects are expansions/revisions of the first and third projects, respectively.

30% = Final project with individually written report, web portfolio, and formal class presentation

20% = Participation (in class and weekly labs)

**Weekly Schedule**

**Week 1: Introduction: Mapping and Spatial Technologies in the City of Los Angeles**

The first unit (weeks 1 and 2) will address how the car -- as both a technological device and social agent of transformation -- has reshaped the spatial configuration of Los Angeles and provided new ways to experience and understand our urban environment. Seminars will present material related to the theme of the divided city and how roads and highways have contributed to racial and economic segregation. It will also foreground the history of transportation infrastructures to consider how the automobile has provided differential and territorial access to particular segments of Los Angeles’s population, including how neighborhoods were destroyed and people displaced to make way for the transportation infrastructure. Both mapping and the car will be considered as spatial technologies and critical methods.

**Monday Seminar: Spatial Technologies, Los Angeles and Car Culture**

- “Car Culture” as a paradigm of Los Angeles urbanism: Where did this originate? How was it represented in popular media?
- Construction of the freeway system and racial politics in Los Angeles (1930s-1950s), with a specific focus on Boyle Heights and its predominantly Hispanic population
- “Public transportation” as a counter-history to “car culture” and introduction to the concept of “spatial justice” (Edward Soja).
- LA’s transportation palimpsest
- Discussion of “Reyner Banham Loves LA” (film)

**Readings**

- Reyner Banham Loves LA” (film)
- Reyner Banham, "In the Rear-view Mirror" & "Transportation Palimpsest" from: *Los Angeles: The Architecture of Four Ecologies*
- Edward Soja, preface from: *Seeking Spatial Justice*

**Monday Studio: Cognitive Mapping**

- Create a “cognitive map of LA” (students will draw a mental map of Los Angeles, focusing on mobility and access, using their own experiences -- however new they may be -- as the basis of the map).
- Introduction to Spatial Technologies and Expectations for Online Digital Portfolio.
- Students check-out laptops, get acquainted with software (including Google Earth, CartoDB, and datasets); students begin setup of their digital portfolios.

**Tuesday Seminar: Infrastructures, Racial Politics and Spatial Justice**

- History of the East LA Interchange and racial politics
- Brief history of politics of race in Los Angeles
- The Right to the City and Spatial Justice
Readings:

- Film, *East LA Interchange* (Betsy Kalin) – outside class screening
- Dana Cuff, on freeways and equivalent elimination from *LA: Provisional City* (selections)
- Eric Avila, “A Matter of Perspective: The Racial Politics of Seeing the Freeway” in *The Folklore of the Freeway* (pp. 119-147)
- Robert Gottlieb and Anastasia Loukaitou-Sideris, “The Day that People Filled the Freeway”
- Edward Soja, *Seeking Spatial Justice* (selections from chapters 1-3).
- Excerpts from David Harvey and Henri Lefebvre on “The Right to the City”

Tuesday Studio: Working with Spatial Data

- Learning to analyzing spatial datasets, including census data, redlining data, historical maps, highway and street data, public transportation data, and zoning data.
- How can we interrogate maps and spatial representations? What roles do ethnic diversity and social and racial inequality play in the different modes mapping and spatial representation modes?
- What is spatial data and spatial visualization? What is structured (and unstructured) data?
- Analyzing dot maps

Thursday Seminar: Introduction to Mapping and Spatial Data in the Divided City

- Google My Maps, Google Earth, and Social Explorer
- *The Racial Dot Map*: http://demographics.coopercenter.org/DotMap/
- Kelly Lytle Hernandez, “Million Dollar Blocks Los Angeles” (project analysis)
- Selections from: Michelle Alexander, *The New Jim Crow: Mass Incarceration in the Age of Colorblindness*

Thursday Studio: Mapping the Divided City

Research question: How do roads operate as indicators of racial and economic segregation? Annotate a map of LA where you explore social “fault lines” (race, ethnicity, country of origin, economic) using a range of historical and contemporary datasets mapped onto the highway system. How do roads/highways divide (and, if appropriate, how do they unify or produce ‘ethnoburbs’)?

