

**INDICAT**

International Network  
for Digital Cultural  
Heritage e-Infrastructure



e-infrastructure

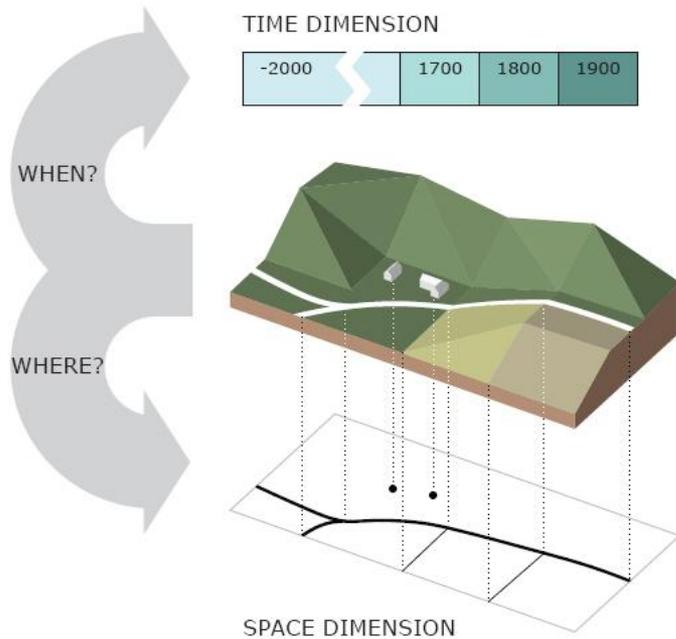
# **Introduction to Geocoded Digital Cultural Content Research Case**

**Franc J. ZAKRAJSEK**

**Barcelona, 14.6.2011**

# GIS small picture

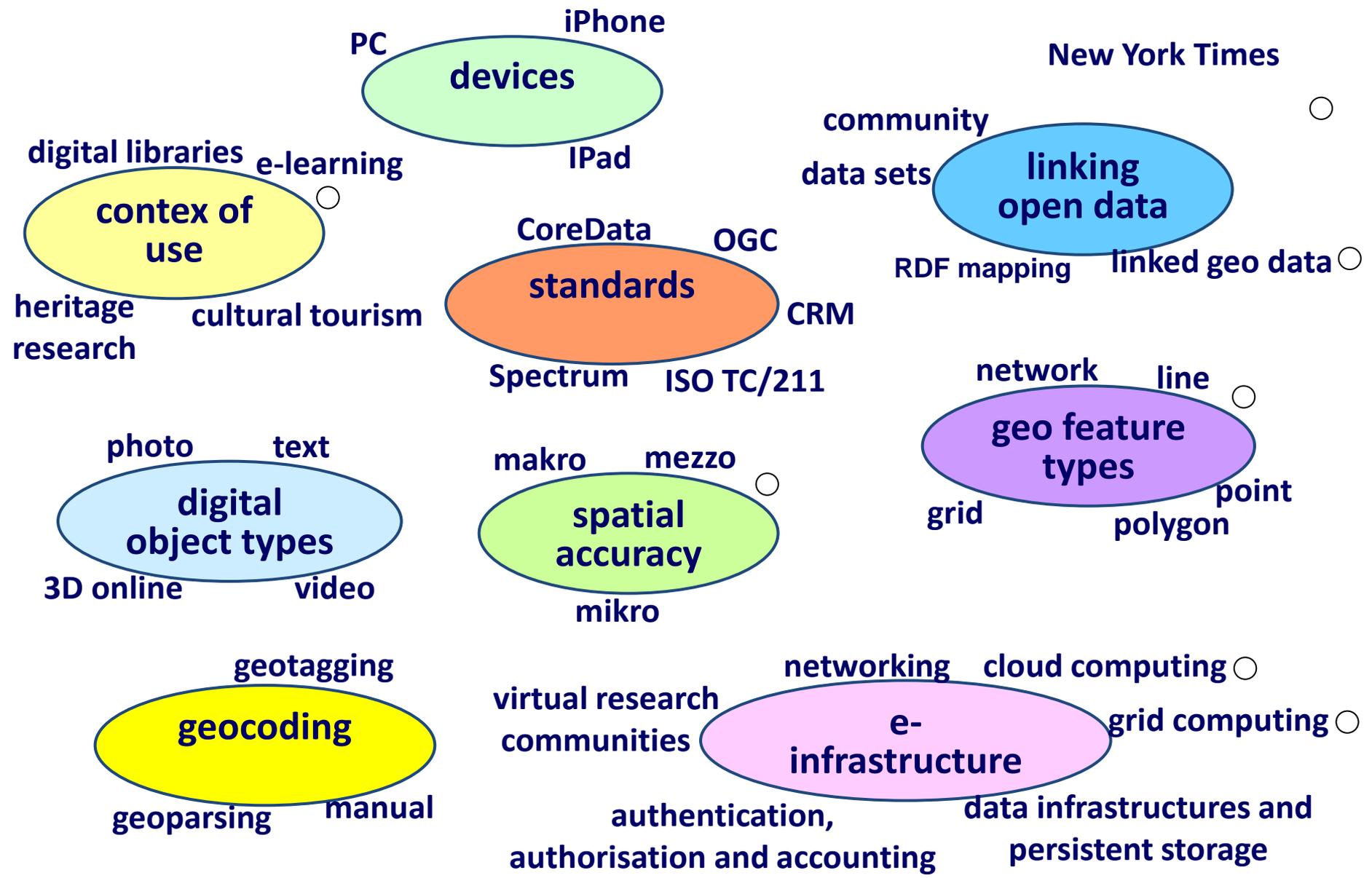
## cultural objects and events



architectural buildings  
archeological sites  
museum objects  
books  
paintings  
monuments  
maps  
theater shows  
exhibitions  
concerts  
festivals

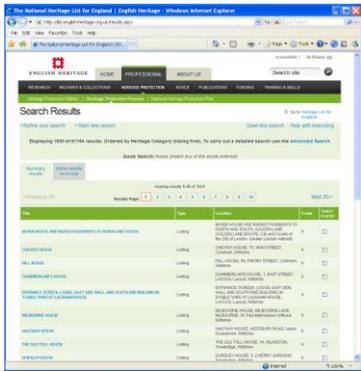
Geographic location is one of the most important aspect of information for every cultural heritage item. A formalized location attribute (e.g. geocode or **geographical coordinates**) will significantly enhance the power of searching, visualization, analysis of the content.

# GIS big picture



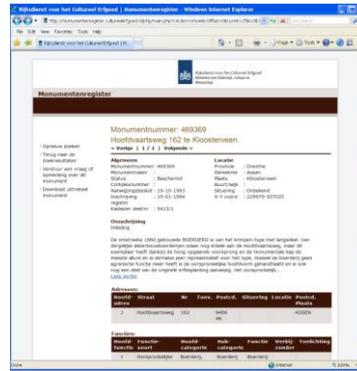
# GIS story one: Registers of immovable CH

## National Heritage List for England



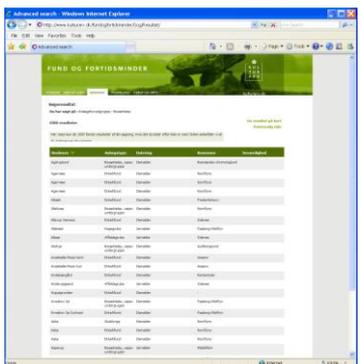
Online database enables searching for listed buildings, scheduled monuments, protected wreck sites, registered parks and gardens, registered battlefields in classic way and on a map.

## National Heritage Register Netherlands



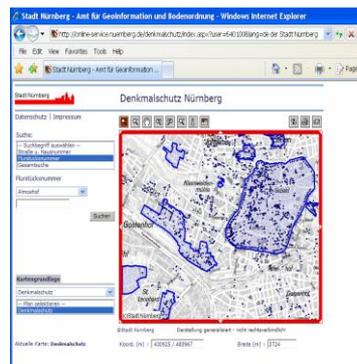
Online heritage register of national monuments (over 60.000) is split per province is searchable in classic way and on a map.

## National Register of Sites and Monuments Denmark



Online register of all known sites, monuments and archaeological finds (165,000 sites including shipwrecks and submarine Stone Age settlements)

## German Heritage Register Bayern - Nürnberg



Nürnberg displays part of the Bavarian monument list. Monument searching and viewing on a map is part of a city plan internet application.

# INSPIRE EU Directive

## Annex III

### Annex I

- Coordinate reference systems
- Geographical grid systems
- Geographical names
- Administrative units
- Addresses
- Cadastral parcels
- Transport networks
- Hydrography
- Protected sites

### Annex II

- Elevation
- Land cover
- Ortho-imagery
- Geology

- Statistical units
- Buildings
- Soil
- Land use
- Human health and safety
- Utility and governmental services
- Environmental monitoring facilities
- Production and industrial facilities
- Agricultural and aquaculture facilities
- Population distribution – demography
- Area management/restriction /regulation zones & reporting units
- Natural risk zones
- Atmospheric conditions
- Meteorological geographical features

- Oceanographic geographical features
- Sea regions
- Bio-geographical regions
- Habitats and biotopes
- Species distribution
- Energy Resources
- Mineral resources

