

## History 1906: Digital Atlas Design Internship

Fall 2020

Thursdays, 3:30 – 5:30 PM

<https://pitt.zoom.us/j/95179739016>

Instructor: Dr. Susan Grunewald

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Office Hours: Thursdays, 1:15 PM – 3:15 pm on Zoom (use link above for class) and by appointment

### Internship Description:

The Digital Atlas Design Internship supports student research by teaching interns how to use digital tools and methods to explore the global past. Students manage a semester-long independent research project using an interactive, public-facing platform that utilizes GIS and web design skills gained during the internship. Students engage with both world history and digital humanities while developing a spatial database about a topic of their choosing. Experience with digital methods or GIS is not necessary, and students can receive publication credit for their work.

### Objectives and Goals:

- By the end of this internship, students will be able to:
  - Define GIS and HGIS
  - Use ArcMap and QGIS
  - Differentiate, analyze, and create Vector and Raster data
  - Obtain GIS information from various sources
  - Apply geospatial tools to historical questions
- Students will combine the above skills in order to serve the three main objective of the course:
  - Populating a gallery of atlases based on QGIS and ESRI StoryMaps. Student contributions will blend writing, images, georeferenced historical maps, and authored maps.
  - Supporting student research and expanding student skills. Students will spend an entire semester managing an independent project. They will expand their GIS and web design skills. They will also work with world history and digital humanities methodologies. In the end, students will have projects to list on their résumés and in portfolios.

POLICIES
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### Covid-19 Policies:

- This course follows the University's guidelines concerning Covid-19. We will follow the appropriate models of instruction and in person interaction as listed here: <https://www.coronavirus.pitt.edu/operational-postures>.
- We are following the Flex@Pitt model in this internship. As such, students are not required to physically be in the classroom or meet online at the posted class time. If the county and university deem it safe to meet in person, I will record our in person activities and upload them to Panopto, which will be accessible from the Canvas page. If we are not allowed to meet in person, I will continue to host on-line hours during the scheduled class time for those who can attend at that time. I will likewise record parts of those sessions and post the content to Panopto and Canvas. See this website for more information about Flex@Pitt and what it means: <https://www.provost.pitt.edu/more-information-provost-about-flexpitt-and-classroom-experience>.
- Be sure to keep checking the University's Covid-19 site for the most recent updates about measures around camps: <https://www.coronavirus.pitt.edu/>.

#### Behavior and Expectations:

- This class is designed both to facilitate discussion and foster skills, which requires sustained interaction with the instructor and your peers. As such, attendance is mandatory for all set meetings. As discussion is an essential component of the class, you are expected to actively participate, and to engage other students and their opinions with dignity and respect.
- You are assumed to have a computer, or access to one, during the practicum. If this is not the case, then please see the instructor.
- Coursework is to be uploaded to Pitt's Canvas, and space will be provided for each assignment. Your final assignment will be hosted in ESRI's Storymaps platform, and your data will be housed on the World History server at Pitt as part of the growing digital atlas project. To facilitate this, all data and your final project will be licensed under Creative Commons Attribution 3.0, ODbL, or other open-access license. If this is not possible, then some alternative will be worked out with the instructor.
- Last, and certainly not least, the Student Code of Conduct is observed.

#### University Policies:

##### Disability Resources and Services

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and the Office of Disability Resources and Services, 140 William Pitt Union, 412-648-7890/412-624-3346 (Fax), as early as possible in the term. Disability Resources and Services will verify your disability and determine reasonable accommodations for this course. For more information, visit [www.studentaffairs.pitt.edu/drsabout](http://www.studentaffairs.pitt.edu/drsabout).

##### Academic Integrity

Cheating/plagiarism will not be tolerated. Students suspected of violating the University of Pittsburgh Policy on Academic Integrity, from the February 1974 Senate Committee on Tenure and Academic Freedom reported to the Senate Council, will be required to participate in the outlined procedural process as initiated by the instructor. A minimum sanction of a zero score for the quiz or exam will be imposed. View the complete policy at [www.cfo.pitt.edu/policies/policy/02/02-03-02.html](http://www.cfo.pitt.edu/policies/policy/02/02-03-02.html).

