"Building to Scale: Shaping Digital Coursework with Tools and Partnerships"

John Krygier  |  Geology & Geography  |  Environmental Studies  |  Ohio Wesleyan University

"...the focus has broadened from thinking of the digital as a presentational medium—from digitization—to thinking with the digital as a pedagogical method."
**Pedagogical Context:** undergraduate courses & theoretical and pedagogical goals

- David Bernstein: Denison, Urban Environmental History
- Nick Crane: OWU, Urban Geography
- John Krygier: OWU, Geography/Mapping/GIS

**Geographical Context:** Columbus, Ohio as an urban experiential classroom

**Digital materials:** Baist's Atlases of Columbus (1899, 1910, 1920)
**Question:** How can we **think** and **learn** about urban places – the way they change, why they change, what forces shape them and how they shape us?

Take a **network** of coordinated people and things:

- Psychogeography
- Mapping/Cartography (John Krygier)
- City of Columbus GIS Manager (Shoreh Elhami)
- Urban Geography (Nick Crane)
- Crowdsourcing
- Undergraduate students (Denison, Ohio Wesleyan)
- City of Columbus Public Library
- iPads & smart phones
- Environmental History (David Bernstein)

- Chicago School of Sociology (Mapping, 1920s)
- Rephotography
- Cloud GIS (via ArcGIS Online & City of Columbus)
- Historical Real Estate Atlases
- Director of OWU Libraries (Catherine Cardwell)
- Participatory Mapping/GIS
- Mellon Digital Scholar (Jacob Heil)
- Cached high resolution (GB) map imagery
- Ohio State Historical Society

**Focus them in a **place**: Columbus, Ohio

**Outcome:** to be determined...
Super Organized Plan

1. Technical challenge: app based historical maps, images and documents for exploration & discovery in urban places (web and in field) tied to intellectual goals of urban courses. (Summer & Fall 2014)
   1. Historical built environment: Baist’s real estate atlases (1899, 1910, 1920)
   2. Historical social environment:
      1. Blanchard panoramic photographs (1922)
      2. McKenzie Columbus social mapping (1921)
      3. US Census population, race (1930)
      4. Columbus Memory: harvested photographs (various dates)
      5. Redlining maps (1936)
   3. Current built environment (map and satellite imagery)
   4. Current social environment
      1. Columbus Historical Districts
      2. Columbus Census Data (2010)

2. Pedagogical challenge I: Integration in courses (Spring 2015)
   1. Goals of two courses
   2. Use of materials in class setting
      1. Exploration and discovery tied to course goals
         1. Tie to specific neighborhoods (Arena District, Bronzeville, etc.)
         2. Tie to specific transects (transportation - roads, railroads, etc.)
         3. Leave open to random discovery
      2. Scholarly component tied to course goals
         1. Understand primary sources: mosaic flaws, critical map use; perspective of Chicago School sociology, etc.
         2. Find and understand secondary sources
         3. Interpretation, documentation and additional research
   3. Crowdsourcing: students & faculty add relevant materials to apps
   4. Use of materials in field
      1. Experience of current urban landscape in comparison to historical materials (map, images) and completed classroom research on particular locations: Crowdsourcing
         1. Field documentation of experience: annotate the maps digitally
         2. Field acquisition of new photographs, rephotography of old photos, interviews, other materials: geocoded and added to app.
   4. Interpretation and integration of 2. Class Use and 3. Field Use above
   5. Final student project report linked to app
   6. Further expansion of data and information in apps

3. Pedagogical challenge II: Psychogeographic methods for Exploration & Discovery. (Future)
   1. Explore in the field first using psychogeography methods: "engaged discomfort" leading to intellectual questions
   2. App: will guide you through urban environment in a way that engages users (students, others). Document "moments of engagement" to explore in more detail
      1. Navigate through current landscape using 1899/1900/1920 maps; document experience (what changed and what hasn't)
      2. Navigate along significant historical transects: US40, Broad Street, Interurban lines, etc. and document experience.
      3. Navigate along a route randomly generated by app and document experience
   3. Return to classroom and explore the issues and questions raised by the field experience; annotate with additional research tied to course content

4. Pedagogical challenge III: Extension of apps and functions to broader community of users (Future)
   1. Use in a way similar to students (explore, document)
   2. Add historical materials, interpretations, stories, etc. to apps.
   3. Community members engage with students through app and in field: collaboration
Technical Challenge & Collaboration: from musty old atlas to web app

