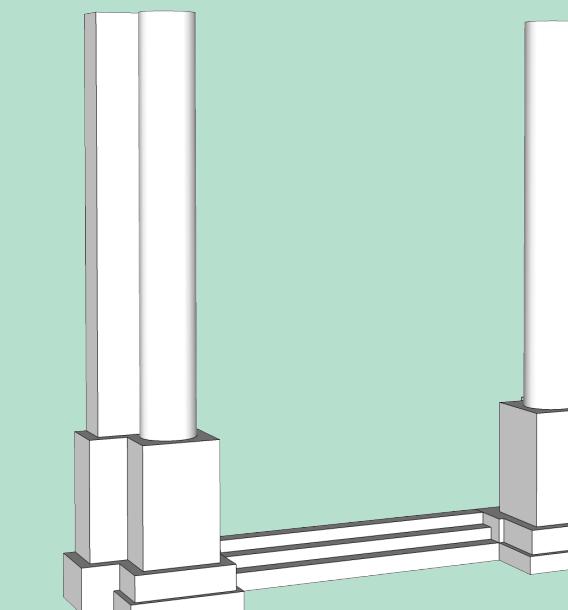


Points, Lines, Polygons, and Pixels: A Framework for Teaching & Learning Humanities through Visualization

Hannah L. Jacobs

Humanities students can develop critical digital visual literacies¹ through exploratory making, analysis, and storytelling. Yet incorporating digital visualization components into teaching depends upon course content and access to expertise, time, tools, and support. While many have built their humanities visualization programs one assignment at a time, how might instructors across institutions and geographies share in processes of course design that enable as many teachers and students as possible to engage in visualization as alternative forms of humanities knowledge production and presentation?² Following this framework, instructors can shape project ideas into assignments suitable to multiple contexts. It matches digital methods and resources with pedagogical goals, course content, and visualization concepts by guiding instructors through an iterative planning process.

Envision a Project



Build Foundations

- Learning Goals
- Research Question
- Project Output(s)
- Evaluation Criteria

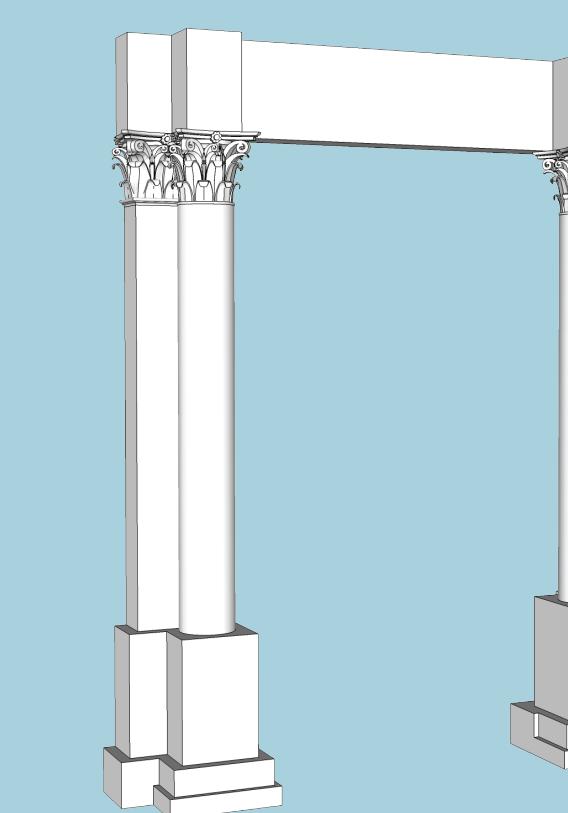
Establish Visualization Purpose

- Exploratory, Analytical, and/or Presentational
- Contributes to the project's scholarly *value*
- Enhances student learning & engagement

Output

- Draft assignment description that includes goals, question, context, output(s), and schematic rubric.

