```
# cp -Rp /Users/ryanmor/projects/ "/Volumes/G-DRIVE with Thunderbolt/
projectscopy"


# remote sensing
gdalwarp -tr 10 10  T19TCG_20181111T153551_B11.jp2
T19TCG_20181111T153551_B11resize.tif


gdal_calc.py -A T19TCG_20181111T153551_B11resize.tif -B
T19TCG_20181111T153551_B08.jp2 --outfile=ndbi.tif --calc="((A-B)/
(A+B))"




gdal_merge.py -o rgbURBAN.tif -separate T37MEN_20180605T072609_B12.jp2
        T37MEN_20180605T072609_B11.jp2 T37MEN_20180605T072609_B04.jp2
-co PHOTOMETRIC=RGB -co COMPRESS=DEFLATE

*NDBI = (SWIR1 – NIR)/(SWIR1 + NIR);*

11 - 8


gdal_calc.py -A T37MEN_20180605T072609_B11.jp2 -B
T37MEN_20180605T072609_B08.jp2 –outfile=ndbi.tif –calc="((A-B)/(A+B))"

gdal_calc.py -A input1.tif -B input2.tif –outfile=result.tif –
calc="A+B"


[What are the band designations for the Landsat satellites? | Landsat
Missions](https://landsat.usgs.gov/what-are-band-designations-landsat-
satellites)

https://www.arcgis.com/home/item.html?
id=3cf4e98f035e47279091dc74d43392a5

http://fs.unm.edu/MonitoringUrbanAreas.pdf

[Band Combinations for Landsat 8](https://www.esri.com/arcgis-blog/
products/product/imagery/band-combinations-for-landsat-8/)

 [https://crisp.nus.edu.sg/~research/tutorial/opt_int.htm](https://
crisp.nus.edu.sg/~research/tutorial/opt_int.htm)

[Viewer](https://landsatlook.usgs.gov/viewer.html)

[GRASS GIS manual: i.tasscap](https://grass.osgeo.org/grass77/manuals/
```

i.tasscap.html)

[Raster Calculator](https://www.bluemarblegeo.com/knowledgebase/global-mapper-19/Raster_Calculator.htm)

[Recognizing hand-written digits — scikit-learn 0.20.3 documentation](https://scikit-learn.org/stable/auto_examples/classification/plot_digits_classification.html#sphx-glr-auto-examples-classification-plot-digits-classification-py)

[What is SWIR? | Edmund Optics](https://www.edmundoptics.com/resources/application-notes/imaging/what-is-swir/)

[Sentinel-2A SatelliteSensor | Satellite Imaging Corp](https://www.satimagingcorp.com/satellite-sensors/other-satellite-sensors/sentinel-2a/)

[Near, Mid and Far-Infrared](http://www.icc.dur.ac.uk/~tt/Lectures/Galaxies/Images/Infrared/Regions/irregions.html)

[Making Sense of Satellite Data, An Open Source Workflow: Pre-processing Data with QGIS](https://medium.com/@robsimmon/making-sense-of-satellite-data-an-open-source-workflow-pre-processing-data-with-qgis-1c0d9b052c1c)

[List Of Band Combinations For Sentinel 2 - s2tbx - STEP Forum](https://forum.step.esa.int/t/list-of-band-combinations-for-sentinel-2/1156)

```
gdal_merge.py -o rgbURBAN.tif -separate T37MEN_20180605T072609_B12.jp2 T37MEN_20180605T072609_B11.jp2 T37MEN_20180605T072609_B04.jp2 -co PHOTOMETRIC=RGB -co COMPRESS=DEFLATE
```

dar es salaam

[2012 Census Tanzania Wards Shapefiles - Humanitarian Data Exchange](https://data.humdata.org/dataset/2012-census-tanzania-wards-shapefiles)

migration

[Western Mediterranean Route](https://frontex.europa.eu/along-eu-borders/migratory-routes/western-mediterranean-route/)

[Migratory Map](https://frontex.europa.eu/along-eu-borders/migratory-map/)

[Migration and Demography | Knowledge for policy](https://

ec.europa.eu/knowledge4policy/migration-demography_en)

flow maps

[flowmap.blue - Flow map visualization tool](https://flowmap.blue/)

