

New Discovery Tools for Digital Humanities and Spatial Data

MIT July 2014

Merrick Lex Berman

Center for Geographic Analysis, Harvard

Physical discovery

finding {scrolls}



John Willis Clark, *The Care of Books* (Cambridge, 1901).
Paul Pelliot at the Mogao Caves, Dunhuang (1908).

Transmission

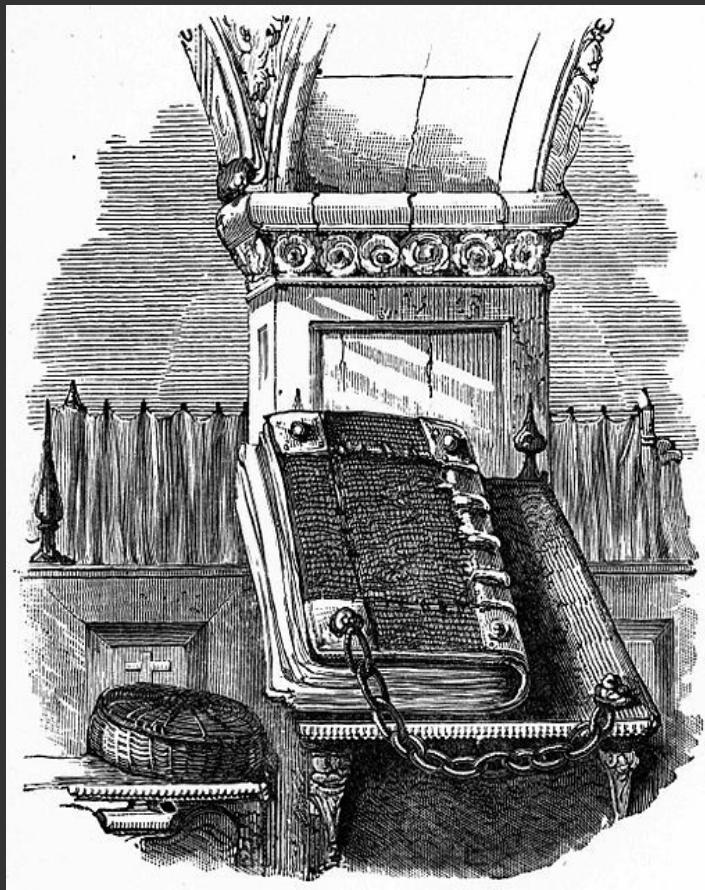
reading {texts}



John Willis Clark, *The Care of Books* (Cambridge, 1901).
The Emperor and the Assassin (1999).

Bound and chained

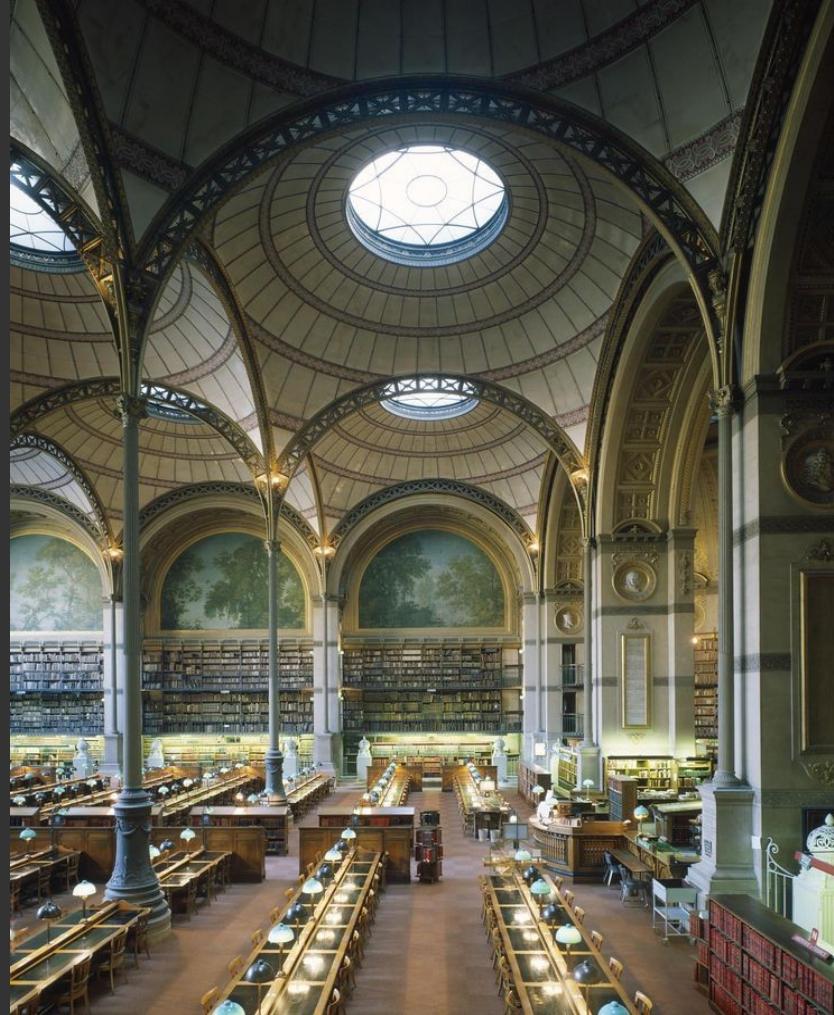
preserving information {locks}



St. Walburga Library, Zutphen, Netherlands 1564).
Andrews, William: "Curiosities of the Church: Studies of Curious Customs, Services and Records" (1891)

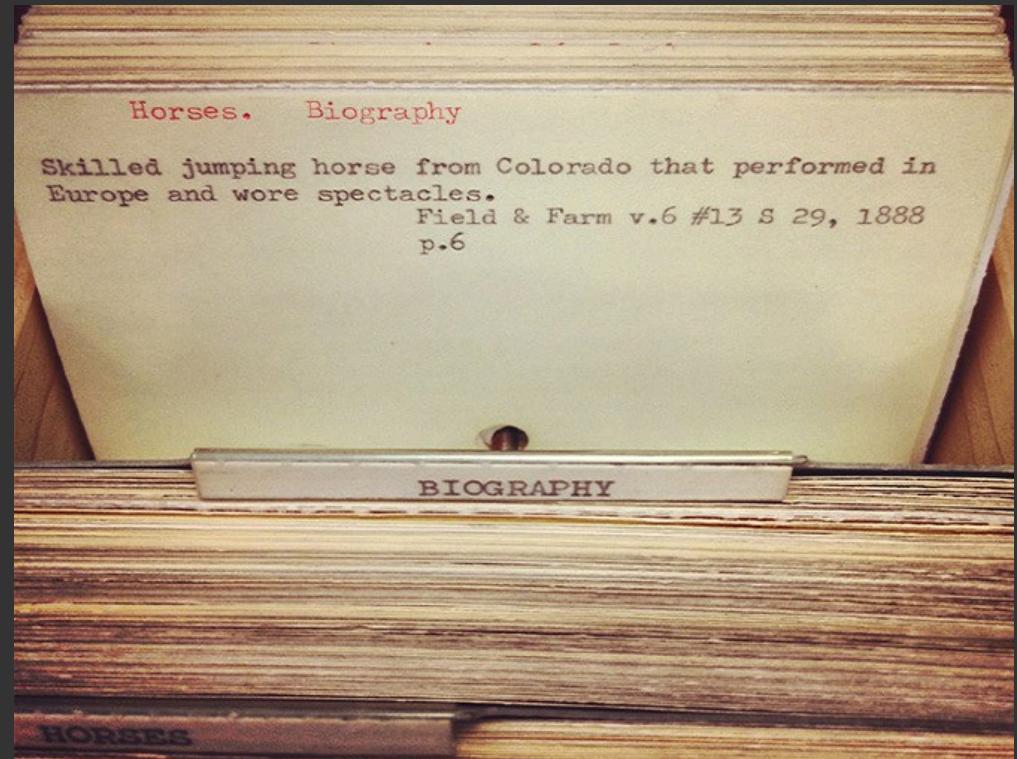
Binding pages: forming collections

systematizing {knowledge}



Abyssinian manuscript (ms 134, Goldschmidt no 21) Frankfurt University Library
Bibliotheque Nationale

indexing {resources}



Denver Public Library – Horses, biography.
John Allen, "Farewell Cards," *On Wisconsin Magazine*, Summer 2012.

Internal catalogs → federated catalogs → digital indexing {URIs}

Searching: BartonPlus

Keyword

Basic Search Advanced Search Search History ▶

MITLibraries

Refine Results

Current Search

Find all my search terms:
extraordinary popular delusions

Expanders

Searched full text of articles

Limit To

Full Text
 Peer Reviewed
 MIT Barton Catalog

1378 Publication Date 2014

Publication type

Search Results: 1 - 30 of 385,168 Relevance ▾ Page Options ▾

7. **Extraordinary popular delusions and the madness of crowds, by Charles Mackay; a verbatim reprint, with reproductions of original illustrations, of the edition of 1852; with a foreword by Bernard M. Baruch.**

By: Mackay, Charles. Boston, L. C. Page & company, 1932. 01/01/1932 xxiv, 724 p. illus. 22 cm. Language: English, Database: MIT Barton Catalog

[View catalog record](#) | [Get it in the library](#)

MIT Libraries Location	Call No.	Status/Due Date
Dewey Library Stacks	AZ999.M153 1932	In Library

8. **Memoirs of Extraordinary Popular Delusions**

By: Macaulay, Thomas Babington Macaulay. Champaign, Ill. [P.O. Box 2782, Champaign 61825] : Project Gutenberg. eBook. , Database: eBook Collection (EBSCOhost)

 [eBook Full Text](#)  [Download \(Offline\)](#)

 [Table of Contents](#)  [Most Relevant Pages From This eBook](#)

eBook

9. **Memoirs of Extraordinary Popular Delusions**

By: Mackay, Charles D. Champaign, Ill. [P.O. Box 2782, Champaign 61825] : Project Gutenberg. eBook. , Database: eBook Collection (EBSCOhost)

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Memoirs of Extraordinary Popular Delusions and the Madness of Crowds by Mackay

No cover available



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Read this book online: HTML	144 kB			
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EPUB (with images)	4.2 MB			
EPUB (no images)	737 kB			
Kindle (with images)	9.4 MB			
Kindle (no images)	3.0 MB			
Plain Text UTF-8	1.6 MB			
More Files...				



traversing {internal structures}

MEMOIRS
OF
EXTRAORDINARY POPULAR DELUSIONS
AND THE
Madness of Crowds.

