GEOTHNK Summer School
July 5-10, Mati, Greece

Learning to teach Spatial-Bringing Research to School

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08.07.2015

Introduction

- 80% of information, sevices etc has a spatial reference
- space as a connector of information
- spatial connection not only geographic
- map metaphor

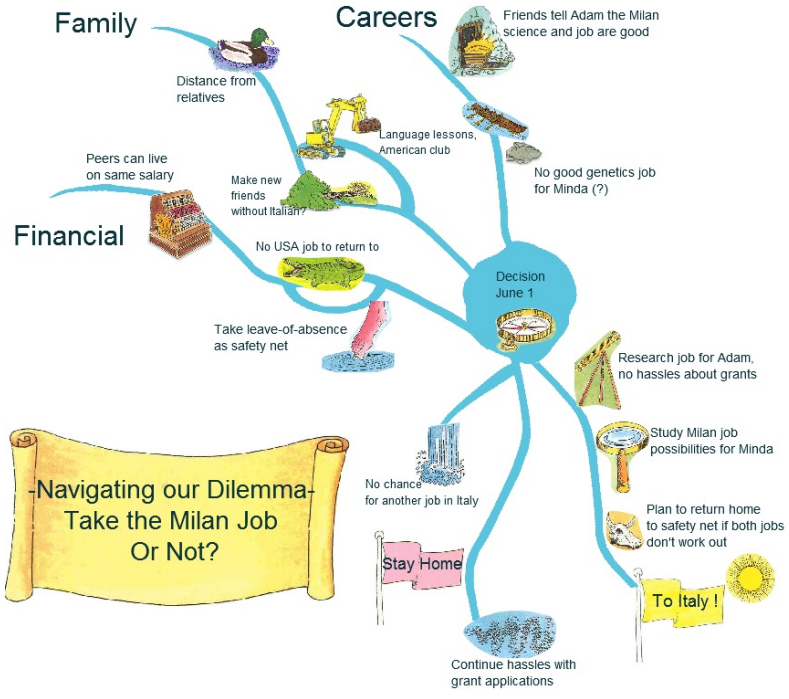


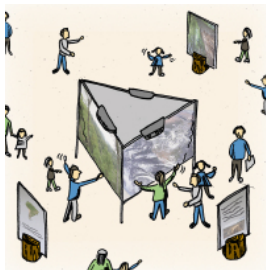
Figure:

