



ISIS/VMS 380S

DIGITAL CITIES

*and the
Cartographic
Imagination*

ANNOUNCEMENTS [COURSE OVERVIEW](#) SCHEDULE ASSIGNMENTS ▾
GENERAL DISCUSSION

Course Overview

ISIS 380S/VMSS 380s

Tuesday, 125-355 in Smith Bay 11, Room A260 ([Wired! Lab](#))

[Professor Victoria Szabo](#)

ves4@duke.edu

Office Hours: Wednesday 230-430 Smith Bay 10, A262, and by appointment

Introduction

This interdisciplinary course combines theoretical and practical approaches to digital places and spaces as an emerging new media form, with a special focus on digital cities as sites of contemporary and historical representation and influence. It is a "hybrid" course in the sense that it combines a discussion seminar with lab-based exercises. Major assignments combine written and digital media authoring components. No technical experience is assumed, but it will be important to work hands-on inside and outside class.

Digital Cities are defined here as digital representations of urban spaces that serve to inform, engage, and/or influence the user who interacts with them. These might include, for example, web-based mapping and annotation projects in Google Earth or other online mapping systems, interactive information graphics focused on static data and other information about a city and its inhabitants, and GPS-based systems designed for real-time navigation within an urban environment. Digital city annotations within these contexts might focus on historical data, architectural or urban history, the lives of individuals and communities within city spaces, artistic and scientific communities who operated within its bounds, and representations of change over time, networks of association, and other data products of urban analysis.

We'll begin the class by reading about the history of mapping and critical cartography as they relate to the construction of urban space, and by discussing how maps have shaped and continue to shape our experience of the world, past and present. This portion of the course will draw upon the work of John Pickles in *A History of Spaces: Cartographic Reason, Mapping, and the*

 Search

Important Links

- ▶ [Sakai Site \(for readings\)](#)
- ▶ [Art, Art History & Visual Studies](#)
- ▶ [Information Science + Information Studies](#)
- ▶ [Duke Wired! Lab for Visualizing the Past](#)
- ▶ [Data and Visualization Services \(Library\)](#)

Categories

- ▶ Announcements
- ▶ Assignments
- ▶ Week 01

Recent Posts

- ▶ Intro
- ▶ hello there
- ▶ Emily's Introduction
- ▶ Hey there

Geo-Coded World, as well as excerpts from various other histories of mapping, such as John Monmonier's *How To Lie With Maps*. We will complement this theoretical analytical approach by exploring the work of the psychogeographers and international situationists who examined the experience of the city through artistic and political interventions in the 1950s and 60s, through readings by Merlin Coverley, in *Psychography* and Guy Debord, in *Society of the Spectacle*, as well as supplementary readings from Mackenzie Wark's *The City Beneath our Feet*. We will also examine the work of contemporary digital city creators from around the world as published in Google Earth, OpenStreetMap, and other online systems in order to understand the state of the art, as well as explore creative, game-based digital city projects as profiled in de Souza and Sutko's *Digital Cityscapes*.

As noted above, over the course of the semester we will not only examine various historical and creative map-based digital city projects, but also create our own. Using Durham as our "lab" and possibility space for workshop exercises, we will work with Global Information System (GIS) data, web-based digital mapping and annotation systems, and augmented reality authoring environments to create digital city projects based on existing materials and our own original research. Student projects may choose to focus on Durham or on another city of your choice.

Midterm and Final Projects will include both a digital city project and a written critical analysis and self-reflection about what you have done.

Learning Outcomes

- Knowledge of history of cartography and its effect of the representation of cities, both in analog and digital form
- Facility in criticizing map-based representations of places and spaces, both in quantitative and qualitative terms
- Awareness of how digital mapping technology is transforming the representation and dissemination of knowledge about cities, as well as the experience of moving within them
- Skill in working with basic GIS, GPS, webbased mapping, and augmented reality authoring systems
- Hands-on experience working with historical source material and adapting it to a digital presentation format
- Practice writing analytical essays that include critique of digital media forms

Teaching and Evaluation Methods

The course will function primarily as a discussion seminar, with a hands-on lab component, mini-lectures introducing key points, and on-line reading-response and digital critique assignments to completed outside of class. In addition, each student will be responsible for facilitating discussion of course readings during one class session. The breakdown of assignments will be as follows:

- Attendance and Class Participation, Blogs, and In-Class Labs: 25%
- First project (critical essay + digital project): 30%
- Final project (essay + digital project): 45%

Evaluation of critical essays will be based primarily on content, though effective writing in English will also be important. Evaluation of digital projects will focus on argument, effective use of technologies, and design. Midterm and Final projects will be presented to the class and invited guests, and will focus on the creation of a digital city project along with a written meta-analysis of that work referencing the semester's readings.