## 3D GIS

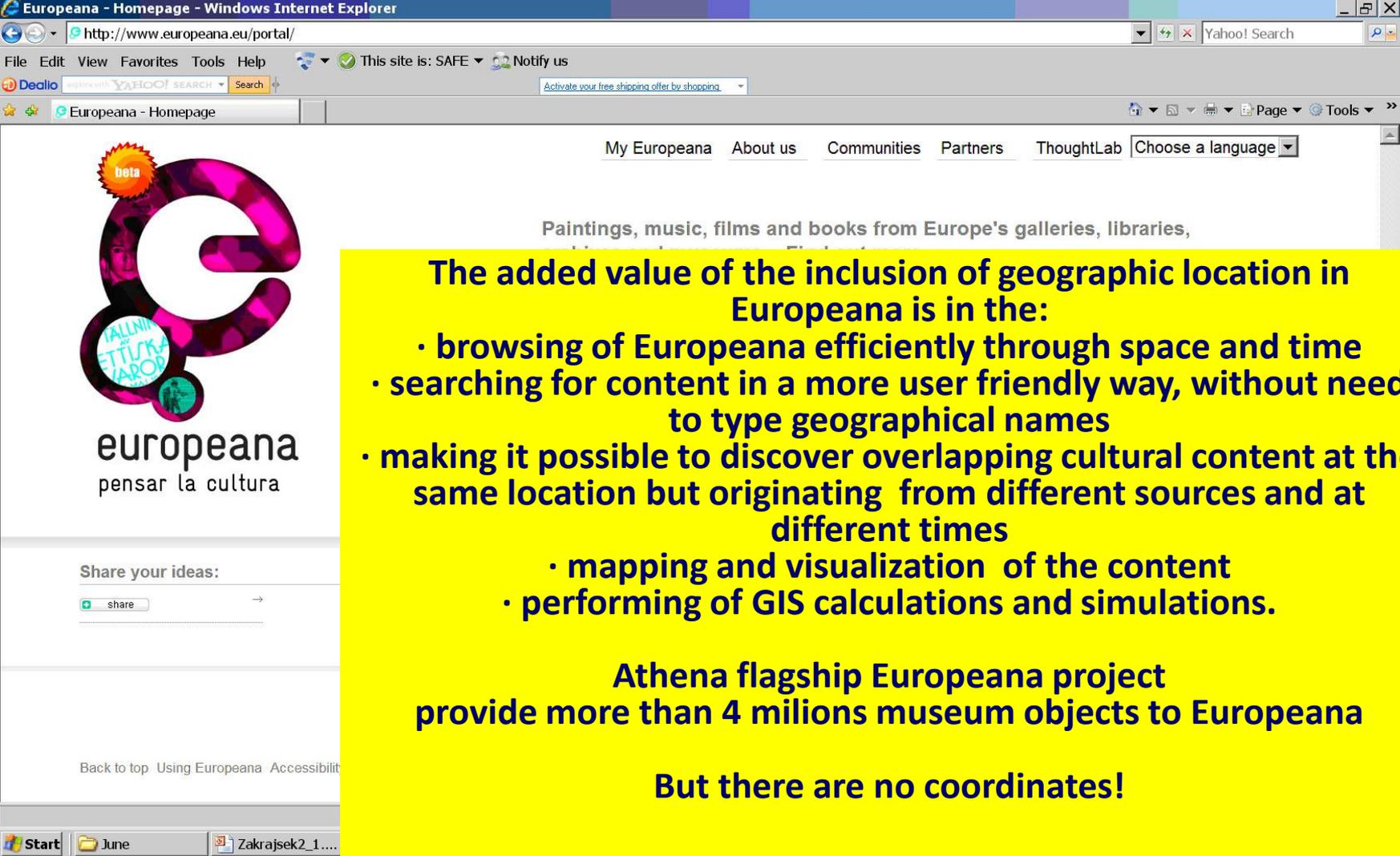


**Geographic information systems, data bases and tools in archeology**



**Architecture as creative industry, the inclusion of new projects in cultural heritage**

# GIS story two: Digital content of movable CH



Paintings, music, films and books from Europe's galleries, libraries,

**The added value of the inclusion of geographic location in Europeana is in the:**

- browsing of Europeana efficiently through space and time
- searching for content in a more user friendly way, without need to type geographical names
- making it possible to discover overlapping cultural content at the same location but originating from different sources and at different times
  - mapping and visualization of the content
  - performing of GIS calculations and simulations.

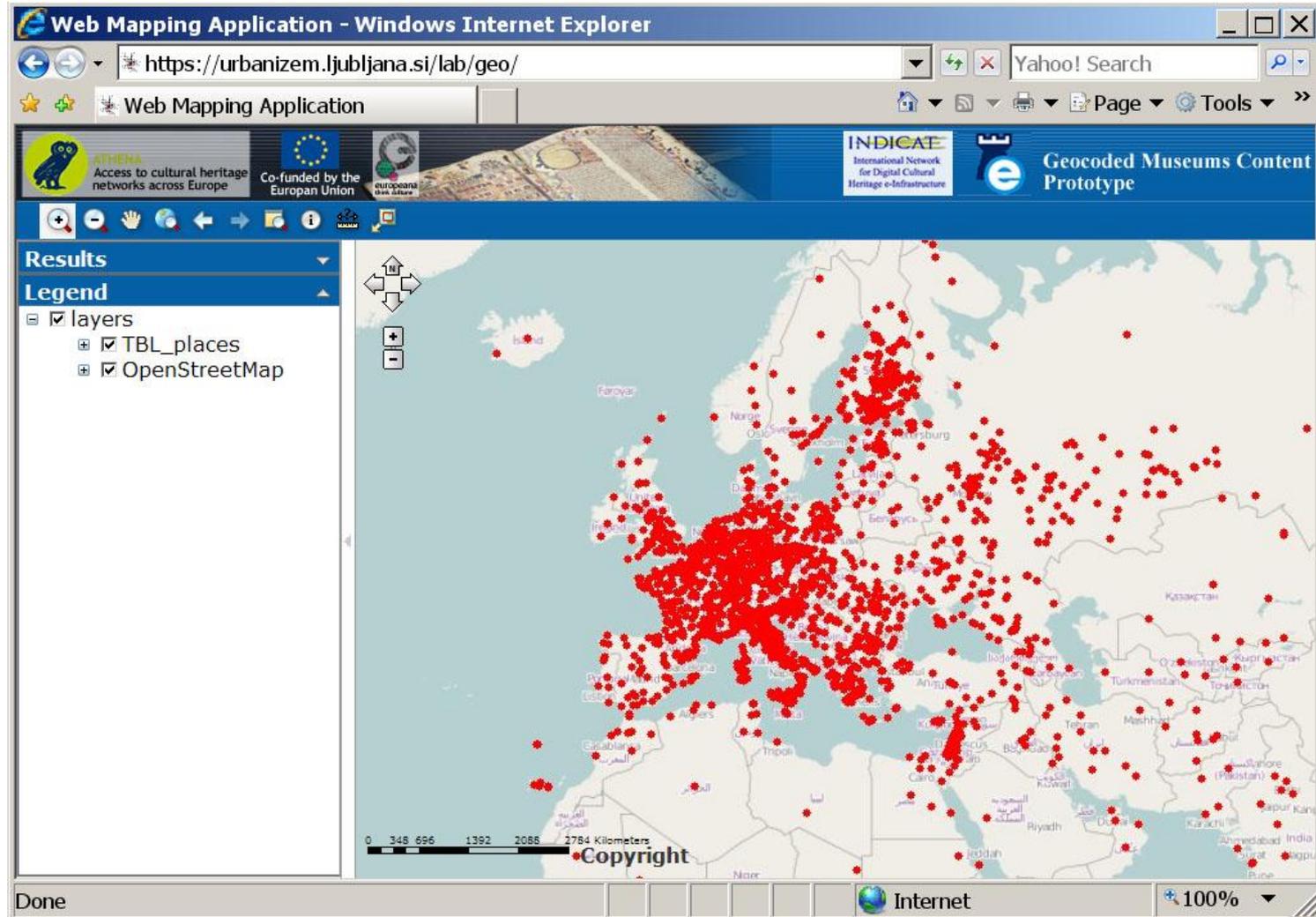
**Athena flagship Europeana project provide more than 4 millions museum objects to Europeana**

**But there are no coordinates!**

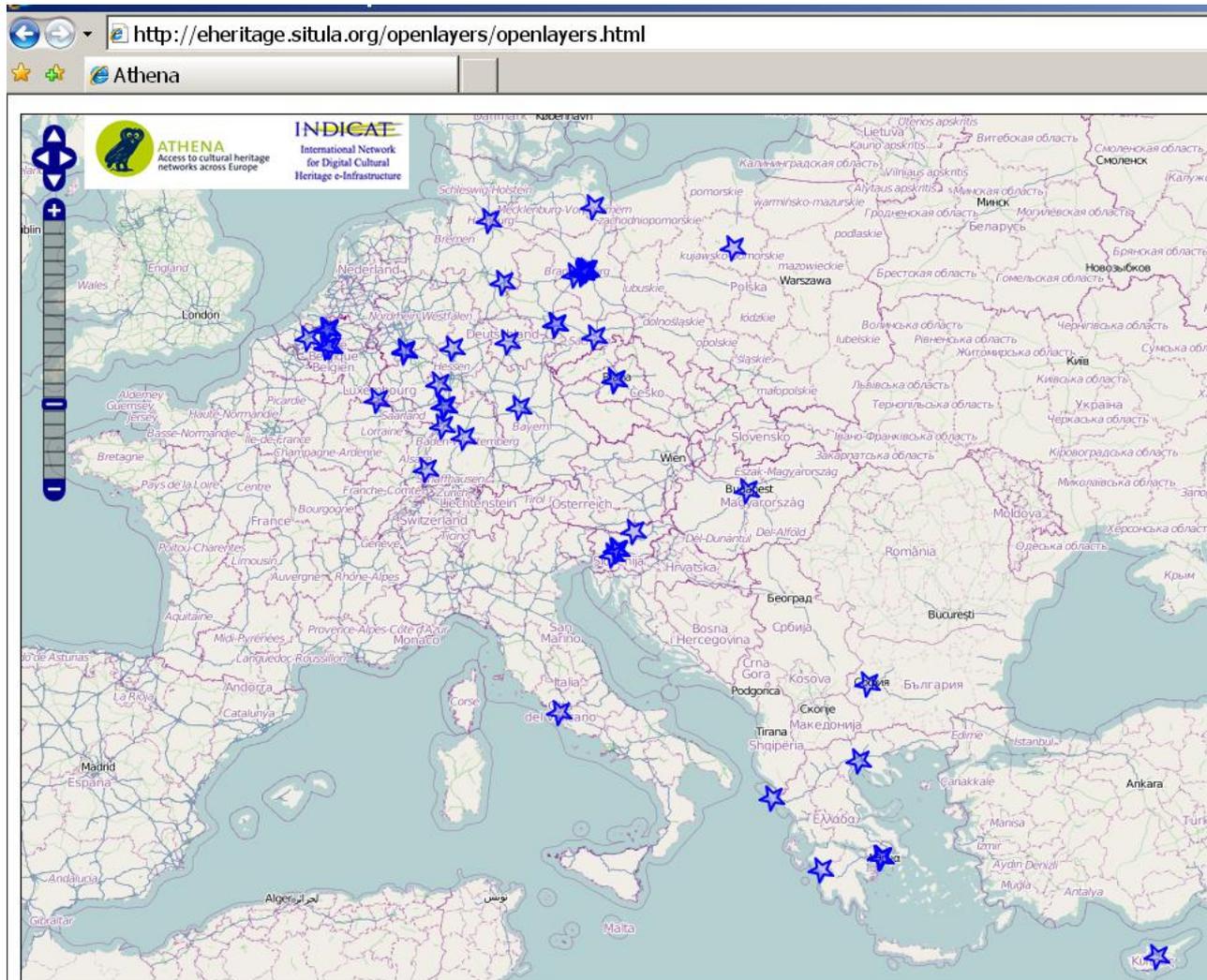
## Geoparsing in action

The screenshot shows a web browser window with the address bar displaying "DIGMAP Text Mining Services". The page title is "DIGMAP Geoparser". A navigation menu includes "File", "Edit", "View", "Favorites", "Tools", and "Help". The main content area features a green header for "DIGMAP Geoparser" and a sub-header "DIGMAP Text Mining Services". Below this, there is a text box containing the following text: "This service can parse textual documents and recognize named entities in the text. Geographical entities are disambiguated into the corresponding identifiers in the [DIGMAP gazetteer](#). A set of supporting text mining services is also provided, such as language recognition." and "This page provides a simple form for testing the service. Users can provide textual sentences, and the service will reply with an XML document containing the geoparsing results. Separate pages provide more advanced examples, showing how to use the [geoparser as an XML Web service](#), or presenting a [time-map exploration interface](#) for geoparsed RSS feeds." Below the text box is a section titled "Geoparse the Textual Contents" with a text input field containing the sentence: "The next sentence is an example: Antonio Telo is one of the most active professional historians in Portugal, specializing in the history of the 20th century." At the bottom of this section are three buttons: "GeoParse", "Show on Map", and "Reset". The footer contains navigation links for "DIGMAP Services: Portal | Geoparser | Gazetteer | Map Indexer | nail.map | cat.on.map | Map Services | Wiki", a copyright notice "©2008 All Rights Reserved. Contact: <mailto:digmap@digmap.eu>", a project funding notice "Project co-funded by the Community programme [eContentplus](#) (contract [ECP-2005-CULT-038042](#) :: DIGMAP)", and a "Flag EC" button.