http://www.metaphormapping.com/products/mapping-materials/river-mapping/

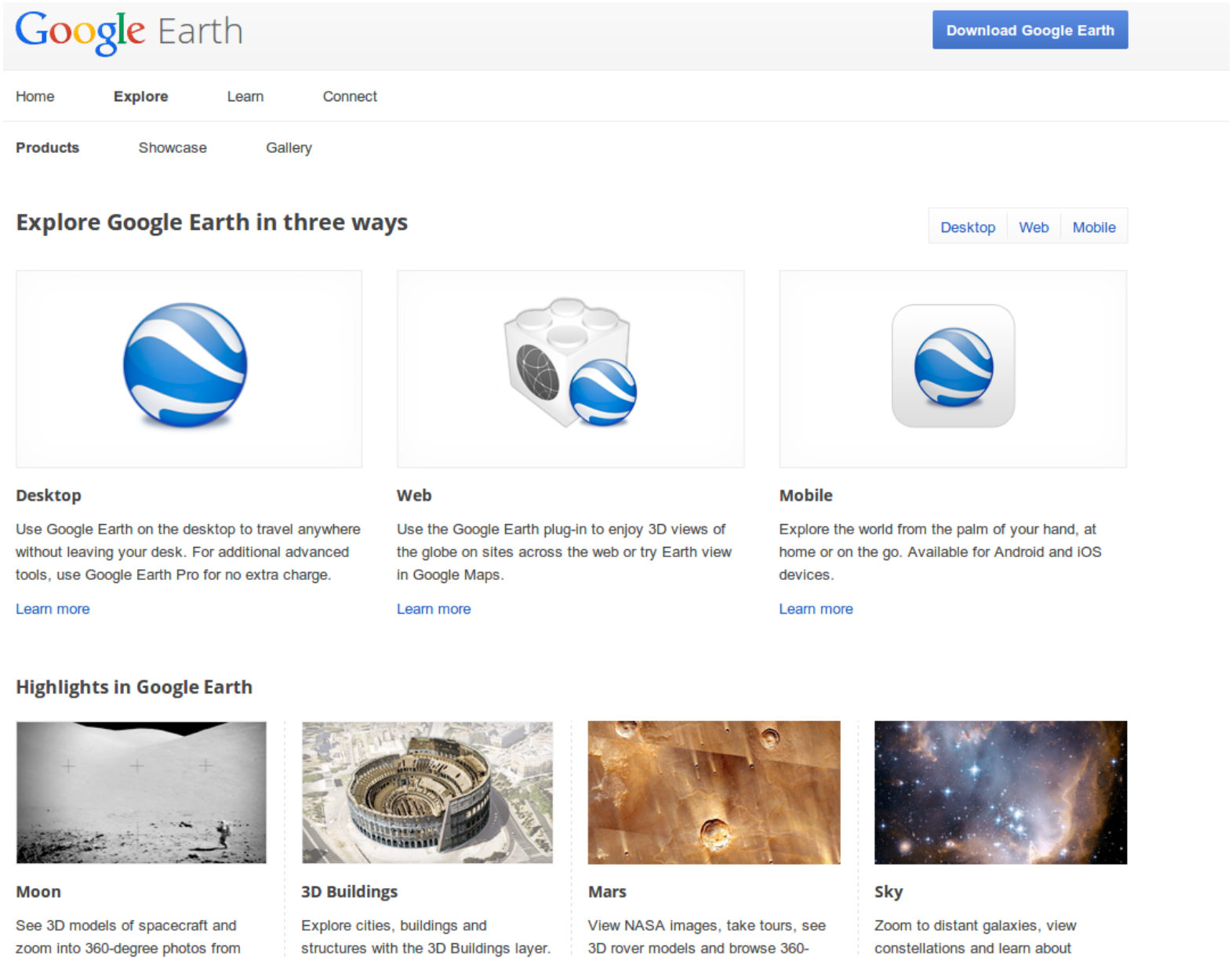
Agenda

OpenStreetMap

GIS tools in School



Google Earth



Where to find

- http://www.google.co.uk/earth/index.html
- **Desktop version**: http://www.google.co.uk/earth/explore/products/desk
- **Download/Installation**: http://www.google.co.uk/earth/download/ge/agree.htr
  - PC - Windows XP, Windows Vista, or Windows 7
  - Mac - Mac OS X 10.6.0 or later
  - Linux - LSB 4.0 (Linux Standard Base) libraries
- **Get help**: http://www.google.com/earth/outreach/tutorials/#earth

Environment

Functionalities

Points

- add points
- symbols
- embed images, youtube videos etc
- ground level view
- Ruler (length, angle)

Functionalities

Lines

- add lines
- symbols
- elevation profile
- length
- angles

Functionalities

Polygons

- add polygons
- symbols
- altitude

Functionalities

How to organize and share your project?

- Add --> Folder
- Save place as --> example.kmz (kmz= compressed kml format)

Google Earth Tour Builder

- http://www.google.com/earth/outreach/tutorials/tourbuilder.html
- Google Account

Example:

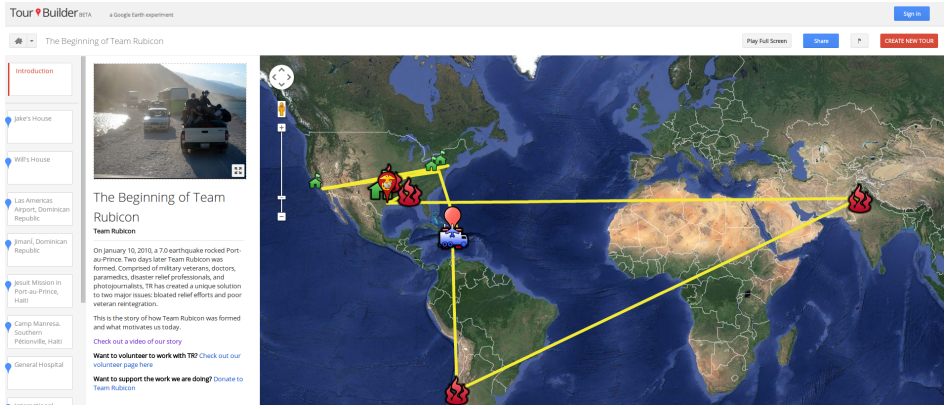
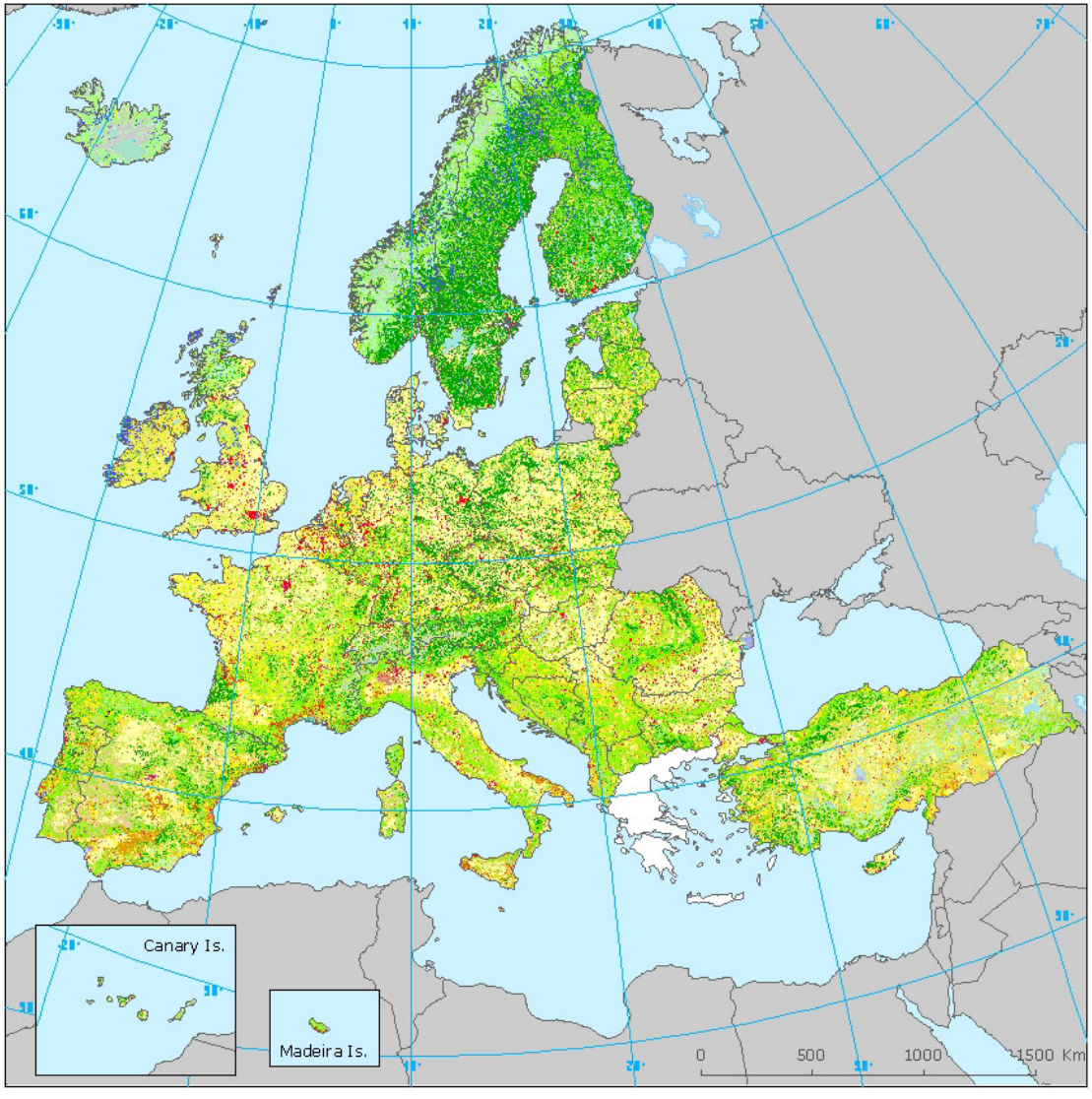


Figure:

https://tourbuilder.withgoogle.com/builder#play/ahJzfmd3ZWItdG91cmJ1aWxkZXJyDAsSBFRvdXIYuosEDA

