Re-imagining Religion: The Spatial Humanities as a Framework for New Scholarship

David J. Bodenhamer
The Polis Center at IUPUI
Virtual Center for Spatial Humanities

New Technologies and Interdisciplinary Research on Religion
Harvard University
March 2010
Spatial turn in humanities in 1990s
Space offers opportunity for:
  Integration
  Visualization
  Participation
GIS-facilitated tools and methods
New genres of scholarship in history, archaeology, cultural studies, etc.
Barriers

Spatial illiteracy
Highly technical
Expensive
Incomplete data
Team-based
Epistemological challenges
Long-standing interest in spatial patterns of American religion (e.g., Gaustad)

Key county-level, decennial data sets:
- US Census of Religious Bodies, 1906-1936
- National Council of Churches, 1952
- Glenmary Census, 1960-2000
Quantitative Data

- Denominational members
- Denominational adherents
- Number of congregations
- Value of property (US censuses)
- Program information
Presbyterian USA - Adherents
as % of total population

Legend
% of total population

- 0 - 1.3
- 1.3 - 3
- 3 - 6.4
- 6.4 - 11.5
- REGION
- STATES
There are about 1,200 congregations in Marion County.
Problems

No easy way to construct and trace denominational families across time

Simplistic visualizations

Does not capture denominational complexity
Lacks range and proportionality
User Requirements

Typology Construction
- Select from a list of pre-defined typologies
- Define new typologies on-the-fly
- Aggregate data to user-defined typologies

Data Additions and Manipulations
- User-supplied data
- Web services
- New fields and re-coding

User-Defined Geographies
Visualization Requirements

View range and relative size of denominational types within the same geography or across geographies.

Order the visualizations by user-defined measures of relative proximity and distance (e.g., theological proximity/distance, ecclesiastical proximity/distance, political proximity/distance, etc.).

Compare multiple geographies.
Proximity and Size

Denominations in Marion county plotted on a continuum according to theology
Denominations in Marion county plotted on a matrix according to theology on one axis and income on another.
Denominations in Marion county plotted on a matrix according to theology on one axis and income on another. An additional county is shown in the background and all in grey for comparison.
Dots indicate other denominations present in each county within the Methodist "Zone of dominance"
Pareto principle (80/20): 80% of the effects come from 20% of the causes

We often do not need the full analytical functionality of ArcGIS 9.3 to accomplish what humanists need

Redefining GIS

Moving beyond ESRI
Making GIS truly multimodal
Opening GIS to Web 2.0, VREs, and immersive environments
Creating collaborative spaces
Developing a new epistemology (nonlinear, fluid, reflexive)
Web 2.0 Tools/Platforms

- Wikis
- Mash-Ups
- Blogs
- Social networking sites
- Volunteered video
- VREs
- Games
- Mobile devices
Harness the problem-solving capabilities of a networked and communicating group of participant-collaborators

Uses Web 2.0 and Grid technologies

Wiki is prime example: based on compromise and consensus (old tradition) but leading to new structures of knowledge

Levy, Collective Intelligence (1997)
“Participatory Learning includes the ways in which new technologies enable learners (of any age) to contribute in diverse ways to individual and shared learning goals. Through games, wikis, blogs, virtual environments, social network sites, cell phones, mobile devices, and other digital platforms, learners can participate in virtual communities where they share ideas, comment upon one another's projects, and plan, design, advance, implement, or simply discuss their goals and ideas together. “

McArthur Foundation, 2008
Spatial humanities is an explicit recognition of the reciprocal influence of geographic and constructed space on culture and society.

Embraces all spatial technologies but bends them toward the humanities.

Multidisciplinary and multimodal.

Links time, space, and culture dynamically.

Joins humanities and GIScience
Neogeography
Volunteered Geographic Information (VGI)
Virtual globes, APIs, mash-ups, and social networking
Geospatial semantic searching
Past, Present, and Future

Previous

Digital humanities

Map making

Current

Digital mapping

Atlasses

Digital gazetteers

Spatial analysis

Database management

Future

GIS

SOM

Tag clouds

Geobrowsers

Geovis.

Tree maps

Immersive visualization

Humanities GISc
Eastern tip of Uluru

Unloaded on May 20, 2006 by RL

The base circumference of Uluru is about 9km. I walked solo around the rock in the early morning, stopping to photograph the long shadows and listen to the morning bird songs. Uluru Kata Tjuta National Park, Australia, 2006.

- Australia
- Uluru
- Ayers Rock
- nationalpark
- Anyone can see this location

www.flickr.com
Cyberscape: Placemarks in post-Katrina New Orleans

Flooding Reports (via Scipionus) in New Orleans, Sept. 2005

Who was able to or interested in using this new technology?

Which places were they interested in?

Crutcher and Zook. 2009. GeoForum
Interactive, immersive, and experiential visualization

‘a sense of being there’
Spatial VR

Virtual Reality and GIS
Past, Present, and Future

Previous | Current | Future
--- | --- | ---
Digital humanities | Map making | GIS
| Digital mapping | Atlasses | SOM
| Digital gazetteers | Spatial analysis | Tag clouds
| Database management | Geobrowsers | Geovis.

Humanities GISc | Tree maps | Immersive visualization
Opportunities

• Life paths and spatial narratives
• Socio-spatial networks
• Virtual reality/immersion
• Gaming and simulations
• Practice theory
• Deep mapping/deep contingency
Deep Mapping

- Multi-media
- Multi-layered
- Open to negotiation
- Famed as conversation
- Visual and immersive
• New spatial collaboratories that allow
  • Retrieval
  • Contextualization
  • Hypothesis building
  • Flexible narration
  • Integration into knowledge networks

• Virtual Research Laboratories (VRL)
  • GRID+Web 2.0+Spatial Technologies
A unique post-modern scholarship with real and conceptual space as an integrating and animating framework:

- Visual and experiential
- Multiple perspectives
- Complex environments
- Simultaneous events

But how to prove the case?
Religion and the Atlantic World

How does religion as a spatial actor shape the Atlantic World?

- What are its paths of transmission?
- What spaces does it occupy and traverse?
- What are the proximate others that contest religious spaces?

How does physical, relative, and conceptual space shape religion in the Atlantic World?
How does religion alter space?
What is its spatial logic?
How does religion affect the imaging (not imagining) of space?
What spatial processes accompany changing conceptualizations of religion?
What methods/technologies does the project invite/require?
Religion and the Atlantic World

Project Criteria

- Make space explicit
- Address postmodern humanities
  - Agency
  - Fluidity
  - Simultaneity
  - Contingency
  - Uncertainty
  - Ambiguity
  - Multiple narratives
- Recognize problems with evidence, skills
- Reconcile epistemologies
- Make tools responsive to humanities
- Participatory platforms

Religion and Atlantic World as a Testbed
• Competing spatial schemes (geographical/conceptual)
• Discontinuous space and time
• Imagined communities
• Negotiating space
• Movement/flux
• Scale (autonomous, discontinuous, intersecting, competing)
• Spatio-temporal networks
• Spatial and temporal fluidity
• Emergent realities
• De-territorialization/re-territorialization
• Recursivity/Process
Deep Mapping Environment

Characteristics

• Alternate realities
• Fluid conceptions of space
• Simultaneity
• Multi-nodal/multi-perspective
• Multi-scalar
• Movement
• Alternate mapping schemes
• Linked space/time
• Discontinuous time/space/scale
• Robust visualizations
Humanities GIS
For the Atlantic World

Text, oral history, spatial data, photographs
Data: primary sources, sound, music, video, sketches, maps, narratives