#flowm

call with

air pollution

[EOSDIS Worldview](https://worldview.earthdata.nasa.gov/?p=geographic&l=Reference_Features,Particulate_Matter_Below_2.5micrometers_2010-2012(hidden),Particulate_Matter_Below_2.5micrometers_2001-2010,MERRA2_Carbon_Monoxide_Emission_Monthly(hidden),Reference_Labels(hidden),AIRS_Carbon_Monoxide_Volume_Mixing_Ratio_Monthly_Night(hidden),AIRS_Carbon_Monoxide_Volume_Mixing_Ratio_Monthly_Day(hidden),AIRS_Carbon_Monoxide_Volume_Mixing_Ratio_Daily_Night(hidden),AIRS_Carbon_Monoxide_Volume_Mixing_Ratio_Daily_Day(hidden),AIRS_CO_Total_Column_Night(hidden),AIRS_CO_Total_Column_Day(hidden),Coastlines(hidden)&t=2018-12-20-T00%3A00%3A00Z&z=3&v=-221.97183642378323,-77.47458403857357,205.69616679160586,162.48596312475433&ab=off&as=2018-12-20T00%3A00%3A00Z&ae=2018-12-27T00%3A00%3A00Z&av=3&al=false&download=CIESIN_SEDAC_SDEI_PM25_MMSAOD)

[AerosolWatch – NOAA satellite aerosol products imagery](https://www.star.nesdis.noaa.gov/smcd/spb/aq/AerosolWatch/)

https://www3.epa.gov/airnow/2018conference/Forecasting/Thursday/huff-goes-16-aerosol-products.pdf

[GOES WEST Aerosol/Smoke Product (GASP) - Satellite Services Division / Office of Satellite Data Processing and Distribution](https://www.ssd.noaa.gov/PS/FIRE/GASP/gasp-west.html)

[Baseline Products: Cloud Optical Depth (COD) | GOES-R Series](https://www.goes-r.gov/products/baseline-cloud-opt-depth.html)

[AIRS | Search | National Centers for Environmental Information (NCEI)](https://www.ncdc.noaa.gov/airs-web/search)

https://data.nodc.noaa.gov/cgi-bin/iso?id=gov.noaa.ncdc:C01511

[Glossary | National Centers for Environmental Information (NCEI) formerly known as National Climatic Data Center (NCDC)](https://www.ncdc.noaa.gov/data-access/satellite-data/goes-r-series-satellites/glossary)

[GOES on AWS - Registry of Open Data on AWS](https://registry.opendata.aws/noaa-goes/)

[Aerosols: Tiny Particles, Big Impact](https://earthobservatory.nasa.gov/features/Aerosols/page5.php)

http://cimss.ssec.wisc.edu/goes/OCLOFactSheetPDFs/ABIQuickGuide_BaselineAerosolOpticalDepth.pdf

[Air Pollution - Our World in Data](https://ourworldindata.org/air-pollution)

[Data & Tools | Institute for Health Metrics and Evaluation](http://www.healthdata.org/data-tools)

[Copernicus Sentinel-5P releases first data / Sentinel-5P / Copernicus / Observing the Earth / Our Activities / ESA mobile](https://m.esa.int/Our_Activities/Observing_the_Earth/Copernicus/Sentinel-5P/Copernicus_Sentinel-5P_releases_first_data)

[Seasons of Indian Air Quality](https://earthobservatory.nasa.gov/images/84731/seasons-of-indian-air-quality)

[Air Quality | Environmental Performance Index](https://epi.envirocenter.yale.edu/2018-epi-report/air-quality)

[AIR QUALITY FROM SPACE | Air Quality](https://airquality.gsfc.nasa.gov/)

[AQ Forecast | Air Quality](https://airquality.gsfc.nasa.gov/forecast)

[EOSDIS Worldview](https://worldview.earthdata.nasa.gov/)

https://sentinel.esa.int/web/sentinel/sentinel-data-access

[Downloads » Global Annual PM2.5 Grids from MODIS, MISR and SeaWiFS Aerosol Optical Depth (AOD), v1: Satellite-Derived Environmental Indicators | SEDAC](http://beta.sedac.ciesin.columbia.edu/data/set/sdei-global-annual-avg-pm2-5-modis-misr-seawifs-aod-1998-2012/data-download)

MONGOLIA SPECIFIC

[4.1 Air pollution – English](http://bic.iwlearn.org/en/documents/state-of-the-environment-report-the-lake-baikal-basin-1/ecological-conditions/4-1-air-pollution)

https://data.worldbank.org/indicator/EN.ATM.PM25.MC.M3?locations=MN

https://core.ac.uk/download/pdf/82187315.pdf

[Atmospheric air condition - Ulaanbatar_The isolines of concentration of dust in Ulaanbaatar when western wind is 5 MPs map - English](http://bic.iwlearn.org/en/atlas/atlas/88-2-atmospheric-air-condition-ulaanbatar_the-isolines-of-concentration-of-dust-in-ulaanbaatar-when-western-wind-is-5-mps-map/atmospheric-air-condition-ulaanbatar_the-isolines-of-concentration-of-dust-in-ulaanbaatar-when-western-wind-is-5-mps-map)