## Geocoded Athena content 1/2



# Geocoded Athena content 2/2



# Guidelines for geographic information



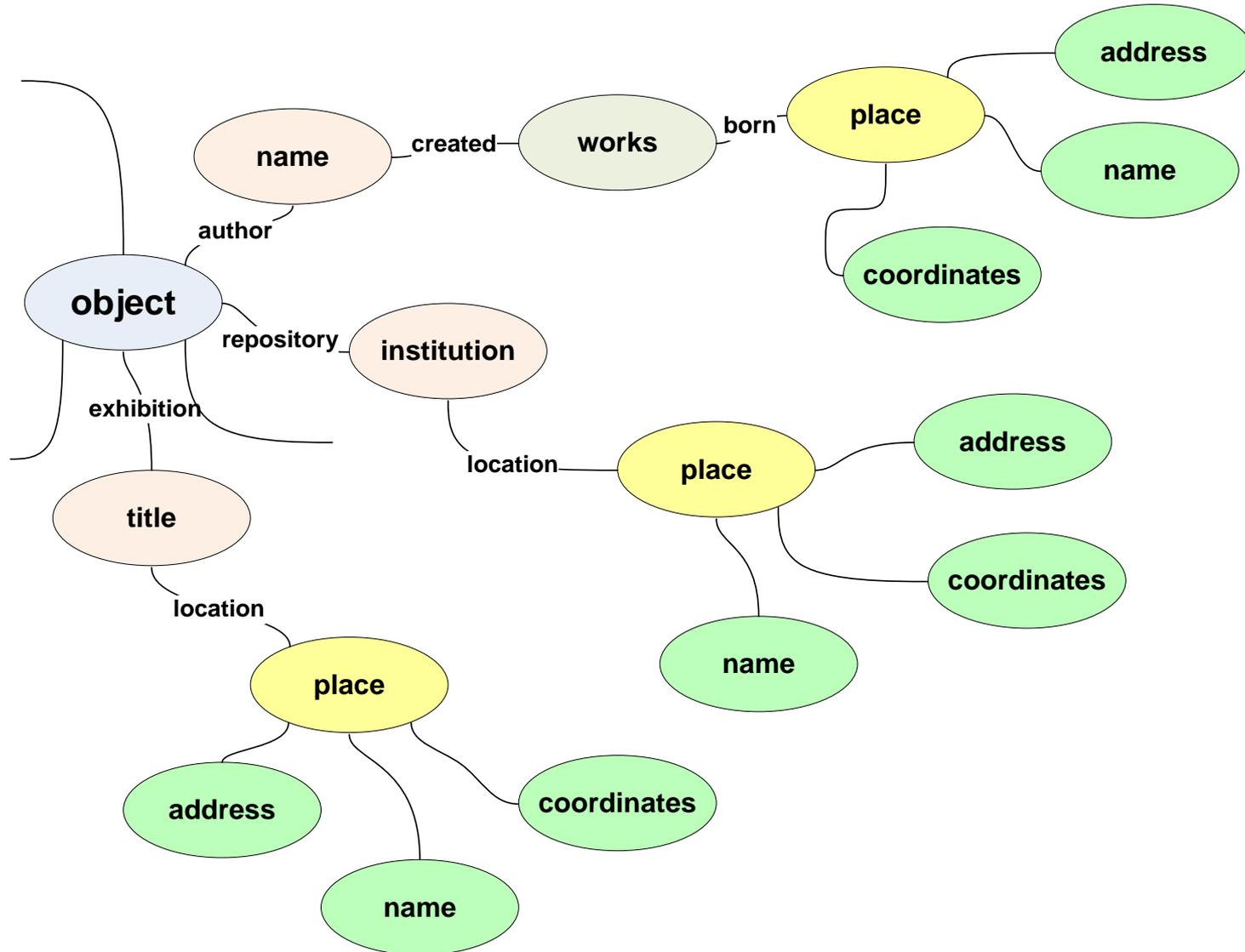
Content: basic terms, what is geographic information system, standards, possible cases of use, and eleven “quick thoughts” for cultural institutions

**Thank you for your attention**

**Franc J. Zakrajsek**

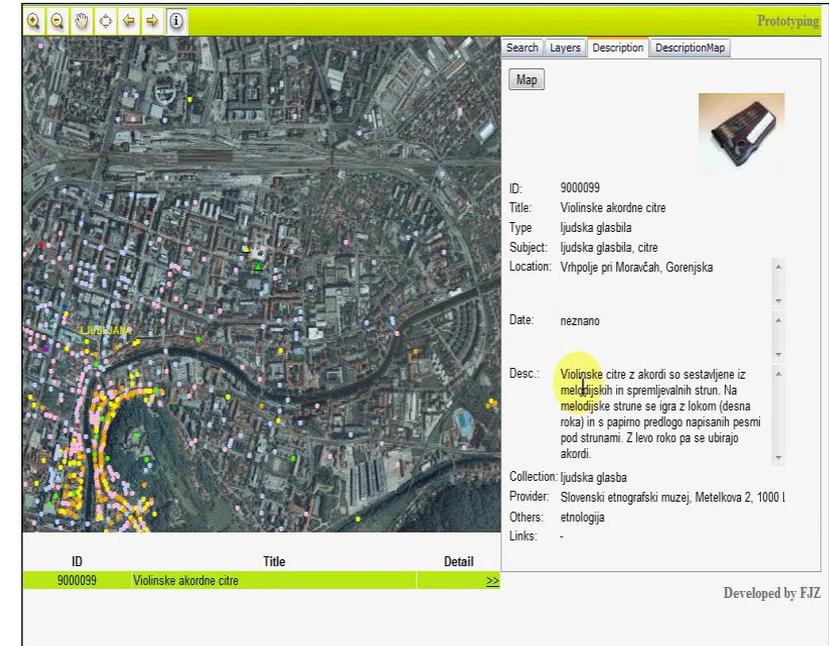
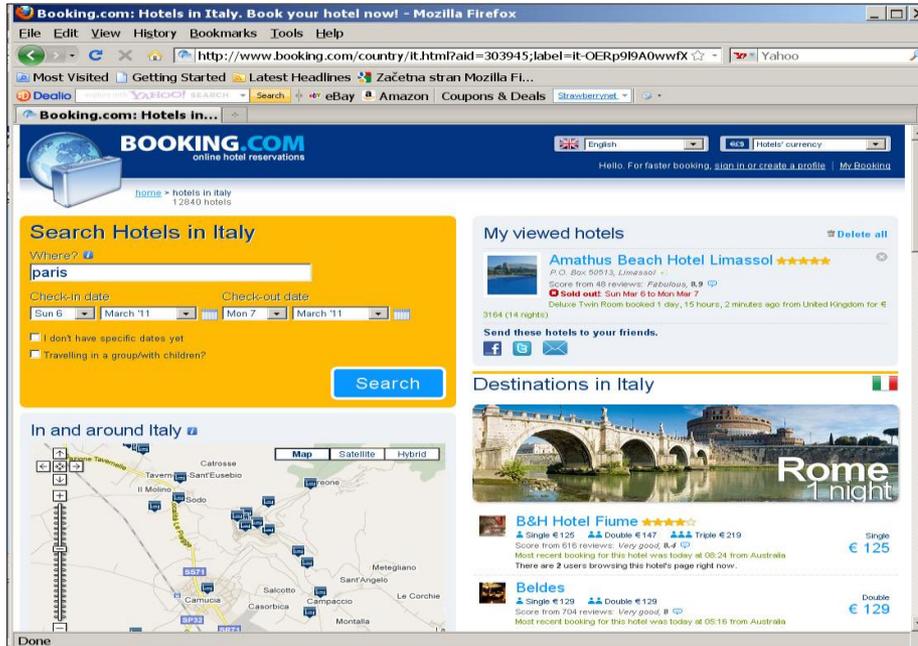
**franc.zakrajsek@guest.arnes.si**