Digital Project #1, Due on Monday at 10 am: Your group will produce a digital map of the divided city by placing at least three spatial datasets “in conversation” with one another in order to pinpoint and understand a contemporary stratification and/or spatial justice issue. The digital map will be accompanied by a 2-page write-up that explains how the map was created, what you analyzed and observed, and what its significance is.

Week 2: Thick Mapping

Monday Seminar: Introduction to critical cartography, thick mapping, and spatial symbolic systems

Readings:

- Clifford Geertz, “Thick Description,” from: *Toward an Interpretive Theory of Cultures*
- Todd Presner, with David Shepard and Yoh Kawano, *HyperCities: Thick Mapping in the Digital Humanities* (selections)
- Todd Presner and David Shepard, “Mapping the Geospatial Turn,” in: *A New Companion to Digital Humanities*

Monday Studio: Introduction to Thick Mapping

Tuesday Seminar: What is Spatial Ethnography?

- Introduction to ethnography and spatial ethnography
- Transect walk around UCLA and Westwood in subgroup, accompanied by faculty or TA – to identify spatial elements providing evidence of spatial injustice.
**Readings:**
- Annette Kim, *Sidewalk City* (selections)
- Rebecca Solnit, selection of maps from San Francisco and New York atlases

**Tuesday Studio: Spatial Ethnography Studio**
- Documenting an urban site through fieldwork (visual observations, sketches, photography, mapping, interviews and archival research).

**Thursday Seminar: Conceptual Tools for Thick Mapping / Introduction to Project 2.**
- How to create a thick map?
- Students define their projects together with faculty and/or TA;
- Establish elements to map and methodology for representation

**Thursday Studio: Thick Mapping Studio**
- Interim project review: Spatial Ethnography Studio
- Technical tutorials for thick mapping
- Free studio time

**Project #2, Due on Monday at 10 am:** Thickening the dot map with your own data from the field. Over the weekend, your group will gather ethnographic information along a “dividing line” of your choice. You will make observations, take pictures, write narratives, talk to people, and "thicken" your map (digital project #1) by providing more data (both qualitative and quantitative). The new map should have more data layers, thickness, and depth, with the goal of articulating an argument in spatial form. The digital project should be accompanied by a 2-page write-up that explains your group’s method, research, and analysis.

**Week 3: Los Angeles and/in Film**

The second unit (week 3) will explore some of the ways that film has influenced the form of Los Angeles and consider how the technology of film can be used as a “sensing” technology for seeing the city anew and perceiving inequities. In this unit, we will also address topics related to unequal representation in film, including whitewashing, problematic depictions of individuals of specific races and gender, and stereotyping.

**Monday Seminar: The Birth of the “City Film”**
- Review of project 2
- Outside viewing: Except from Walter Ruttmann, *Berlin: Symphony of a Great City* (1929); Dziga Vertov, *The Man with the Movie Camera* (1929)
- Introduction to *Bladerunner* and Los Angeles “noir”

**Monday Studio: Film Editing**
- This lab will introduce film editing tools such as Final Cut Pro and Premier using found footage from the Internet. You will learn to integrate and remix visual material such as film clips, audio/voice-over, photos, and/or archival elements to create an argument using the medium film

**Readings:**
- Film, *Bladerunners*
- Read and compare 3 film reviews of *Bladerunners*

**Tuesday Seminar: The Utopian/Dystopian Imaginary of Film**
- Discussion of *Bladerunner*, focusing on the economic, social, and racial vision of the radically divided and policed city (Los Angeles, 2019)

**Readings:**
- Mike Davis, “Beyond *Bladerunner*: Urban Control,” from: *Ecology of Fear*

**Tuesday Studio: *Bladerunner Remix (Part 1)***
- Create a narrative using found footage from *Bladerunner* together with original footage shot in Westwood.
- Construct a logical narrative through images that supports a position of the authors’ choice.
Thursday Seminar: Methods of filmic sensing and Media Tools in the Hands of the People
- Methods in filmic sensing
- Bias in film, documentary and popular media.
- Sarah Pink, “Walking with Video”
- Selected films by Neil Goldberg
- Rodney King (1991) beating recorded on camcorder by George Holiday
- Anna Deaveare Smith’s “Twilight: Los Angeles, 1992”