BY CHARLES MACKAY, LL.D.

AUTHOR OF "EGERIA," "THE SALAMANDRINE," ETC.
ILLUSTRATED WITH NUMEROUS ENGRAVINGS.

N'en déplaise à ces fous nommés sages de Grèce,
En ce monde il n'est point de parfaite sagesse;
Tous les hommes sont fous, et malgré tous leurs soins
Ne diffèrent entre eux que du plus ou du moins.

BOILEAU.

LONDON:
OFFICE OF THE NATIONAL ILLUSTRATED LIBRARY,
227 STRAND.
1852.

LIST OF ENGRAVINGS IN VOL. I.

- Frontispiece—Gardens of the Hotel de Soissons. (From a print in Mr. Hawkins' collection.)
- Vignette—The Bubblers' Arms, Prosperity. (*Bubblers' Mirror, or England's Folly.*)
- John Law. (From a rare print by Leon Schenk. 1720)
- The Regent D'Orleans
- Old Palais Royal from the Garden. (From a scarce print, circa 1720)
- Law's House; Rue de Quincampoix. (From Nodier's *Paris*)
- Humpbacked Man hiring himself as a Table
- Hôtel de Soissons. (From Nodier's *Paris*)
- The Coach upset
- Murder of a Broker by Count D'Horn
- John Law as Atlas. (From *England under the House of Hanover*)
- Caricature—Lucifer's new Row Barge
- Procession of Miners for the Mississippi
- The Chancellor D'Aguesseau
- Caricature—Law in a Car drawn by Cocks
- M. D'Argenson
- Caricature—Neck or Nothing, or Downfall of the Mississippi Company
- The South-Sea House. (From a print, circa 1750)
- Harley Earl of Oxford
- Sir Robert Walpole
- Cornhill. (Print, circa 1720)
- Stock-jobbing Card, or the Humours of Change Alley. 1720. (From the *Bubblers' Medley*)
- Caricature—People climbing the Tree of Fortune. (From the *Bubblers' Medley*)
- The Gateway to Merchant Tailors' Hall. (Gateway from old print)
- Mr. Secretary Craggs
- Caricature—Beggars on Horseback. (From the *Bubblers' Medley*)

Denver Public Library – Horses, biography.
John Allen, "Farewell Cards," *On Wisconsin Magazine*, Summer 2012.



*This evil Solomon espid
Among the Rabbie rout
That beggers did on Horseback
Whilſt Princes walke onfoot^{ride}
South-Sea has verſy dy same,
Tor Mighty Men of late —
Are brough to Poverty & Shame
Whilſt Scoundrels ride in state*

CARICATURE.²²

During the progress of this famous bubble, England presented a singular spectacle. The public mind was in a state of unwholesome fermentation. Men were no longer satisfied with the slow but sure profits of cautious industry. The hope of boundless wealth for the morrow made them heedless and extravagant for to-day. A luxury, till then unheard-of, was introduced, bringing in its train a corresponding laxity of morals. The over-bearing insolence of ignorant men, who had arisen to sudden wealth by successful gambling, made men of true gentility of mind and manners blush that gold should have power to raise the unworthy in the scale of society. The haughtiness of some of these "cyphering cits," as they were termed by Sir Richard Steele, was remembered against them in the day of their adversity. In the parliamentary inquiry, many of the directors suffered



*This evil Solomon espid
Among the Rabbie rout
That beggers did on Horseback
Whilſt Princes walke onfoot^{ride}
South-Sea has verſy dy same,
Tor Mighty Men of late —
Are brough to Poverty & Shame
Whilſt Scoundrels ride in state*

Are footnotes connections or stops?

citing {references}

* The affection of cats for marum and valerian is well known; they will beat the stems down, mat them with their feet, and then roll upon them.

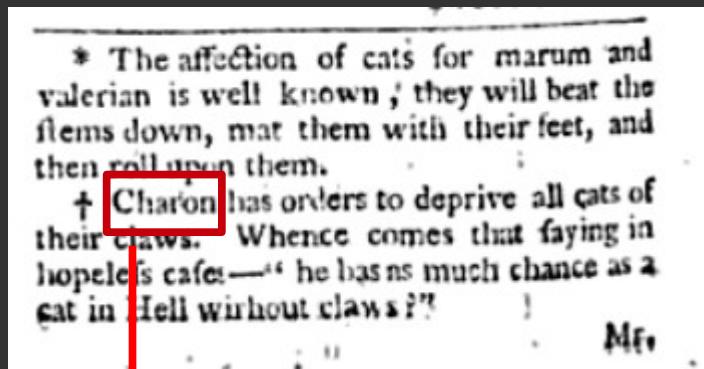
† Charon has orders to deprive all cats of their claws. Whence comes that saying in hopeless cases—"he has as much chance as a cat in Hell without claws?"

Mrs.

"A Squib, from Dr. Jortin's Tabby-Cat," *The Gentleman's Magazine*, (April 1792).

From references to graphs

traversing {links}



CHARON [http://en.wikipedia.org/wiki/Charon_\(mythology\)](http://en.wikipedia.org/wiki/Charon_(mythology))

http://en.wikipedia.org/wiki/Greek_mythology



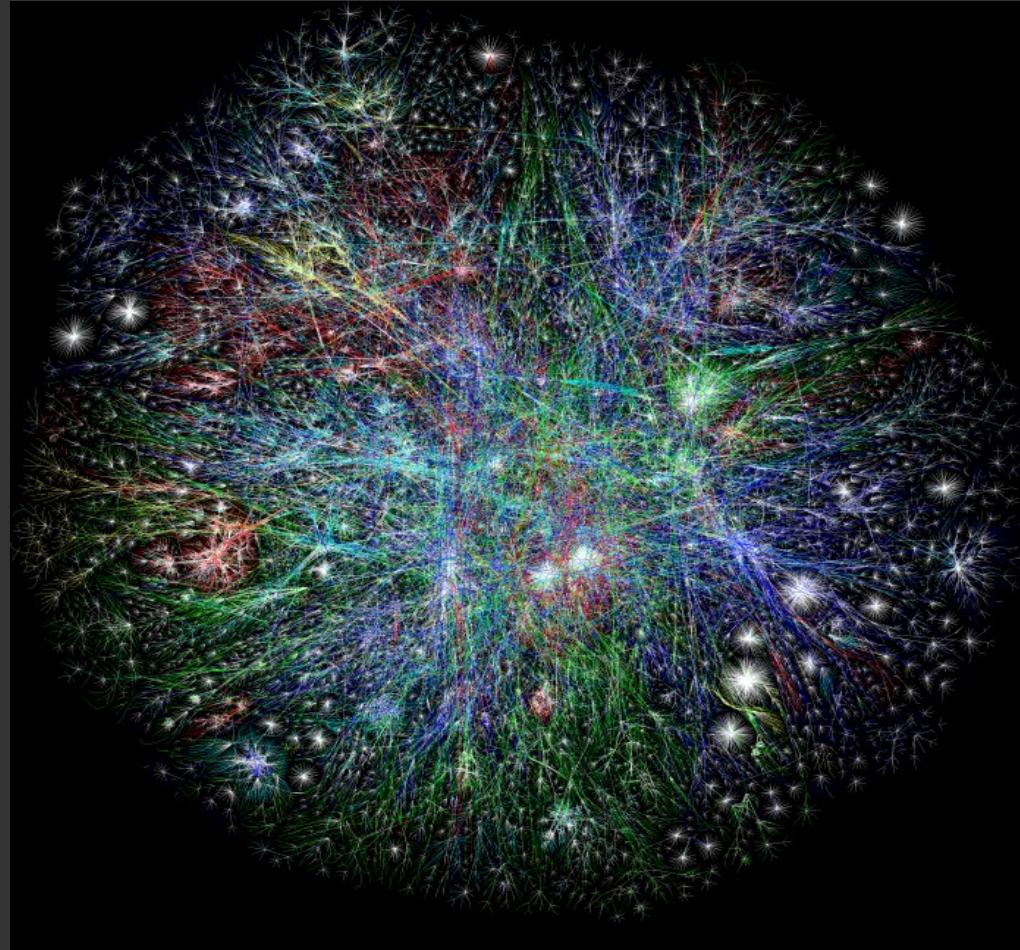
Rational structure



William Cunningham,
The Cosmographical Glasse
(John Day, 1559).

To a noisy interconnected universe of knowledge

{graph}



a tiny slice of the Internet (showing 5 million edges)

The center will not hold!

So what happens to the library?