Email Communication

Each student is issued a University e-mail address (username@pitt.edu) upon admittance. This e-mail address may be used by the University for official communication with students. Students are expected to read e-mail sent to this account on a regular basis. Failure to read and react to University communications in a timely manner does not absolve the student from knowing and complying with the content of the communications. The University provides an e-mail forwarding service that allows students to read their e-mail via other service providers (e.g., Hotmail, AOL, Yahoo). Students that choose to forward their e-mail from their pitt.edu address to another address do so at their own risk. If e-mail is lost as a result of forwarding, it does not absolve the student from responding to official communications sent to their University e-mail address. To forward e-mail sent to your University account, go to <http://accounts.pitt.edu>, log into your account, click on Edit Forwarding Addresses, and follow the instructions on the page. Be sure to log out of your account when you have finished. (For the full E-mail Communication Policy, go to [www.bc.pitt.edu/policies/policy/09/09-10-01.html](http://www.bc.pitt.edu/policies/policy/09/09-10-01.html).)

<b>TEXTS AND SCHEDULE</b>
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Texts:

There are no texts for purchase for the internship. Instead texts will be posted on Canvas or linked to online and will reflect the interests of the group. Feel free to e-mail the instructor concerning any particular areas of interest.

Schedule, readings, and assignments:

<b>To Cover in Class:</b>	<b>Due for Class at Date Listed</b>	<b>Due for Homework by 5:00PM on Canvas by Date Listed unless otherwise noted</b>
<p><b><u>Week 1:</u></b> Course overview, syllabus review  History:</p>	<p><b><u>Week 1: Introduction to GIS</u></b> August 20:  History:</p>	<p><b><u>Week 1: Introduction to GIS</u></b> August 25:  History:</p>

<p>- What is your research topic?</p> <ul style="list-style-type: none"> <li>• Good historical research questions</li> <li>• How to think spatially about history</li> </ul> <p>Technology:</p> <ul style="list-style-type: none"> <li>- Making a process log</li> <li>- Zotero</li> <li>- Zip files, extracting files</li> <li>- Overview of GIS</li> </ul>	<p>- Come to class ready to share your research topic and some questions that you might want to try to answer through mapping</p>	<p>-Come up with four spatial, historical questions that you are hoping to try to explore or answer through your project. Use those questions to write a draft of a project abstract. Post abstract and questions on Canvas.</p> <p>Technology:</p> <ul style="list-style-type: none"> <li>-install QGIS on your computer. Upload a screenshot of the program open and installed on your computer.</li> <li>-if you cannot get it to install or run, upload a screenshot of the error messages that you get</li> </ul>
<p><b><u>Week 2:</u></b></p> <p>History:</p> <ul style="list-style-type: none"> <li>-revising abstracts and more tips for good historical research projects</li> </ul> <p>Technology:</p> <ul style="list-style-type: none"> <li>- Latitude and Longitude</li> <li>- CSV files</li> <li>- Text editors</li> <li>- How to upload vector layers into QGIS</li> <li>- <a href="https://lincolnmullen.com/projects/spatial-workshop/qgis.html">https://lincolnmullen.com/projects/spatial-workshop/qgis.html</a></li> <li>- data sources</li> </ul>	<p><b><u>Week 2: Building a Historical GIS</u></b></p> <p>August 27:</p> <p>History:</p> <ul style="list-style-type: none"> <li>- Read: Gregory, Ian and Paul Ell. "GIS and its role in historical research: an introduction." <i>Historical GIS: Technologies, Methodologies and Scholarship</i>. Cambridge University Press. 2007.</li> </ul>	<p><b><u>Week 2: Historical GIS</u></b></p> <p>September 1:</p> <p>History:</p> <ul style="list-style-type: none"> <li>-Write 300 words and post to Canvas about what electronic resources exist for your project. Was it easy to find shapefiles? Are there any related projects online? Do you think you can easily make some of your own datasets for the project?</li> </ul> <p>Technology:</p> <ul style="list-style-type: none"> <li>- Download and add at least three shapefiles from <a href="https://www.naturearthdata.com/">https://www.naturearthdata.com/</a>. Post screenshot of the three shapefiles in QGIS on Canvas.</li> <li>- Upload process log to Canvas.</li> </ul>