Interacting with Geodata



CLC2006 map of Europe

- CLC2006
- Missing data
- Other countries

ETC SIA
European Topic Centre
Spatial Information and Analysis

Prepared by ETC SIA partner FÖMI

QGis


2.8.2
DISCOVER QGIS
FOR USERS
GET INVOLVED
DOCUMENTATION
Search
English
Time until feature freeze 2015/05/26 12:00:00 UTC 0d 0h 0m
Time until next release 2015/06/26 12:00:00 UTC 0d 0h 0m
QGIS
A Free and Open Source Geographic Information System
Show your QGIS love with swag from our new shops!
Want to support us?
Find out where you can find the QGIS shops to buy
QGIS goodies
Create, edit, visualise, analyse and publish geospatial information on Windows, Mac, Linux, BSD (Android coming soon)
For your desktop, server, in your web browser and as developer libraries
Download Now
Version 2.8.2
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OSGeo
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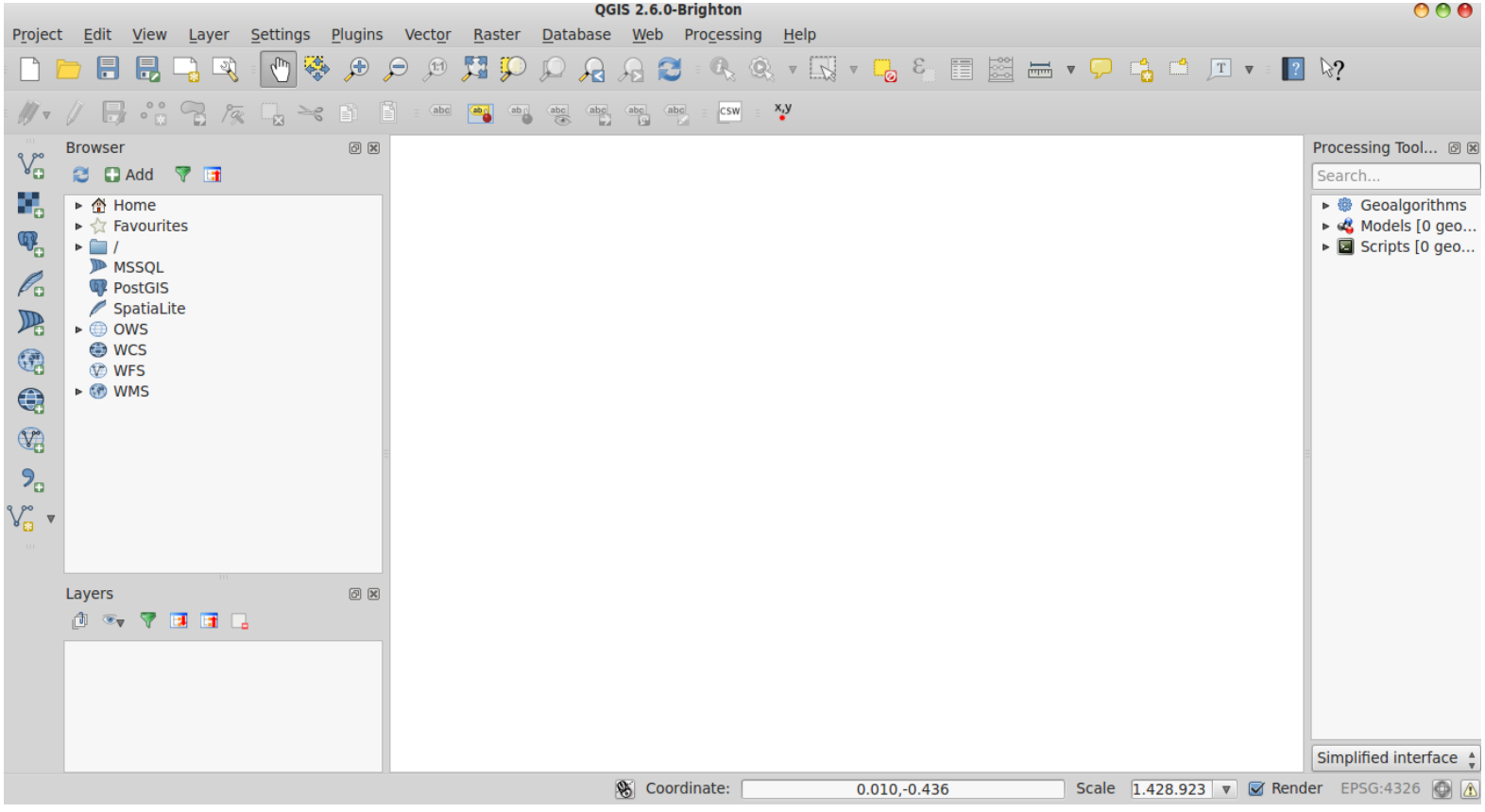
Where to find