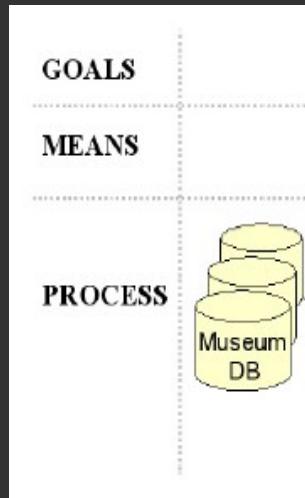


Philology Library at the Free University of Berlin

On the road from DH 1.0 to DH 2.0

monolithic database projects

- *custom data models*
- *custom user interfaces*



Patrik Svensson, *The Landscape of Digital Humanities*

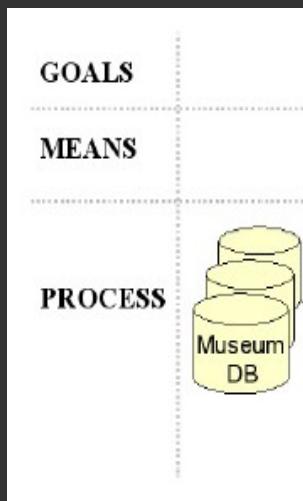
<http://digitalhumanities.org/dhq/vol/4/1/000080/000080.html>

monolithic database projects

- *custom data models*
- *custom user interfaces*

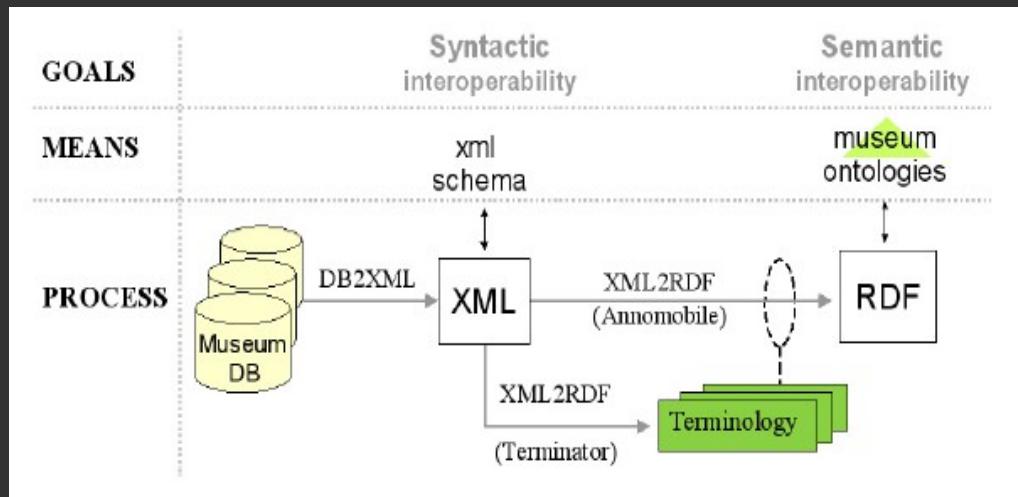
open APIs

- *machine readable*
- *metadata and content*



monolithic database projects

- *custom data models*
- *custom user interfaces*



open APIs

- *machine readable*
- *metadata and content*

linked open data

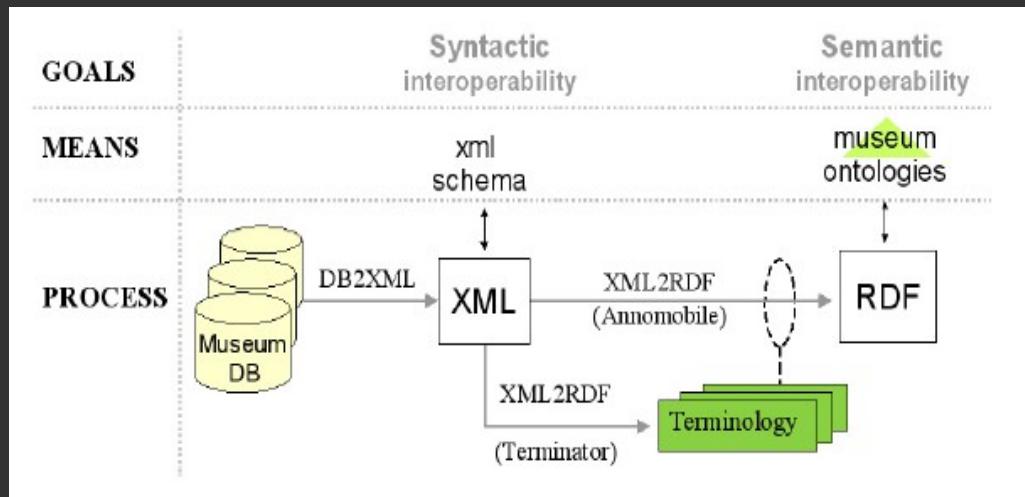
- *machine readable*
- *disaggregated*

interoperability

- *ontologies*

monolithic database projects

- *custom data models*
- *custom user interfaces*



open APIs

- *machine readable*
- *metadata and content*

linked open data

- *machine readable*
- *disaggregated*

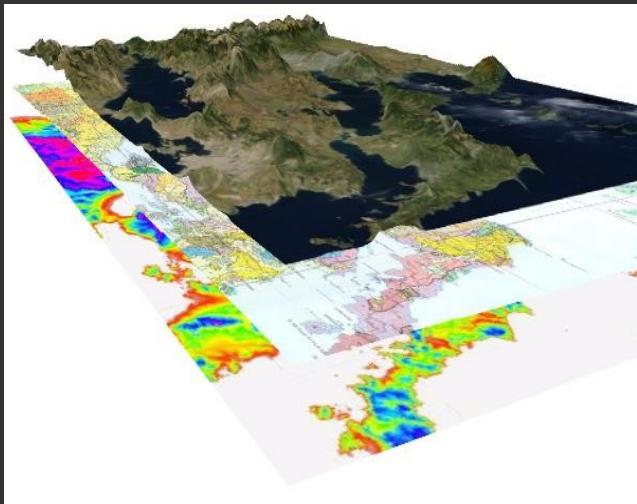
interoperability - *ontologies*

open scholarship

- *digital publication*
- *annotation*
- *interpretation*
- *curation + narrative*
- *collaborative*
- *open-ended*

