A Historian’s Perspective on Georeferencing and Interoperability

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International Workshop on Digital Gazetteer Research and Practice
UC Santa Barbara
December 9, 2006
Digital Gazetteers

- A gazetteer is a structured dictionary of named places
- Gazetteers can be integrated with network-accessible services to respond to queries and retrieve geometries
- Gazetteers are valuable information resources in their own right
- AND provide the basis for place-based search, display, and integration
Another perspective on place

“Geographers have approached the study of place from two main perspectives: place as a location, a unit within a hierarchy of units in space; and place as a unique artifact... (In the second sense,) place is a center of meaning constructed by experience.”

“Experience constructs places at different scales. The fireplace and the home are both places. Neighborhood, town, and city are places; a distinctive region is a place, and so is a nation... They are all centers of meaning to individuals and to groups. As centers of meaning, the number of places in the world is enormous, and cannot be contained in the largest gazetteer.”

Yi-Fu Tuan, “Place: An Experiential Perspective” (1975)
Emei Mountain in the Foguang Encyclopedia:

25 places named in addition to the headword.

An additional 210 places on the mountain.
How does the Encyclopedia Define Emei Mountain as a Place?

- Its location in political space
- Four alternative names (including Buddhist and Daoist names)
- Neighboring topographical features
- Five of its named peaks
- Its status in the corporate group of the Four Great Sacred Mountains—all named
- Significant named built features on the mountain: five temples (one with a historical and contemporary name), one statue, one road
- Other features referenced: more than 70 additional temples, more than 40 grottoes and caves, more than 100 stone niches for carvings
- The entry for one of its famous temples includes: the name of an additional corporate group (The Six Great Ancient Monasteries of Mount Emei), three historical names for the temple, seven named buildings, a named statue, and a named relic
The Yellow Beryl: A chronicle of the Tibetan Geluk monastic state written in the late seventeenth century and organized by region.

Spatial information:
- Monastic hierarchies
- Monastic landholdings
- Monastic Activities (feature types)

Associated information:
- Affiliated individuals
- Ritual practices
- Events
Databases in humanities computing: “The twin computational requirements of complete explicitness and absolute consistency opens up a space for the scholar to refine an inevitable mismatch between a representation and reality.” (Willard McCarty, 2005)
Implications for Gazetteer Design

Historical gazetteers need to support content that is:

• Multilingual
• Temporally intricate
• Spatially and temporally ambiguous
• Richly attributed in textual sources
• Reflective of indigenous ideas of space
• Of diverse scale
• Rich with relationships
Perspectives on Interoperability

1. Gazetteers as infrastructure
2. Gazetteers and other knowledge organization systems (“time-ateers”)
3. Single socially authored gazetteers
4. Multiple federated gazetteers
Gazetteers as Infrastructure

“The most interesting things that you can do with standalone tools and standalone resources is, I would argue, less interesting and less important than the least interesting thing you can do with networked tools and networked resources.” –John Unsworth (2000)
Gazetteers and Time-ateers (1)

An event (a state of being) is described by:

<table>
<thead>
<tr>
<th>PLACE</th>
<th>TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinates</td>
<td>Dates</td>
</tr>
<tr>
<td>Names</td>
<td>Names</td>
</tr>
<tr>
<td>Feature Types</td>
<td>Feature Types</td>
</tr>
<tr>
<td>Modified by Time</td>
<td>Modified by Place</td>
</tr>
<tr>
<td>Creator</td>
<td></td>
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</tbody>
</table>

UCMERCED
Single Socially Authored Gazetteer

- Multiple validated contributors
  - With or without editor
- Associated discussion site
- Edited wiki
- Free-for-all wiki
Multiple Federated Gazetteers

Inevitably, most historical gazetteers will emerge as small, handmade, specialist artifacts. Let’s put them together!

BUT…

- Incompatible typing schemes
- Unmanageable ambiguity
- Conflicting authorities
- Challenge of achieving buy-in
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