Learning by Making:
Digital Methods and the Wired! Experiment at Duke

Caroline Bruzelius & Mark Olson
@ Wesleyan University
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“What if . . .”?  
The start of a conversation
Bourges Cathedral
- Ground Plan
Figure 1.2 Jean Sauvaget’s hypothetical reconstruction of the process whereby a colonnaded street in a city of the late antique East was gradually transformed into a medieval Arab suq. The drawing needs to be read as a chronological process from left to right: the monumental porticoes and thoroughfare are gradually dismantled and engulfed by a teeming area of shops, workshops and alleyways (from Sauvaget 1934)
THE BATTLE WE ALL FACE
1st Wired Course
San Francesco a Folloni

A Historical Reconstruction Project
by Michal Koszycki and Rebecca Wood
HADRIANIC BATHS AT APHRODISIAS

http://www.dukewired.org/project-archive/hadrianicbaths
Wired Course - Lessons Learned

• New questions about evidence and the challenge of ambiguity - an emphasis on what is NOT known

• The digital materializes hypotheses - “the model speaks back to me”

• Deep collaboration between faculty & students, vertically integrated teams.

• Visualization can be a mode of inquiry, not simply illustration

• Product vs. Process

• New Literacies

• Fun!
Back to Normal Life?
Why not?

• The future is digital; students need to be prepared

• Potential for student-generated, public-facing humanities

• Importance of risk-taking: uncertain outcomes; being “out of your element” or area of expertise
Visualizing Venice - http://visualizingvenice.org
Sonic Analysis - Music at the Ospedaletto
The New Normal - What next?
The Lab

www.dukewired.org
Example Research Project:
Sculpture in Context
Museum Inside / Out
The Museum: Inside/Out

Co-taught by:
Dr. Caroline Bruzelius
Dr. Mark Olson

Teaching Assistants:
Elizabeth Baltes
Alexandra Dodson
Joel Wanek

Student-Researchers:
Iara Dundas       Katrina Robelo
Kiki Fox          Joseph Williams
Elisabeth Narkin  Meg Williams
Tim Prizer
ca. 225
ca. 200
early 120s
mid-120s
late 120s
end of the second-early first c.
Far-Reaching Interdisciplinarity

Reflectance Transformation Imaging - The Mark of the Stone Cutter
Curriculum

Sue Chang is coming to Duke!

Physics
She works on acoustics and architecture with D. Lawson.

She takes Gothic cathedrals, AutoCAD, and mapping.


She gets excited about visual analytics.

She takes Isis 240.

She takes CS.

She signs up for Mapping and Modeling - Venice.

She takes Intro to Art History with Mapping.

She takes Class. Studies course on Roman Topography.

She does summer internship on mapping Venice with Ent. team.

She learns Italian! (Ottimo!)

She learns remote sensing with Pire.

She creates apps for visualizing Venice.

She participates in excavation at Catal Huyuk.

My future! What will I do with my life?

How can I find an interesting and challenging career?
Public Humanities - VV App

**Materials**

- **Marble: Pink Veronese**
- **Istrian Stone**
- **Gray Bardiglio**
- **Marble: Pavonazzetto**
- **Porphyry**
- **Serpentine**

Select a type of material above to learn more about its origins and how it was used in Venice.

**Pink Veronese**

This text area will be for information about Pink Veronese Marble, the material, and its symbolic meanings and stuff.

**Pink Veronese Across Venice**

This text area will be for information about how Pink Veronese Marble was used across Venice. This text area will be for information about how Pink Veronese Marble was used across Venice. This text area will be for information about how Pink Veronese Marble was used across Venice. This text area will be for information about how Pink Veronese Marble was used across Venice. This text area will be for information about how Pink Veronese Marble was used across Venice.

**Origins of Pink Veronese in Italy**

This text area will be for information about where Pink Veronese Marble got to Venice. This text area will be for information about where Pink Veronese Marble got to Venice. This text area will be for information about where Pink Veronese Marble got to Venice.
Discussion

• Techniques / Technologies / Tools

• Challenges

• Practicalities of Teamwork

• Summer Workshops / Term Workshops
Coming soon:

New M.A. in Historical & Cultural Visualization
2013 DIGITAL VISUALIZATION WORKSHOP: The Ghetto of Venice
Venice International University
June 4-14, 2013
Faculty: Professors Donatella Calabi (IUAV), Mark Olson and Victoria Szabo (Duke University)

LEARN
• 3D modeling using SketchUp
• 3D acquisition using photogrammetry
• interactive mapping with Google Earth and Scalar
• basics of ARQgis related to Google Earth

ENGAGE
• with questions of change over time
• dynamic processes in urban and rural environments

http://summer.visualizingvenice.org
Visualizing Venice Summer 2012

Final Projects from the Visualizing Venice workshop at Venice International University. June 2012.

http://vimeo.com/album/2103104
Technologies / Tools

- 3D Modeling (Trimble Sketchup, Autodesk Maya, Sculptris, Meshlab)
- 3D Acquisition - Photogrammetry (123D Catch, Photosynth, PVMS)
- 3D Acquisition - Laser Scanning (NextEngine Desktop Scanner)
- Geospatial Visualization (Google Earth, qGIS, Neatline)
- Re-colorization (Adobe Photoshop)
- Mobile Apps (iOS development, HTML5)
- Experimental Interfaces (Kinect, LeapMotion, Processing, DiVE / Unity)