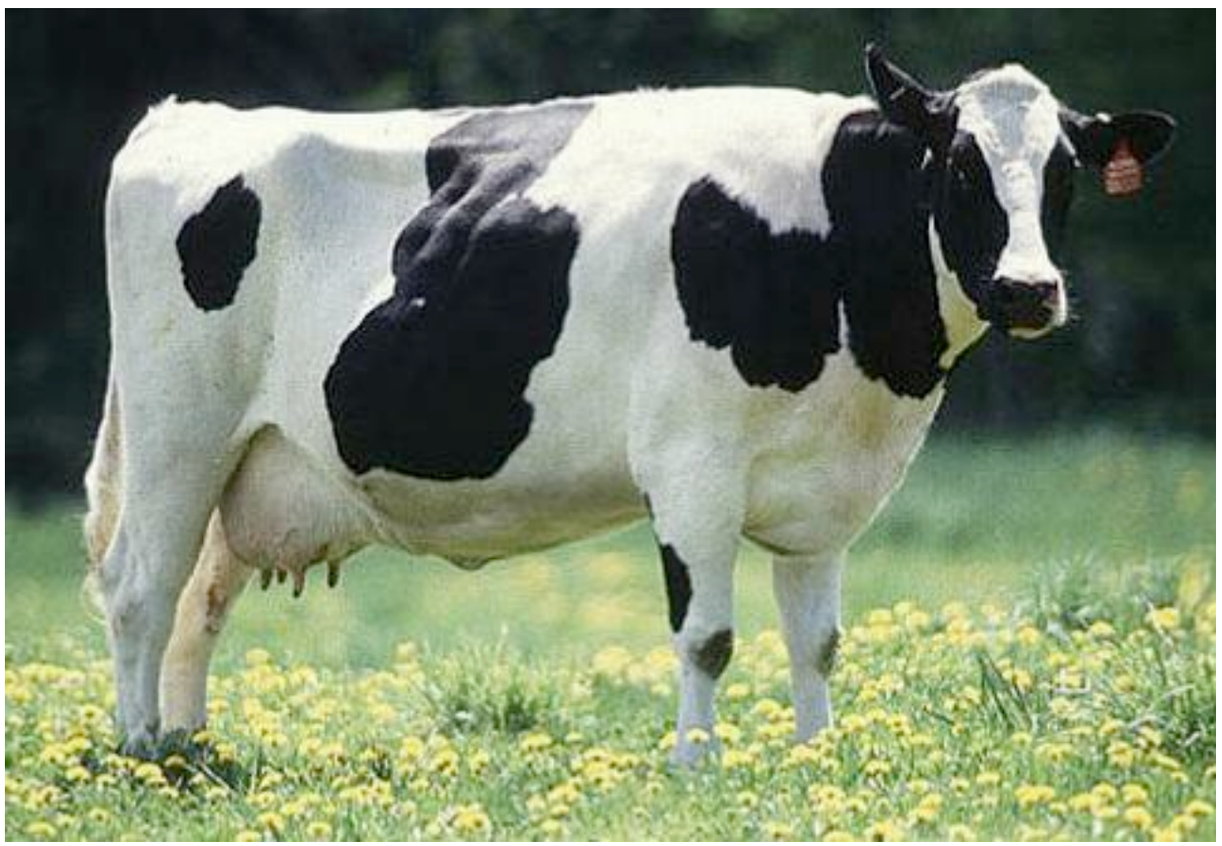
Prostorska in krajinska arheologija-Vaje 3