<p><b><u>Week 3:</u></b></p> <p>Technology:</p> <ul style="list-style-type: none"> <li>- Learn how to use ArcGIS desktop and Pitt's remote access system</li> <li>-Learn how to georeferenced a map</li> </ul>	<p><b><u>Week 3: Vectors and Georeferencing, with Boris Michev of Library Geospatial Services, ArcGIS</u></b></p> <p>September 3:</p> <p>History:</p> <ul style="list-style-type: none"> <li>-Read: Gregory, Ian and Paul Ell. "Using GIS to visualize historical data." <i>Historical GIS: Technologies, Methodologies and Scholarship</i>. Cambridge University Press. 2007.</li> </ul> <p>Technology:</p> <ul style="list-style-type: none"> <li>-Find a historical map that relates to your project and have a copy saved on your computer.</li> </ul>	<p><b><u>Week 3: Vectors and Georeferencing</u></b></p> <p>September 8:</p> <p>Technology:</p> <ul style="list-style-type: none"> <li>- Georeference a map of some relevance to your project. Trace at least five points / lines / polygons from that map and add theprojec file you started last week with the three shapefiles. Post screenshot of the digitization on Canvas.</li> <li>- Update process log and post to Canvas,</li> </ul>
<p><b><u>Week 4:</u></b></p> <p>History:</p> <ul style="list-style-type: none"> <li>- Receive content specific advice about your project from your advisor</li> </ul>	<p><b><u>Week 4: Meet with Faculty Advisor</u></b></p> <p>September 10:</p> <p>History:</p> <ul style="list-style-type: none"> <li>- Arrange to meet with your faculty advisor sometime during this week.</li> <li>- Before you meet with your advisor: have a revised project abstract and series of spatial historical questions. Also have a draft storyboard for your mapping project to discuss with your advisor.</li> </ul>	<p><b><u>Week 4: Meet with Faculty Advisor</u></b></p> <p>September 15:</p> <p>History:</p> <ul style="list-style-type: none"> <li>-Submit a bibliography on Canvas. Include at least one source of spatial data and at least one historical source. NB: try to get the bibliography done (or have a draft of it) before you meet with your advisor for their input.</li> </ul>
<p><b><u>Week 5:</u></b></p> <p>History:</p> <ul style="list-style-type: none"> <li>- What is a gazetteer and how to make one</li> </ul>	<p><b><u>Week 5: Meet with Dr. Mostern</u></b></p> <p>September 17:</p> <ul style="list-style-type: none"> <li>-Read selections from Mostern, Ruth, Humphrey Southall, and Merrick Lex Berman. 2016. <i>Placing Names. Enriching and Integrating Gazetteers</i>. Bloomington: Indiana University Press.</li> </ul>	<p><b><u>Week 5: Meet with Dr. Mostern</u></b></p> <p>September 22:</p> <ul style="list-style-type: none"> <li>- Build a gazetteer of at least 10 places of importance to your project and upload it to Canvas.</li> </ul>

<p><b><u>Week 6:</u></b></p> <p>Technology:</p> <ul style="list-style-type: none"> <li>- OCR</li> <li>- Geocoding with services and Google Maps</li> <li>- <a href="https://github.com/grunewas/OCR-and-Geocoding-Tutorial/blob/master/OCR-and-Geocoding.md">https://github.com/grunewas/OCR-and-Geocoding-Tutorial/blob/master/OCR-and-Geocoding.md</a></li> <li>- rehash latitude and longitude</li> </ul>	<p><b><u>Week 6: What to map, where to get it, and how to map it</u></b></p> <p>September 24:</p> <p>History/Technology:</p> <ul style="list-style-type: none"> <li>-Bring to class a sample of written text related to your project. If it comes from a book, bring a scanned page or take a photo of the page on your phone. Have this file accessible on your computer for class.</li> </ul>	<p><b><u>Week 6: What to map, where to get it, and how to map it</u></b></p> <p>September 29:</p> <p>History/Technology:</p> <ul style="list-style-type: none"> <li>- Locate and map the ten places from your gazetteer from last week, places of differing geometries that are relevant to your project, along with a basic gazetteer of the mapped places. Write no more than 300 words about why these 10 place are significant to your project. Upload text and screenshot of GIS to Canvas.</li> </ul> <p>Technology:</p> <ul style="list-style-type: none"> <li>- Update process log and post to Canvas.</li> </ul>
<p><b><u>Week 7:</u></b></p> <p>Technology:</p> <ul style="list-style-type: none"> <li>- Choropleth maps in QGIS</li> <li>- <a href="https://earlyamericanelections.org/blog/2019/04/30/qgis-tutorial.html">https://earlyamericanelections.org/blog/2019/04/30/qgis-tutorial.html</a></li> <li>- Heat maps with QGIS</li> <li>- <a href="https://www.qgistutorials.com/en/docs/3/creating_heatmaps.html">https://www.qgistutorials.com/en/docs/3/creating_heatmaps.html</a></li> </ul>	<p><b><u>Week 7: Debates on GIS and History</u></b></p> <p>October 1:</p> <p>History:</p> <ul style="list-style-type: none"> <li>- Read Knowles, Anne. "The Contested Nature of Historical GIS." <i>International Journal of Geographical Information Science</i> 28, 2014</li> </ul>	<p><b><u>Week 7: Debates on GIS and History</u></b></p> <p>October 6:</p> <p>History/Technology:</p> <ul style="list-style-type: none"> <li>-Make a choropleth map or heat map in QGIS using the project file you have worked on for the past few weeks. If you do not have statistics to include with relation to your places, think of a yes/no question to encode and map in a choropleth fashion.</li> </ul> <p>Technology:</p> <ul style="list-style-type: none"> <li>-Update and post process log to Canvas.</li> </ul>
<p><b><u>Week 8:</u></b></p> <p>History/Technology</p>	<p><b><u>Week 8: Lying with Maps</u></b></p> <p>October 8:</p>	<p><b><u>Week 8: Lying with Maps</u></b></p> <p>October 13:</p>