Evaluate Pedagogical Principles & Resources



Resources

- Institutional Support
- Expertise
- Time
- Tools
- Funding

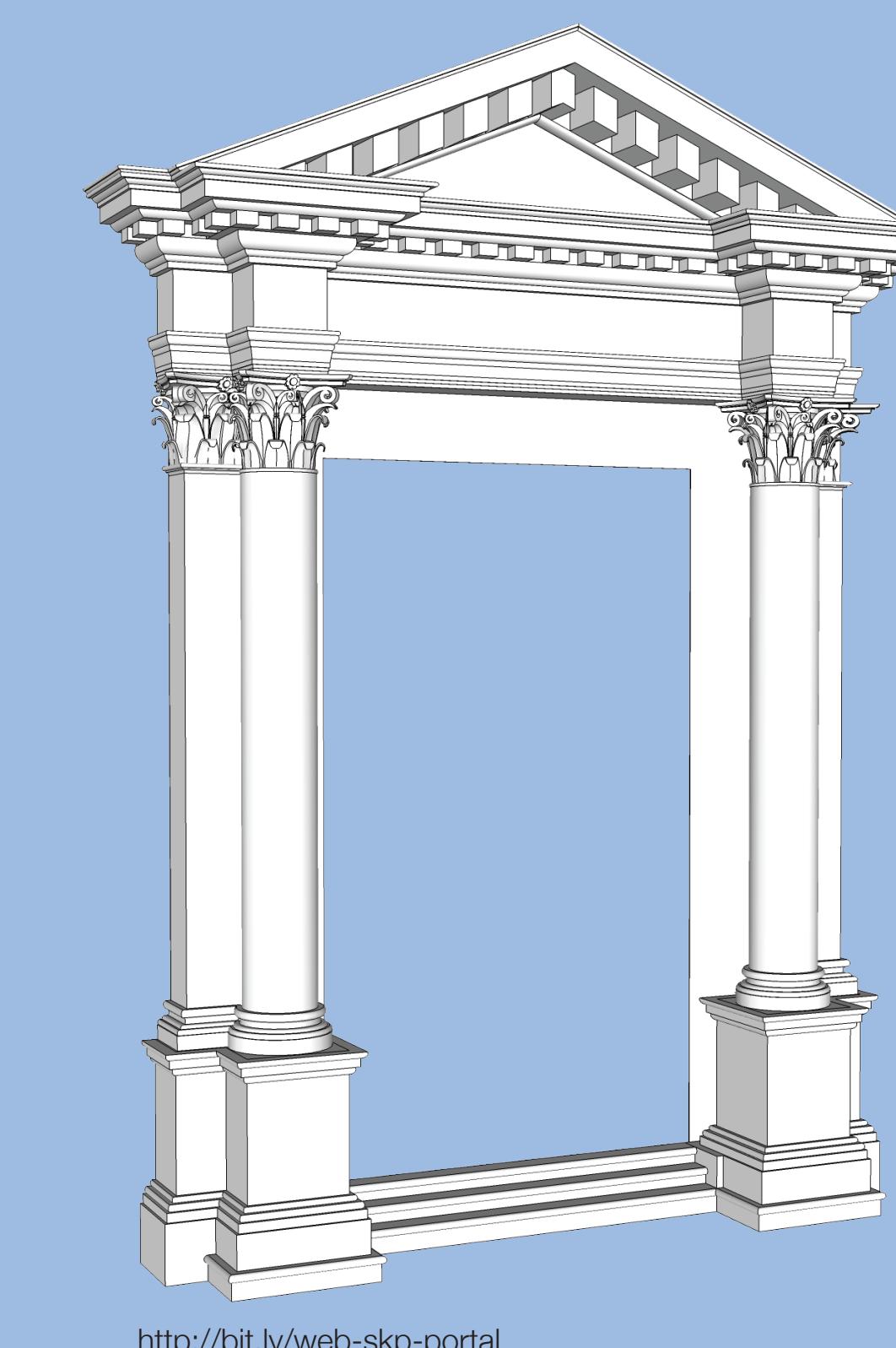
Principles

- Creation Process as Knowledge Production³
- Digital, Information, Visual, and/or Meta-Literacies⁴
- Accessibility, Scalability, Replicability, & Extensibility⁵
- Collaborative Environments⁶
- (Digital) Research & Scholarship Practices⁷
- Open and/or Public Engagement⁸

Outputs

- List of available resources & principles
- Revised assignment description based on principles & resources.