Dimitrij Mlekuž

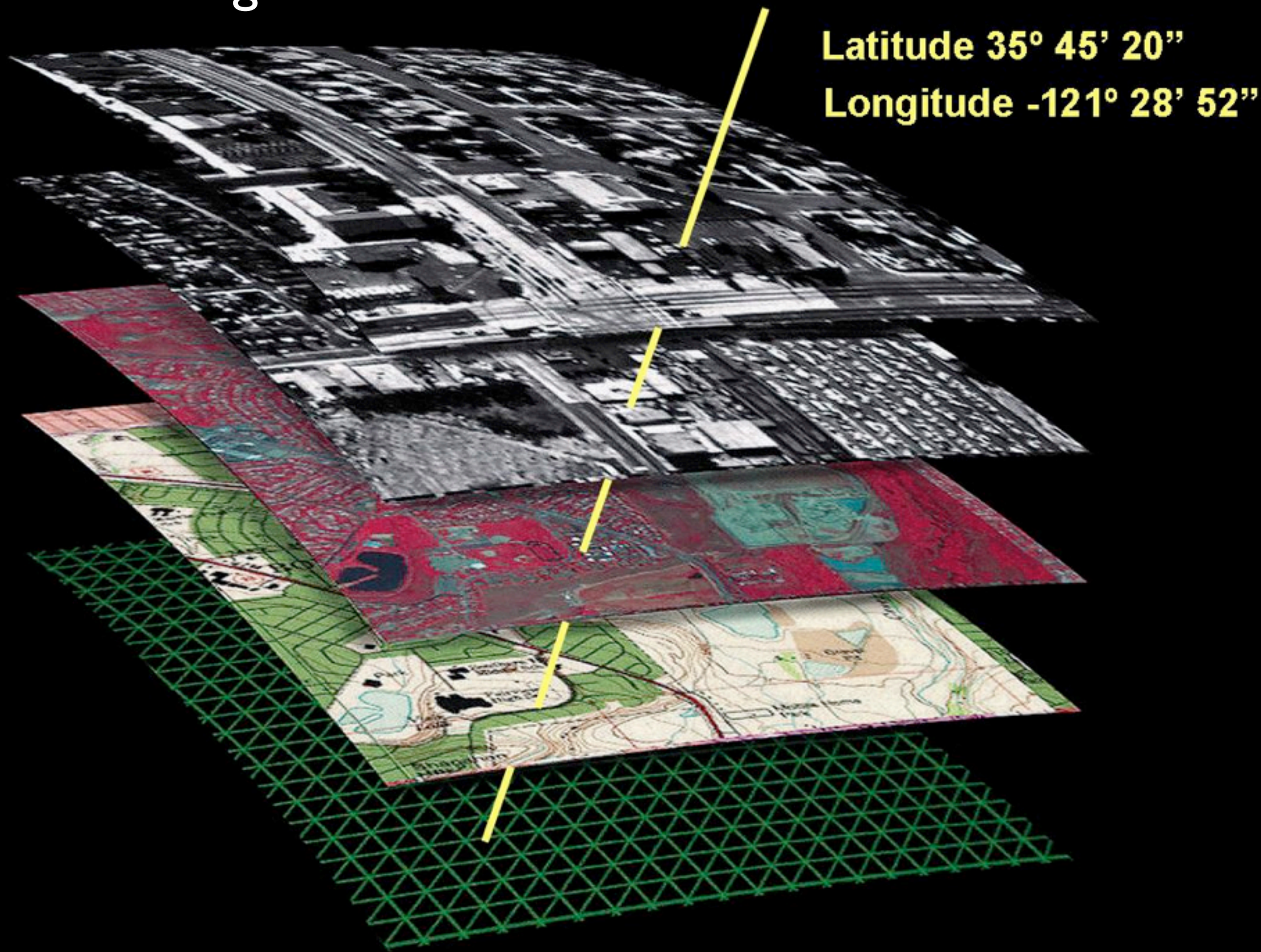
Modelling

Phenomenon

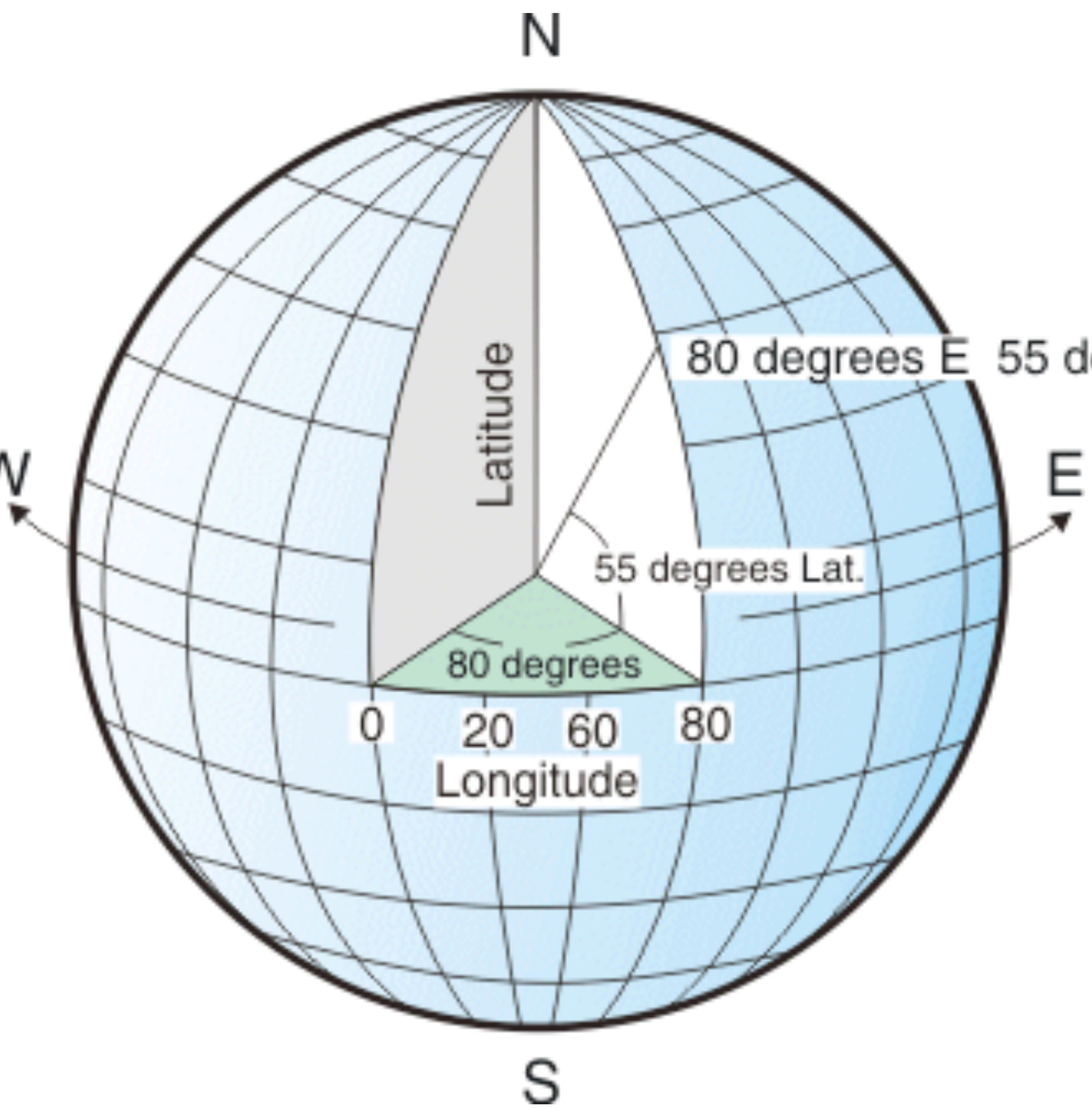


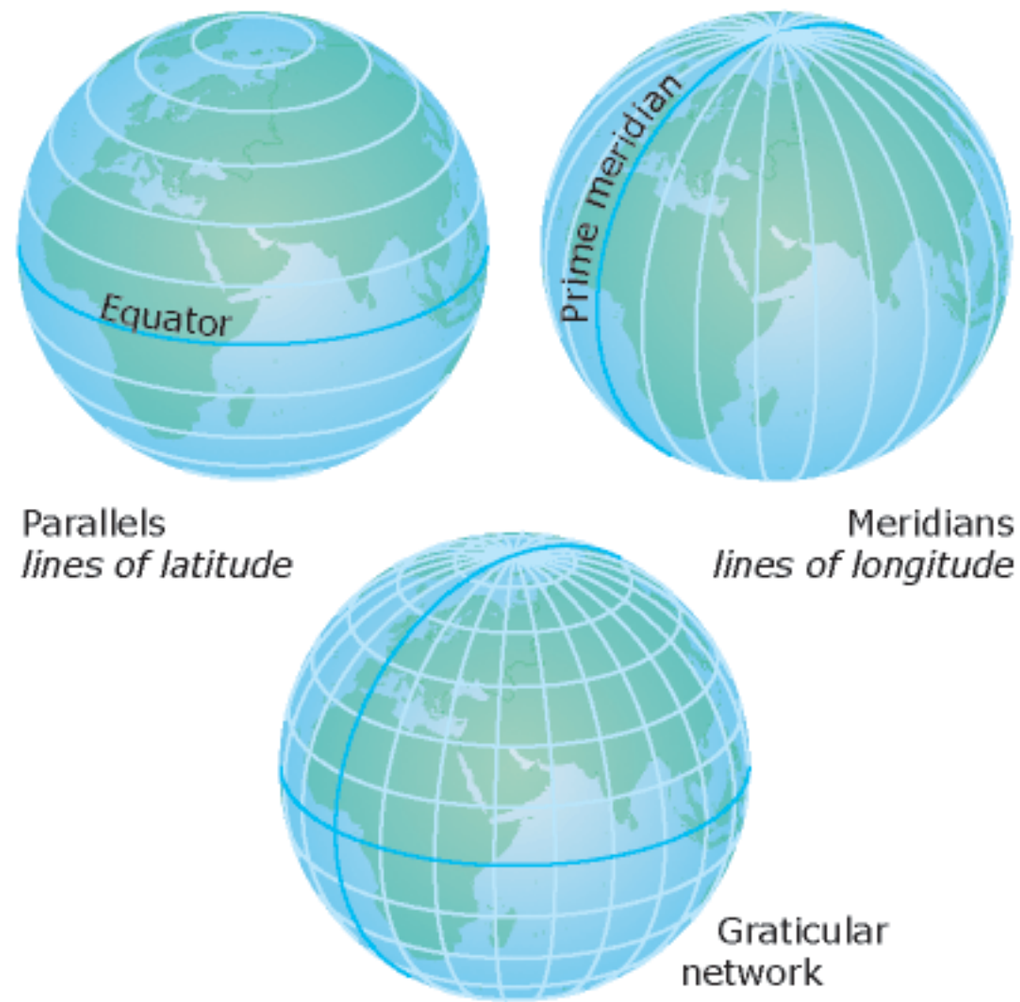
Model

Georeferencing

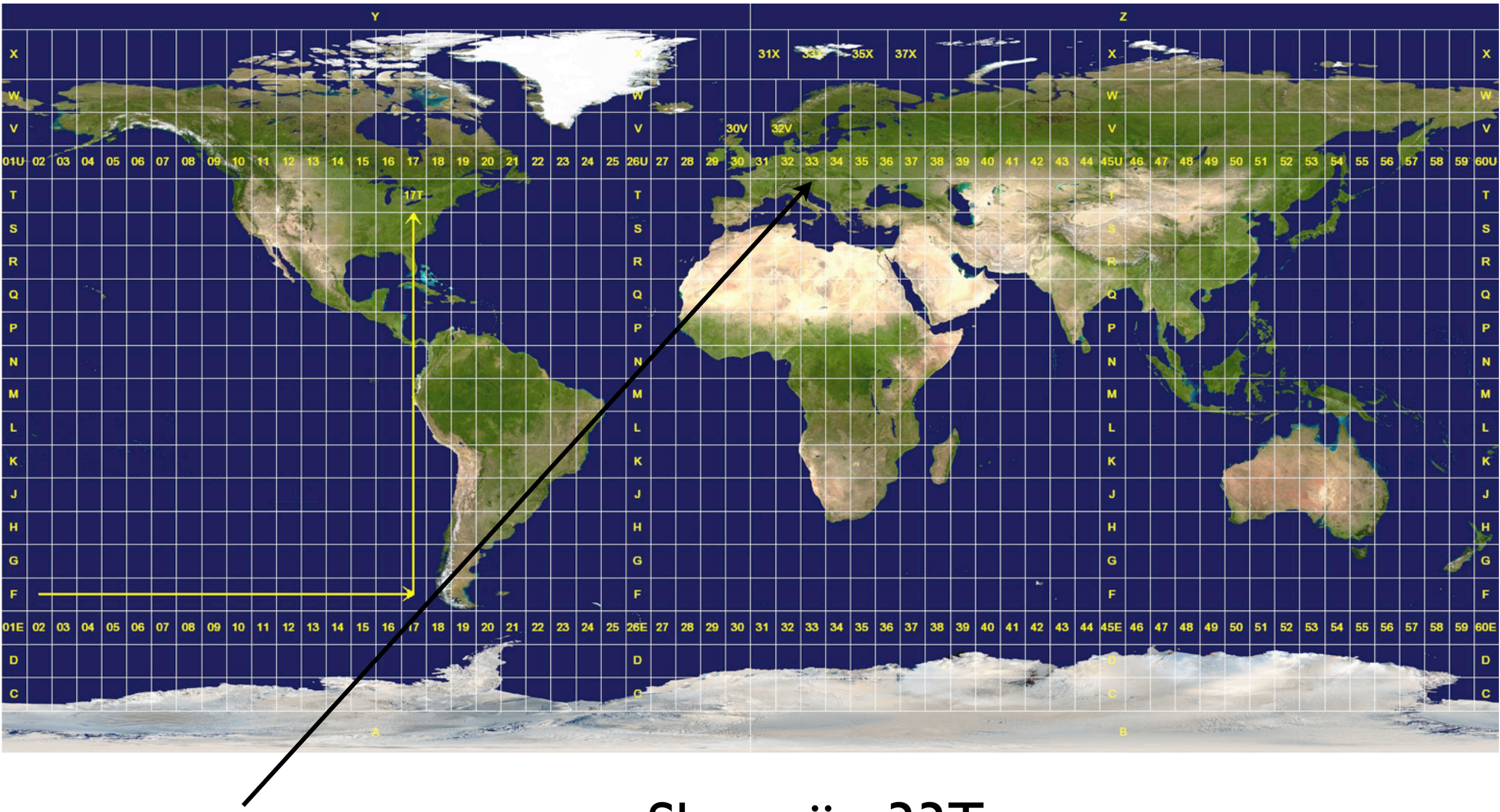


Geographic coordinate system



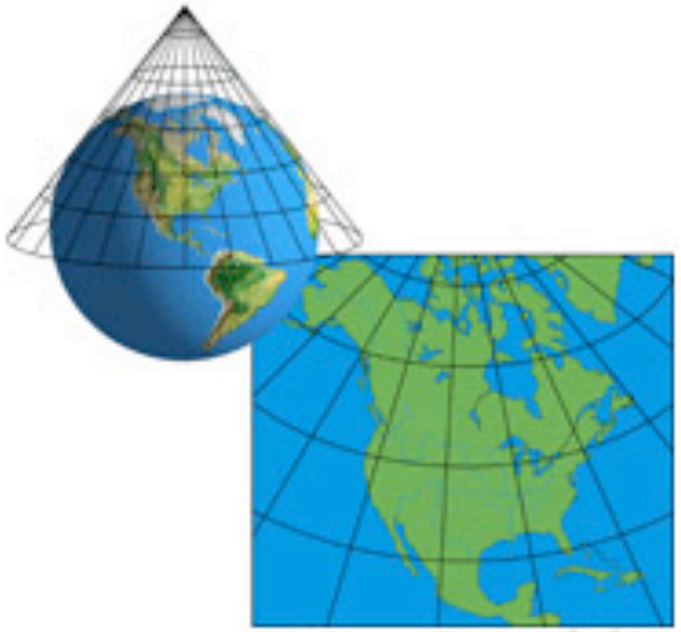


UTM (Universal Transverse Mercator)