All work must be your original work, except as indicated through quotations and citations. This includes any media elements or code you include in your

▶ Hi everyone

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August 2014

S	M	T	W	T	F	S
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midterm and final projects. When in doubt, cite it! If you are unsure, ask.

This is a once-a-week seminar class. All students are expected to attend all sessions – this is especially important in a class that occurs only once per week, and which includes important discussion and training opportunities inside class sessions. Excused absences, such as for illness, athletics participation, etc. must be indicated in advance if at all possible. It is your responsibility as a student to keep up with the readings, blog postings, and other assignments as they occur throughout the term, even if you are not in class that week. Multiple unexcused absences will affect your final grade.

Bibliography

selections from:

- John Pickles, *A History of Spaces: Cartographic Reason, Mapping, and the Geo-Coded World* (ISBN-13: 978-0415144988)
- Mark Monmonier, *How to Lie with Maps* (ISBN-13: 978-0226534213)
Digital Cityscapes, Eds. Adriana de Souza e Silva and Daniel M. Sutko (ISBN-13: 978-1433105326)
- Peter Hall and Janet Abrams, *Else/Where: Mapping – New Cartographies of Networks and Territories* (ISBN-13: 978-0972969628)
- Merlin Coverley, *Psychogeography* (ISBN-13: 978-1842433478)
- Kevin Lynch, *The Image of the City* (ISBN-13: 978-0262620017)
- Guy Debord, *Society of the Spectacle* (ISBN-13: 978-0934868075)
- Jane McGonigal, *Reality is Broken* (978-0143120612)
- various online projects (GIS, Google Earth, etc.)

Required Preliminary Knowledge

None.

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ANNOUNCEMENTS COURSE OVERVIEW **SCHEDULE** ASSIGNMENTS ▾
GENERAL DISCUSSION

Schedule

DRAFT SYLLABUS - always look online for updates!!

NOTES: PDF readings are linked to Sakai. We will be using Sakai to manage course materials and for grading. All other activities will take place in our blog, unless otherwise noted.

Part I: Understanding the Map

WEEK 1: Tuesday, August 26 – Exploring Digital Cities – What is Digital City?

- ➔ Introductions
- ➔ Course Overview and Rationale
- ➔ What is A Digital City? Discussion
 - ➔ Doug Schuler, "[Digital Cities and Digital Citizens](#)" - "A digital city has at least two plausible meanings: (1) a city that is being transformed or re-oriented through digital technology and (2) a digital representation or reflection of some aspects of an actual or imagined city. "
 - ➔ [Eight Ideas for Digital Cities](#)
 - ➔ Browse around on the [UNC Virtual Cities site](#) links
 - ➔ As you look at these and other map-based digital city projects online think about what makes the city, and how it gets represented. Which technologies are used to do so? How does the underlying conception of how a city is constructed affect the subsequent digital iterations of its existence? We will begin to articulate our own theory of the digital city as abstracted from these and other sites.
- ➔ In Class Activity- Mind Map Exercise in pairs. Draw a map of your hometown by describing it to your partner and having them draw it. Then

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reverse roles. You will introduce your partner and their city to the group. After everyone has done this, we will analyze the representational choices made together.

Lab Time:

- ➔ Class blog
- ➔ Computer login
- ➔ [Duke Box](#)
- ➔ [CFIS Web space](#) - Use instructions linked here or SFTP client (VPN activated – offcampus users should log in via the [VPN](#)) as follows:SFTP: login.oit.duke.edu
username: netID
Pwd: yourpasswordPlace all web files into **public_html**

WEEK 2: Tuesday, September 2 – Critical Cartography Foundations

- ➔ Digital cities discussion continued (review examples from previous class list)
- ➔ Blog Post: Find a city map to share – can be a tourist map, a trekking map, or some other type of map – note: you can bring a paper map to class but should still do a blog post describing it (post an image/scan if possible)
- ➔ John Pickles, [“Introduction: Maps and Worlds.”](#) and [“What Do Maps Represent”](#) *A History of Spaces: Cartographic Reason, Mapping, and the Geocoded World*, Routledge, 2003.)
- ➔ Kevin Lynch, [“III: The City Image and Its Elements”](#) and [“IV: The City Form”](#) *The Image of the City*, MIT, 1960.
- ➔ Projections: <http://xkcd.com/977/>

Lab Time:

- ➔ In-Class Exercise: Digital Mapping 101

WEEK 3: Tuesday, September 9 – Maps, Policy, and Society

Bring some digital materials about the city of your choice to class. These can be websites, images, maps, or other artifacts. Data sets are also welcome. We are going to begin hands-on activities building our own digital cities!