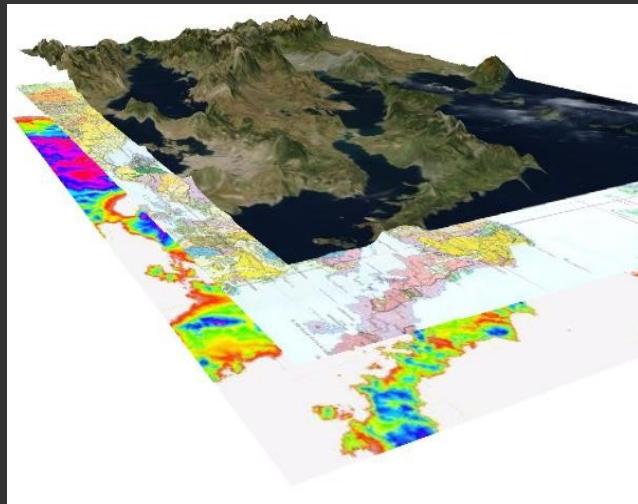
Geographic data and the library

Geospatial datasets - GIS

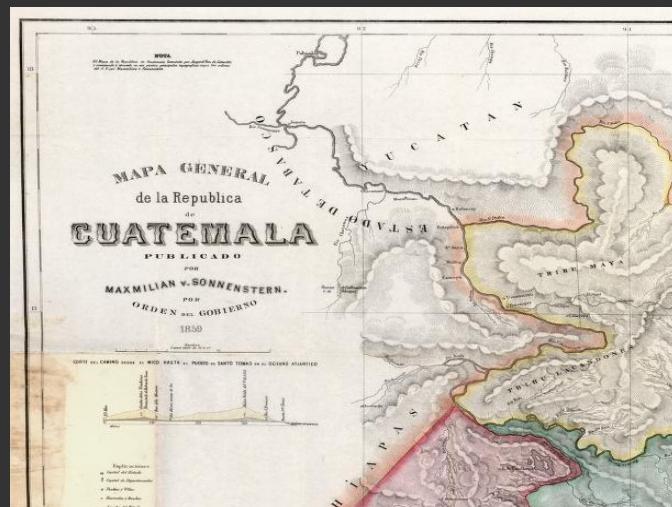


Geographic data and the library

Geospatial datasets - GIS

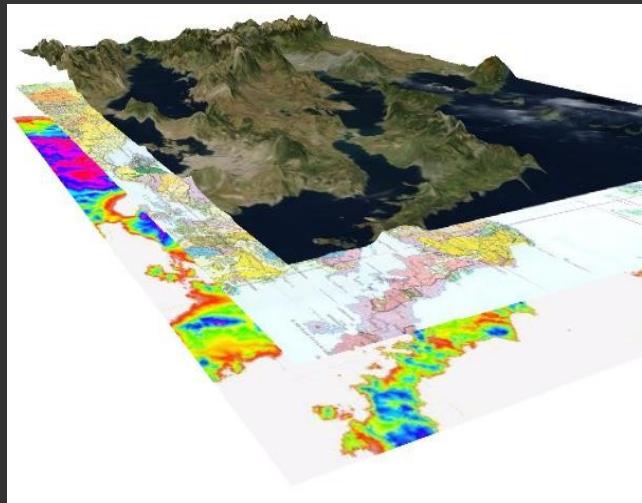


Maps and scanned maps

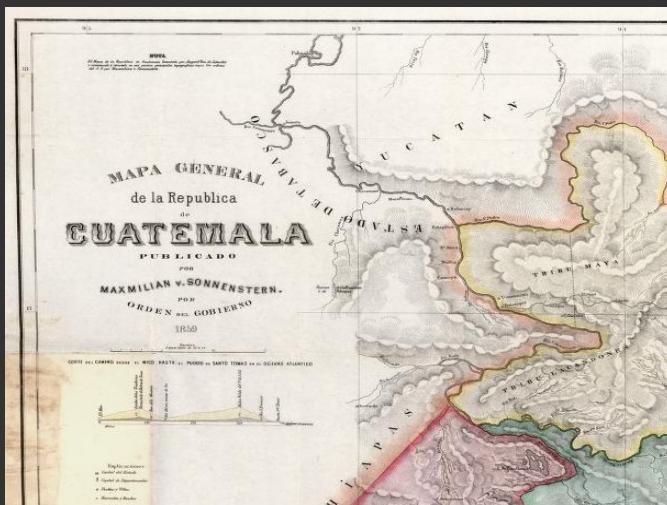


Geographic data and the library

Geospatial datasets - GIS



Maps and scanned maps



The catalog as geodata

Figure 1-3. Example of a MARC 21 Record for a Book

Leader 01495cam 2200325 a 450
005 20041228210354.0
008 030122s2004 nyu c 000 1 eng
010 __|a 2003000737
020 __|a 0689856393
040 __|a DLC |c DLC |d DLC |d TxGeoBT
042 __|a lcac
050 00|a PZ7.K1166 |b Ki 2004
082 00|a [Fic] |2 22
100 1|a Kadohata, Cynthia.
245 10|a Kira-kira / |c Cynthia Kadohata
250 |a 1st ed.
260 |a New York : |b Atheneum Books for Young Readers, |c c2004.
300 |a 244 p. ; |c 19 cm.
520 |a Chronicles the close friendship between two Japanese-American sisters growing up in rural Georgia during the late 1950s and early 1960s, and the despair when one sister becomes terminally ill.
586 |a Newbery Award, 2004
650 1|a Sisters |v Fiction.
650 1|a Friendship |v Fiction.
650 1|a Japanese Americans |v Fiction.
650 1|a Death |v Fiction.
651 1|a Georgia |x History |y 20th century |v Fiction.
856 42|3 Contributor biographical information:
|u <http://www.loc.gov/catdir/bios/simon053/2003000737.html>
856 42|3 Publisher description:
|u <http://www.loc.gov/catdir/description/simon052/2003000737.html>

Geospatial datasets



Maps and scanned maps



Federated search system

The screenshot shows the Old Maps Online website. On the left is a map of Turkey with various cities labeled. A search bar at the top has a timeline below it from 1000 to 2010, with a red box highlighting the year 1765. To the right of the map are "Instant Search Results" for the year 1765, listing items such as "Asia Minor." and "Anatolia, Syria." with their respective dates (1651-1700 and 1747), authors (T. Mollo and Bowen, Emanuel), and counts (122 900 000 and 123 700 000).

Digital Repository

The screenshot shows the David Rumsey Map Collection. At the top, there's a banner for "Hermosus Planum" and navigation links like Collections, Explore, Create, Share This, Embed This, Help, and Advanced Search. Below is a detailed view of a map titled "Anatolia, Syria." The map is dated 1747 and was published by Bowen, Emanuel. The "Media Information" sidebar provides extensive details about the map, including its short title ("Anatolia, Syria."), publisher ("William Innys [et al.]"), and dimensions (35 cm height, 43 cm width). It also includes a note about the map being an engraved map showing ruined cities, etc., and a reference section with citations from P614 (1752 edition of A Complete Atlas...) and NMM p.356; M&B p.166. The map itself is a detailed historical engraving of the region, showing coastlines, rivers, and various geographical features.

The catalog as geodata

geocoding {toponyms}

Figure 1-3. Example of a MARC 21 Record for a Book

Leader 01495cam 2200325 a 450
005 20041228210354.0
008 030122s2004 nyu c 000 1 eng
010 __|a 2003000737
020 __|a 0689856393
040 __|a DLC |c DLC |d DLC |d TxGeoBT
042 __|a lcac
050 00|a PZ7.K1166 |b Ki 2004
082 00|a [Fic] |z 22
100 1|a Kadohata, Cynthia.
245 10|a Kira-kira / |c Cynthia Kadohata
250 |a 1st ed.
260 |a New York : |b Atheneum Books for Young Readers, |c c2004.
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650 1|a Friendship |v Fiction.
650 1|a Japanese Americans |v Fiction.
650 1|a Death |v Fiction.
651 1|a Georgia |x History |y 20th century |v Fiction.
856 42|3 Contributor biographical information:
|u <http://www.loc.gov/catdir/bios/simon053/2003000737.html>
856 42|3 Publisher description:
|u <http://www.loc.gov/catdir/description/simon052/2003000737.html>

651 - Subject Added Entry-Geographic Name

<https://maps.googleapis.com/maps/api/geocode/json?address=Georgia>

```
{
  "results" : [
    {
      "address_components" : [
        {
          "long_name" : "Georgia",
          "short_name" : "GA",
          "types" : [ "administrative_area_level_1", "political" ]
        },
        {
          "long_name" : "United States",
          "short_name" : "US",
          "types" : [ "country", "political" ]
        }
      ],
      "formatted_address" : "Georgia, USA",
      "geometry" : {
        "bounds" : {
          "northeast" : {
            "lat" : 35.0006589,
            "lng" : -80.8407866
          },
          "southwest" : {
            "lat" : 30.3555908,
            "lng" : -85.60516490000001
          }
        },
        "location" : {
          "lat" : 32.1656221,
          "lng" : -82.9000751
        }
      }
    }
  ]
}
```

What to geocode?

parsing {tokens}

Figure 1-3. Example of a MARC 21 Record for a Book

Leader 01495cam 2200325 a 450
005 20041228210354.0
008 030122s2004 nyu c 000 1 eng
010 __|a 2003000737
020 __|a 0689856393
040 __|a DLC |c DLC |d DLC |d TxGeoBT
042 __|a lcac
050 00|a PZ7.K1166 |b Ki 2004
082 00|a [Fic] |z 22
100 1|a Kadohata, Cynthia.
245 10|a Kira-kira / |c Cynthia Kadohata
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650 1|a Friendship |v Fiction.
650 1|a Japanese Americans |v Fiction.
650 1|a Death |v Fiction.
651 1|a Georgia |x History |y 20th century |v Fiction.
856 42|3 Contributor biographical information:
|u <http://www.loc.gov/catdir/bios/simon053/2003000737.html>
856 42|3 Publisher description:
|u <http://www.loc.gov/catdir/description/simon052/2003000737.html>

245 – Title

260 – Place of Publication

651 - Geographic Name

Mapping options: georss → openlayers

serializing {feeds}



```
1 <?xml version="1.0" encoding="UTF-8"?>
2
3 <rss version="2.0"
4   xmlns:geo="http://www.w3.org/2003/01/geo/wgs84_pos#"
5   xmlns:dc="http://purl.org/dc/elements/1.1/">
6
7 <channel>
8   <title>Asian Newspapers in Harvard College Library</title>
9   <description></description>
10  <link>http://www.fas.harvard.edu/~chgis</link>
11  <dc:publisher>China Historical GIS</dc:publisher>
12  <pubDate>2007</pubDate>
13
14 <item>
15   <title>Air Force Academy press</title>
16   <pubDate>2008-02-01</pubDate>
17   <description><![CDATA[공사학보<br> language=Korean <br> place of publication=Chungbuk Cheongweon-gun <br> newspaper id=102]]></description>
18   <link>http://hollisclassic.harvard.edu/F/?func=find-b&request=9452557&find_code=SYS</link>
19   <geo:lat>36.75</geo:lat>
20   <geo:long>127.75</geo:long>
21 </item>
22 <item>
23   <title>Akahata</title>
24   <pubDate>2008-02-01</pubDate>
25   <description><![CDATA[赤旗<br> language=Japanese <br> place of publication=Tokyo <br> newspaper id=689]]></description>
26   <link>http://hollisclassic.harvard.edu/F/?func=find-b&request=7773470&find_code=SYS</link>
27   <geo:lat>35.68</geo:lat>
28   <geo:long>139.75</geo:long>
29 </item>
30 <item>
31   <title>Akahata</title>
32   <pubDate>2008-02-01</pubDate>
33   <description><![CDATA[赤旗縮刷版<br> language=Japanese <br> place of publication=Tokyo <br> newspaper id=111]]></description>
34   <link>http://hollisclassic.harvard.edu/F/?func=find-b&request=8266710&find_code=SYS</link>
35   <geo:lat>35.68</geo:lat>
```