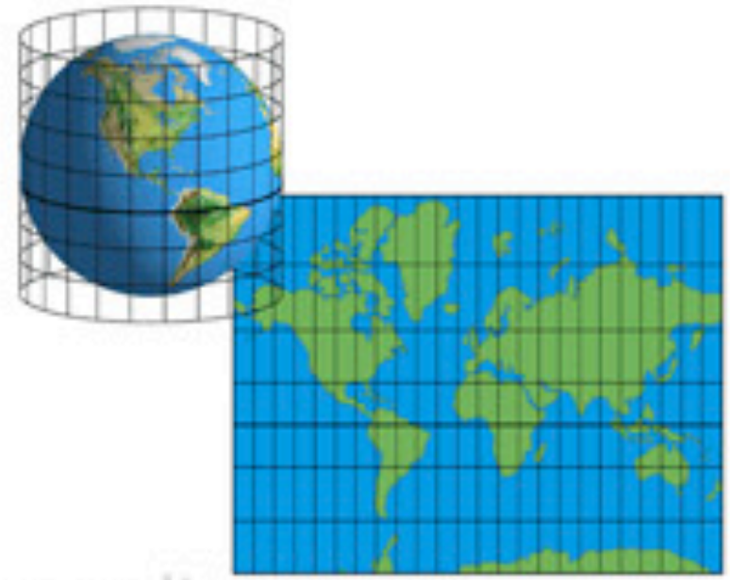


Slovenija: 33T

Prehod iz ukrivljene referenčne ploskve na ravnino

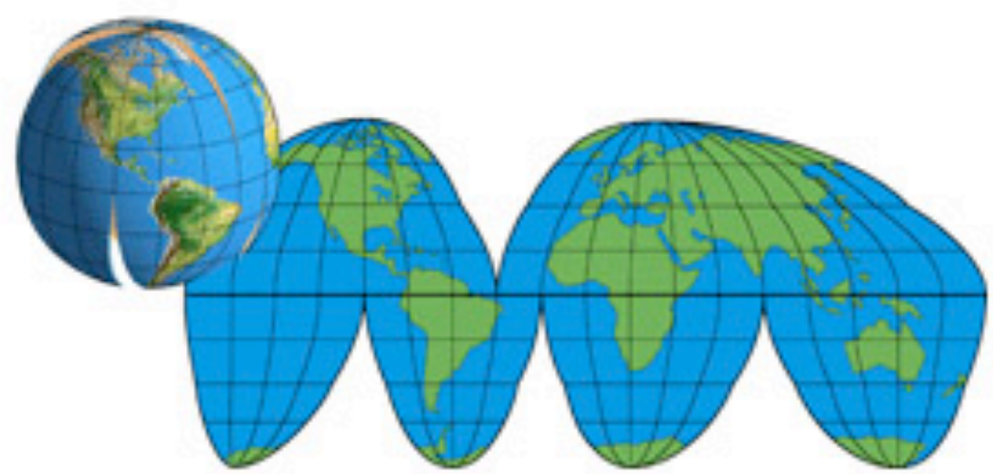


conic projection



cylindrical projection

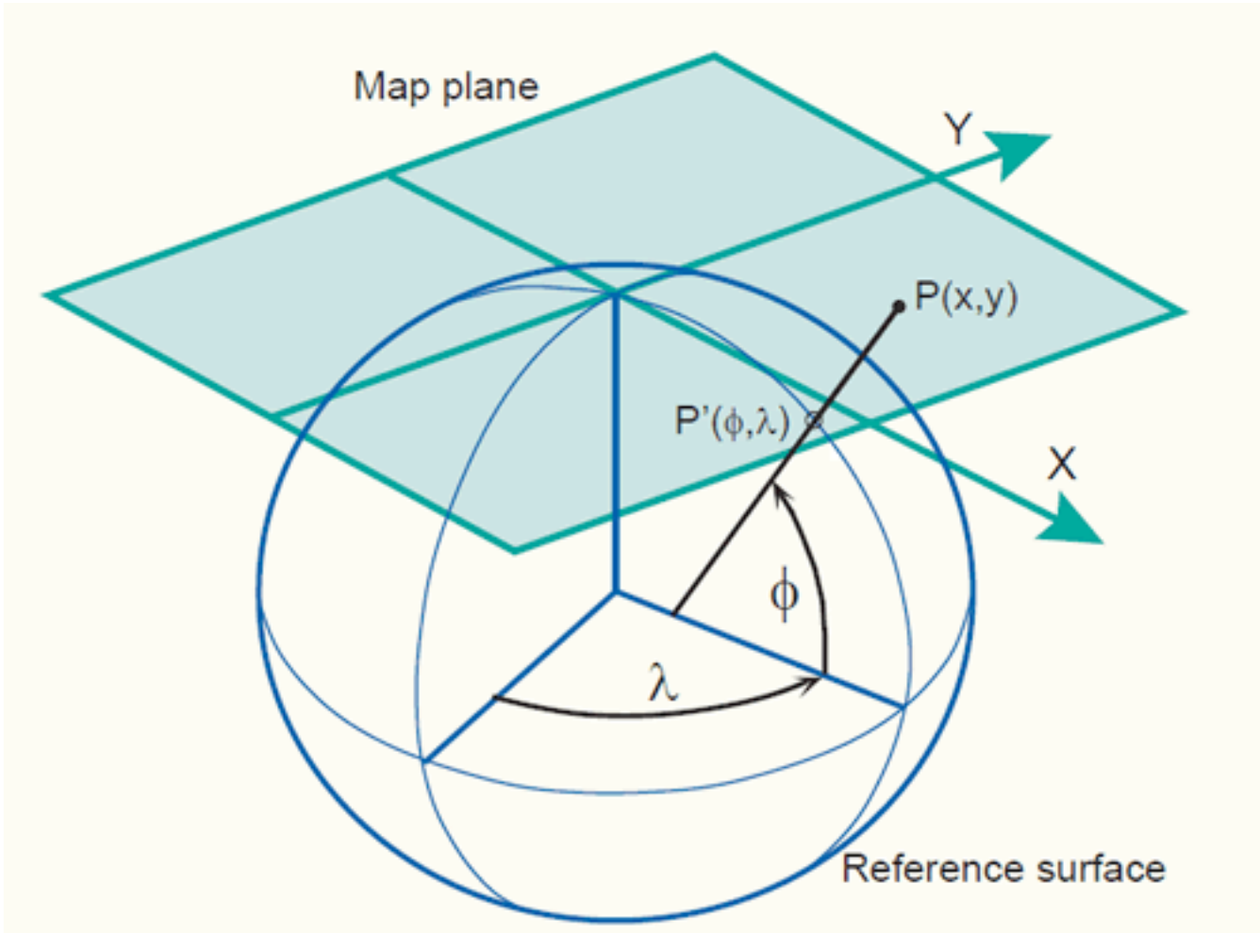
plane projection



interrupted projection

Kartografska projekcija obravnava preslikavao elipsoida v ravnino. Je analitična preslikava prostorskih (3D) točk z elipsoida (krogle) na ravnino (2D karto).

Definirana je z matematično zvezo med koordinatami točk na referenčni ploskvi in koordinatami identičnih točk, prikazanih na projekcijski ravnini.



Državni koordinatni sistemi v Sloveniji

Stari: GK, D48/GK

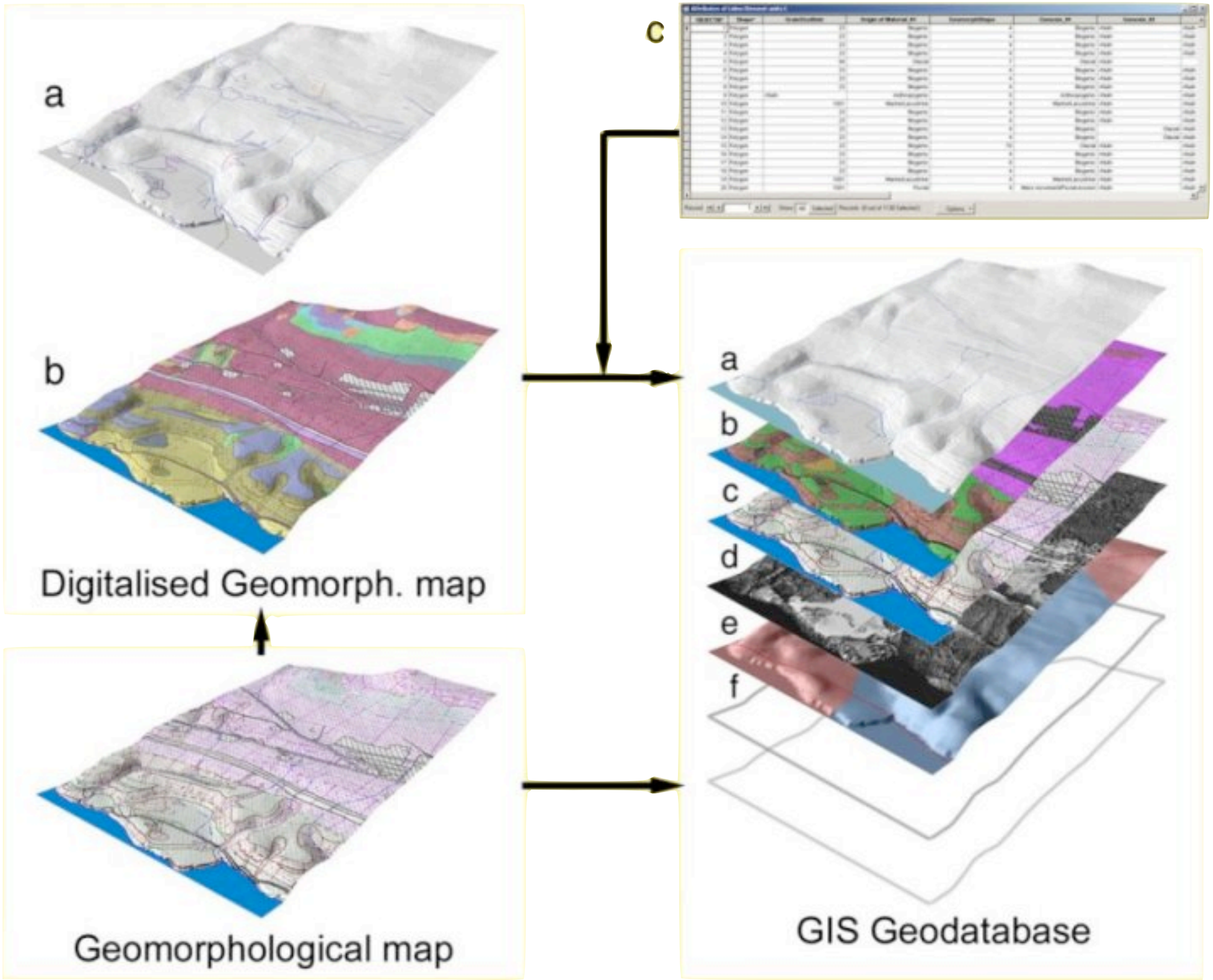
- Oznaka kartografske projekcije: GK – Gauß-Krügerjeva projekcija
- Oznaka koordinatnega sistema: D48/GK
- Referenčna ploskev elipsoid Bessel 1841
- Številka cone: = 5 (vendar je ne označujemo)
- Širina cone: = 3 º 15 ’
- Geografska dolžina srednjega meridiana cone: = 15 º
- Geografska širina izhodiščne paralele: = 0 º
- Linijsko merilo na srednjem meridianu: = 0,9999
- Navidezni pomik proti severu: = –5.000.000 m
- Navidezni pomik proti vzhodu: = 500.000 m