# Context of geographic information



# Cultural tourism

## Merging the travelling services with cultural content services

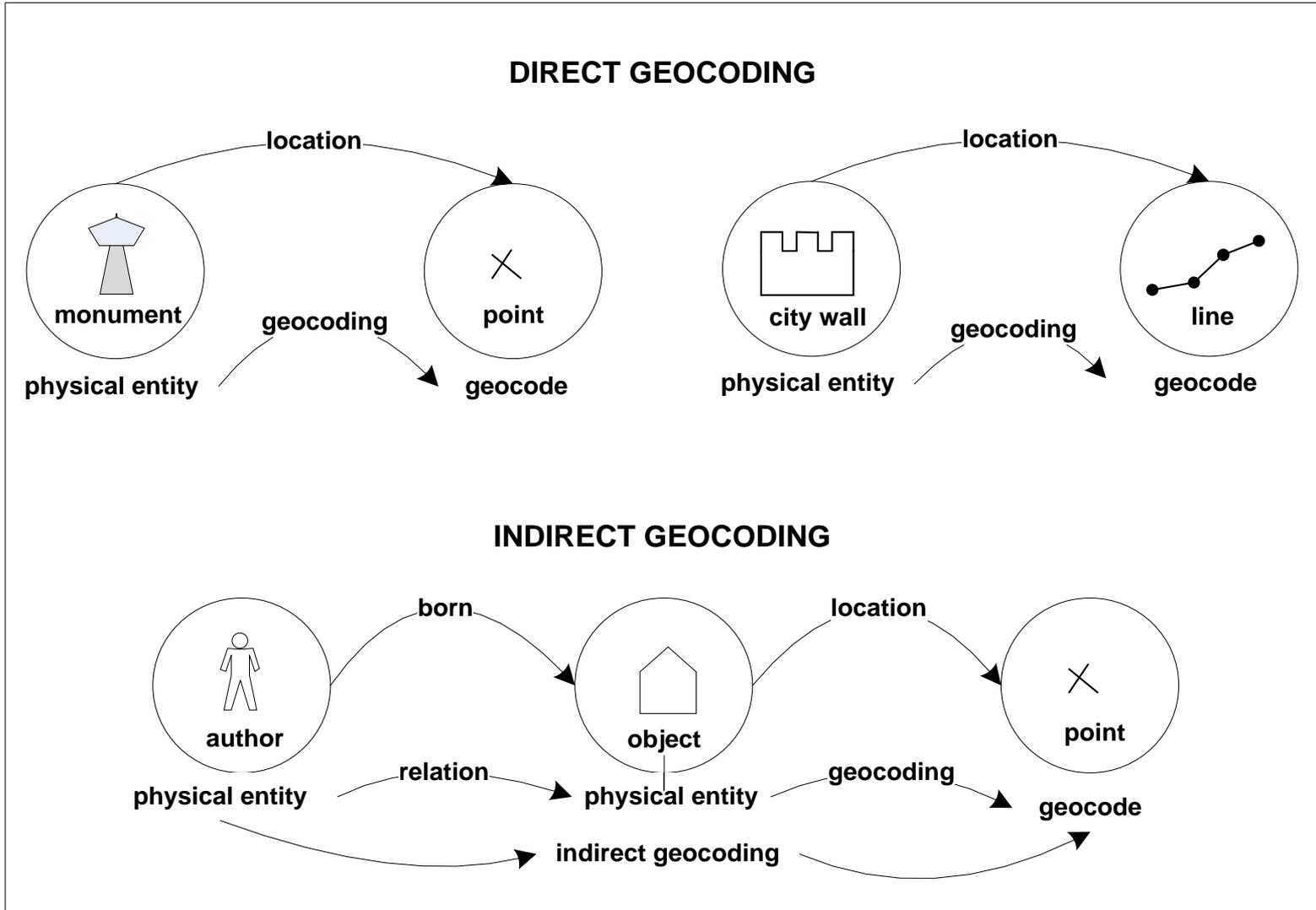


# Mobile navigation

Mobile cultural heritage guide, location aware services, example:  
possible scenarios, University of Amsterdam

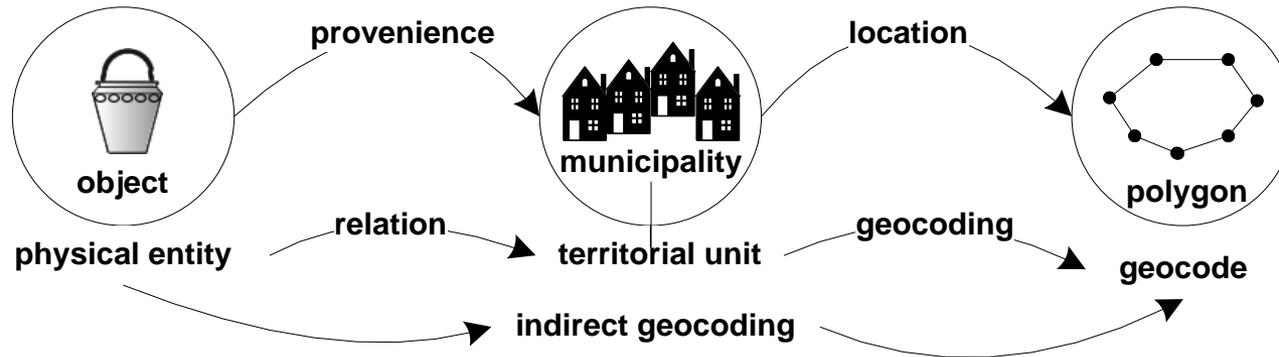


# Geocoding

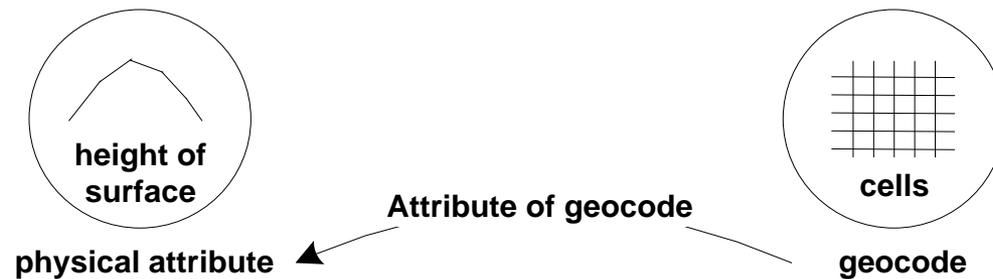


# Geocoding - 2

## INDIRECT GEOCODING VIA TERRITORIAL UNITS



## REVERSE GEOCODING





# GIS and cloud computing

- + *Lower operational costs, quicker development times and device independence*
- + *Enables heavy duty data crunching to better process and explore Internet information pools*
- + *Pay for usage reduces fixed expenses on hardware, software, maintenance and support*



- *Data and processing is at the mercy of the service provider and reliable Internet connection*
- *Capabilities limited by marketplace demand, standardization and provider incentives*
- *Security concerns, liability, legal position and data/processing ownership/responsibility*

# Appropriate tasks for grid computing

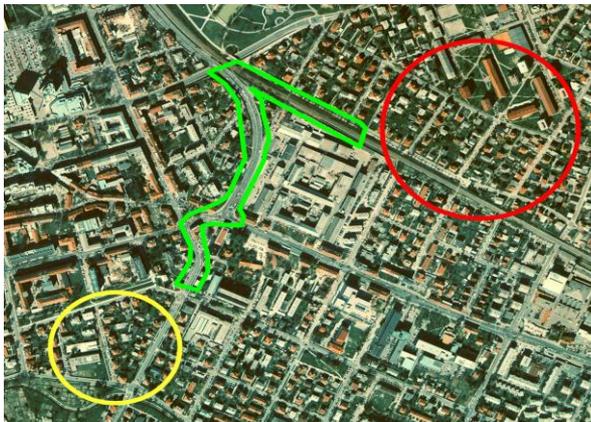
## 3D visualisation



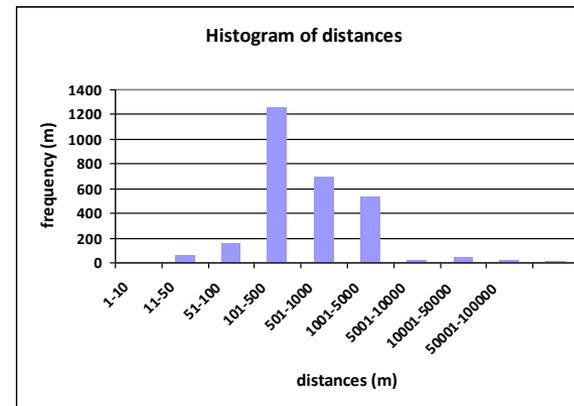
## Risk scenarios simulations



## Spatial analyses



## Spatial statistics



## Linked geo data

**Edit Lukaskirche**

Name: Lukaskirche

Description:

Image:

Source\_ref:

amenity: place\_of\_worship [-]

religion: christian [-]

denomination: lutheran [-]

created\_by: xybot [-]

[+]

**Search:**  [Login >>](#)

[Show updates in this area >>](#)

**Properties**

- [+] highway (15)
- [+] religion (3)
- [+] amenity (31)
- [+] denomination (3)
- [+] historic (1)
- [+] railway (2)
- [+] leisure (5)
- [+] man\_made (1)
- [+] shop (4)
- [+] sport (1)
- [+] cuisine (1)

**Instances**

- Lukaskirche**  
amenity: place\_of\_worship  
religion: christian  
denomination: lutheran
- Club 11**  
amenity: nightclub
- amenity: recycling
- amenity: parking
- amenity: parking
- amenity: parking
- amenity: recycling
- Lukas-Apotheke**  
amenity: pharmacy
- amenity: school
- amenity: parking
- Johanneskirche**  
denomination: christian\_community  
religion: christian  
amenity:

This faceted Linked Geo Data browser was developed by [AKSW research group](#).

13.73790, 51.03104

# Geocoded articles

Adding the geographical coordinates to published articles;  
example: Linked Open Data of New York Times, connected with  
Geonames ontology.

**data.nytimes.com**

For the last 150 years, The New York Times has maintained one of the most authoritative news vocabularies ever developed. In 2009, we began to publish this vocabulary as linked open data.

### The Data

As of 13 January 2010, The New York Times has published approximately ,10,000 subject headings as linked open data under a CC BY license. We provide both RDF documents and a human-friendly HTML versions. The table below gives a breakdown of the various tag types and mapping strategies on data.nytimes.com.

Type	Manually Mapped Tags	Automatically Mapped Tags	Total
People	4,978	0	4,978
Organizations	1,489	1,592	3,081
Locations	1,910	0	1,910
Descriptors	498	0	498
			10,467

Browse individual data records:

## National Heritage List for England

The screenshot shows a Windows Internet Explorer browser window displaying the English Heritage website. The address bar shows the URL <http://list.english-heritage.org.uk/results.aspx>. The website header includes navigation tabs for ENGLISH HERITAGE, HOME, PROFESSIONAL, and ABOUT US, along with a search site input field. Below the header, there are menu items for RESEARCH, ARCHIVES & COLLECTIONS, HERITAGE PROTECTION, ADVICE, PUBLICATIONS, FUNDING, and TRAINING & SKILLS. The main content area is titled "Search Results" and displays "1000 of 61154 results. Ordered by Heritage Category (listing first). To carry out a detailed search use the [Advanced Search](#)." A search filter is applied: "Quick Search: house (match any of the words entered)". Below the text, there are two tabs: "Summary results" (selected) and "Show results on a map". The map view shows a detailed map of a region in England, with various heritage sites marked. A legend below the map identifies the following categories: Listed Buildings (blue triangle), World Heritage Sites Property Boundary (orange hatched), Wrecks (green hatched), Scheduled Ancient Monuments (red hatched), World Heritage Sites Buffer Zone (yellow hatched), Building Preservation Notices (blue triangle), Parks and Gardens (green hatched), Battlefields (yellow hatched), and Certificates of Immunity (grey triangle). The map also includes a scale bar, a compass rose, and a "Map Contents" panel.

## National Heritage Register Netherlands

Rijksdienst voor het Cultureel Erfgoed | Monumentenregister - Windows Internet Explorer

http://monumentenregister.cultureelerfgoed.nl/php/main.php?cAction=show&cOffset=0&cLimit=25&cOBJ

Rijksdienst voor het Cultureel Erfgoed | M...