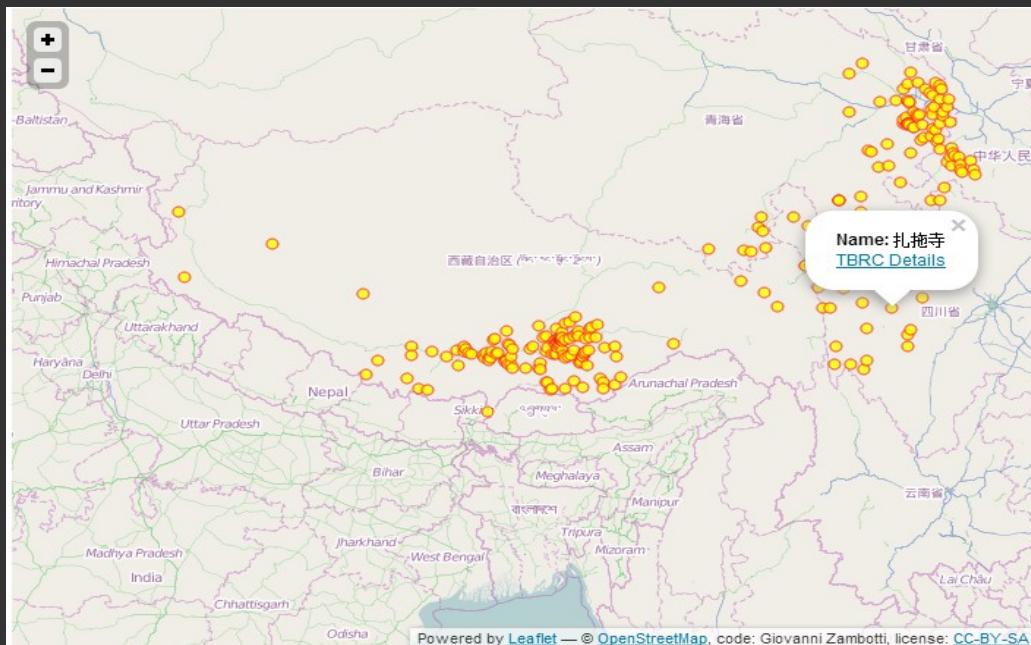


<http://goo.gl/UTpwyt>

Mapping options: json → leaflet

Serializing { json }

```
{  
  type: "FeatureCollection",  
  features: [  
    {  
      type: "Feature",  
      id: "tbrc_major_v1_twh.1",  
      geometry: {  
        type: "Point",  
        coordinates: [  
          79.64,  
          33.41  
        ]  
      },  
      geometry_name: "the_geom",  
      properties: {  
        TBRC_GID: "G2266",  
        M_NM_WY: "lhun grub chos sdings dgon",  
        M_NM_CH: "伦珠曲丁寺",  
        LONG: 79.64,  
        LAT: 33.41,  
        LINK: "<a href='http://tbrc.org/#library_place_Object-G2266'>TBRC Details</a>"  
      }  
    },  
  ],
```



<http://goo.gl/NGLfh6>

TIBETAN BUDDHIST RESOURCE CENTER

Places Works Genres Subjects Persons Places

Places » Place Types » Sites » Monastery » brag thog dgon

brag thog dgon

Details Associated Places Associated Works Associated Persons Literary Production

TBRC Resource ID
G4106

Place type
monastery

Names

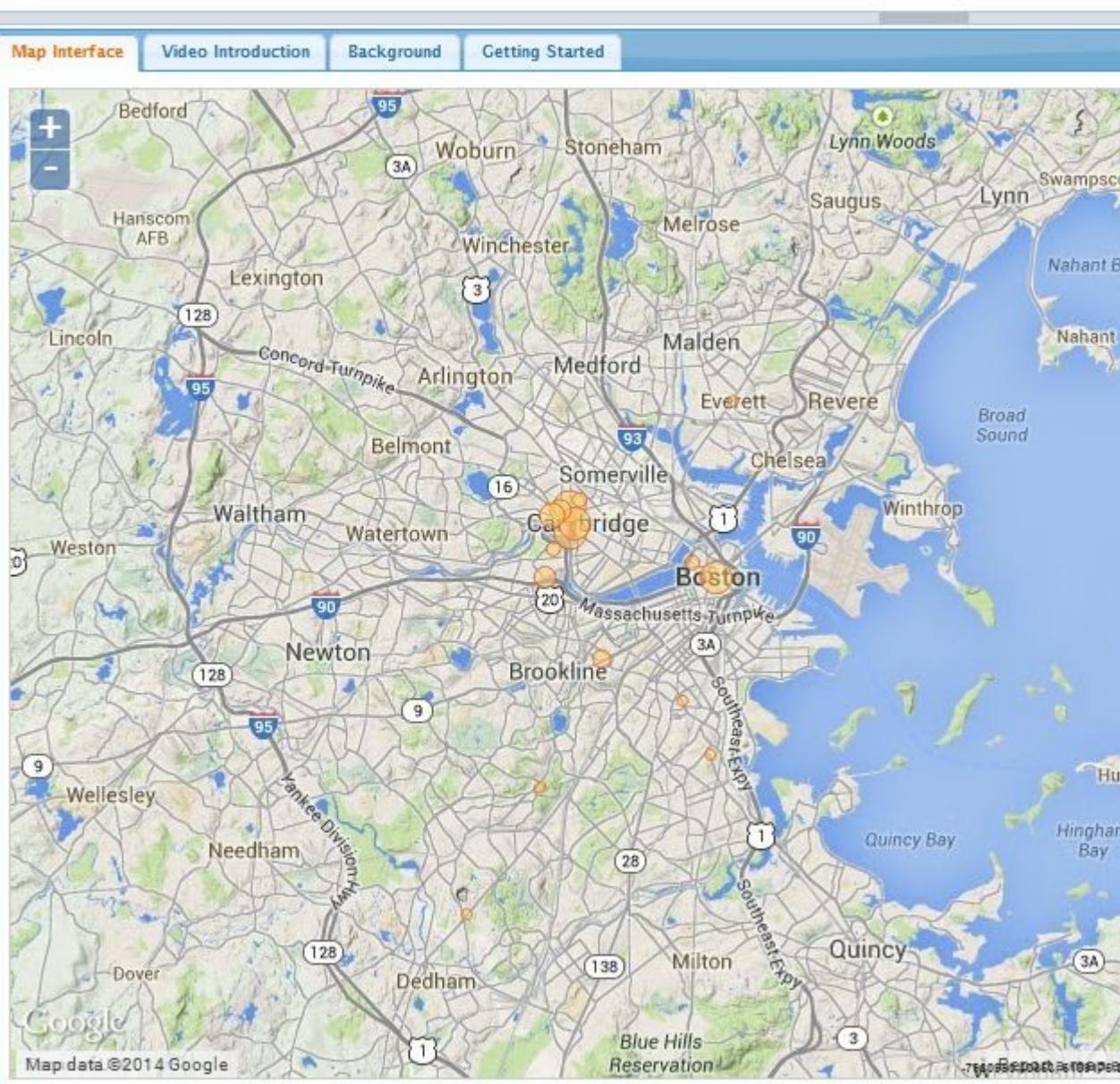
Tibetan	brag thog dgon
Chinese	扎拖寺
Chinese	zhatuo si

GIS Items

Coordinates:	latitude	30.58333	longitude	101.03333
GIS Identifiers:	chgis_id	361		
	fromLex	513326206:469		
	fromTBRC	513326206:469		

Mapping options: customized from Metacarta geocoding product

GeoHOLLIS **Beta** - Search HOLLIS records and explore their spatial references



▼ Search Options

Search HOLLIS data: Harvard

Location accuracy level: High Accuracy

Maximum number of records to return: 300

Search fields:

- Keyword anywhere
- Title words
- Author words
- Subject words
- Include "Place of publication" in search and data display
- Exclude "Place of publication" from search and data display
- Include "Place of publication" in search and only show data on the map that was geocoded to place of publication

Check this box and then click on the map to search for all catalog records within 100 kilometers of that location!

Number of points found: 49,617

Maximum number of points displayed: 300



Send Us Feedback!

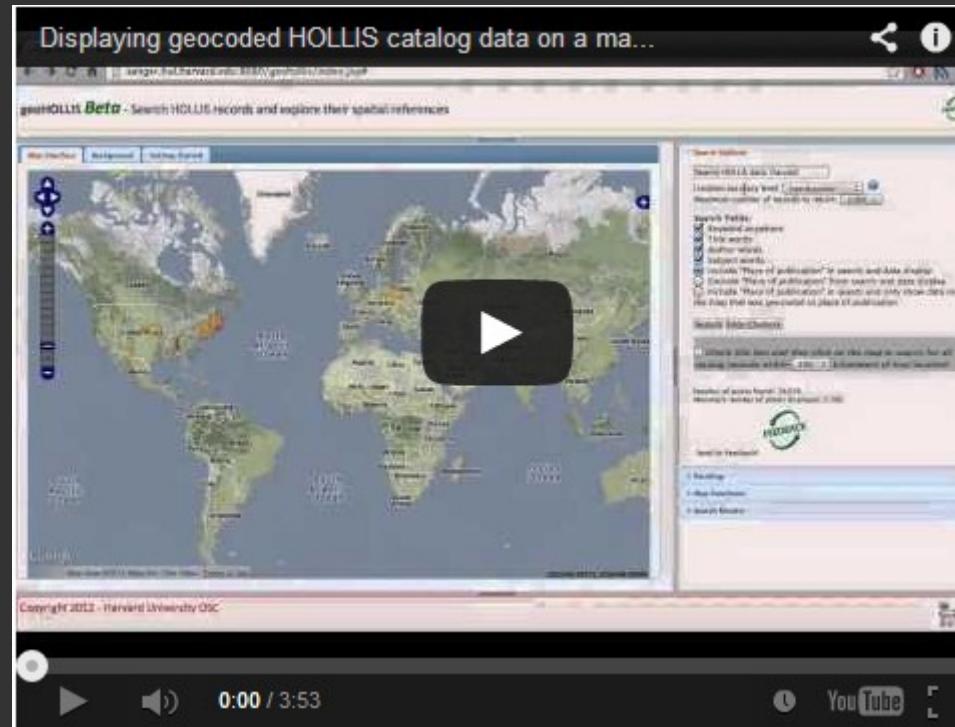
► Faceting

► Map Functions

► Search Results

Mapping options: geoHollis beta demonstration

<http://goo.gl/jorMvG>



Issues raised: geoHollis beta

geocoding

- Identification of placenames in metadata varies in accuracy
- Ambiguous matches cannot be easily fixed
- Geocoding many types of information can be confusing
- No explicit way to match geocoded words to point on map