Novi koordinati sistem D96/TM

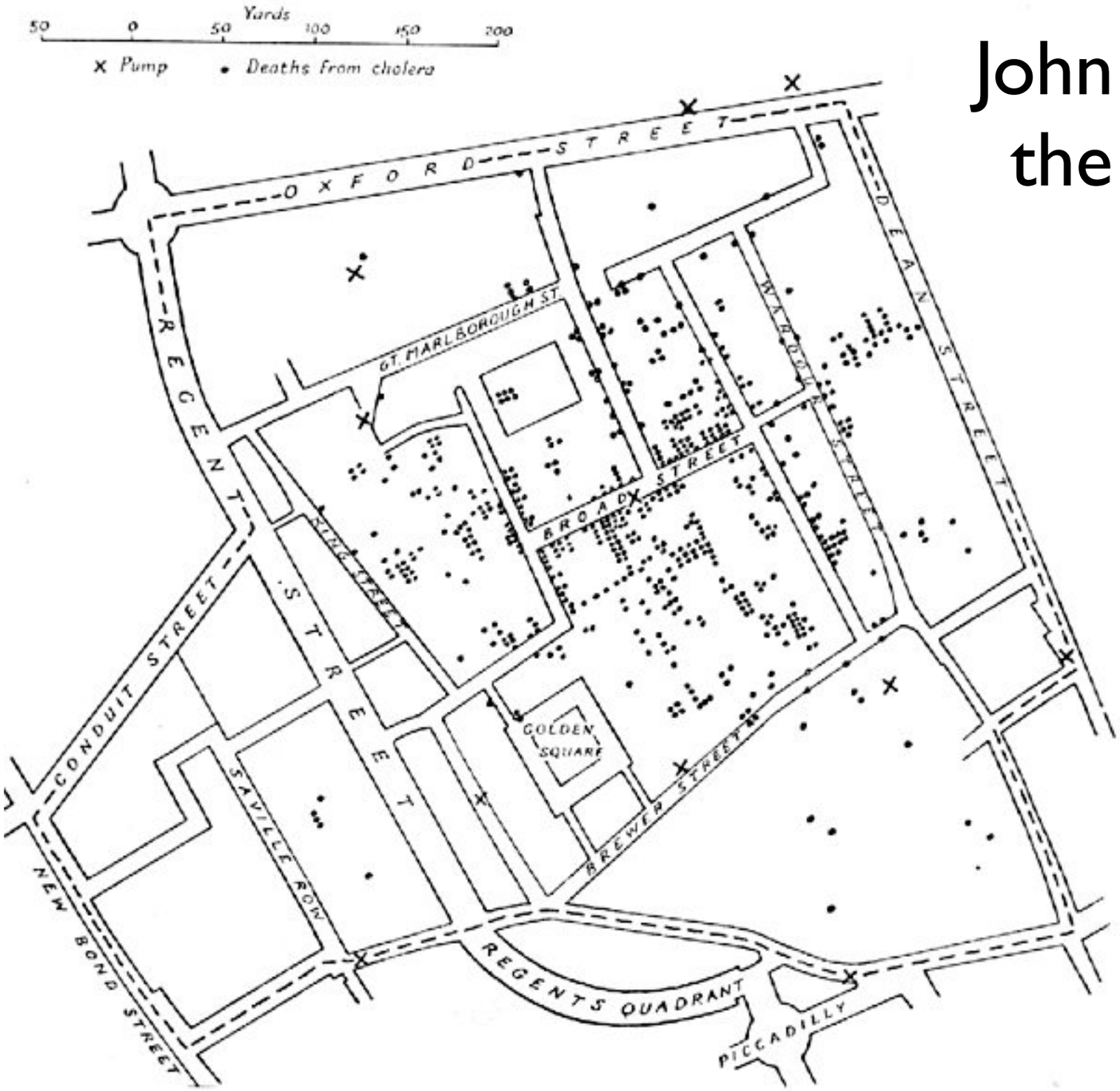
- Oznaka kartografske projekcije: TM – prečna Mercatorjeva projekcija
- Oznaka koordinatnega sistema: D96/TM
- Referenčna ploskev: elipsoid GRS80
- Številka cone: = 5 (vendar je ne označujemo)
- Širina cone: = 3 º 15 ’
- Geografska dolžina srednjega meridiana cone: = 15 º
- Geografska širina izhodiščne paralele: = 0 º
- Linijsko merilo na srednjem meridianu: = 0,9999
- Navidezni pomik proti severu: = –5.000.000 m
- Navidezni pomik proti vzhodu: = 500.000 m

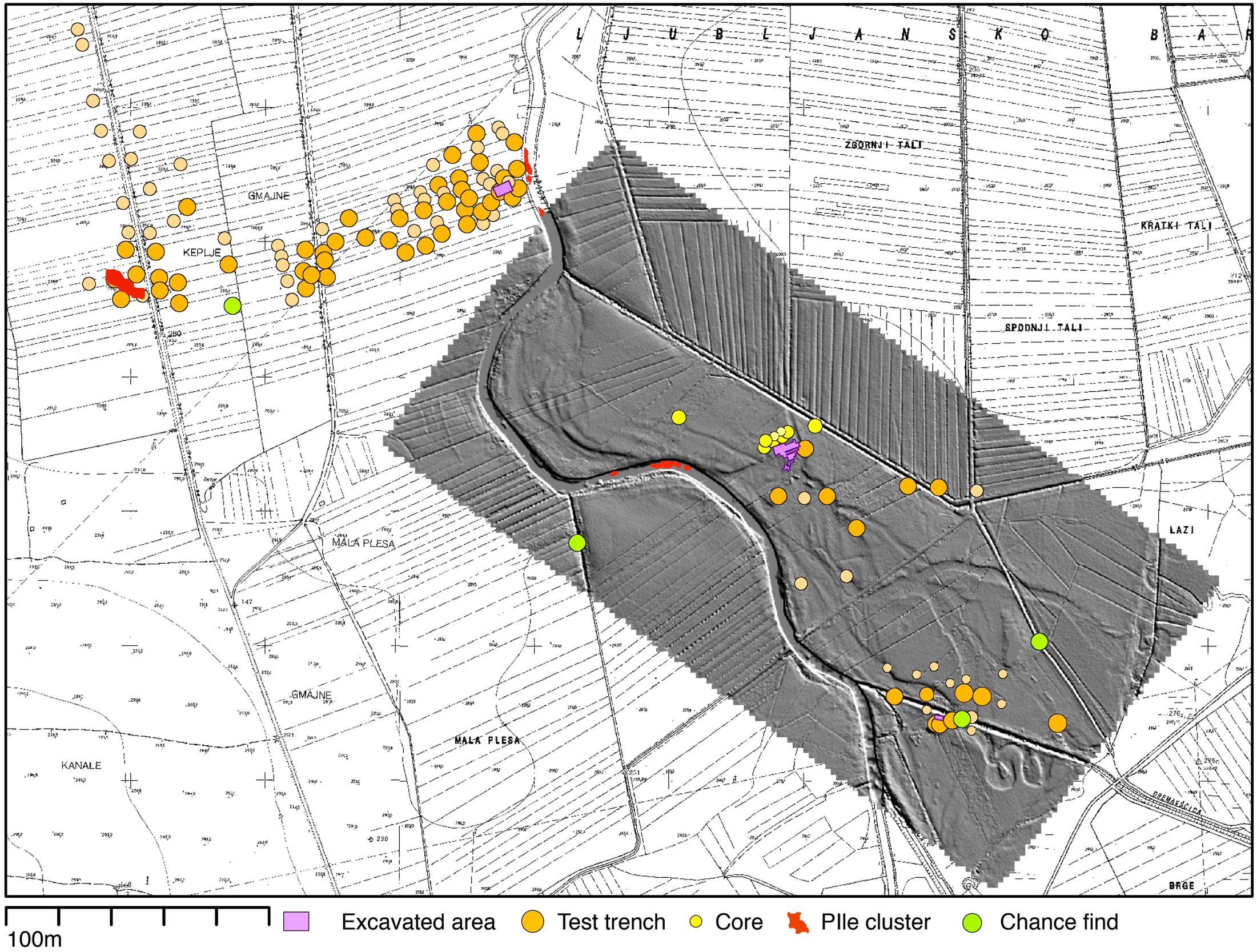
- Novi slovenski horizontalni koord. sistem temelji na skupnem evropskem koord. sistemu ETRS89.