Thursday Studio: Annotating/Remixing Found Footage
- Interim Project Review: Bladerunner Remix Part 1
- Introduction to Project 3: Bladerunner Remix Part 2
- Building on ‘Bladerunner Remix Part 1, the student films will add counter-narratives to the explicit and implicit racial geographies of Bladerunner.

Digital Project #3, Due on Monday at 10 am: In interdisciplinary groups, you will develop, shoot, edit, and present a film of about 4 minutes in length. This film will be made with a combination of archival materials (based on your mapping projects), found footage (annotated and reworked by your group), and footage captured first-hand around an area of division in the city. This is, at its most basic level, a process to build a situated, ethnographic interpretation of an aspect of the divided city. The film should also put two different positions in conversation.

Week 4: The Internet: Material and Immaterial Spatial Networks
The third unit (weeks 4) will explore a third technology that has influenced the form of Los Angeles: the Internet. We will begin with a history of the networked urban spaces, including Postal Systems, Railways, Electricity Grids, Telephone, and sewage systems before turning to the material history of the Internet and World Wide Web. In each case, we will examine the technologies dialectically: to show how they enable certain interconnections and simultaneously create new divisions that manifest themselves across racial, economic, social, and cultural lines.

Monday Seminar: Introduction to history of the Internet
- Review Film Projects (Digital Projects #3)
- Introduction to the material and immaterial history of the internet

Readings
- Vannevar Bush, “As We May Think” (1945), from: *The New Media Reader*
- Ted Nelson, “A File Structure for the Complex, the Changing, and the Indeterminate” (1963), from: *The New Media Reader*

Monday Studio: Field Trip / Data Scraping and Data Harvesting
- Class field trip to the Internet Museum on UCLA Campus, Boelter Hall
- Learning to use APIs to scrape data from Twitter, Instagram, and Facebook. This lab will introduce innovative and experimental methods of data collection through social media. The students will be taught to use data scraping tech tools to extract information from social media. Students will attempt to capture the position of various communities on issues related to the divided city, such as it appears in real time on social media platforms. This will complement their historical and field-based analysis by providing a voice to individuals that might be underrepresented in other data sets.

Tuesday Seminar: Urban Networks / Material Networks and Labor
- Selections from: Varnelis, Kazys. *The Infrastructural City: Networked Ecologies in Los Angeles*
- Selections from: Manuel Castells. *The Rise of the Network Society*
- Andrew Blum, *Tubes: A Journey to the Center of the Internet*
- Discussion of One-Wilshire, the largest data center on the West Coast

Readings
- Leonard Kleinrock on the Internet’s first router (film)
- Alissa Walker, “This is the Room Where the Internet Was Born,” Gizmodo, March 5, 2014.
Tuesday Studio: Visualizing Data & Infographics
  • Introduction to data visualization, infographics and key works in visual theory
  • Key tools in data visualization: Photoshop, Illustrator and InDesign

Thursday Seminar: Looking Under the Hood: Understanding Power Dynamics in the Digital World
  • Ben Mendelsohn, *Bundled, Buried & Behind Closed Doors.*
  • Lisa Nakamura. “Don’t Hate the Player, Hate the Game: The Racialization of Labor in World of Warcraft,” from: *Digital Labor: The Internet as Playground and Factory.*
  • Overall course review

Thursday Studio
  • Technical and conceptual tutorial on the final project: Digital Online Portfolio.
  • Portfolio should present all the work conducted as part of the summer institute in an efficient online platform
  • Learning how to curate and structure a portfolio that effectively demonstrates the student’s analytical, creative, technological and critical abilities. Unpacking what employers and universities look for in a portfolio.
  • Desk-based review

Friday

Presentation of all online-digital portfolio in an exhibition at Perloff Hall.