raster

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outline

raster

Later/Explore at home: More Rasters

Later/Explore at home: Semi-Automatic Classification Plugin

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got raster?

◇ we've done only vector data in this class

· mostly shapefiles and kml

◇ there's also raster data

◇ raster=picture ($+$ coord to fit it on the map)

◇ we've skipped it because you can just use google maps

· or OpenStreet map, etc (also within qgis)

◇ but sometimes pictures are better

· higher resolution and/or over-time (old v new)

nj example

⋄ start with our favorite

⋄ https://docs.google.com/uc?id=
1xJDhcRCkgv7k4tNCa72Oog5bohV6dTB2&export=download

⋄ load to qgis; and then see our favorite nj data website

⋄ https:
//njgin.state.nj.us/NJ_NJGINExplorer/DataDownloads.jsp

⋄ at the bottom, it has raster data that links to

⋄ https://njgin.state.nj.us/NJ_NJGINExplorer/IW.jsp

nj example

◇ 'Select Dataset to Download': NJ 1995 DOQQs

◇ zoom in to evesham township

◇ on the left check 'Select by Point'

◇ and it should show on the right this picture selected:
  CLEMENTON NJ NE #1162

◇ check it

◇ and at bottom-right click 'Add Items to Cart'

◇ then click checkout cart; click JPEG (just picture format)

◇ it should save; extract zipped folder

load raster to qgis

◇ first, make sure counties vector is loaded; then:

· use a checkerboard icon on the left, below vector squiggle,

· to load our raster: navigate to unzipped JPEG file

◇ note that when you extracted zipped folder with JPEG,

· there are also other files, like in shapefile case

· these other files tell qgis where to put the picture on a map

load google satellite

◇ say we want to compare mid 90s to now

◇ could get newer (and better resolution) images

◇ but can just load goog satellite to get more current image

◇ QuickMapServices-Settings-More Services-Get contributed pack

· and load Google Satelite

◇ and zoom in to Evesham township, have raster on top of google

· and turn on/off raster to see past/present

past matters!

◇ much of present can be explained with past!

◇ it's also fun to look back into past

· just like you look at your old pictures, look at the place

◇ aging `http://twistedsifter.com/2013/10/animations-show-how-faces-age-over-time/`

◇ satellite images
`http://www.wired.com/2012/07/landsat-city-change/`

◇ landsat website `http://landsat.gsfc.nasa.gov/?cat=4`

actual application

◇ i think about research all the time

◇ including on the airplane

◇ and it struck me that there is so much concrete in TX

◇ can easily show it with satellite images [p 43]

◇ https://drive.google.com/open?id=1Coj3CuwvzyoF2Rm_a0Fg5sSOXkTzuZlV

often can actually see better!

$\diamond$ with satellite images or from an airplane

$\cdot$ can actually see better

$\diamond$ eg: most buildings and roads are build to trick you on the ground

$\cdot$ nice look, but cheap, etc

$\cdot$ it's interesting to see how it actually looks like

$\cdot$ from a different perspective, on satellite image

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more rasters

◇ http://glcfapp.glcf.umd.edu:8080/esdi/

◇ https://earthexplorer.usgs.gov/

◇ https://search.earthdata.nasa.gov

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the plugin

◇ it has good reviewes

◇ give it a try if you are into raster

◇ https://plugins.qgis.org/plugins/
SemiAutomaticClassificationPlugin/

next week is the last qgis class

◇ what would you like to cover ?

· anything new ?

· cover anything again?

◇ maybe use some new data for examples?

· I have an impression that we should go to lower level

· title of this class is also (cross-listed) "urban mapping"

· maybe do tracts/blocks in Philly or Camden ?

· maybe zoning or public transportation?

· other ideas?