Rijksdienst voor het Cultureel Erfgoed  
Ministerie van Onderwijs, Cultuur en  
Wetenschap

### Monumentenregister

Monumentnummer: 469369  
Hoofdvaartsweg 162 te Kloosterveen  
« Vorige | 1 / 1 | Volgende »

- Opnieuw zoeken
- Terug naar de zoekresultaten
- Verstuur een vraag of opmerking over dit monument
- Download uittreksel monument

**Algemeen**  
 Monumentnummer: 469369  
 Monumentnaam :  
 Status : Beschermd  
 Complexnummer :  
 Aanwijzingsbesluit : 19-10-1993  
 Inschrijving : 19-01-1994  
 register  
 Kadaster deel/nr : 5413/1

**Locatie**  
 Provincie : Drenthe  
 Gemeente : Assen  
 Plaats : Kloosterveen  
 Buurt/wijk :  
 Situering : Onbekend  
 X-Y coörd : 229979-557025

**Omschrijving**  
 Inleiding  
 De omstreeks 1860 gebouwde BOERDERIJ is van het krimpen-type met langsdeel. Van dergelijke akkerbouwboerderijen staan nog enkele aan de Hoofdvaartsweg, maar dit exemplaar heeft dankzij de hoog opgaande voorsprong en de monumentale kap de meeste allure en is derhalve zeer representatief voor het type. Hoewel de boerderij geen agrarische functie meer heeft is de oorspronkelijke hoofdvorm gehandhaafd en is ook nog een deel van de originele erfbeplanting aanwezig. Het oorspronkelijk...  
[Lees verder](#)

**Adressen:**

Hoofd-adres	Straat	Nr	Toev.	Postcd.	Situering	Locatie	Postcd. Plaats
J	Hoofdvaartsweg	162		9406 XE			ASSEN

**Functies:**

Hoofd-functie	Functie-soort	Hoofd-categorie	Sub-categorie	Functie	Verbij-zonder	Toelichting
J	Oorspronkelijke	Boerderij,	Boerderij	Boerderij		

Done Internet 100%

## National Register of Denmark

The screenshot shows a web browser window titled "Søg på Kort - Windows Internet Explorer". The address bar contains the URL: <http://www.kulturarv.dk/fundogfortidsminder/kort/?bbox=542952.224324464,6059734.32946198,8923>. The page content includes a header with the text "FUND OG FORTIDSMINDER" and the logo for "KULTURARV". Below the header is a navigation menu with options: "FORSIDE", "SØG PÅ KORT", "SIGNING", "DOWNLOAD", "HJÆLP OG INFO". The main content area features a map of the Copenhagen region with various markers. A search bar is visible at the top left of the map area. On the right side, there is a legend titled "Fortidsminder" and "Andet kulturarv" with several checkboxes. The "Fortidsminder" section includes: "Fredede" (checked), "Ikke fredede" (checked), "Søgeresultat" (checked), "Vis udstrækning" (unchecked), and "Vis beskyttelseslinier" (unchecked). The "Andet kulturarv" section includes: "Kulturarvsarealer" (unchecked), "Beskyttede sten- og jorddiger" (unchecked), and "Fredede bygninger" (unchecked). The "Administrative grænser" section includes: "Kommunegrænser" (unchecked), "Sognegrænser" (unchecked), "Matrikel" (unchecked), and "Ansvarsområder" (unchecked). The "Baggrundskort" section includes: "Vejkort" (checked), "Topografisk kort" (unchecked), "Luftfoto" (unchecked), "Høje målebordsblade (1842-99)" (unchecked), and "Lave målebordsblade (1901-71)" (unchecked). At the bottom of the map area, there is a scale bar for 10 km and a copyright notice: "Kort © Kort og Matrikelstyrelsen / Luftfoto © COWI". The footer of the page contains contact information for "Kulturarvsstyrelsen" and a copyright notice: "© 2007".

## Heritage Register Bayern - Nürnberg

Stadt Nürnberg - Amt für Geoinformation und Bodenordnung - Windows Internet Explorer

http://online-service.nuernberg.de/denkmalchutz/index.aspx?user=640100&lang=de der Stadt Nürnberg

File Edit View Favorites Tools Help

Stadt Nürnberg - Amt für Geoinformation ...

Stadt Nürnberg

### Denkmalschutz Nürnberg

Datenschutz | Impressum

Suche:  
-- Suchbegriff auswählen --  
Straße u. Hausnummer  
Flurstücksnummer  
Gesamtsuche

Flurstücksnummer:  
Almoshof  
Suchen

Kartengrundlage:  
Denkmalschutz  
-- Plan selektieren --  
Denkmalschutz

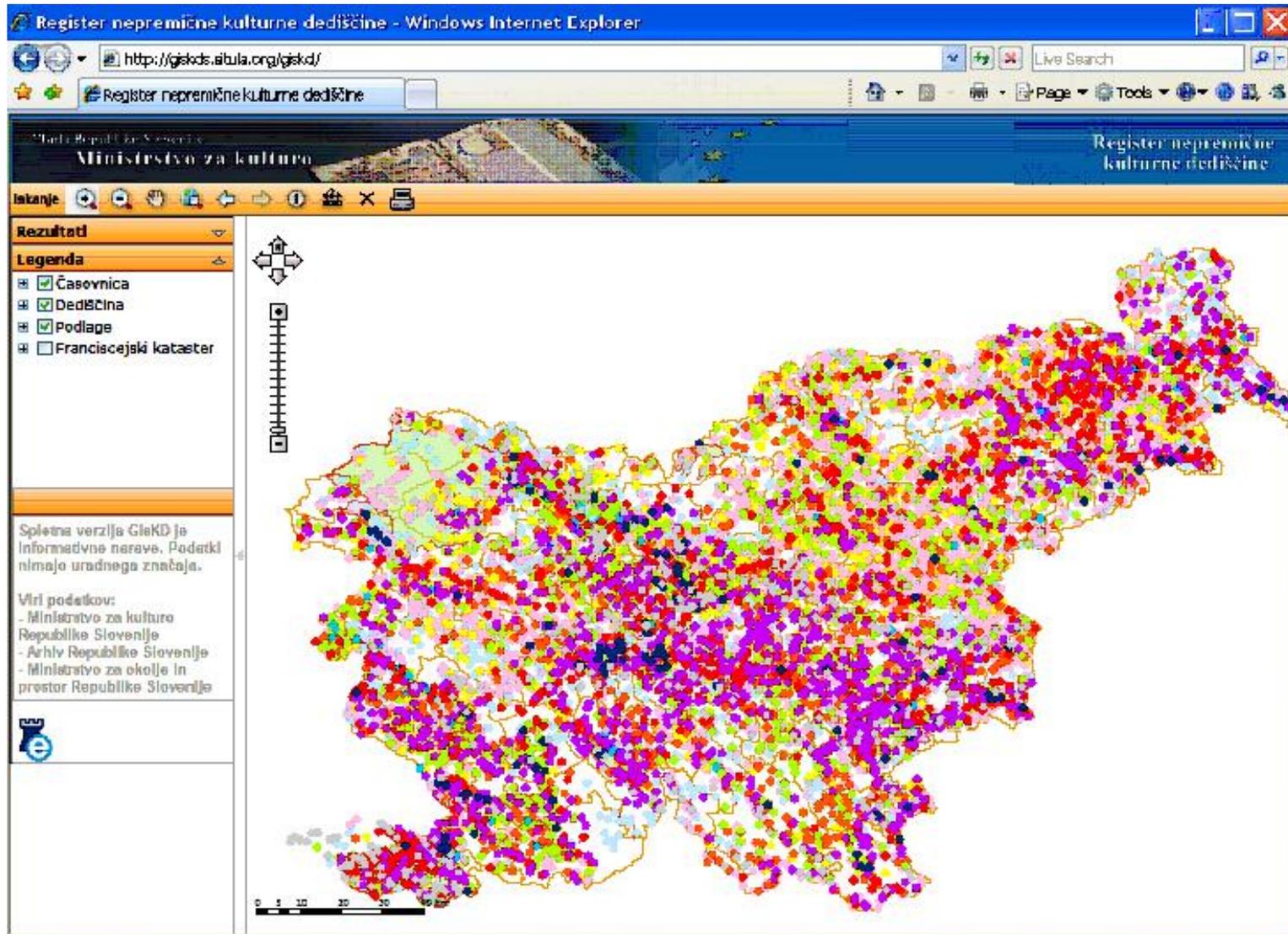
©Stadt Nürnberg Darstellung generalisiert - nicht rechtsverbindlich!

Aktuelle Karte: **Denkmalschutz**

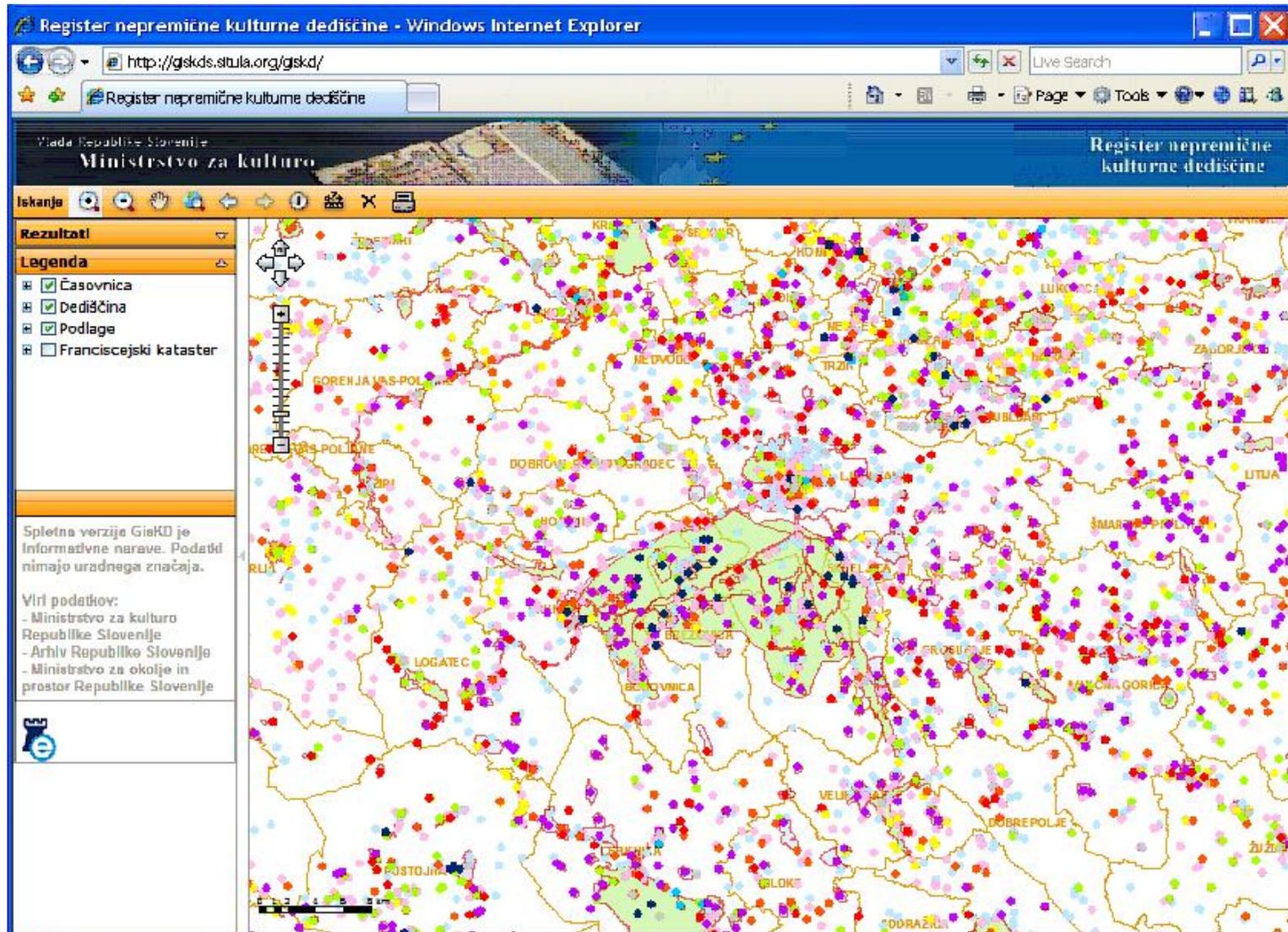
Koord. (m) : 430925 / 480967      Breite (m) : 3724



## LOD: overview



## LOD: regional level



## Diferent basemaps

Register nepremične kulturne dediščine - Windows Internet Explorer

http://gskds.stula.org/gskd/

Register nepremične kulturne dediščine

Vlada Republike Slovenije  
Ministrstvo za kulturo

Register nepremične kulturne dediščine

Izkušnja

Rezultati

Legenda

- Časovnica
- Dediščina
- Podlage
- Franciscejski kataster

Spletna verzija GieKD je informativne narave. Podatki nimajo uradnega značaja.