- ➔ Blog Post: Description of and links to your raw materials for digital mapping project.
- ➔ Mark Monmonier, [“Elements of the Map”](#) and [“Map Generalization: Little White Lies and Lots of Them”](#) (Chapter 2-3, *How To Lie With Maps*. Chicago, 1996. -single PDF)
- ➔ Mark Monmonier, [“Redlining and Greenlining.”](#) (Chapter 8, *No Dig. No Fly. No Go.* U Chicago, 2010.)
- ➔ Amy Hillier, [“Redlining in Philadelphia.”](#) (Chapter 6, *Past Time, Past Place.*)
- ➔ California Redlining – T-Races Project <http://salt.unc.edu/T-RACES/> (launch the demo)
- ➔ [US Census](#) - Interactive NY Times maps
- ➔ [Napoleon’s March to Moscow \(1859 infographic by Charles Minard\)](#) and [Tableau public animation](#); see also Edward Tufte’s analysis of this graphic
- ➔ Lab Time:
- ➔ Hands-on: Intro to Google Earth (applying Lynch’s principles to understanding Durham: paths, edges, districts, nodes, landmarks)

▶ Hi everyone

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through points, lines, areas, overlays)

- ➔ Links:
 - ➔ [Map icon](#) (download)
 - ➔ Durham map
 - ➔ [Rich Text Guide](#)
 - ➔ Reference tutorials on Google Earth and related topics: <http://www.dukewired.org/tutorials/>

WEEK 4: Tuesday, September 16 – Historical GIS

- ➔ [Ayers, "Turning Towards Space, Place, and Time," David J. Bodenhamer, "The Potential of Spatial Humanities," and Karen K. Kemp, "GIS and Spatial Analysis for the Humanities."](#) *The Spatial Humanities: GIS and the Future of Humanities Scholarship*. Indiana, 2010.
- ➔ Anne Kelly Knowles, "[GIS and History](#)," and Peter K. Bol, "[Creating a GIS for the History of China](#)." (Chapters 1 and 2 of *Placing History: How Maps, Spatial Data, and GIS are Changing Historical Scholarship*. ESRI, 2008. – one PDF file)
- ➔ Benjamin C. Ray, "[Teaching the Salem Witch Trials](#)" and Andrew A Beveridge, "[Immigration, Ethnicity, and Race in Metropolitan New York, 1900-2000](#)." (Chapters 2 and 5 in *Past Time, Past Place: GIS for History*. ESRI, 2002. – one PDF)
- ➔ Example historical GIS projects
- ➔ Sites to Explore: [Caribbean Cholera](#) and other [TimeMap](#) projects TBA (Tableau?)

Lab Time:

- ➔ Hands-on: Intro to Google Earth continued :bringing data into Google Earth from GIS data and other resources, embed map)
- ➔ GIS files: TBA
- ➔ KMZ embed
gadget: http://earth.google.com/outreach/tutorial_kmlembd.html

WEEK 5: Tuesday, September 23 – Metadata, Power, and Surveillance

- ➔ [The Age of Internet Empires](#)
- ➔ [Denis Cosgrove "Carto-City" and Andrea Moed et al., "Conversations with Maps"](#) (from *Else/Where: Mapping – New Cartographies of Networks and Territories*. U of Minnesota Design Institute, 2001.
- ➔ Jeremy W. Crampton, "[Geosurveillance and Spying with Maps](#)" and "[Cyberspace and Virtual Worlds](#)." (Chapters 9 and 10, *Mapping: A Critical Introduction to Cartography and GIS*. Wiley-Blackwell, 2010.)
- ➔ Twitter Maps examples TBA
- ➔ [Robot readable world](#)

Lab Time:

- ➔ [Embedding instructions](#) (for webpages)
- ➔ **TimeMapper** demo and testing - Create a personal timeline of your life and where you have lived/traveled
- ➔ Example Fusion
Table: <https://www.google.com/fusiontables/DataSource?docid=1-oFXPf88DtVicmyg4GHkwrRS7DNLnGblCXOMZE2o> OR GeoDB???