[Mongolia GIS Data | Christopher M. Free](https://marine.rutgers.edu/~cfree/gis-data/mongolia-gis-data/)

http://www.usip.mn/uploads/reports/en/CPAP-01.pdf

[Projects : Ulaanbaatar Clean Air Project | The World Bank](http://projects.worldbank.org/P122320/ulaanbaatar-clean-air-project?lang=en&tab=map)

http://documents.worldbank.org/curated/en/866561468274261208/pdf/529700REPLACEM1paper0FINAL002110110.pdf

this one: [Цаг араар](http://www.tsag-agaar.gov.mn/) for monthly data

s5pguest

[ArcGIS Web Application](https://maps.who.int/airpollution/)

[WHO | WHO Global Ambient Air Quality Database (update 2018)](https://www.who.int/airpollution/data/cities/en/)

[Ambient PM2.5 Reduces Global and Regional Life Expectancy - Environmental Science & Technology Letters (ACS Publications)](https://pubs.acs.org/doi/10.1021/acs.estlett.8b00360)

[OpenAQ](https://openaq.org/#/location/Amgalan?_k=1u6wsx)

[openaq-info/FAQ.md at master · openaq/openaq-info · GitHub](https://github.com/openaq/openaq-info/blob/master/FAQ.md#90days)

[WHO | Ambient air quality](https://www.who.int/phe/health_topics/outdoorair/en/)

[Airpollution/Airpollution_PM_MonitoringStation (MapServer)](http://maps.who.int/arcgis/rest/services/Airpollution/Airpollution_PM_MonitoringStation/MapServer)

[Live Animated Air Quality Map (AQI, PM2.5…) | AirVisual](https://www.airvisual.com/air-quality-map)

[MNB Air Quality Index (AQI) and Ulaanbaatar Air Pollution | AirVisual](https://www.airvisual.com/mongolia/ulaanbaatar/mnb)

[AirNow](https://www.airnow.gov/)

[Ozone Monitoring System Air Quality Index | Ground-level Ozone | New England | US EPA](https://www3.epa.gov/region1/airquality/aqi.html)

[BreezoMeter vs. Government Air Quality Data](https://blog.breezometer.com/breezometer-vs-government-air-quality-5-things-to-know)

[National Agency for Meteorology, Hydrology, and Environmental Monitoring (NAMHEM) (Mongolia) | GHDx](http://ghdx.healthdata.org/organizations/national-agency-meteorology-hydrology-and-environmental-monitoring-namhem-mongolia)

http://aqicn.org/city/ulaanbaatar/baruun-4-zam/

[OpenStreetMap Nominatim: Search](https://nominatim.openstreetmap.org/search.php?q=mongolia&polygon_geojson=1&viewbox=)

https://wiki.openstreetmap.org/wiki/Key:building

https://wiki.openstreetmap.org/wiki/Key:highway

[Query all records from ArcGIS Server REST table - Geographic Information Systems Stack Exchange](https://gis.stackexchange.com/questions/239745/query-all-records-from-arcgis-server-rest-table)

http://maps.who.int/arcgis/rest/services/Airpollution/Airpollution_PM_MonitoringStation/MapServer/0/query?query?&where=PM25_mean%3E0&outFields=*&f=json

[geojson - Extracting data from ArcGIS REST endpoint? - Geographic Information Systems Stack Exchange](https://gis.stackexchange.com/questions/252425/extracting-data-from-arcgis-rest-endpoint)

https://www.who.int/gho/phe/outdoor_air_pollution/outdoor_air_pollution_mapPM25_WHOborders_notext.pdf?ua=1

http://maps.who.int/arcgis/rest/services/Airpollution/Airpollution_PM_MonitoringStation/MapServer/0/query?query?&where=PM25_mean%3E0&f=json

[ArcGIS Web Application](http://maps.who.int/airpollution/)

[WHO | Exposure to ambient air pollution](https://www.who.int/gho/phe/outdoor_air_pollution/exposure/en/)

http://cleanairasia.org/wp-content/uploads/2016/09/04-Air-quality-monitoring-of-Ulannbaatar_JBatbayar.pdf

[Predicting PM2.5 Pollution in Ulaanbaatar - Part 2, Visualizing](https://medium.com/mongolian-data-stories/air-pollution-part-2-f9f4da33a1bd)

https://mn.usembassy.gov/u-s-embassy-launching-air-quality-monitoring-program/

https://www.stateair.mn/history.php

[Particle Pollution (PM)](https://www.airnow.gov/index.cfm?action=aqibasics.particle)