Viri podatkov:

- Ministrstvo za kulturo Republike Slovenije
- Arhiv Republike Slovenije
- Ministrstvo za okolje in prostor Republike Slovenije

0 205 410 820 1230 1640 m

## LOD: polygons

The screenshot displays a web browser window titled "Register nepremične kulturne dediščine - Windows Internet Explorer". The address bar shows the URL <http://gskds.stula.org/gskd/>. The page header includes the logo of the Ministry of Culture of the Republic of Slovenia and the text "Register nepremične kulturne dediščine".

The main content area features a map with various colored overlays representing different registers. A legend on the left side, titled "Legenda", lists the following layers:

- Časovnica
- Dediščina
- Podlage
- Franciscejski kataster

Below the legend, there is a disclaimer: "Spletna verzija GisKO je informativne narave. Podatki nimajo uradnega značaja." and a list of data sources: "Viri podatkov: - Ministrstvo za kulturo Republike Slovenije, - Arhiv Republike Slovenije, - Ministrstvo za okolje in prostor Republike Slovenije".

The map itself shows a detailed view of a town or village with a river, buildings, and green spaces. The overlays from the legend are visible on the map, with "Dediščina" and "Podlage" being the most prominent.

## LOD: parcels

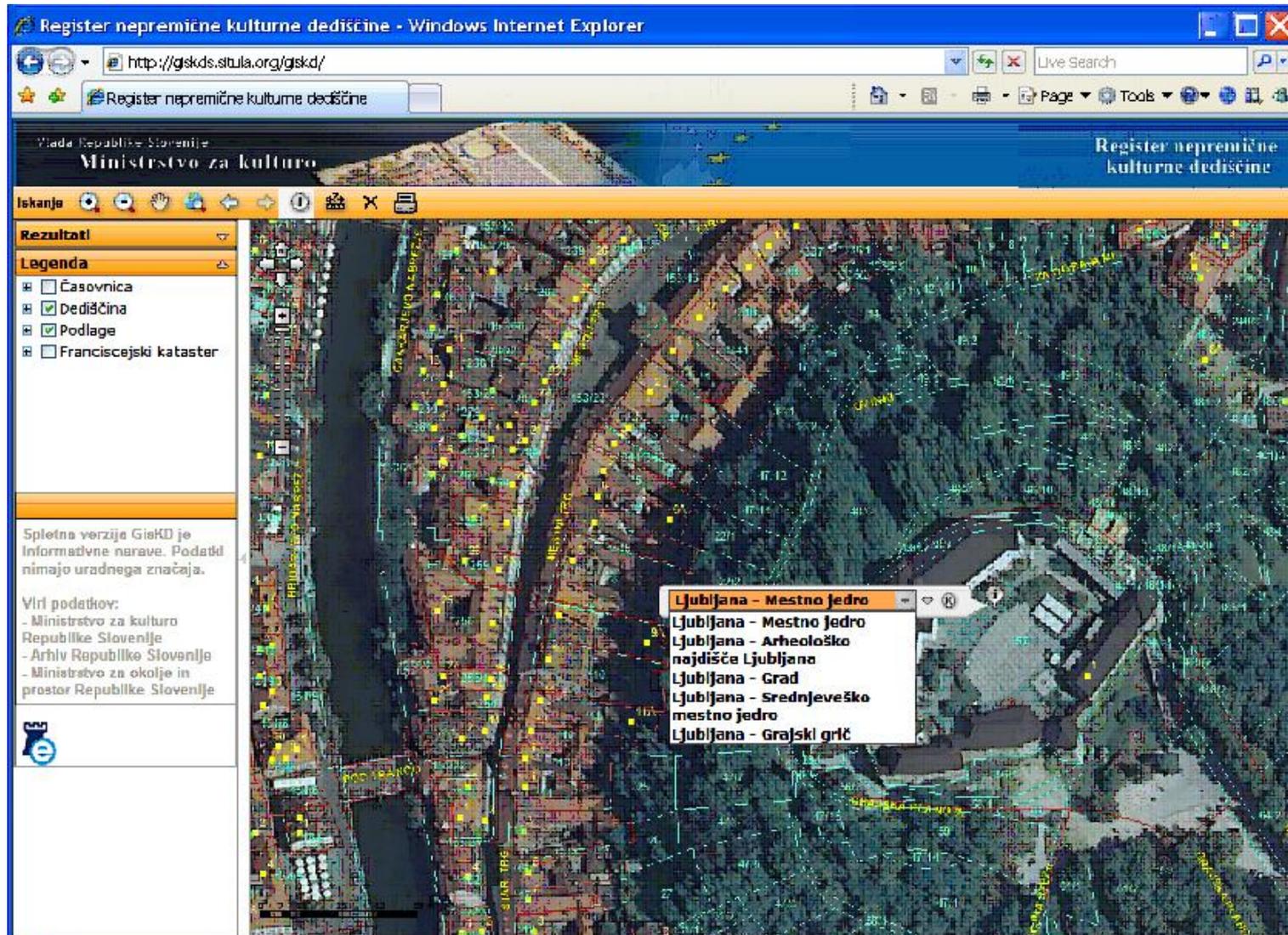
The screenshot displays a web browser window titled "Register nepremične kulturne dediščine - Windows Internet Explorer". The address bar shows the URL "http://gskds.stula.org/gskd/". The page header includes the logo of the Ministry of Culture of the Republic of Slovenia and the text "Register nepremične kulturne dediščine".

The main content area features a satellite map of a town with numerous yellow and green markers indicating cultural heritage parcels. A legend on the left side of the map shows the following items:

- Časovnica
- Dediščina
- Podlage
- Franciscejski kataster

Below the legend, there is a disclaimer: "Spletna verzija GieKD je informativne narave. Podatki nimajo uradnega značaja." and a list of data sources: "Viri podatkov: - Ministrstvo za kulturo Republike Slovenije, - Arhiv Republike Slovenije, - Ministrstvo za okolje in prostor Republike Slovenije".

## List of cultural heritage



Register nepremične kulturne dediščine - Windows Internet Explorer

http://gskds.stula.org/gskd/

Register nepremične kulturne dediščine

Ministrstvo za kulturo

Register nepremične kulturne dediščine

Iskanja

Rezultati

Legenda

- Časovnica
- Dediščina
- Podlage
- Franciscejski kataster

Spletna verzija GieKD je informativne narave. Podatki nimajo uradnega značaja.

Viri podatkov:

- Ministrstvo za kulturo Republike Slovenije
- Arhiv Republike Slovenije
- Ministrstvo za okolje in prostor Republike Slovenije

Ljubljana - Mestno jedro

- Ljubljana - Mestno jedro
- Ljubljana - Arheološko najdišče Ljubljana
- Ljubljana - Grad
- Ljubljana - Srednjeveško mestno jedro
- Ljubljana - Grajski grč

## Description of cultural heritage

The screenshot shows a web browser window titled "Register nepremične kulturne dediščine - Windows Internet Explorer". The address bar shows the URL "http://gskds.stula.org/gskd/". The page header includes "Vlada Republike Slovenije" and "Ministrstvo za kulturo" on the left, and "Register nepremične kulturne dediščine" on the right. The main content area features a map of Ljubljana with various colored markers. A pop-up window titled "Ljubljana - Grad" is open over a specific location. The pop-up contains the following information:

Ime	Ljubljana - Gra
Tip	profana stavbr dediščina
Obseg	objekt
Gesla	grad
	Grad je zgodovinska lokacija in prezidan stavb kompleks (1961-1998), razvit l

Below the pop-up, there is a breadcrumb trail: "Dediščina > Rkd\_Območje" and a link: "[Pojdi med rezultate.](#)".

On the left side of the map, there is a sidebar with the following sections:

- Rezultati**
- Legenda**
  - Časovnica
  - Dediščina
  - Podlage
  - Franciscejski kataster
- Spletna verzija GisKd je informativne narave. Podatki nimajo uradnega značaja.
- Viri podatkov:
  - Ministrstvo za kulturo Republike Slovenije
  - Arhiv Republike Slovenije
  - Ministrstvo za okolje in prostor Republike Slovenije

## Persistent identifiers

Register nepremične kulturne dediščine - Windows Internet Explorer

Dokumenti in fotografije kulturne dediščine - Windows Internet Explorer

http://giskd2s.si/ua.org/povezave.asp?Esd=340

Dokumenti in fotografije kulturne dediščine

Vlada Republike Slovenije  
Ministrstvo za kulturo

Register nepremične kulturne dediščine

# 340: Ljubljana - Grad

 [Odluk o razglasitvi srednjeveškega mestnega jedra Stare Ljubljane in Grajskega griča za kulturni in zgod. spomenik ter naravno znamenitost, Ur.l. SRS, št. 5/86-297, 27/89-1472, Ur.l. RS, št. 105/2001-5125](#)

 [Ljubljana - Grad, fotografija, Jože Gorjup \(1988\)](#)

 [Gorenjska - Gradovi, fotografija, \(1964\)](#)

 [Ljubljana - Grad \(fotografija\), fotografija, Jože Gorjup \(1965\)](#)

 [Ljubljana - Grad \(fotografija\), fotografija, Jože Gorjup \(1965\)](#)

 [Ljubljana - Grad \(fotografija\), fotografija, Jože Gorjup \(1965\)](#)

## Linked image data

Register nepremične kulturne dediščine - Windows Internet Explorer

Fotografije kulturne dediščine - Windows Internet Explorer

http://giskd2s.si/ula.org/Foto.asp?Foto=c01140-012-b

Fotografije kulturne dediščine

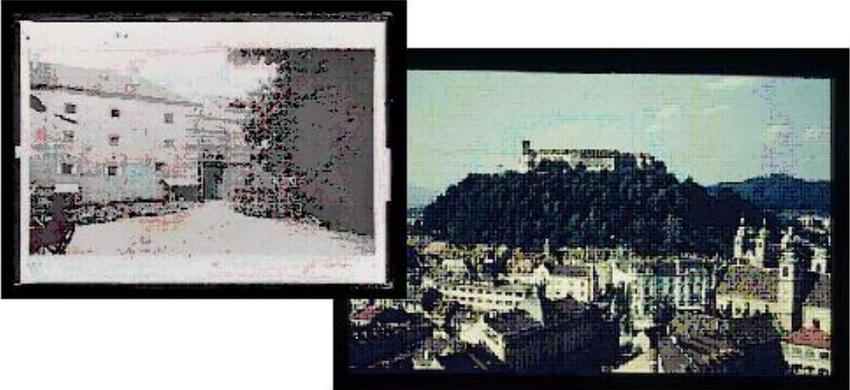
Iska  
Rez  
Leg

Spil  
Info  
nim

Viri  
- Mi  
Rep  
- Ar  
- Mi  
pro

Register nepremične kulturne dediščine

Viada Republike Slovenije  
Ministrstvo za kulturo



Evidenčna številka: 340

enote:

Ime enote: Gorenjska - Gradovi, fotografija

Avtorstvo fotografije: (1964)



## Linked legal data

Register nepremične kulturne dediščine - Windows Internet Explorer

http://giskd2s.situla.org/Dokumenti/p0447\_1.pdf - Windows Internet Explorer

http://giskd2s.situla.org/Dokumenti/p044...