WEEK 6: Tuesday, September 30 – Creativity and Power through Maps

Find some data from your chosen city to associate with points on a map. You will need to represent that data in a spreadsheet format (consistent rows and columns). You might choose a list of place names and a set of features.

- Denis Wood, "[Counter-Mapping](#)" and "[Talking Back to the Map](#)" (Chapters 5 and 6 from *Rethinking the Power of Maps*. Guilford, 2010.)
- Gregory, Chapter 5: "[Using GIS to Visualise Historical Data](#)" and [Chapter 6: "Time in historical GIS databases"](#) (Ian Gregory and Paul S. Ell. *Historical GIS: Technologies, Methodologies, and Scholarship*. Cambridge, 2008.)
- Check out [AnOpticon!](#) – Italian surveillance camera tracking site
- <http://leerstandsmelder.de> - abandoned buildings shared mapping project

Lab Time

- Hands-on: Neatline intro with Durham
- Begin to create a project based on your city of choice (or Durham) – consider how you might "talk back" to the map using this tool

WEEK 7: Tuesday, October 7 – The Metaverse

- Readings [The Metaverse Roadmap](#) read the PDF (on the website) and also browse the site itself – Where do (digital) maps fit into this theory of the metaverse?
- Project Discussions
- Open Lab: Google Earth, TimeMapper, Neatline

Project #1 (critical essay + digital map) Due online by Friday, October 10

1200 word essay + digital map supplement (using one of our selected tools) exploring the relationship of contemporary digital mapping to historic cartographical practice. Essay must demonstrate familiarity with course readings and themes, and reference at least two course readings and specific city examples in your answer. The city you focus on can be either Durham or another city of your choice. Post a link to your paper and project on the blog.

NOTE: Collaborative digital projects are acceptable, but individuals should still write their own separate essays for this assignment.

Part II: Inhabiting the Map WEEK 8: Tuesday, October 14– Place and Space

- Henri Lefebvre, "[From Absolute Space to Abstract Space](#)" (Chapter 4, [The Production of Space](#). Wiley-Blackwell, 1992.)
- Luke Butcher, "[Review: The Production of Space](#)" (useful overview of Lefebvre's concepts)
- Yi-Fu Tuan, "[Visibility: The Creation of Place](#)" and "[Time and Space](#)" ([Chapters 12 and 13. Space and Place: The Perspective of Experience. Minnesota, 2001 – all one file.](#))
- Tim Cresswell, "[The Genealogy of Place.](#)" from *Place: An Introduction*, Blackwell, 2004
- Atkinson, "[Heritage](#)" from *Cultural Geography: A Critical Dictionary of Key Concepts*
- Nuala Johnson, "[Public Memory](#)" from *A Companion to Cultural*

Geography

Lab Time:

- ➔ Marker-Based Augmented Reality

WEEK 9: Tuesday, October 21– Psychogeographies **NO FORMAL CLASS MEETING – VS at Temple**

- ➔ Vanessa Schwartz, "[Representing Reality and the O-rama Craze](#)" from [Spectacular Realities: Early Mass Culture in fin-de-siècle Paris](#). London 1999.
- ➔ Joseph Hart, "[A New Way of Walking](#)" (Utne Reader, July/August 2004)
- ➔ "[Augmented Reality Startup Ready to Disrupt Business.](#)" WSJ, 09/20/11
- ➔ Ivan Chhtcheglov, "[Formulary for a New Urbanism](#)"
- ➔ Szabo, [Good Question](#) flyer
- ➔ Additional AR examples - [Find the Future](#), Tamikio Thiel; [London StreetMuseum app](#)
- ➔ On Your Own: Do a psychogeographic walk through Duke, Durham, or another location and record on your blog, taking pictures and other notes to demonstrate your discoveries
 - ➔ Example: first left, second right, first right, repeat; number of steps, other? U turn if needed. Observe the construction of space on the island as we go.