- ``A Free and Open Source Geographic Information System"
- http://www.qgis.org/en/site/
- Download/Installation: http://qgis.org/en/site/forusers/download.html
- Find Help: http://www.qgis.org/en/docs/index.html
- Wiki page: http://hub.qgis.org/projects/quantum-gis/wiki/

Environment

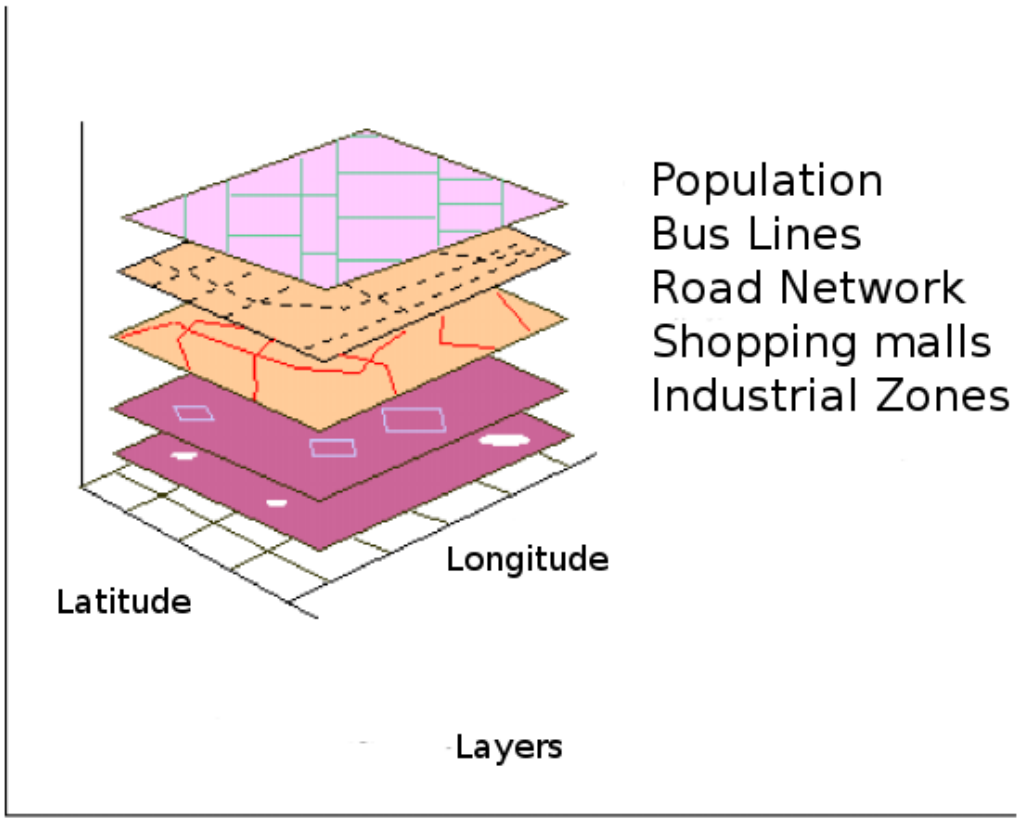


Geodata

- Examples of Geodata?
- What is special about Geodata?
- What form?
- Where to find?
- How to organize them in a GIS?

Geodata con't

How to organize data in a GIS system?



Geodata con't

What form of data?

