

raster

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outline

raster

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
- ◇ `http://people.hmdc.harvard.edu/~akozaryn/myweb/bounds_nj_shp.zip`
- ◇ 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
- ◇ (if needed install 'OpenLayers' plugin: Plugins-Manage And Install Plugins)
- ◇ 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://twistedstifter.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]
- ◇ http://people.hmdc.harvard.edu/~akozaryn/tmp/city_book.pdf

often can actually see better!

- ◇ with satellite images or from an airplane
 - can actually see better
- ◇ eg: most buildings and roads are build to trick you on the ground
 - nice look, but cheap, etc
 - it's interesting to see how it actually looks like
 - from a different perspective, on satellite image

raster

Later/Explore at home: Semi-Automatic Classification Plugin

the plugin

- ◇ it has good reviews
- ◇ give it a try if you are into raster
- ◇ <https://plugins.qgis.org/plugins/SemiAutomaticClassificationPlugin/>