- coordinate **access** to Baist's Atlases: Ohio Historical Society, Columbus Public Library
- **scanning** by State Historical Society (to TIFF)
- **georectification** (add map coordinates and stretch old maps to current geography): Will Ruzek (OWU student)
- help **focusing, organizing, facilitating**: Jacob Heil (Five Colleges of Ohio) & Catherine Cardwell (Director, OWU Libraries)
- **tile** together Atlas plates into continuous coverage: Shoreh Elhami and Ting Feng (City of Columbus)
- document and fix (if possible) **flaws** along atlas plate edges: Feng (City of Columbus)
- **cache** tiled map files (for quick access, zoom in/out): Elhami (City of Columbus)
- design **web map apps** for student access to Baist's maps (and other data): Bernstein (Denison), Crane & Krygier (OWU)
- **create apps** based on available ArcGIS Online Templates: Ting (City of Columbus)
- integrate **other data** (maps, panoramic photographs, data): Feng (City of Columbus)
- allow for **crowdsourcing** (photos, rephotography, text, etc.): Feng (City of Columbus)
- **fret/whine** about apps not doing everything we want: faculty
- **field testing** of apps (future)
- Hope for **more Mellon money** to pay for custom programming given limitations of available app templates (future)
The G. William Baist Company of Philadelphia, Pennsylvania, published three large atlases of Columbus in 1899, 1910, and 1920. These atlases and their maps were created for utilitarian purposes: Baist’s maps were for real estate title searches and include detailed building, subdivision, infrastructure, and street data. They were beautifully designed and colored, and produced for dozens of U.S. cities, but in small quantities. Most were heavily used, annotated, and worn out. Few survive in good condition. The maps from Baist’s Atlases below were scanned from three of the few remaining copies of these Atlases, in the collections of the Columbus Public Library and Ohio State Historical Society. Baist’s Atlases of Columbus provide a significant source of information to assess historical urban change.
City of Columbus Historic Maps (1899, 1910, 1920)
The G. William Baist Company of Philadelphia, Pennsylvania, published three large atlases of Columbus in 1899, 1910, and 1920. The maps from Baist's Atlases below were scanned from three of the few remaining copies of these Atlases, in the collections of the Columbus Public Library and Ohio State Historical Society. Baist's Atlases of Columbus provide a significant source of information to assess historical urban change.
It was the shadow wolf made on the map with Ben’s hands that chose the path he, Erika, McKenna, Mallory, & Django must take through the Ohio Wesleyan campus. A Purposeless walk—a derive—with no goal, a path not just walk the path. Its smells, its textures, its sounds where draws one in here. Old Slocum Hall here.

1. Crunchy twigs
2. Mulch small
3. Woody small
4. Squishy rustling grass
5. Fruit pop (soda) small
6. Truck noise
7. Ahhh...rustling leaves...flowery smell
8. Car noise
9. Buzzing air conditioner
10. Yells, whistles, basketball
11. Foul rotting stinky stick stench
12. Greenhouse fens...calming

smell-scape
texture-scape
sound-scape

there

OWIIL Mapping Weird Stuff

Guide Psychogéographique de OWU (2009)
**Psychogeography:** “the study of the precise laws and specific effects of the geographical environment, consciously organized or not, on the emotions and behavior of individuals.”

**Dérive:** “A mode of experimental behavior linked to the condition of urban society: a technique of transient passage through varied ambiances.”

“The production of psychogeographic maps, or even the introduction of alterations such as more or less arbitrarily transposing maps of two different regions, can contribute to … complete insubordination of habitual influences. A friend recently told me that he had just wandered through the Harz region of Germany while blindly following the directions of a map of London.” Debord, *Introduction to a Critique of Urban Geography.*

**Question (again):** How can we think about urban places – the way they change, why they change, what forces shape them and how they shape us?

**Partial answer:** Lets insubordinate habitual influences by making students wander through Columbus blindly following the directions of a map made in 1899.

- applied psychogeography for exploring and raising questions and ultimately understanding cities
- useful for Urban Environmental History and Urban Geography
- useful for real people who want to explore cities
- situated in experience, engagement, exploration
- situated in a cool intellectual context
- requiring a network of collaborators and interwoven digital technologies
Sources

Mapping Weird Stuff
http://mappingweirdstuff.wordpress.com

Columbus Historical Map Apps
http://columbus.maps.arcgis.com/home/group.html?owner=admincoc&title=Historic%20Maps&q=&focus=all

Denis Wood. "Lynch Debord"
http://krygier.owu.edu/krygier_html/geog_222/geog_222_lo/Lynch_Deborg_Carto.45.3.003.pdf