Geodatabase

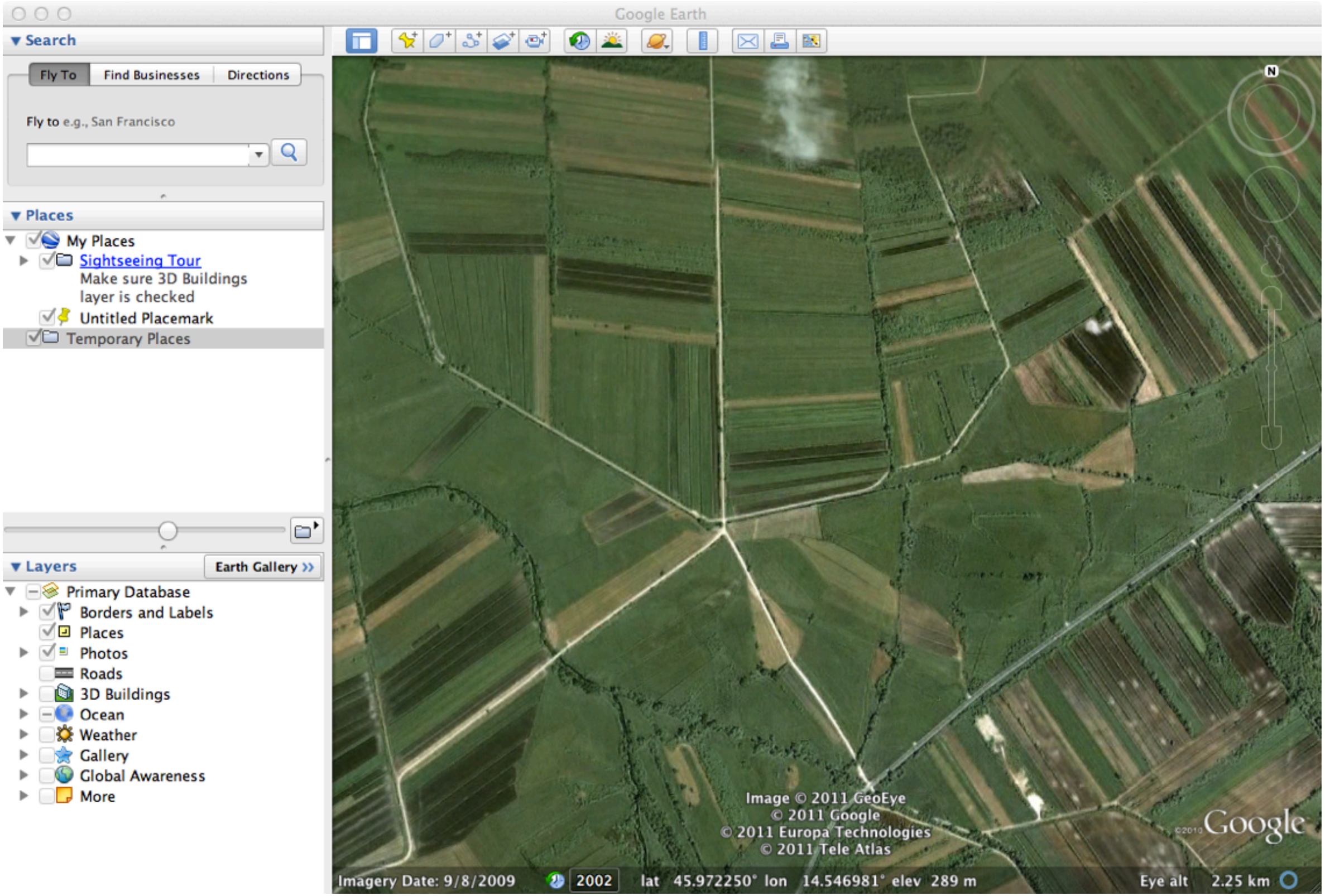


John Snow's map of the Soho cholera outbreak




L J U B L J A N S K O
B A R
ZGORNJI TALI
KRATKI TALI
SPODNJI TALI
GMAJNE
KEPLJE
MALA PLESA
LAZI
GMAJNE
MALA PLESA
KANALE
BRGE
100m
Excavated area
Test trench
Core
PIle cluster
Chance find

Google Earth



Geopedia

http://www.geopedia.si

Geopedia – interaktivni spletni atlas in zemljevid Slovenije

http://www.geopedia.si/#T105_x500000_y100000_s9_b4

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Portal Geopedia | Geopedia | Pomoč | Jezik | Prijava

Geopedia.si Lite

Geopedia Pro in nove vsebine
22. 09. 11

INFO | VSEBINA

Uporabne informacije

Katero področje vas zanima?

Kliknite na eno od povezav spodaj, ali pa odprite zavihek "Vsebina" in izberite posamezne sloje.

- Avtobusni promet LPP
- Dogodki - 7 dni
- Kolesarstvo
- Kultura in užitki
- Pohodništvo
- Slovenija v fotografijah
- Študenti
- Turizem
- Vreme
- Zdravje
- Ostale zanimive vsebine ...

Če želite najti pot med kraji, kliknite na avto na dnu zavihka oz. na zavihek Pot (Geopedia V1).

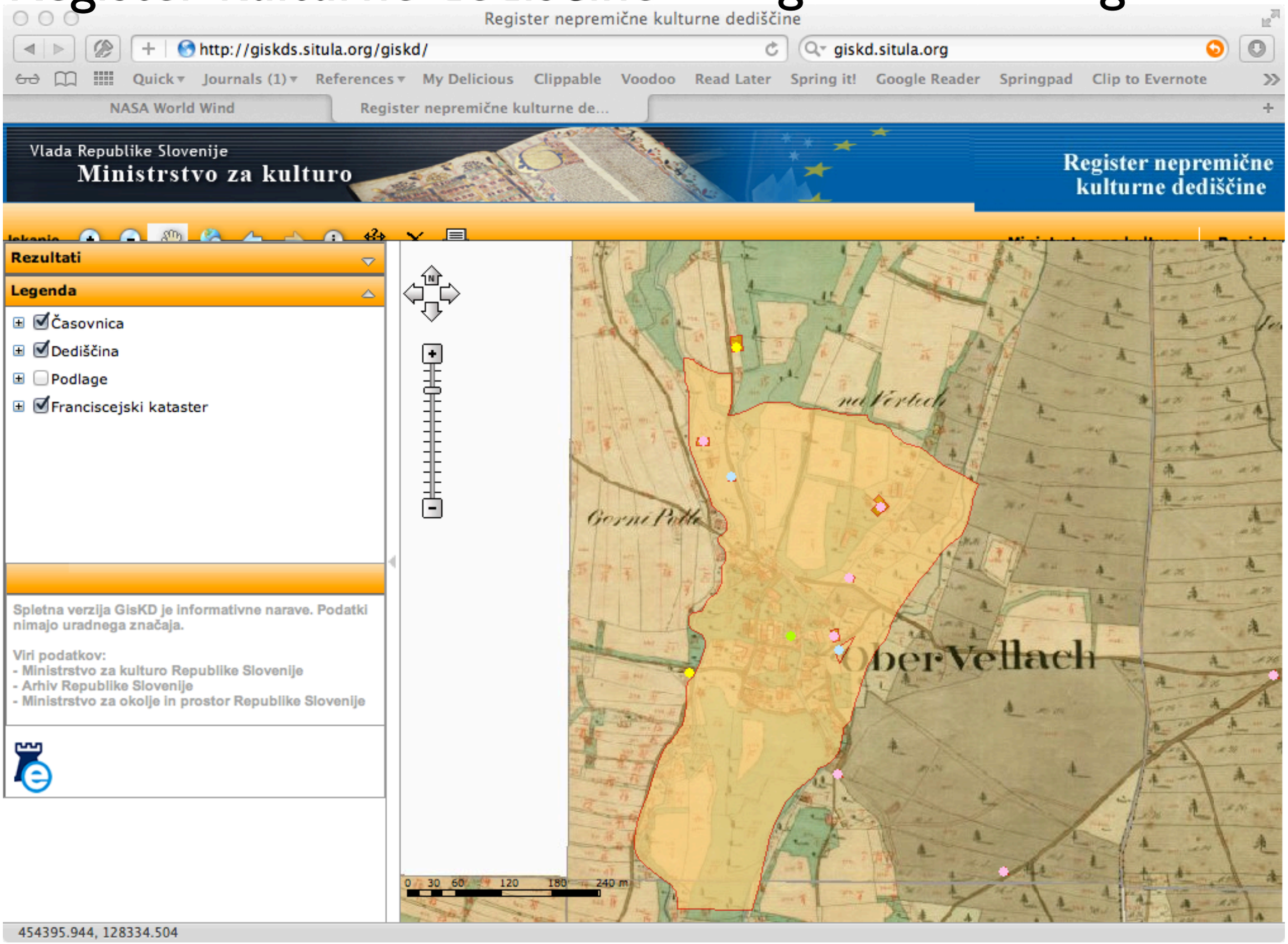
Ortofoto | Višine | Relief | Topo

20 km

©2011 Sinergise d.o.o. | Podatki: Geodetski inštitut Slovenije

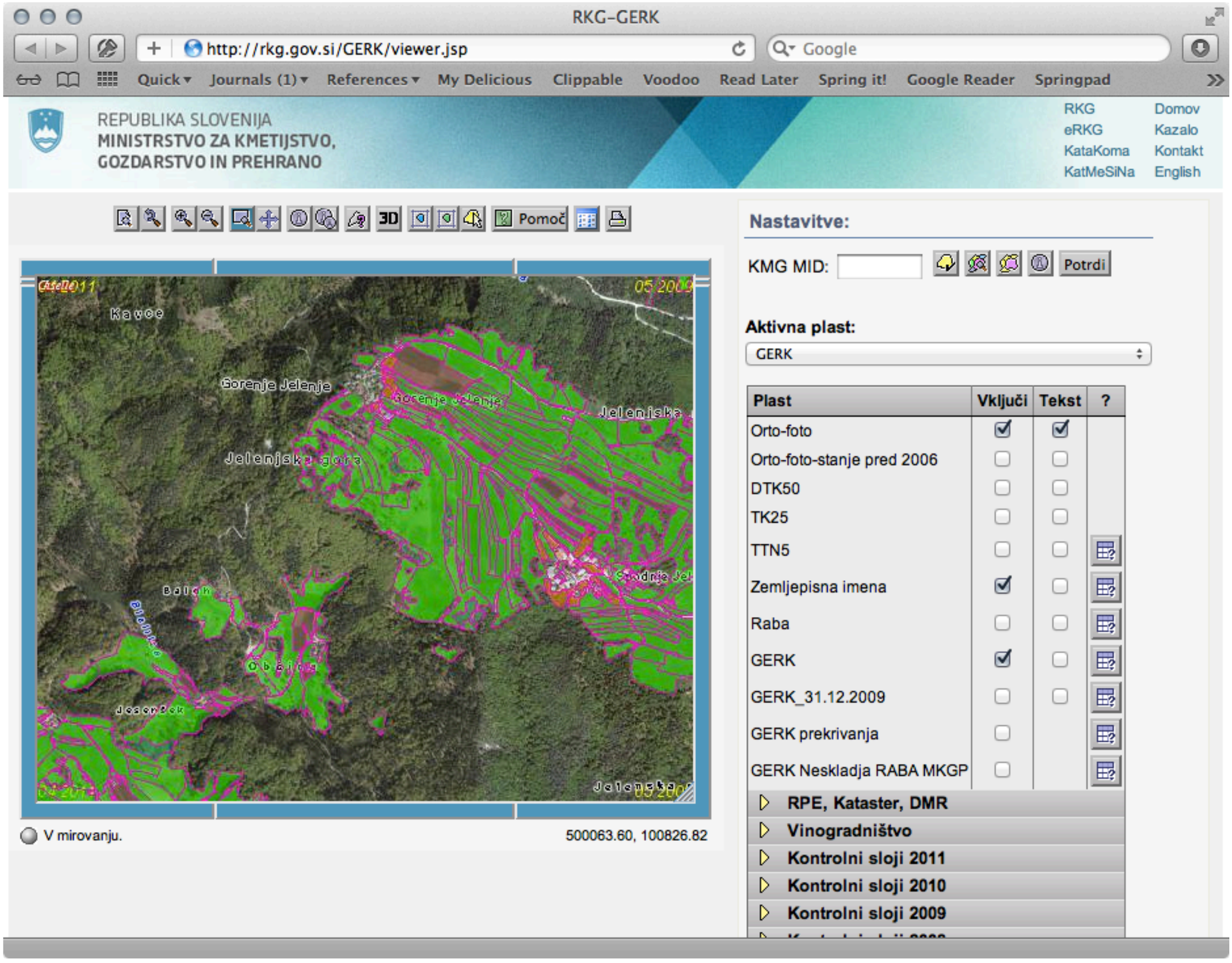
Y X: 519840 124320 46°15'45,76" N 15°15'9,27" E

