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Going Places in the Catalog: Enhancing Scholarly and Educational Resources with Geospatial Information. http://ecai.org/imls2002/

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Library users need effective searching by place. Present geographical searching is based on place-names and geo-political entities, both often ambiguous and/or unstable.

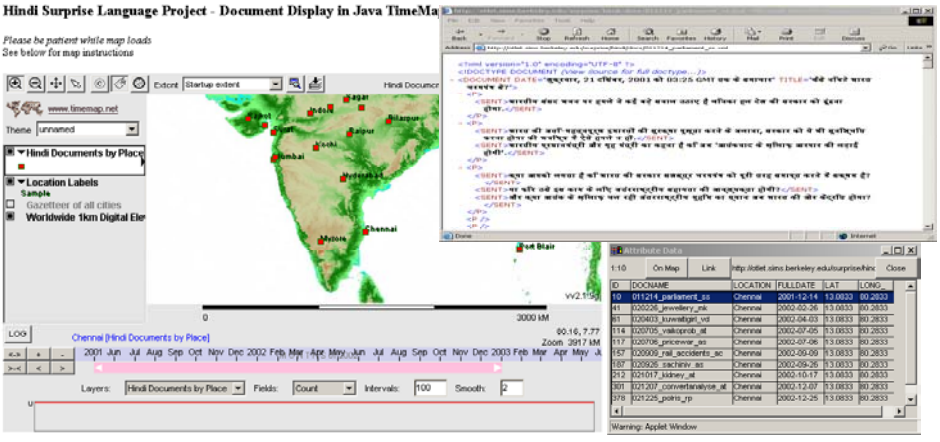
- Multiple forms: St. Petersburg, Санкт-Петербургский, Saint-Pétersbourg, etc
- Names change: St. Petersburg 1703-1914; Petrograd 1914-1924; Leningrad 1924-1991; St. Petersburg, 1991-.
- Multiple names: *Cluj*, in *Romania* / *Roumania* / *Rumania*, is also called *Klausenburg* and *Kolozsvar*.
- Homographs:Vienna, VA, and Vienna, Austria; 50 Springfields.
- Categorizing what kind of place "Feature Type"
- Specialists need specialized Feature Type Thesauri, e.g. Medieval Chinese administrative units; 200 feature types in British canal archaeology; Different kinds of Buddhist temple.
- Unstable boundaries: 19th century Poland; Balkans; USSR.
- Spatial relationships, e.g. within 50 mile radius.

Gazetteers map place-names to latitude and longitude and so can be used to disambiguate and locate named places. Since both places and place names change, time needs to taken into account explicitly. Map visualizations can be used to display search results and to specify spatial aspects of queries. This research project will show how linking an online gazetteer with an online library catalog can improved geographical searching.

(1) Better use of data already in library catalog records for clarification of place and space;
(2) Link online catalogs with online gazetteers;
(3) Map display of search results;
(4) Map interface for spatial queries;
(5) Extend spatial queries beyond library to other resources relating to the same locality.

Gazetteers can enrich library records and enable new search, e.g. "within a 50 miles radius."

Map search interface: News reports were briefly cataloged. Place names in them identified, searched in gazetteer for latitude and longitude, then expressed as points on map. To search: Zoom in on map, set time period on slider bar below map. Clicking on any named place on map displays brief bibliographical records (lower right). Click on item: text appears (top right).



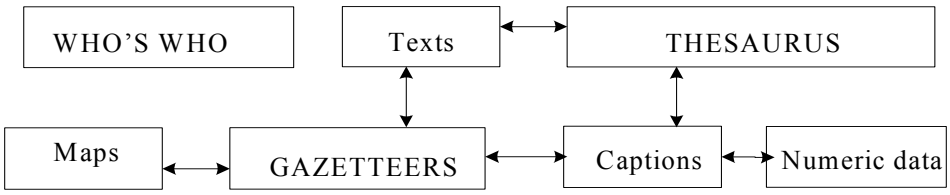
Place names have a temporal aspect and time periods have a geographical aspect. Date of *Neolithic period* or *Civil* war depends on region. Design of *Period Name Directory* analogous to gazetteer

Place name	Kind of place	Where (lat. & long. Values)	When
Period name	Kind of period	When (calendar dates)	Where