Design the Assignment



¹ Susan Brown, "Don't Mind the Gap: Evolving Digital Modes of Scholarly Production Across the Digital-Humanities Divide," in *Rethinking the humanities: the culture of research in Canadian universities*, ed. Daniel Coleman. (Edmonton: University of Alberta Press, 2011), 210-211.

² Stephen Barnard, "Building Castles in the Air: Critical Digital Pedagogy and the Pursuit of Praxis," in *Hybrid Pedagogy*, September 1, 2015. <http://www.digitalpedagogylab.com/hybridped/building-castles-in-the-air-critical-digital-pedagogy-and-the-pursuit-of-praxis/>. Accessed July 26, 2017.

³ Tanya Clement, "Multiliteracies in the Undergraduate Digital Humanities Curriculum: Skills, Principles, and Habits of Mind," *Digital Humanities Pedagogy*, ed. Brett D. Hirsch. Open Book Publishers, 2012, 366.

⁴ Ibid, 387.

⁵ Aaron Mauro, "Digital liberal arts and project-based pedagogies," in *Doing Digital Humanities: Practice, Training, Research*, ed. Constance Crompton, Richard J. Lane, and Ray Siemens. (New York: Routledge, 2016), 379.

⁶ Jesse Stommel, Pete Rorabaugh and Sean Michael Morris, "Beyond Rigor," in *Hybrid Pedagogy*, October 9, 2013. <http://www.digitalpedagogylab.com/hybridped/beyond-rigor>. Accessed July 26, 2017.

⁷ Diane Jakacki and Katherine Faull, "Doing DH in the Classroom: Transforming the humanities curriculum through digital engagement," in *Doing Digital Humanities: Practice, Training, Research*, ed. Constance Crompton, Richard J. Lane, and Ray Siemens. (New York: Routledge, 2016), 359-60.

⁸ Mauro, 379-80.

⁹ Visualization method categories and types drawn from workshop teaching materials for *What's Your Question: Designing Digital Historical Research* (with Brian Norberg, January 2016) and *Visualizing Venice: The Ghetto of Venice* (assisted Mark Olson, Victoria Szabo, and Ed Triplett, June 2016).

Assess Source Materials

- Format(s)
- Accessibility & Availability
- Digital or Analog
- Qualitative or Quantitative
- Challenges

Identify Audience

- Prior knowledge
- Cultural principles
- Learning goals
- Method(s) of access

Choose Visualization Method(s)⁹

- | | |
|----------------|--|
| • Archival | • animation, projection, video |
| • Dimensional | • data & information |
| • Narrative | • geospatial & deep mapping |
| • Network | • exhibition & interaction |
| • Quantitative | • augmented, alternate, mixed, virtual realities |
| • Spatial | • modeling & fabrication |
| • Temporal | • non-linear storytelling |

Develop Project Workflow

- Stable, compatible tools
- Replicable & extensible pipeline
- Stable, cross-platform format(s)

Revise Course Structure

- Instructional breakdown
- In-class requirements
- Syllabus revision

Establish Evaluation Criteria

- Accommodate experimentation & failure
- Assess both process & product
- Evaluate the group & the individual
- Balance areas of knowledge

Outputs

- Final assignment description
- Bibliography & source repository
- Project pipeline
- Tutorials
- Sample project
- Modified syllabus
- Detailed grading rubric

Get Involved:

bit.ly/humviz-framework