clustering

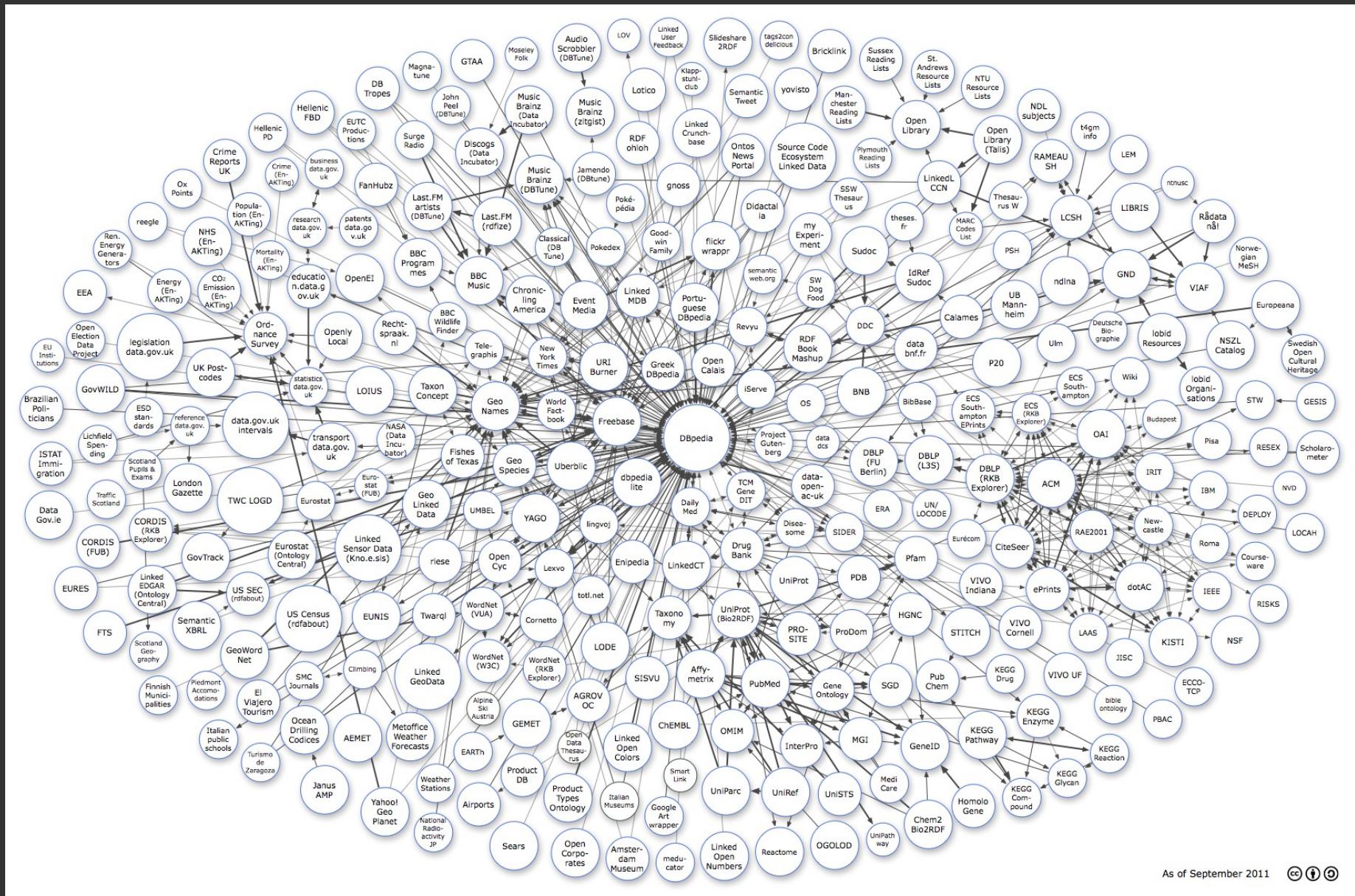
- Max number of search results greatly impacts the clusters
- The geocoded words don't explain how the cluster was decided

facets

- adding and removing facets is essential

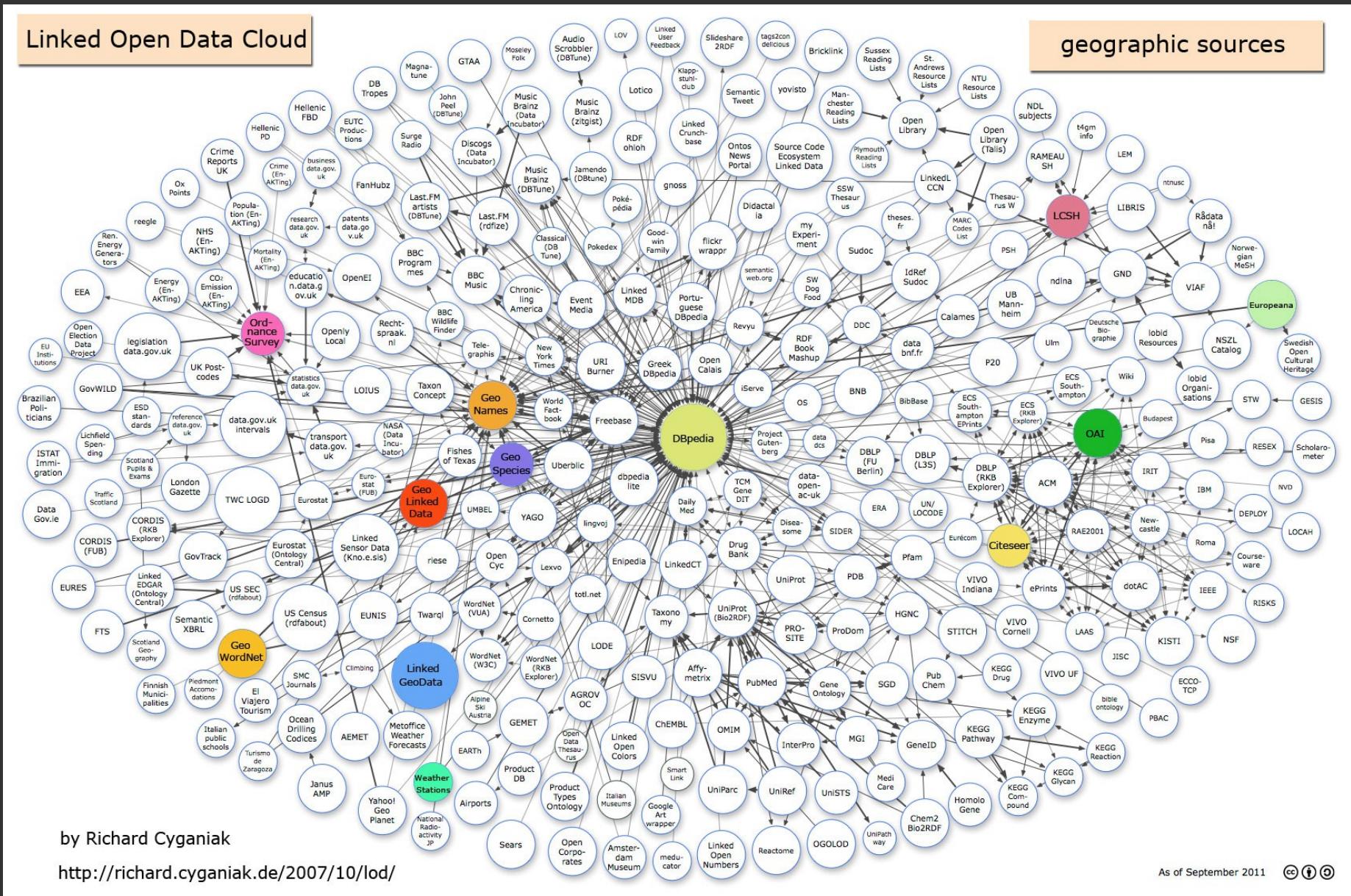
Moving forward: the semantic web

linking data {rdf}



Richard Cyganiak, *Linked Open Data Cloud* (2011).