<ul style="list-style-type: none"> <li>- draw a map of Pittsburgh</li> <li>- symbology exercises</li> </ul> <p>Technology:</p> <ul style="list-style-type: none"> <li>- ArcGIS online walkthrough</li> <li>- <a href="https://learn.arcgis.com/en/projects/get-started-with-arcgis-online/">https://learn.arcgis.com/en/projects/get-started-with-arcgis-online/</a></li> </ul>	<p>History:</p> <ul style="list-style-type: none"> <li>- Read <a href="https://www.nytimes.com/interactive/2016/11/01/upshot/many-ways-to-map-election-results.html">https://www.nytimes.com/interactive/2016/11/01/upshot/many-ways-to-map-election-results.html</a></li> <li>- Read selections from Monmonier, Mark Stephen. 2018. How to Lie with Maps. Chicago: The University of Chicago Press.</li> </ul>	<p>History/Technology:</p> <ul style="list-style-type: none"> <li>- Map your data (so far) in ArcGIS online using two of the different techniques we discussed – one that you believe accurately depicts your data and one that you feel misrepresents the facts. Write a brief (500 words) explanation and post text and with screenshots of the different types of mapping as a PDF to Canvas.</li> <li>- Update process log and post to Canvas.</li> </ul>
<p><b><u>Week 9:</u></b></p> <p>History:</p> <ul style="list-style-type: none"> <li>- Meet with advisor for content specific advice.</li> </ul>	<p><b><u>Week 9: Meet with Advisor</u></b></p> <p>October 15:</p> <p>History:</p> <ul style="list-style-type: none"> <li>- Have a revised abstract and project story board ready to discuss with your advisor.</li> <li>- Show you advisor some of your early project mapping work from either QGIS or ArcGIS online.</li> </ul>	<p><b><u>Week 9: Meet with Advisor</u></b></p> <p>October 20:</p> <p>History:</p> <ul style="list-style-type: none"> <li>- 1000-word paper that will serve as draft for your final project. <ul style="list-style-type: none"> <li>- This is like a regular history essay. It should start with an introduction that outlines some of your research questions and your hypothesis so far. This hypothesis should relate to your mapping/spatial analysis.</li> <li>- Write some of the historical background for your project as well. How does your project fit into existing scholarship on your topic? Are you the first person to map this aspect of it? What is new and noteworthy in your research? How are you either supporting the claims of other historians or refuting what they have found so far? Is your mapping work filling a gap in the scholarship?</li> <li>- Try to have at least two paragraphs that will each discuss one potential map series. Include screenshots of your maps so far.</li> </ul> </li> </ul>