[Mongolia | Data](https://data.worldbank.org/country/mongolia)

[1609.00141 Data Integration Model for Air Quality: A Hierarchical Approach to the Global Estimation of Exposures to Ambient Air Pollution](https://web.archive.org/web/20171114195141/https://arxiv.org/abs/1609.00141)

[WHO | Modelled Global Ambient Air Pollution estimates](https://web.archive.org/web/20161005024036/http://who.int/phe/health_topics/outdoorair/databases/modelled-estimates/en/)

http://www.tsag-agaar.gov.mn/

[AQ Forecast | Air Quality](https://airquality.gsfc.nasa.gov/forecast)

https://apps.who.int/iris/bitstream/handle/10665/250141/9789241511353-eng.pdf?sequence=1

https://www.who.int/airpollution/data/FINAL-FAQs-WEB-Database-2018.pdf?ua=1

[Агаарын чанар](http://agaar.mn/article-view/724)

https://www.arcgis.com/home/webmap/viewer.html?url=https://services6.arcgis.com/C0HVLQJI37vYnazu/ArcGIS/rest/services/Ambient_outdoor_air_pollution_in_cities_pm25/FeatureServer/0&source=sd

meeting

[Unsupported Operating System - Zoom](https://21cf.zoom.us/j/9817849463)

headline use word in chart,

goofy title?

Environment desk meeting
2/26

photoshop
#photoshop# #tips

[Photoshop: how can I see both the mask and the masked contents? - Graphic Design Stack Exchange](https://graphicdesign.stackexchange.com/questions/7009/photoshop-how-can-i-see-both-the-mask-and-the-masked-contents)

#

only 5

hussy first sex but also insult
bottom

create mockup of of semantic predictors

or take out divider

total dataset 40,000

very funny X%
funny
neutral
unfunny
very unfunny

most important markers of funny

silly words
what makes funny:

meaning or semantics

and conguency (surprise)

only linear value in table

semantics
formal cues
and funniness

how to highlight factors of the data
categories

insult
sex
party
animal
body function
expletive - surprising nature of it

d3
[Making a world map with d3, topojson, and a csv - YouTube](https://www.youtube.com/watch?v=aNbgrqRuoiE)

mapbox animate marker [Animate a marker | Mapbox](https://docs.mapbox.com/mapbox-gl-js/example/animate-marker/)

transition all
[D3.selectAll(…).transition() Explained - bl.ocks.org](https://bl.ocks.org/Kcnarf/9e4813ba03ef34beac6e)

[Launching custom layers with Uber — Points of interest](https://blog.mapbox.com/launching-custom-layers-with-uber-2a235841a125)

[Mapbox Custom Layers - Add a great-arc circle with brushing to a map with deck.gl - bl.ocks.org](https://bl.ocks.org/ryanbaumann/143396c1cbc33efe40a39e137aec6c45/ea5a26a0a49b9dcca107c8be09d6314f76b8dafb)

#

how they sound
and what they mean

high entropy

low entropy odd are funnier

and oppose is what they mean

distrance

six categories

oo

smokejumper notes LR
thin out black spruce tree

chart showing smokejumper deployments by year
add pipeline
look for protected allotments (policy)
permafrost
burn scars

peter: can we add fire in permafrost to illustration

[Fire Management Plans](http://forestry.alaska.gov/fire/fireplans)

GIS: protection areas , permafrost, etc

[Forest Health Monitoring Clearinghouse](https://agdc.usgs.gov/data/projects/fhm/)

[AICC - Predictive Services - Maps / Imagery / Geospatial](https://fire.ak.blm.gov/predsvcs/maps.php)
#node

gis ALASKA [Alaska State Geo-Spatial Clearinghouse](http://www.asgdc.state.ak.us/)

5 meter DEM [5 Meter Alaska Digital Elevation Models (DEMs) - USGS National Map 3DEP Downloadable Data Collection - ScienceBase-Catalog](https://www.sciencebase.gov/catalog/item/5641fe98e4b0831b7d62e758)

pipeline [Alaska Energy Infrastructure: Pipelines and Electrical Lines - Datasets - OpenEI Datasets](https://openei.org/datasets/dataset/alaska-energy-infrastructure-pipelines-and-electrical-lines)

[AICC - Predictive Services - Intelligence / Reports](https://fire.ak.blm.gov/predsvcs/intel.php)

glacier melt

[GLIMS Viewer](http://www.glims.org/maps/glims)

[Global Glacier Recession | National Snow and Ice Data Center]