121%

IV. RAZVOJNE USMERITVE

16. člen

Razvojne usmeritve za varovano območje se določajo v prostorskih sestavinah dolgoročnega plana občine in mesta Ljubljane in srednjeročnih planih ter v prostorskih izvedbenih aktih, izhodišča za razvojne usmeritve so naslednja:

A. Za celotno območje:

- Spomenikom je treba zaradi njihovih kulturnih, zgodovinskih, estetskih in znanstvenih vrednosti zagotoviti nadaljnji obstoj in razvoj ter dostopnost javnosti.
- Povsod po območju, razen po Karloviški cesti je potrebno postopoma ukiniti tranzitni promet motornih vozil in ga omejiti na dostavni promet, promet vozil mestnega javnega prometa, obstoječa parkirišča in jih nadomeščati z izgradnjo garažnih hiš na obrobju varovanega območja in izvenmivojskimi (podzemnimi) rešitvami.
- Proste površine naj bodo namenjene javnemu programu kot npr.: trgovski in gostinski dejavnosti na prostem in v atrijih, javnih prireditvah, trženju, ki se po svojem značaju vključuje v varovane lastnosti tega prostora.
- Najdbe, ki imajo kulturne, zgodovinske, estetske in znanstvene vrednosti je potrebno zaščititi in predstaviti.

B. Dodatno za urbanistični spomenik:

- Obstoj in razvoj urbanističnega spomenika ter posameznih arhitekturnih spomenikov naj se uresničuje še zlasti v procesu njihove celovite prenove.
- V skladu z zgodovinskim značajem starega mestnega jedra se morajo znotraj urbanističnega spomenika ohranjati poleg stanovanjskih funkcij tudi funkcije dela centralnih mestnih površin in obstoječim raznovrstnim programom in v skladu z že izoblikovanimi programskimi zasnovami: upravni del s poudarkom

nih združb ter zagotavljanje značilnih razgledov;

- podreditve motornega prometa pešcu in kolesarju pri določanju prometnih režimov;
- zagotavljanje ustreznih rabe prostora tudi v času kulturnih, športnih, zabavnih in drugih prireditev.

A. Na celotnem varovanem območju je prepovedano:

1. spreminjati prostorsko zasnovo območja s trgi, ulicami, nabrežji, parkovnimi površinami;
2. rušiti, pozidavati, nadzidavati, prezidavati pozidan in nepozidan prostor tam, kjer bi to okrnilo varovane vrednote;
3. spreminjati varovane vrednote talnega oblikovanja ter opreme prostora.

B. Na območju urbanističnega spomenika je dodatno prepovedano:

1. spreminjati zgodovinsko parcelacijo in zazidalni sistem pozidanega in nepozidanega prostora;
2. spreminjati varovane vrednote oblikovanja fasad to so: oblike, strukture, barve, materiali ipd.
3. spreminjati višine, naklone, kritine, strešne oblike tam, kjer bi to okrnilo varovane vrednote; strešne oblike je na vedutno nelizpostavljenih strešnih možno spreminjati, če so nevsiljive, skladno in dobro oblikovane ter iz primernih materialov.

C. Za območje naravnega spomenika je dodatno prepovedano:

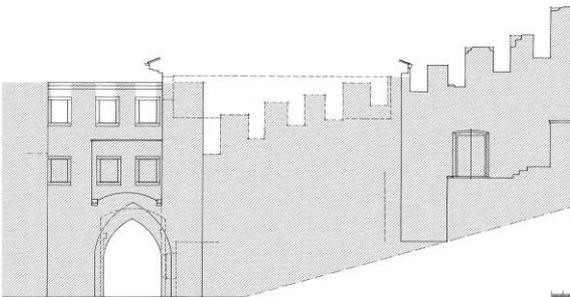
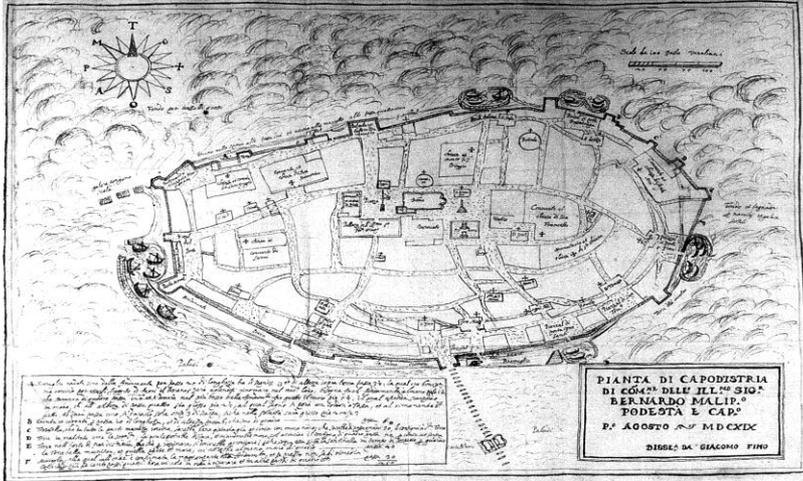
1. gradnja novih cest, stavb, naprav, ki ne izhajajo iz lastnosti naravnega spomenika;
2. izvajati goloseke;
3. spreminjati obstoječo konfiguracijo terena, razen pri rekonstrukciji in prenovitvenih posegih obstoječih objektov in naprav.

D. Za arhitekturne in umetnostne spomenike je dodatno prepovedano:

1. spreminjati varovane vrednote stavbnih zasnov in florisov, to je: veža, hodnike, mostovže, dvorišča, vrtno terase ipd.
2. spreminjati varovane konstrukcije in pripadajo-

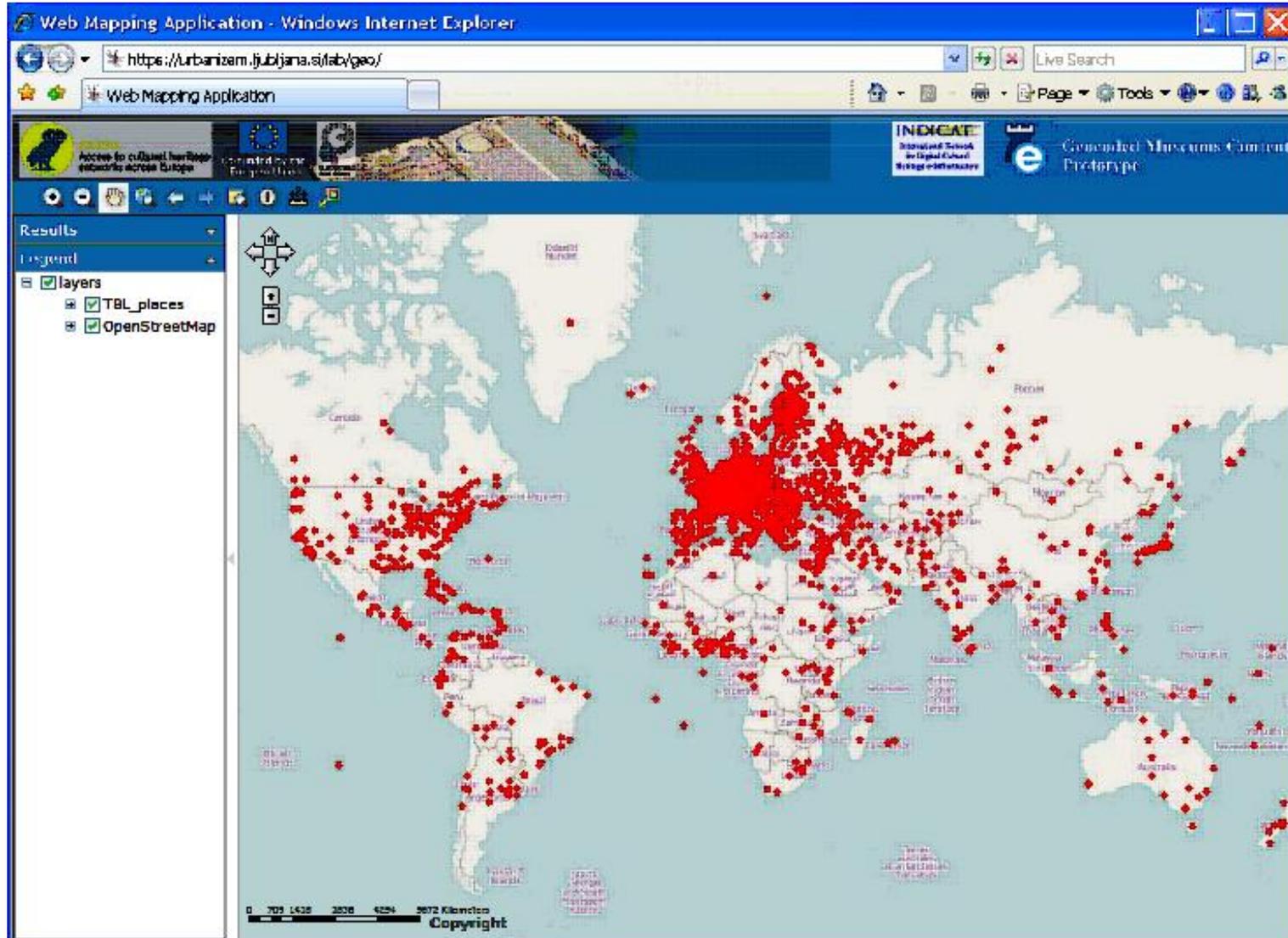
## 3D GIS: Reconstructions

Reconstructions of cultural heritage, importance of modelling of physically vanished cultural heritage, example: simple 3D city wall model of Koper