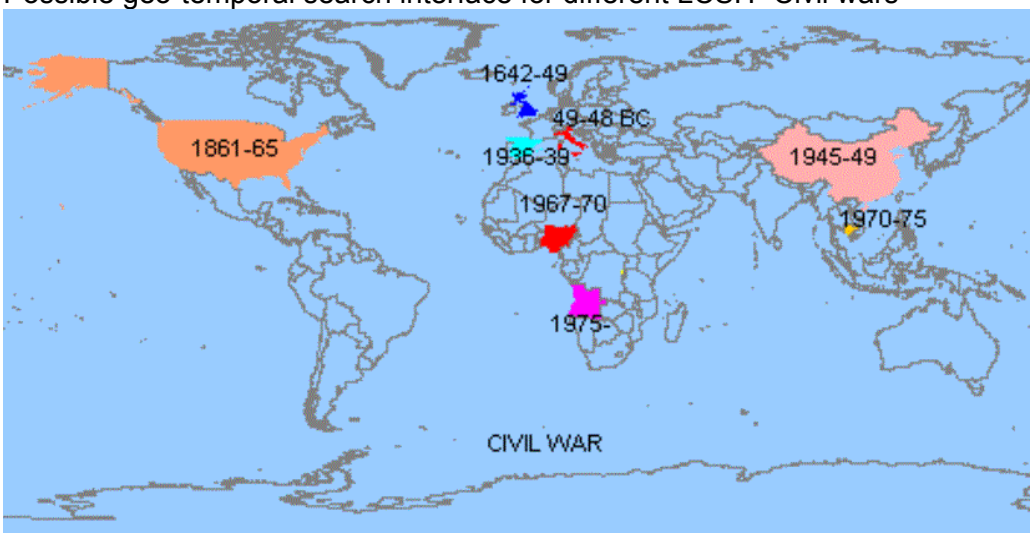
Place and time important for many genres, e.g. Language atlases, Library catalogs, Biographical dictionaries, Bibliographies, Archival finding lists, Museum records, etc.

Static maps inadequate for cultural / historical studies. Time and place require a dynamic map interface, time-enabled visualization and related tools, e.g. *TimeMap* software (Univ of Sydney) moving to open source.

Direct searching across genres (images, numeric datasets, text, etc.) not possible, but feasible indirectly through metadata for topic and place:



Possible geo-temporal search interface for different LCSH "Civil wars"



RELATED WORK

Searching across different genres: Text, numeric data; images; sound; etc.

Seamless Searching of Numeric and Textual Resources. IMLS. Oct 99-Sept 02. http://metadata.sims.berkeley.edu/GrantSupported/seamless.html

Mapping to common metadata allows searches on the same topic in bibliographies and also in social sciences numeric data series. For social science data sets, a geographic aspect must be specified for meaningful searches.

Gazetteers are pivotal for disambiguation and providing latitude & longitude for map visualization. Recommendations for Content and Format of Gazetteers. **A Multilingual Gazetteer System for Integrating Spatial and Cultural Resources**. NSF ITR/IM 0114019. P.I. L. Lancaster, Sept 01- Aug 02. http://ecai.org/projects/gazetteer/nsf_multisys_abstract.html Recommendations developed with advice of Academia Sinica (Taiwan), Alexandria Digital Library Project (Santa Barbara), & others. Cultural, historical, and international purposes need: Multilingual, multiscript entries; Specialized thesauri of place types (feature types). Always declare thesaurus being used. Short generic national standard Feature Type Thesaurus for upward compatibility.Time-defined records since names and boundaries can be highly unstable over time; "Preferred name" has to be a matter of preference in local implementation.Harmonization of geo-temporal metadata desirable across standards families. Largely incorporated in the Alexandria DL Gazetteer standard.

Live library catalog searches generated from webpages! **ECAI Iraq** http://ecai.org/iraq/ A temporal-spatial portal to net resources on Iraqi history, cultural sites, archaeological excavations, and heritage preservation efforts.

Invitation. **Congress of Cultural Atlases: The Human Record. May 7-10, 2004**. University of California, Berkeley. Presentations, demonstrations, discussions, and training. Congress registration free. Fee for wprkshop. http://ecai.org/Activities/Congress2004/congress_home.html

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