		<p>Upload PDF to Canvas and email to advisor.</p> <p>NB: try to have at least an outline of your paper and maybe introduction ready to discuss with your advisor during your meeting.</p>
<p><b><u>Week 10: Meet with Dr. Mostern, World Historical Gazetteer</u></b></p> <p>History/Technology:</p> <ul style="list-style-type: none"> <li>- How can we contribute individual research to broader information systems?</li> <li>- What is the World Historical Gazetteer and what can we do with it?</li> </ul>	<p><b><u>Week 10: Meet with Dr. Mostern, World Historical Gazetteer</u></b></p> <p>October 22:</p> <p>History/Technology:</p> <ul style="list-style-type: none"> <li>-Read World Historical Gazetteer “About.” <a href="http://whgazetteer.org/about/">http://whgazetteer.org/about/</a></li> <li>- Read World historical Gazetteer “Guide.” <a href="http://whgazetteer.org/tutorials/guide/">http://whgazetteer.org/tutorials/guide/</a></li> <li>- Read World Historical Gazetteer “Traces.” <a href="http://whgazetteer.org/tutorials/traces/">http://whgazetteer.org/tutorials/traces/</a></li> </ul>	<p><b><u>Week 10: Meet with Dr. Mostern, World Historical Gazetteer</u></b></p> <p>October 27:</p> <p>History/Technology</p> <ul style="list-style-type: none"> <li>- Try to reconcile some of your project data with World Historical Gazetteer. Build a TSV from your gazetteer in Excel and use the following required fields outlined in this tutorial: <a href="https://github.com/LinkedPasts/linked-places/blob/master/tsv_0.2.md">https://github.com/LinkedPasts/linked-places/blob/master/tsv_0.2.md</a></li> </ul> <p>Upload screenshots of your data in WHG or error messages to Canvas</p>
<p><b><u>Week 11: Meet with Boris Michev of Library Geospatial Services about Story Maps</u></b></p> <p>Technology:</p> <ul style="list-style-type: none"> <li>-Learn how to use ESRI Story Maps</li> </ul>	<p><b><u>Week 11: Meet with Boris Michev of Library Geospatial Services about Story Maps</u></b></p> <p>October 29:</p> <p>History/Technology:</p> <ul style="list-style-type: none"> <li>- Come to class with some images related to your project and the draft of your essay.</li> </ul>	<p><b><u>Week 11: Meet with Boris Michev and Library Geospatial Services about Story Maps</u></b></p> <p>November 3:</p> <p>History/Technology</p> <ul style="list-style-type: none"> <li>- Upload screenshots of your Story Map project to Canvas.</li> <li>- Upload updated process log to Canvas.</li> <li>- Have a draft of your Story Map project to share with the class on April 2.</li> </ul>



<p><b><u>Week 12:</u></b></p> <p>History/Technology:</p> <ul style="list-style-type: none"> <li>- Writing about figures exercise (maps and tables)</li> <li>- Visualization best practices exercise</li> </ul>	<p><b><u>Week 12: Story Map Project Presentations</u></b></p> <p>November 5:</p> <p>History/Technology:</p> <ul style="list-style-type: none"> <li>- Come to class with an initial draft of your Story Map project. Class time is presentations of the project. Emphasis on historiography, writing, presentation. Keep in mind what spatial history is as a field. Post a link to Canvas.</li> </ul>	<p><b><u>Week 12: Story Map Project Presentations</u></b></p> <p>November 10:</p> <p>History/Technology:</p> <ul style="list-style-type: none"> <li>- Pick two maps or a map and a table from your draft project and rework the paragraphs about them, upload a screenshot of the map(s)/table and the paragraphs about them to Canvas.</li> </ul>
<p><b><u>Week 13: Dr. Mostern and Story Map Project Presentations (also set up individual meetings with your advisor during this week)</u></b></p> <p>History/Technology:</p> <ul style="list-style-type: none"> <li>- Receive feedback on drafts of your project from Dr. Mostern as well as your content advisor.</li> </ul>	<p><b><u>Week 13: Dr. Mostern and Story Map Project Presentations (also set up individual meetings with your advisor during this week)</u></b></p> <p>November 12:</p> <p>History/Technology:</p> <ul style="list-style-type: none"> <li>- Bring updated map project to class to present to Dr. Mostern for feedback.</li> </ul>	<p><b><u>Week 13: Dr. Mostern and Story Map Project Presentations (also set up individual meetings with your advisor during this week)</u></b></p> <p>November 17:</p> <p>History/Technology:</p> <ul style="list-style-type: none"> <li>- Make changes as suggested by Dr. Mostern and your advisor to your project. Post screenshots and explanation of what you changed to Canvas.</li> </ul>
<p><b><u>Week 14: Wrap up and presentation of final projects.</u></b></p> <p>History/Technology:</p> <ul style="list-style-type: none"> <li>- Final presentations of projects to classmates.</li> <li>- What is Dataverse and how to upload your gazetteer to it.</li> </ul> <p><a href="https://dataverse.harvard.edu/dataverse/worldhistorical">https://dataverse.harvard.edu/dataverse/worldhistorical</a></p>	<p><b><u>Week 14: Wrap up and presentation of final projects.</u></b></p> <p>November 19:</p> <ul style="list-style-type: none"> <li>- Keep working on project. Come to class with final issues or questions for classmates.</li> </ul>	<p><b><u>Week 14: Wrap up and presentation of final projects.</u></b></p> <p>November 24:</p> <ul style="list-style-type: none"> <li>- Upload final process log to Canvas.</li> <li>- Upload final project Story Map link to Canvas.</li> <li>- Upload your gazetteer data set to Dataverse.</li> </ul> <p><a href="https://dataverse.harvard.edu/dataverse/worldhis torical">https://dataverse.harvard.edu/dataverse/worldhis torical</a> Screenshot on Canvas</p>