Register kulturne dediščine giskd.situla.org

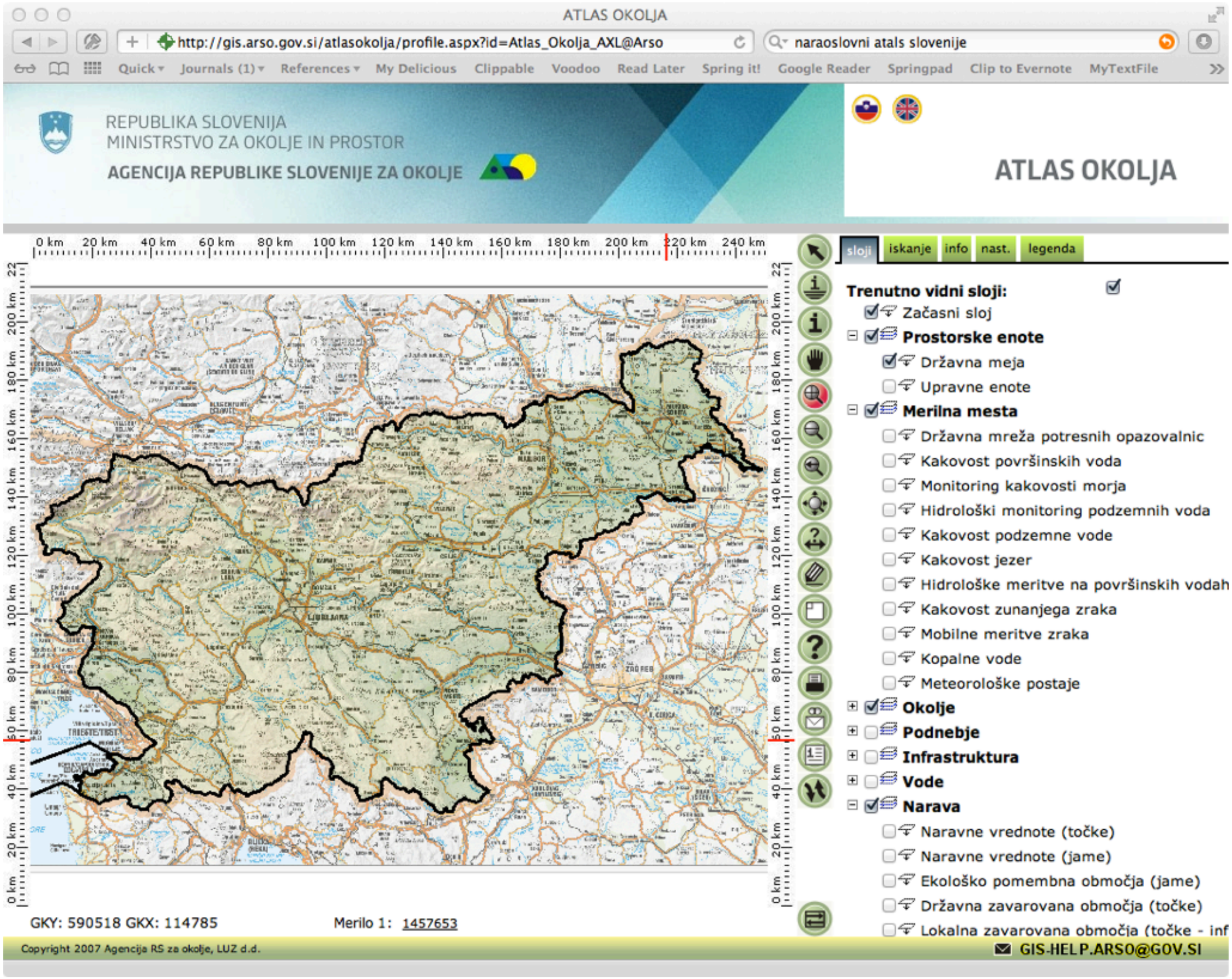


http://giskds.situla.org/giskd/

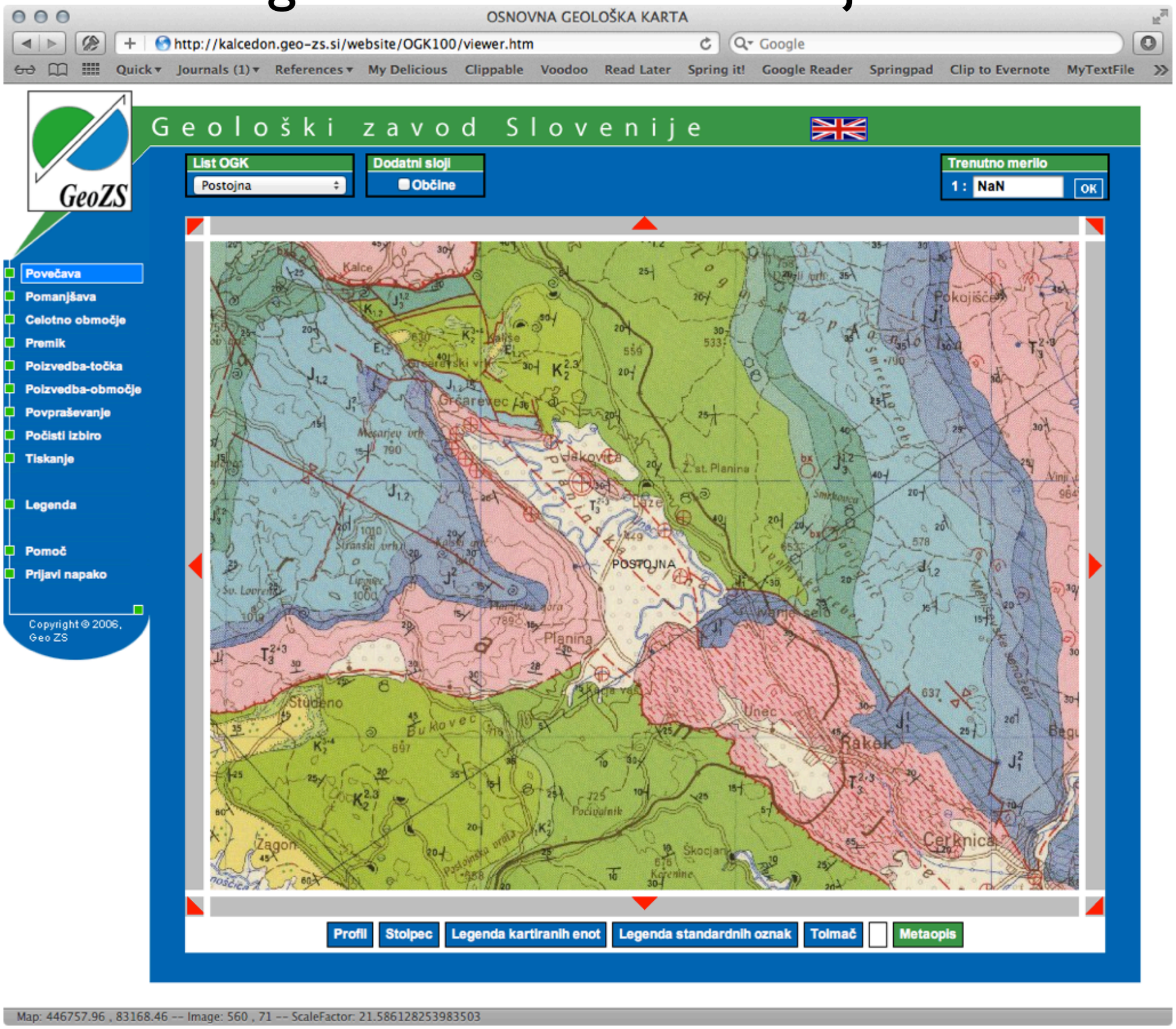
GERK


RKG-GERK
http://rkg.gov.si/GERK/viewer.jsp
Google
Quick
Journals (1)
References
My Delicious
Clippable
Voodoo
Read Later
Spring it!
Google Reader
Springpad
REPUBLIKA SLOVENIJA
MINISTRSTVO ZA KMETIJSTVO, GOZDARSTVO IN PREHRANO
RKG
eRKG
KataKoma
KatMeSiNa
Domov
Kazalo
Kontakt
English
3D
Pomoč
Kavce
Gorenje Jelenje
Jelenjska gora
Jelenjska
Balah
Občina
Jesenšek
V mirovanju.
500063.60, 100826.82
Nastavitve:
KMG MID:
Potrdi
Aktivna plast:
GERK
Plast
Vključi
Tekst
?
Orto-foto
Orto-foto-stanje pred 2006
DTK50
TK25
TTN5
Zemljepisna imena
Raba
GERK
GERK_31.12.2009
GERK prekrivanja
GERK Neskladja RABA MKGP
RPE, Kataster, DMR
Vinogradništvo
Kontrolni sloji 2011
Kontrolni sloji 2010
Kontrolni sloji 2009