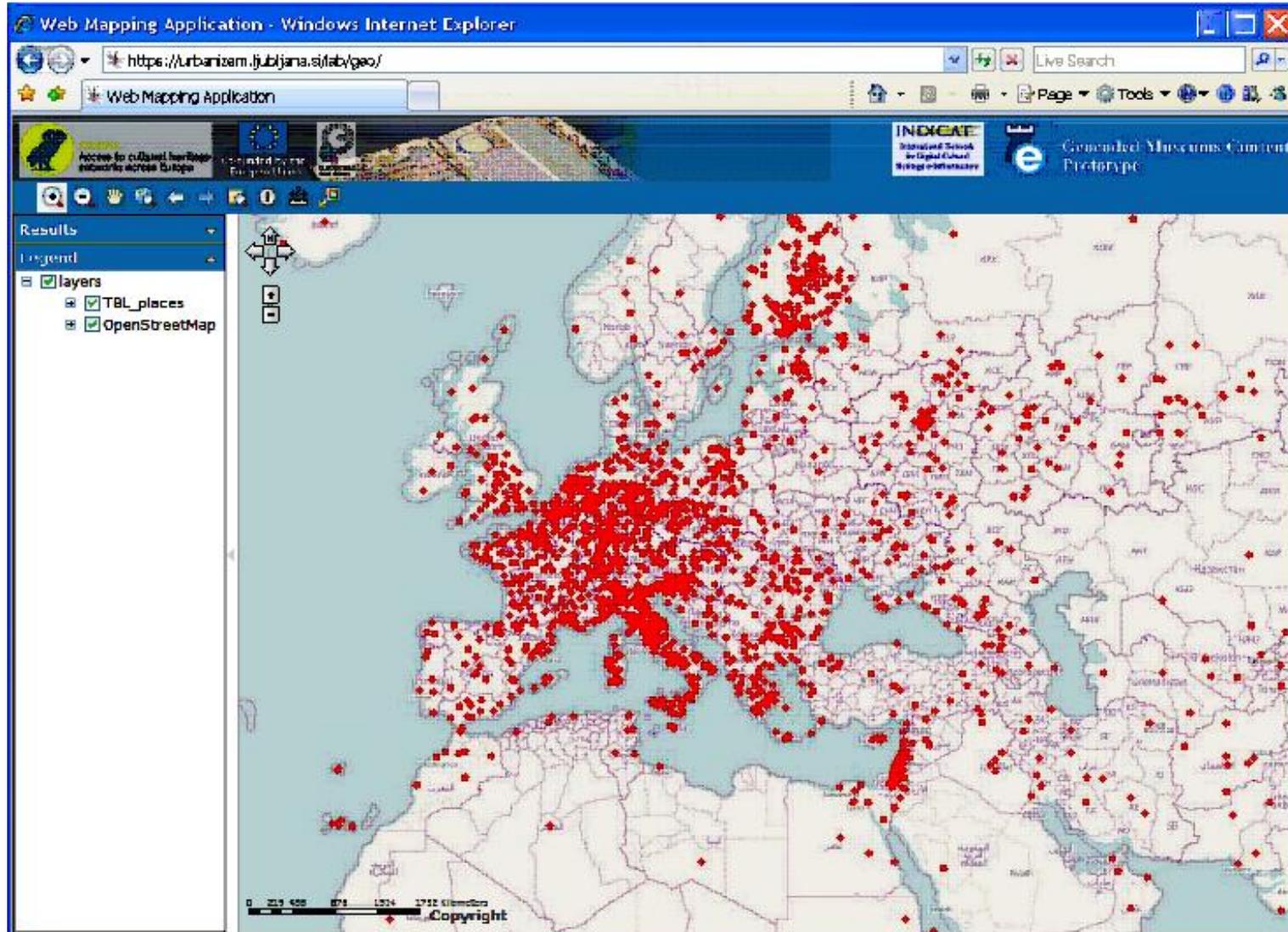


Information provided by  
Researcher of City Walls of Koper  
**Dr. Darko Likar**, University of Ljubljana, Faculty of  
Architecture

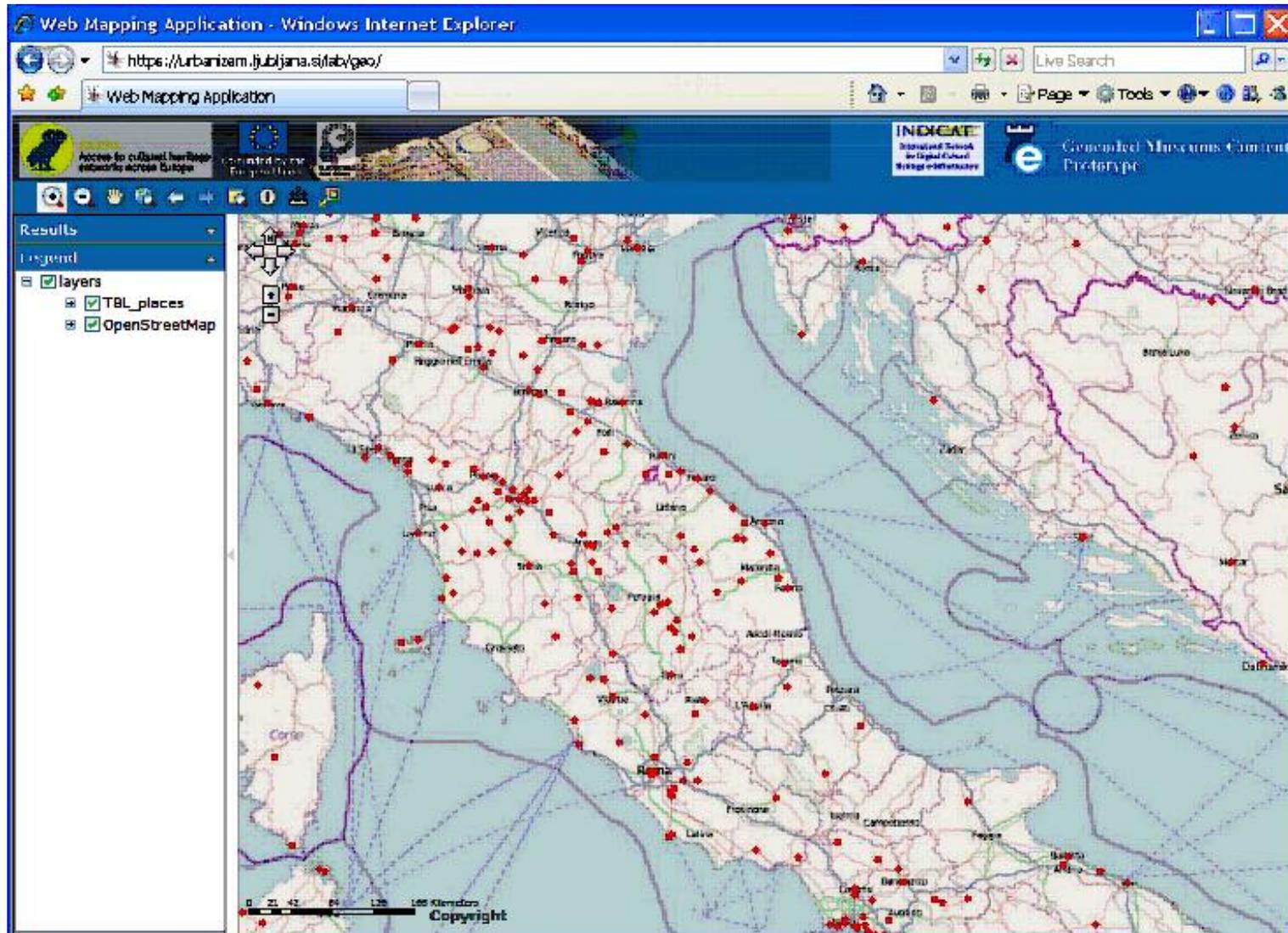
## Browsing geocoded Athena content 1/7



## Browsing geocoded Athena content 2/7



## Browsing geocoded Athena content 3/7



## Browsing geocoded Athena content 4/7

The screenshot shows a web browser window titled "Web Mapping Application - Windows Internet Explorer". The address bar displays "https://arbutum.trojans.si/obj/geo/". The page features a map of Italy with red markers indicating geocoded content. A popup window is open over a marker, displaying the following information:

**ritratto di Giuseppa Caribaldi (TBL\_places)**

PlaceNo.	0
ObjectContent	Null
ObjectName	ritratto di Giuseppe
DisplayPlace	0
EventPlace	0
EntryURI	http://sws.geonam
Confidence	0.5580843
Latitude	42,0
Longitude	9,0

At the bottom of the popup, there is a navigation bar with a left arrow, the text "layers > TBL\_places", and a right arrow. Below the popup, the text "Add to Results" is visible. The map includes a scale bar and a copyright notice.

## Browsing geocoded Athena content 5/7

The screenshot shows a web browser window titled "Web Mapping Application" with the URL "https://Arbantenem.jubjano.safab/geo/". The browser's address bar and navigation buttons are visible. The page header includes the INDICAT logo and the text "Geospatial Metadata in Digital Cultural Heritage e-Infrastructure".

The main content area features a map of Barcelona, Spain, with a popup window displaying the following information:

- Don Chisciotte alla festa di Barcellona data da don Antonio (TBL\_places)
- Don Chisciotte alla festa di Barcellona data da Don Antonio (TBL\_places)
- Don Chisciotte scolta da Don Antonio sulla spiaggia di Barcellona (TBL\_places)
- Υποδοχή παραθεριστών Βιόσου (TBL\_places)

PlaceNo.	0
ObjectContent	Null
ObjectName	Don Chisciotte alla 1 Don Antonio

Below the table, there is a navigation bar with "layers > TBL\_places" and an "Add to Results" button. The map itself shows the coastline of Barcelona, with various landmarks and a scale bar at the bottom left.

# Browsing geocoded Athena content 6/7

The screenshot shows a web browser window displaying the Europeana search results page. The browser's address bar shows the URL: <http://www.europeana.eu/portal/search.html?query=Don+Chisciotte+alla+festa+di+Barcellona+data+da+Don+Antonio+AND+Barcellona>. The search results are displayed under the heading "Matches for: Don Chisciotte alla festa di Barcellona data da Don Antonio AND Barcellona". The results are categorized by "Texts (0)", "Images (1)", "Videos (0)", and "Sounds (0)". The "Images (1)" category is selected, showing a single result with a thumbnail image. The result is titled "Don Chisciotte alla festa di Barcellona ..." and includes the following details: "1730", "Progetto ArtPast-CulturalItalia", and "Athena". The page also features a sidebar with navigation links, a search bar, and a "Refine your search" section with filters for provider, country, type, language, and date. The Europeana logo and tagline "think cultura" are visible in the top left corner.