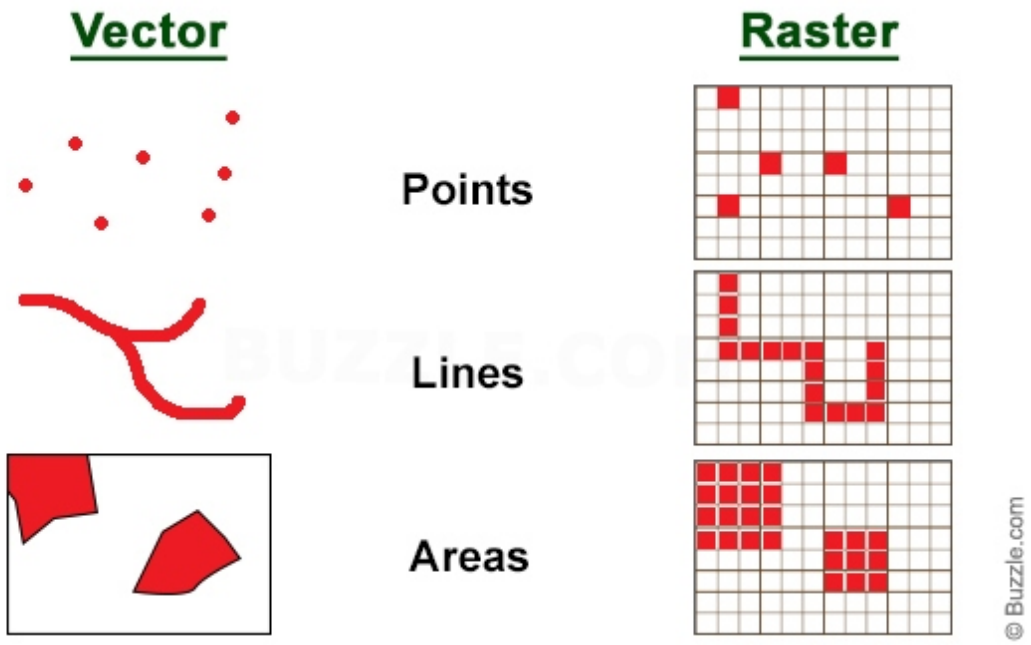


Figure: http://www.buzzle.com/articles/difference-between-raster-and-vector-graphics.html

How to obtain geodata?

- created
- import

Raster data in QGIS

- Examples
- tiff, geotiff, image data
- pixels
- What can we do with it?

Vector data in QGIS

- Examples
- .shp (.shp, .dbf, shx, .prj)
- What can we do with it?

Reference Systems

How do we communicate location on earth?

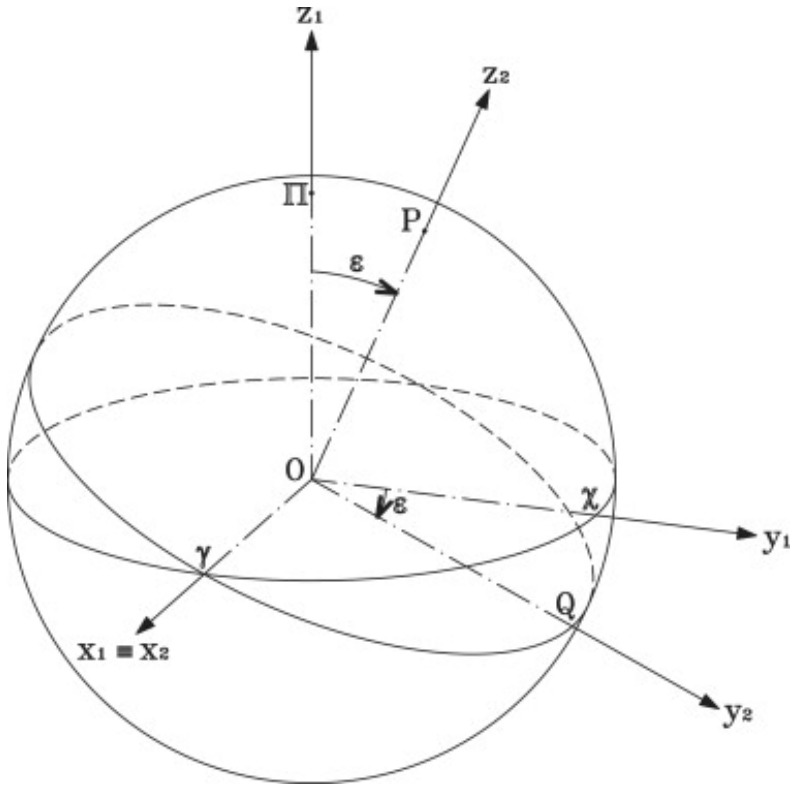
Reference Systems

How do we communicate location on earth?

- Adress
- Fuzzy expressions - north of Athens
- Coordinates - Acropolis
  - 37 58 17 N, 23 43 34 E
  - 475841.698, 4202392.025

Problem?

Transformations



Functionalities

Where/How can be students involved?

- data collection
- data representation
- reasoning - support learning process

Geospatial Learning in Primary School

- https://www.youtube.com/watch?v=8KQl3TD2_Ng
- ifgi: gi@school

Triangle of Sustainability

- Microsoft Kinect technology
- http://dreieck-der-nachhaltigkeit.de/
- https://www.youtube.com/watch?v=Jjzj84R1Tgc
- ifgi:gi@school

Questions?

Thank you for your attention!

http://www.geothnk.eu/

@ SpatialThink

https://www.facebook.com/spatialthinking