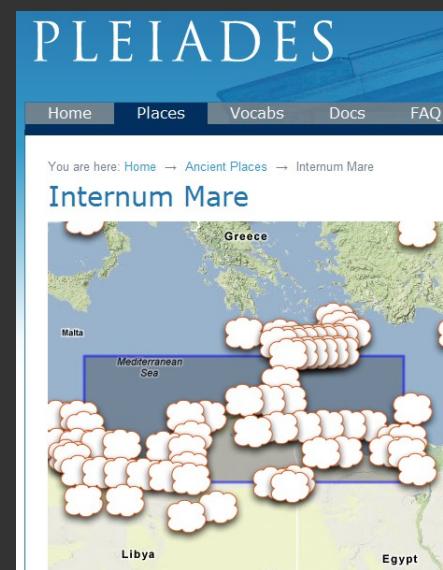
linking geodata {rdf}



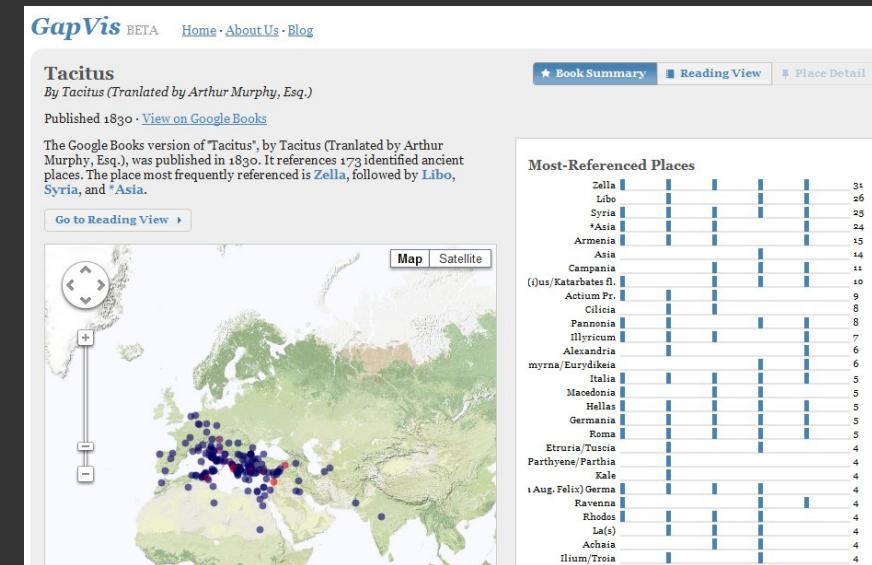
Locations in Classical Texts and Atlases



Perseus Project



Pleiades



Google Ancient Places

Pelagios - linking historical objects to places - using Pleiades



Mycenae

An ancient place, cited: BAtlas 58 D2 Mycenae
<http://pleiades.stoa.org/places/570491>

Alternative Names: Mycenae
Coverage: Mykenes

[JSON](#) [RDF/XML](#) [Turtle](#)



A map of the Eastern Mediterranean region, focusing on Italy, Greece, and the Balkans. A blue dot marks the location of Mycenae in southern Greece. Labels include Italy, Croatia, Serbia, Bulgaria, Romania, Hungary, Black Sea, Mediterranean Sea, and Israel. The Google logo is visible at the bottom left, and a copyright notice for Basarsoft, Google, ORION-ME from 2013 is at the bottom right.

770 References to Mycenae

Dataset	No. of References
Arachne (in 2 subsets)	133 (of 128180 total in set)
SquinchPix	164 (of 10782 total in set)
CLAROS (in 1 subsets)	140 (of 204474 total in set)
Regnum Francorum Online (in 1 subsets)	1 (of 16427 total in set)
Pleiades Annotations in the Perseus Digital Library (in 2 subsets)	126 (of 61738 total in set)
SAWS - Sharing Ancient Wisdoms	1 (of 723 total in set)
AWMC - Ancient World Mapping Center	1 (of 34608 total in set)
Ure Museum	133 (of 2344 total in set)
Google Ancient Places (in 3 subsets)	20 (of 41053 total in set)
Omnes Viae	1 (of 2983 total in set)
Ancient History Encyclopedia	50 (of 1098 total in set)

[JSON](#) [RDF/XML](#) [Turtle](#)

Pelagios API <http://pelagios.dme.ait.ac.at/api>

Documentation <http://pelagios-project.blogspot.com/>

Pelagios - linking historical objects to places - using CHGIS

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Map data ©2013 Basarsoft, Google, ORION-ME

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[JSON](#) [RDF/XML](#) [Turtle](#)



Pleiades

Pelagios API <http://pelagios.dme.ait.ac.at/api>

Documentation <http://pelagios-project.blogspot.com/>



CHGIS



XML web service for Chinese historical placenames:

```
<?xml version="1.0" encoding="UTF-8"?>
<query>
    <resultsDescription>CHGIS database query for Placename/Year: 方
    广/1820</resultsDescription>
    <resultsTotal>3</resultsTotal>
    <resultsTransmitted>3</resultsTransmitted>
    <queryExecutionTimeSeconds>0.66</queryExecutionTimeSeconds>
    <queryDate>Fri, 27 Sep 2013 00:24:17 -0400</queryDate>
    <publisher>China Historical GIS</publisher>
    <publisherURL>http://www.fas.harvard.edu/~chgis/</publisherURL>

    <item id="relig_1714">
        <placename>
            <name_romanized>Fangguang Si</name_romanized>
            <name_vernacular>方广寺</name_vernacular>
            <name_alternate>方廣寺</name_alternate>
        </placename>
        <feature_type>
            <type_english>buddhist temple</type_english>
            <type_romanized>fo si</type_romanized>
            <type_vernacular>佛寺</type_vernacular>
            <type_id>113</type_id>
        </feature_type>
        <temporal>
            <begin_year>1820</begin_year>
            <begin_year_rule>9</begin_year_rule>
            <end_year>1820</end_year>
            <end_year_rule>9</end_year_rule>
        </temporal>
        <spatial>
            <object_type>point</object_type>
            <coordinate_type>point location</coordinate_type>
            <degrees_latitude>27.87</degrees_latitude>
            <latitude_direction>N</latitude_direction>
            <degrees_longitude>112.91</degrees_longitude>
            <longitude_direction>E</longitude_direction>
            <present_location>湖南湘潭市</present_location>
        </spatial>
    </item>

```

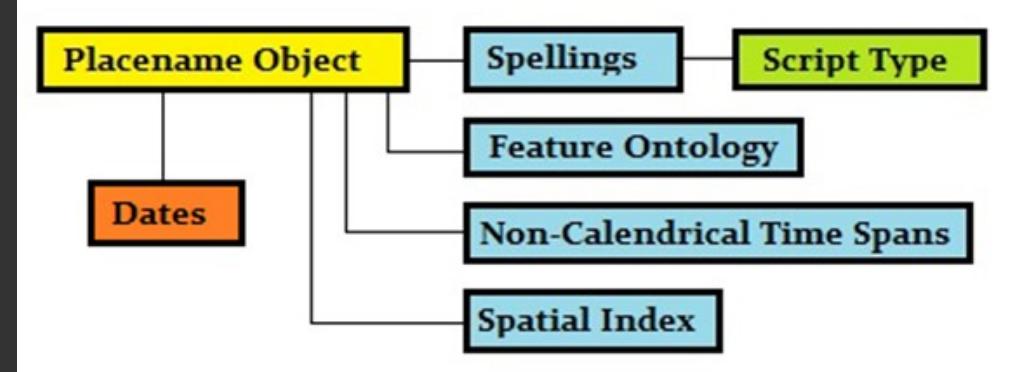
Faceted search web service for historical placenames

CHGIS Gazetteer Web Service



```
<item id="32084">
  <placename>
    <name_romanized>Fu Zhou</name_romanized>
    <name_vernacular>福州</name_vernacular>
    <name_alternate>福州</name_alternate>
  </placename>
  <feature_type>
    <type_english>prefecture</type_english>
    <type_romanized>Zhou</type_romanized>
    <type_vernacular>州</type_vernacular>
    <type_id>20</type_id>
  </feature_type>
```