Atlas okolja



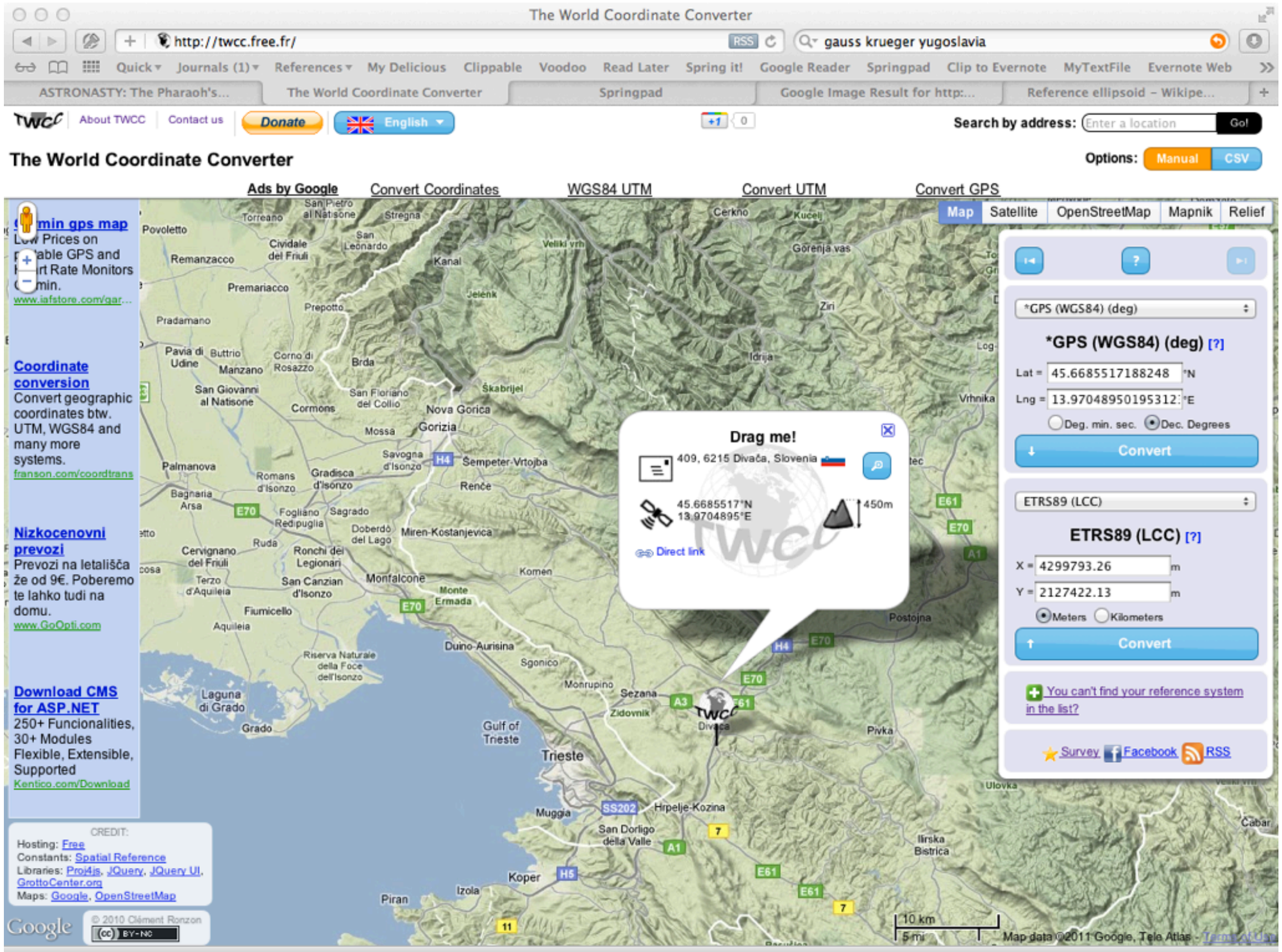
Osnovna geološka karta Slovenije



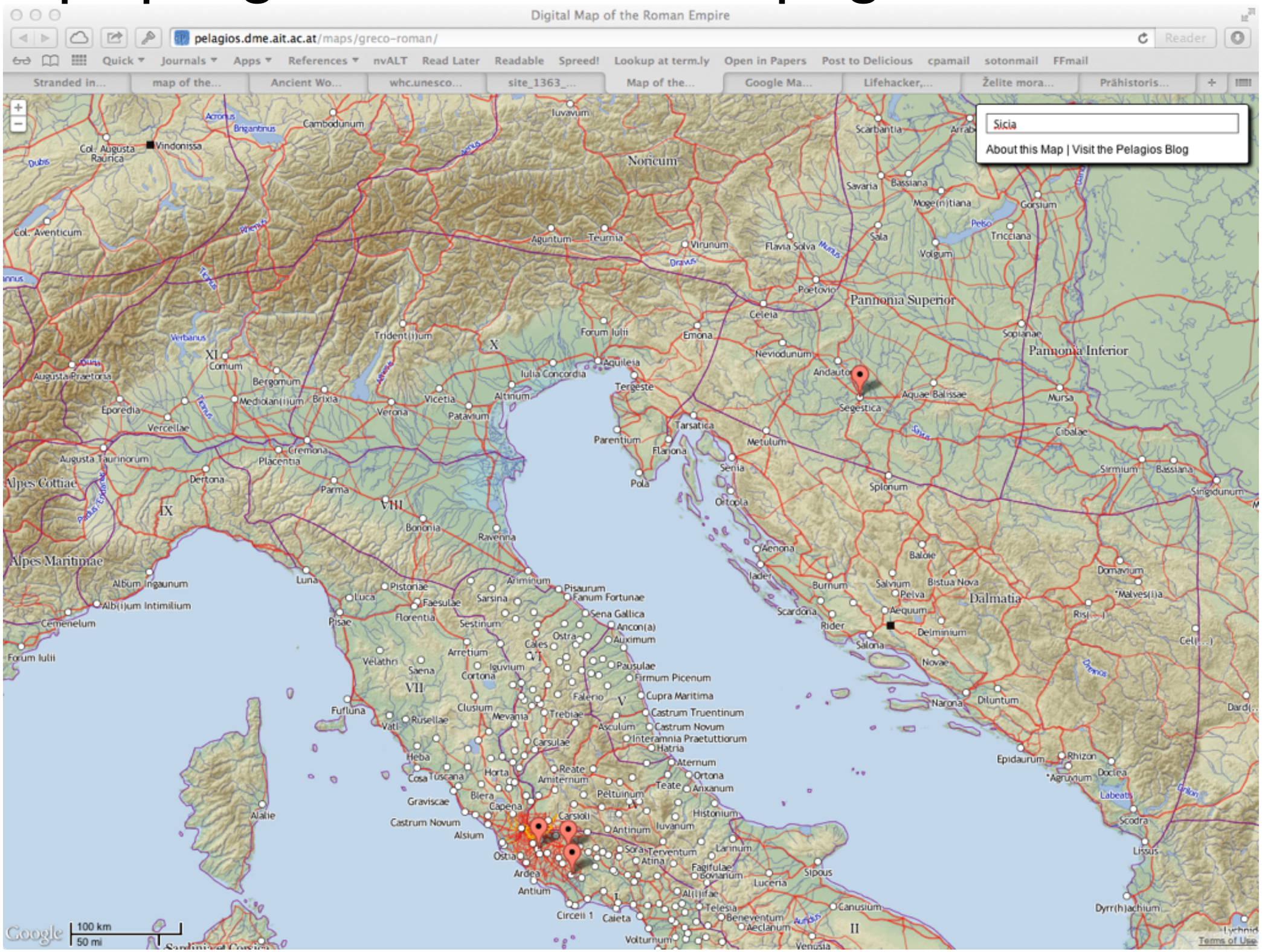
http://kalcedon.geo-zs.si/

World coordinate converter

http://twcc.free.fr/

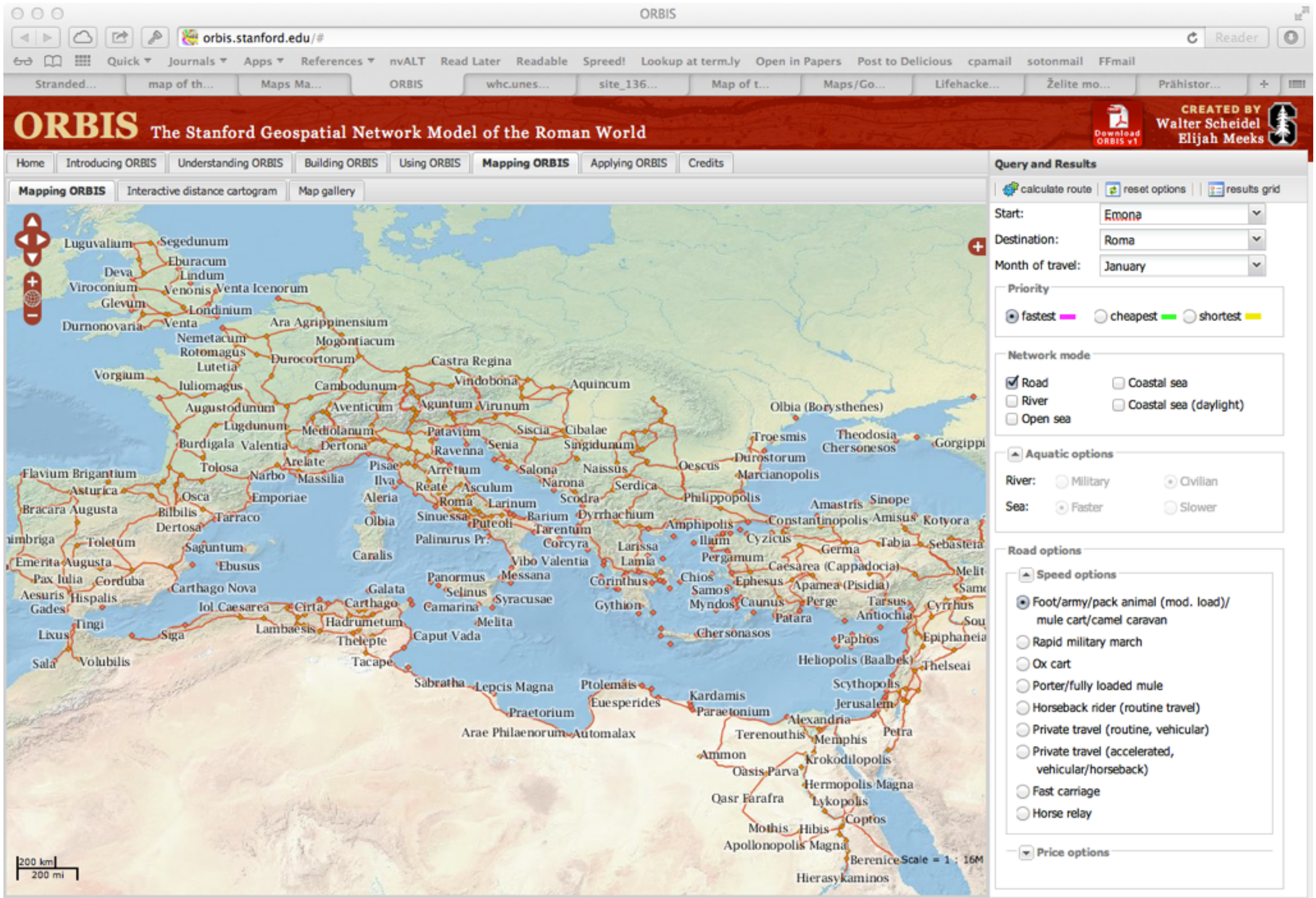


http://pelagios.dme.ait.ac.at/maps/greco-roman/



Orbis

http://orbis.stanford.edu/#



Omnes vie http://www.omnesviae.org

OmnesViae: Roman Route Planner– Tabula Peutingeriana and Itinerarium Antonini

www.omnesviae.org/#iter_TPPlace1585_Roma

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OmnesViae: Roman Routeplanner

a reconstruction of an antique Roman map with internet technology

| en | de | el | fr | it | nl |

| Map | Reconstruction | Acknowledgements |

Looking for more Roman maps? Visit Vici.org for all Roman history nearby

Iter vestrum

Ab: Emona (Ljubljana)

Ad: ROMA (Roma)

OSTENDERE

Iter brevissimum

Ab 'Emona' ad 'ROMA'
Summa CDVI Milia Passuum / Leuga Gallica.
Fere XXVIII dies.

Emona (Ljubljana)

Fl. [- ? -]

XII.

Navporto (Vrhnika)

VI.

Longatico (Logatec)

V.

In Alpe Ivlia

Fl. Frgido

XV.

Fl. Frigido (Ajdovščina)

Ponte sonti (Mainizza)

XIV.

Aqvileia (Aquileia)

Fl. Tiliabinte

XXX.

Concordia (Concordia Sagittaria)

XXX.

+1 112 Like 3.8k

Map | Satellite

Tabula Peutingeriana
missing part, reconstructed

Renatus Foro Hadriani Fecit MMXI | voorburg (at) xs4all .nl

Domača naloga

J Archaeol Res (2009) 17:263–295
DOI 10.1007/s10814-009-9030-1

New Developments in the Use of Spatial Technology in Archaeology

Mark D. McCoy · Thegn N. Ladefoged

Published online: 27 March 2009

Abstract Spatial technology is integral to how archaeologists collect, store, analyze, and represent information in digital data sets. Recent advances have improved our ability to look for and identify archaeological remains and have increased the size and complexity of our data sets. In this review we outline trends in visualization, data management, archaeological prospecting, modeling, and spatial analysis, as well as key advances in hardware and software. Due to developments in education, information technology, and landscape archaeology, the implementation of spatial technology has begun to move beyond superficial applications and is no longer limited to environmental deterministic approaches. In the future, spatial technology will increasingly change archaeology in ways that will enable us to become better practitioners, scholars, and stewards.

Keywords Geographic information systems · Laser mapping · Remote sensing · Geophysical survey

Introduction

A common thread that links classic methodological innovations in field archaeology, such as the pioneering use of aerial photography by Gordon Willey or grid-based excavations by Sir Mortimer Wheeler, is how these methods have enhanced our ability to find and record the locations of archaeological remains at a level of precision necessary to interpret them. Today we use a wide variety of "spatial

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Department of Anthropology, University of Auckland, Auckland, New Zealand

https://ge.tt/6xH96WP?c

Kaj je na lokaciji, zapisani v datoteki Točka.kml?

