A View from History and the Humanities

Peter K. Bol
Center for Geographic Analysis
Harvard University
The Spatial Turn in History and Historical Geographic Information Systems

Platforms
(maps and GIS)
Data
Digital scholarship
China Historical GIS

with funding from the Henry Luce Foundation, the National Endowment for the Humanities

and support from

Fairbank Center for Chinese Studies
Harvard Asia Center
Harvard Yenching Library
Harvard Yenching Institute

© 2001-2010 - Harvard University and Fudan University
The Advancement of Knowledge

- Theory/Paradigm Shifts
- Specialization
- Tools
Concepts for Humanists
Space and Place – Two (somewhat questionable) Propositions

• Space refers to area, it can be superimposed

• Place refers to named locations, whose histories can be created locally

Spatial analysis is a way of understanding variation across space, but history “takes place” in places.
The Political Polygon Based View of Space
Mapping the 67,000 persons with known addresses of the 130K in the China Biographical Database
4730
Examination Degree holders, 960-1126, with population distribution as of 1080
G. William Skinner

Hierarchical Regional Space Model
G. Wm. Skinner: Hierarchical Regional Space Model
Lower Yangzi Macrorregion
Core-Periphery Zones, 2000

slide courtesy of Mark Henderson
Lower Yangzi Macoregion
Urban-Rural Continuum, 2000
HRS matrix

CPZ

URC

slide courtesy of Mark Henderson
## Percent of Population Classified as Migrant
### Lower Yangzi Macroregion, 2000

<table>
<thead>
<tr>
<th>CPZ</th>
<th>URC</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>34.6</td>
<td>32.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>32.4</td>
</tr>
<tr>
<td>2</td>
<td>42.6</td>
<td>26.5</td>
<td>24.8</td>
<td>12.9</td>
<td>25.2</td>
<td>18.6</td>
<td>17.7</td>
<td></td>
<td>30.1</td>
</tr>
<tr>
<td>3</td>
<td>43.7</td>
<td>31.0</td>
<td>17.4</td>
<td>19.7</td>
<td>12.6</td>
<td>14.2</td>
<td>9.3</td>
<td></td>
<td>28.9</td>
</tr>
<tr>
<td>4</td>
<td>34.7</td>
<td>22.1</td>
<td>17.7</td>
<td>13.4</td>
<td>16.3</td>
<td>15.0</td>
<td>6.0</td>
<td></td>
<td>25.0</td>
</tr>
<tr>
<td>5</td>
<td>24.2</td>
<td>15.1</td>
<td>12.0</td>
<td>9.5</td>
<td>10.7</td>
<td>12.0</td>
<td>5.4</td>
<td></td>
<td>14.4</td>
</tr>
<tr>
<td>6</td>
<td>13.9</td>
<td>13.2</td>
<td>9.1</td>
<td>6.6</td>
<td>5.3</td>
<td>5.4</td>
<td>6.3</td>
<td></td>
<td>8.2</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>17.5</td>
<td>7.7</td>
<td>4.6</td>
<td>4.1</td>
<td>3.5</td>
<td>2.6</td>
<td></td>
<td>4.5</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td>6.4</td>
<td>3.2</td>
<td>3.4</td>
<td>2.9</td>
<td>2.1</td>
<td></td>
<td>2.7</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.6</td>
<td>2.3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>34.4</td>
<td>17.7</td>
<td>11.2</td>
<td>6.9</td>
<td>5.0</td>
<td>3.9</td>
<td>2.2</td>
<td>9.6</td>
</tr>
</tbody>
</table>
“Tiring” or “Difficult” or “Busy” – which?
Major and minor highways, 1279-1911
19th c. “Busy” counties (沖縣), Ming-Qing Postal Routes, 1990 Railroads
“Distance”

“Scale”
“Western Theory” versus “Our” (Chinese) History

Two perspectives in China’s first geographic text, the *Tribute of Yu* 禹貢

-- The Nine Provinces/Regions 九州
-- The Five Divisions 五服
• 淮海惟揚州・彭蠡既豬・陽鳥攸居・三江既入・震澤庶定・篖篯既敷・厥草惟夭・厥木惟喬・厥上惟塗泥・厥田惟下下・厥賦惟上錯・厥貢惟金三品・瑤・琨・篖篯・齒・革・羽・毛・惟木・島夷卉服・厥篚織貝・厥包橘・柚・錫貢・沿于江海・達于淮泗・

• Between the Huai and the sea is Yang province. The Pengli [marsh] was drained into a lake; the southing birds dwell there. The three rivers now flow into the sea and the Zhen Marsh has been settled. The fine and coarse bamboos have spread. Its grasses are delicately slender, its trees are tall, and its soil is miry. Its fields are of the lower third class; its revenues are of the upper third class, with admixture upwards. Its tribute is bronze of three qualities, yao jade, kun jade, fine and coarse bamboo, teeth, hides, feathers, fur and timber. The Daoyi tribes have clothes of woven grasses. In its baskets there are woven stuffs in cowrie pattern. In the bundles there are tangerines and pomelos offered as tribute. He went along the Jiang and the sea and reached the Huai and the Si.
禹迹图
夏禹

佐舜治水，有功，舜之末年以其子商均不肖，乃荐禹於天，授之位天下，号曰夏后氏。都安邑，传世凡十有七。
The Treatises on (Administrative) Geography 地理志 in the dynastic histories

- 自古聖王之受命也，莫不體國經野，以為人極．上應躔次，下裂山河，分疆畫界，建都錫社．
- Since antiquity all the sage kings who received the mandate to govern have marked out the capital and measured the lands so as to set the axis for humanity. Above they were in correspondence with the orbits of the planets; below they divided the mountains and rivers. They created borders and they drew boundaries; they established a capital and they bestowed fiefs.

隨書地理志序
Cyberinfrastructure

• World-historical gazetteer
• Sharing historical maps – Old Maps Online
  oldmapsonline.org
• OpenGeoportal.org
• World-Historical Dataverse of the Center for Historical Information and Analysis at the University of Pittsburg
• ArcGIS Online/WorldMap
Build your own mapping portal and publish it to the world or to just a few collaborators. WorldMap is open source software.

http://worldmap.harvard.edu/
WorldMap Usage Statistics

As of November, 2012:

- 6712 registered users
- 6181 data layers added by users, containing 111,486 data fields
- 1595 map collections created
- 270,075 unique visitors coming from every country in the world
- About 1000 unique visitors per day, spending 1-2 minutes each on average

Visits by Country

- United States, 145.69K
- United Kingdom, 22.85K
- India, 17.02K
- Canada, 13.58K
- Australia, 11.34K
- South Africa, 4.61K
- Germany, 5.03K
- Spain, 5.34K
- Japan, 6.76K
- Pakistan, 10.69K
- (not set), 7.69K
19th c. “Busy” counties (沖縣), Ming-Qing Postal Routes, 1990 Railroads