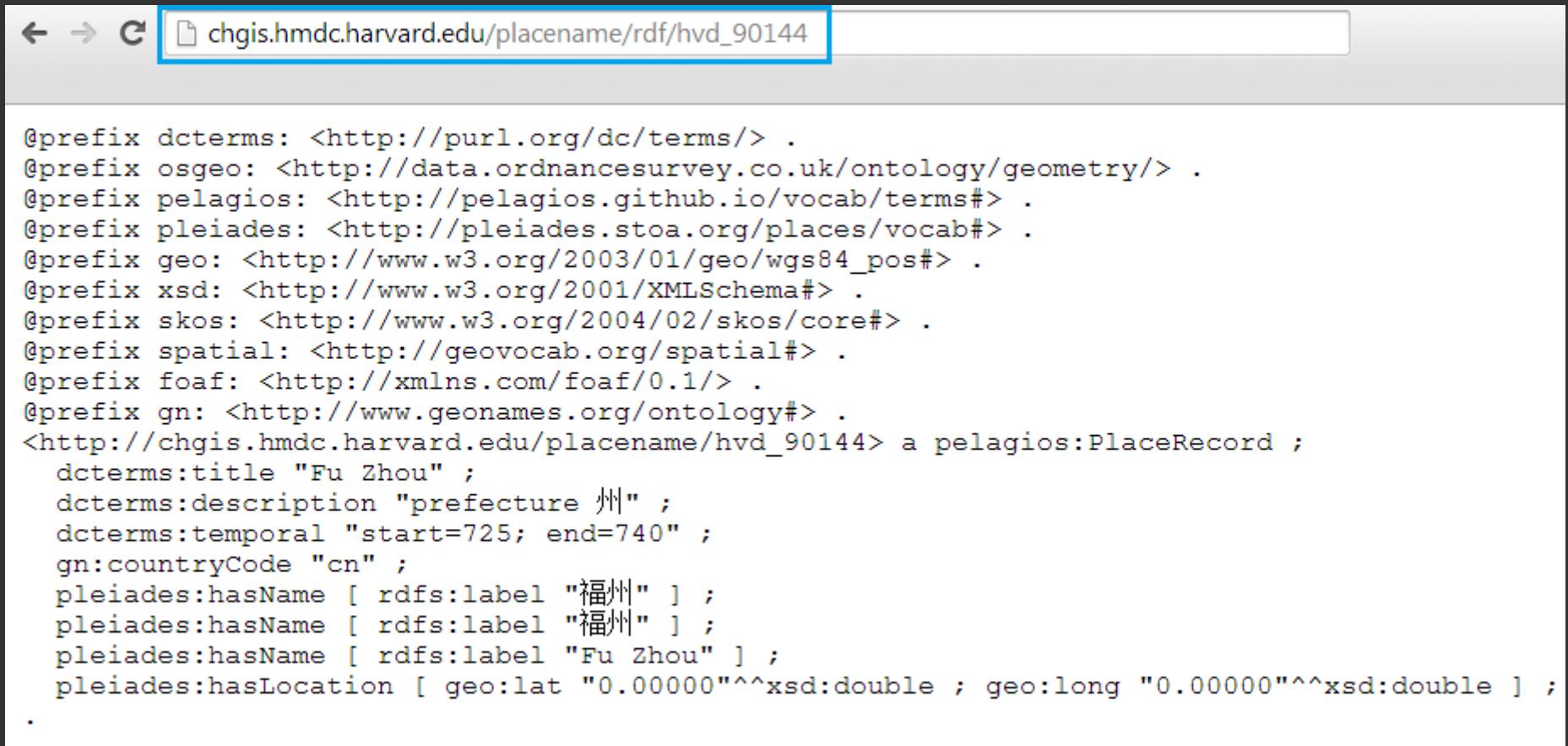
Temporal Gazetteer Web Service



<http://chgis.hmdc.harvard.edu/xml/>

<http://chgis.hmdc.harvard.edu/tgaz/api>

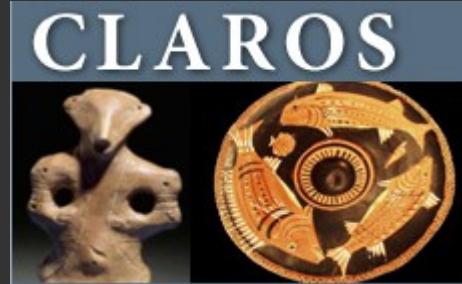
RDF gazetteer interchange format



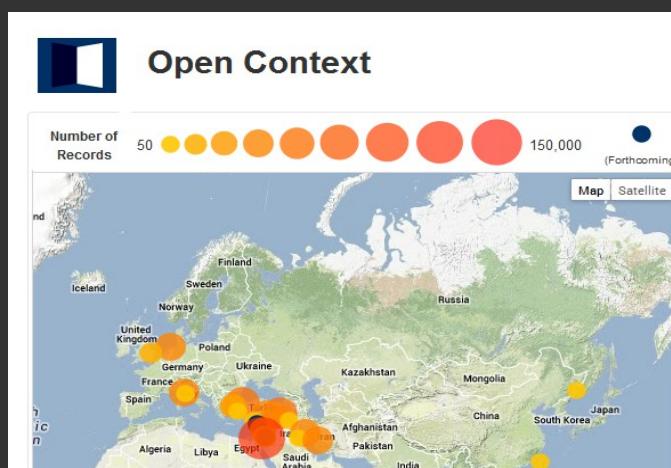
The screenshot shows a web browser window with the URL `chgis.hmdc.harvard.edu/placename/rdf/hvd_90144` in the address bar. The main content area displays an RDF triples dump in plain text. The triples describe a place record for "Fu Zhou".

```
@prefix dcterms: <http://purl.org/dc/terms/> .
@prefix osgeo: <http://data.ordnancesurvey.co.uk/ontology/geometry/> .
@prefix pelagios: <http://pelagios.github.io/vocab/terms#> .
@prefix pleiades: <http://pleiades.stoa.org/places/vocab#> .
@prefix geo: <http://www.w3.org/2003/01/geo/wgs84_pos#> .
@prefix xsd: <http://www.w3.org/2001/XMLSchema#> .
@prefix skos: <http://www.w3.org/2004/02/skos/core#> .
@prefix spatial: <http://geovocab.org/spatial#> .
@prefix foaf: <http://xmlns.com/foaf/0.1/> .
@prefix gn: <http://www.geonames.org/ontology#> .
<http://chgis.hmdc.harvard.edu/placename/hvd_90144> a pelagios:PlaceRecord ;
  dcterms:title "Fu Zhou" ;
  dcterms:description "prefecture 州" ;
  dcterms:temporal "start=725; end=740" ;
  gn:countryCode "cn" ;
  pleiades:hasName [ rdfs:label "福州" ] ;
  pleiades:hasName [ rdfs:label "福州" ] ;
  pleiades:hasName [ rdfs:label "Fu Zhou" ] ;
  pleiades:hasLocation [ geo:lat "0.00000"^^xsd:double ; geo:long "0.00000"^^xsd:double ] ;
.
```

Potential connections: LOD projects in DH world



Pelagios



Luca

An ancient place, cited: BAtlas 41 C2 Luca
<http://pleiades.stoa.org/places/403234>

Alternative Names: Luca, Lucca
Coverage: Lucca

[JSON](#) [RDF/XML](#) [Turtle](#)



18 References to Luca

Dataset	No. of References
Regnum Francorum Online (in 1 subsets)	1 (of 16427 total in set)
Pleiades Annotations in the Perseus Digital Library (in 1 subsets)	5 (of 61738 total in set)
AWMC - Ancient World Mapping Center	2 (of 34608 total in set)
Google Ancient Places (in 4 subsets)	8 (of 41053 total in set)
Omnis Viae	1 (of 2983 total in set)
ORBIS: The Stanford Geospatial Network Model of the Roman World	1 (of 402 total in set)



Implications for the future

Transformation of the catalog:

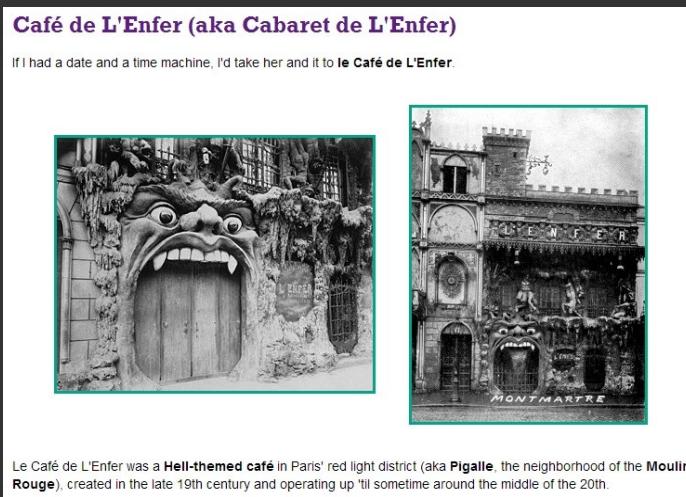
- metadata describing resources → direct access to digital resources
- users expect instant, machine-readable information
- human readable forms & facets → APIs
- users expect both discovery and deeper analysis of content
- aggregated data and visualizations of data rather than lists
- linked open data and the semantic web will encroach into library science
- graph databases and structures will get applied to search tools

For Geographic data:

- search and visualization using maps will be more commonplace
- catalog metadata will be geocoded (internally or on-the-fly)

Map to catalog

spatial indexing {metadata}



Le Café de L'Enfer was a **Hell-themed café** in Paris' red light district (aka **Pigalle**, the neighborhood of the **Moulin Rouge**), created in the late 19th century and operating up 'til sometime around the middle of the 20th.

pigalle

- Pigalle Paris, France
- Pigalle Restaurant Charles Street South, Boston, MA
- Pigalle 8th Avenue, New York, NY
- Pigalle Salon Inc Saint Marys Street, Brookline, MA
- Ibis Styles Paris Pigalle Rue Frochot, Paris, France

Getting around Show: Traffic · Transit · Bicycling · Terrain Directions

kw:Pigalle su:Paris

Advanced Search | Find a Library

Search results for 'kw:Pigalle su:Paris' > 'Non-Fiction'

Results 1-10 of about 111 (.15 seconds)

Select All | Clear All | Save to: [New List] | Save | Sort by: Relevance | Save Search

1. **Chronicles of old Paris : exploring the historic city of light**
by John Baxter
Book View all formats and languages »
Language: English
Publisher: New York : Museyon, ©2011.
Database: WorldCat
[View all editions »](#)

2. **Paris**
by Vivienne Menkes-Ivry; Joe Cornish
Book View all formats and languages »
Language: English
Publisher: Lincolnwood, Ill. : Passport Books, 1991.
Database: WorldCat
[View all editions »](#)

3. **Time Out Paris.**
Book View all formats and languages »
Language: English
Publisher: London : Time Out Guides Ltd., [2012] ©2012
Database: WorldCat
[View all editions »](#)

4. **TOP 10 PARIS**
by Mike Gerrard; Donna Dailey
Book View all formats and languages »
Language: English
Publisher: New York, New York : DK Publishing, 2014.
Database: WorldCat
[View all editions »](#)

Unbound and linked

analyzing {metadata}



<http://goo.gl/VUWsvO>

Kalev Leetaru, "Fulltext Geocoding Versus Spatial Metadata for Large Text Archives: Towards a Geographically Enriched Wikipedia" *D-Lib Magazine*, (Sep-Oct 2012)

Interesting examples using spatial search:

- New York Public Library – Maps Division
- Ed Summers ici webmap for wikipedia
- Europeana.eu
- Spatial History Project - Stanford
- Spatial Humanities – Scholar's Lab - UVA
- MapRankSearch – Klokan Tech
- Digital Silk Road – Stein Placename Database
- GeoCLEF 2008
- Biodiversity of the Hengduan Mountains

Temporal Gazetteers and Linked Geodata

<http://www.fas.harvard.edu/~chgis/gazetteer>

Bibliography on big data and spatial humanities

https://www.zotero.org/groups/dh_and_big_data/items