Kaj je zapisno v datoteki track-2007- ...kml?

Najdi in digitaliziraj gradišče
Debela Griža!

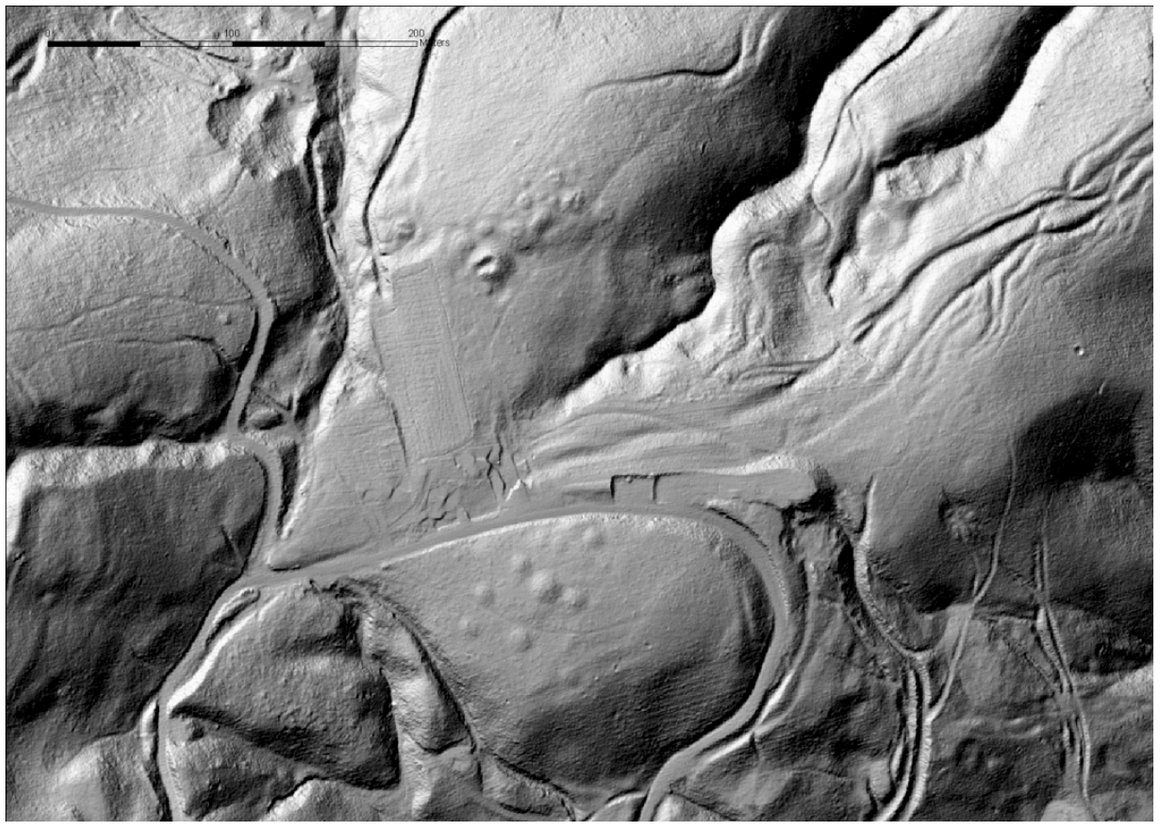
Kakšna je njegova površina?

Na katerih parcelah leži?

Georeferenciraj EmonaMap.jpg?

Digitaliziraj obzidje Emone!

Dodaj lidar posnetek gomil Poštele v Google Earth in digitaliziraj gomile.



north: 153778.440406
south: 153274.440406
west: 548085.5
east: 548844.5

gom2.jpg

Kaj je na parceli 873 KO Divača?

Digitaliziraj enoto dediščine v bližini in jo položi na Google Earth.

Katere kraške jame so v bližini?

Ka[na je geološka podlaga ?

Archaeological resource modelling in temperate river valleys: a case study from the Trent Valley, UK

A.J. Howard[1], A.G. Brown[2], C.J. Carey[3], K. Challis[3], L.P. Cooper[4], M. Kincey[3] & P. Toms[5]

Methods for mapping and determining the condition of archaeological resources while they are still underground have been in development for nearly half a century. The authors here offer an example from the frontiers of the art: the application of a package of remote sensing procedures not only designed to locate sites but to model the valley deposits which contain and cover them. The variation in success of different methods in different deposits offers a guide to the design of evaluation projects on sand and gravel terrain everywhere.

Keywords: Britain, Trent, prehistory, alluvial, floodplain, confluence, lidar, ERGI, geophysics, prospection, bore holes, radiocarbon

Introduction

Archaeological remains within river valleys are often exceptionally well preserved through a combination of the presence of high water tables, stable terrace surfaces and substantial depths of alluvium (Brown 1997; Howard *et al.* 2003). However, recent archaeological research focused on British river valleys has shown that both cultural and taphonomic factors influence the wealth and spatial distribution of the archaeological resource across floodplains and terrace surfaces. A number of authors have demonstrated a direct link between the distribution and preservation potential of archaeology and the observed geomorphology (Howard & Macklin 1999; Passmore *et al.* 2006). Such patterns of preservation are not unique to the UK and have been observed in Europe (Howard *et al.* 2004), Africa (Pearl & Dickson 2004) and North America (Bettis & Mandel 2002; Bauer *et al.* 2004). Published studies are not just restricted to empirical observations; recent analytical work within meandering river systems has sought to predict the spatial distribution of archaeology

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3 *Birmingham Archaeology and VISTA Centre, University of Birmingham, Edgbaston, Birmingham, B15 2TT, UK (Email: C.Carey@bham.ac.uk; K.Challis@bham.ac.uk; m.e.kincey@bham.ac.uk)*
4 *University of Leicester Archaeological Services (ULAS), University of Leicester, University Road, Leicester, LE1 7RH, UK (Email: lpc2@le.ac.uk)*
5 *Department of Natural and Social Sciences, University of Gloucestershire, Swindon Road, Cheltenham, GL50 4AZ, UK (Email: ptoms@glos.ac.uk)*

Received: 19 February 2007; Revised: 13 April 2008; Accepted: 23 June 2008

ANTIQUITY 82 (2008): 1040–1054