WEEK 10: Tuesday, November 4 - Designing Hybrid Worlds

- ➔ E.A. Poe, "[The Man of the Crowd](#)"
- ➔ Merlin Coverley, "[Paris and the Rise of the Flaneur](#)" and "[Guy Debord](#)" from *Psychogeography*, Pocket Essentials, 2010 (one PDF)
- ➔ Guy Debord, "[The Organization of Territory](#)," from Society of the Spectacle. Black and Red, 2000.
- ➔ Malcolm McCullough, "[Tagging the Commons](#)," "[Frames and Facades](#)," and "[Megacity Resources](#)," from *Ambient Commons: Attention in the Age of Embodied Information*. MIT, 2013.

Lab Time:

- ➔ Location-based Collaborative Mapping (Map2App?)

WEEK 11: Tuesday, November 11 - Virtual Cities – VS is at SCI!!

- ➔ Grant Hildebrand, "[Exploring](#)." (Chapter 3: *The Origins of Architectural Pleasure*. UC Press, 1999.
- ➔ Richard Bartle, "[It's Not a Game, It' a...](#)" and "[Towards a Critical Aesthetic](#)," (Chapters 6 and 7 from Richard A. Bartle, *Designing Virtual Worlds*. New Riders, 2003. - all one file)
- ➔ Blog Assignment: Visiting Second Life Cities
- <http://secondlife.com/support/downloads/>
- ➔ Guest Presentation in class: *Venice Game* with Kristin Lanzoni and Nicola Lercari

Lab Time: (with TA)

- ➔ OpenSim Hands-on experimentation.
- ➔ You will need to create an account at Kitely.com and open the [Singularity Viewer](#). (free download on your own machine)
 - ➔ Click on ISIS Sandbox>Enter World. Use the credentials listed in Singularity for your username and password. In the Grid Manager,

switch from Second Life and type in the URL that is shown when you attempt to log in from the website

(<http://osgrid.kitely.com:8002>)

- ➔ We will also upload building files from Sketchup's 3D Warehouse to create our own virtual spaces

Week 12: Tuesday, November 18 - Locative Play

- ➔ [Eric Gordon, "Redefining the Local: The Distinction between Located Information and Local Knowledge in Location-Based Games."](#)
- ➔ [Michiel de Lange, "From Always-On to Always-There: Locative Media as Playful Technologies."](#)
- ➔ [Sebastian Matyas, Christian Matyas, Hiroko Mitarai, Maiko Kamata, Peter Kiefer, and Chrisoph Schlieder, "Designing Location-Based Mobile Games: The CityExplorer Case Study."](#)
- ➔ <http://www.propublica.org/article/world-of-spycraft-intelligence-agencies-spiied-in-online-games> (article) from *Digital Cityscapes: Merging Digital and Urban Playspaces*. Ed. Adriana de Souza e Silva, Daniel M. Sutko Peter Lang, 2009.

Lab Time:

- ➔ TBA

WEEK 13: Tuesday, November 25 - Heterotopia

- ➔ [Daniel Downes, "The Iconic Landscapes of Cyberspace" and "Building Heterotopia" \(Chapter 5 and 6 of *Interactive Realism: The Poetics of Cyberspace*. McGill Queens, 2005. – one PDF\)](#)
- ➔ [Frans Mäyrä and Petri Lankoski, "Play in Hybrid Reality: Alternative Approaches to Game Design" from *Digital Cityscapes: Merging Digital and Urban Playspaces*. Ed. Adriana de Souza e Silva, Daniel M. Sutko Peter Lang, 2009.](#)

Lab Time:

- ➔ Lab Review Session: Augmented Reality, Second Life, Open Sim

WEEK 14: Thursday, December 2 – Final Projects

- ➔ FINAL PROJECT PRESENTATIONS
- ➔ Of interest: [USA]
- ➔ Of Interest: <http://twistedstifer.com/2013/08/maps-that-will-help-you-make-sense-of-the-world/> (graphics)

Project #2 (critical essay + digital map) Due online by Friday, December 5
1200 word essay + digital media supplement (using one of our selected tools, or another identified by you) exploring the the digital city theme as it relates to urban experience. Essay must demonstrate familiarity with course readings and themes from materials from part 2 of the class. *NOTE: Collaborative digital projects are acceptable, but individuals should still write their own separate essays for this assignment.*

Tell All The Truth

*Tell all the truth but tell it slant,
Success in circuit lies,
Too bright for our infirm delight
The truth's superb surprise;
As lightning to the children eased*

*With explanation kind,
The truth must dazzle gradually
Or every man be blind.*
—Emily Dickinson (1830-1886)

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