(https://nsidc.org/glims/glaciermelt)

[| National Snow and Ice Data Center](https://nsidc.org/data/g10002)

http://www.grid.unep.ch/glaciers/img/5-1.jpg

[An introduction to Glacier Mass Balance](http://www.antarcticglaciers.org/glacier-processes/introduction-glacier-mass-balance/)
[image:6929D022-C599-4E02-87E5-54025A68C1F7-78683-000060D8AA66DF85/Screen Shot 2019-01-29 at 3.21.13 PM.png]

[Changing Glaciers in the Hindu Kush Himalayas | GRID-Arendal](http://www.grida.no/resources/6690)

[image:03BD6DBA-3502-405D-B1FD-4C08E0816742-78683-000060F4F2E78149/32241660031_49be527736.jpg]

show areas that depend on glacier melt for water availability (not rain)

show flooding that kills people with melt

http://www.grid.unep.ch/glaciers/pdfs/glaciers.pdf

how to learn
[A Self-Learning, Modern Computer Science Curriculum](https://functionalcs.github.io/curriculum/#introduction)

antarctica

[This Man is Walking Across Antarctica All By Himself](https://news.nationalgeographic.com/2015/11/151109-south-pole-antarctic-explorers-shackleton-expedition/)

https://www.nytimes.com/2019/01/03/opinion/antarctica-obrady-rudd-solo-crossing.html

https://explorersweb.com/2019/01/09/crossing-antarctica-how-the-confusion-began-and-where-do-we-go-from-here/

[Tracking the Race Across Antarctica - The New York Times](https://www.nytimes.com/interactive/2018/12/18/sports/antarctica-race-tracker-map.html)

[South Pole Traverse - Wikipedia](https://en.wikipedia.org/wiki/South_Pole_Traverse#/media/File:Map_of_the_McMurdo-South_Pole_highway.jpg)
[image:25B8001E-A111-4CE6-A5B2-085E2B9AB5BB-70395-00023AAC99C7D3D9/

Screen Shot 2019-01-17 at 3.58.02 PM.png]

convo with maarten 1/10

Since I'm playing catchup, a few questions:

1) Is the repo currently up-to-date with your most recent version of the graphic here: https://github.com/natgeo/ngnews-dietary-land-use (see screen shot of local build below)

2) Are you waiting on new/updated data? Is there something I can do to help track that down?

3) Do you have a preferred headline/ draft introductory text (and/or notes and sources) for the graphic? If so, I can run that by the copy desk (I'm also happy to fact-check the graphic if you want to point me to the source material)

Anyhow, I'm here to help in whatever way I can. I'll touch base with Sarah Gibbons (the writer) today to confirm the anticipated publication date and other details. Have you seen a draft of her story, or otherwise been in touch with her?

More soon, and thanks so much,

data working with from 2010

but the researchers are working on update for 2015

the latest he knows that kennedy contacted and some

#

[sunburst/demo/dom at master · anvaka/sunburst · GitHub](https://github.com/anvaka/sunburst/tree/master/demo/dom)

[I made a universal panzoom library, wanted to share it here. Hope you guys like it. : javascript](https://www.reddit.com/r/javascript/comments/9a9pgf/i_made_a_universal_panzoom_library_wanted_to/e4trncm)

#ticket

was driving saw two pedestrians near crosswalk slowed dramatically, two lanes, car behind slowed dramatically as well, almost to stop and made contact with first pedestrian who turned back toward curb and other pedestrian so as not to indicate was going to cross street, clear was not trying to cross street so execrated through crosswalk to be flagged over.

as driver, biker and pedestrian in this city I have very careful to yield to pedestrians and bikers. I feel i acted responsibly and safely to yield right of way to pedestrians in this case. when told by officer i was being pulled over for failing to stop for pedestrian in crosswalk i replied that I had seen the pedestrian and had made eye contact and determined that pedestrian was not trying to cross. he told me to contest ticket rather than use his judgement of what he saw to evaluate the scene for what it was. at least three other cars were pulled over behind me. i thought i as being pulled over for a passing motorcade or something. when asked if the person in the crosswalk was a police officer he said that information would be available in court. i walked back and watched and saw numerous cars roll though crosswalk wihout being pulled over

explained situation to antother office who suggested i contest as ticket as well

#

call with jonathan schroeder

dafdsafd

ctpp tract to tract 2006-2010

2012 - 2016 product if on schedule

[CTPP - Census Issues - Planning - FHWA](https://www.fhwa.dot.gov/planning/census_issues/ctpp/)

could find a contact for me

look for contact on where they’re at

could

other source :

LEHDLODDS
[OnTheMap](https://onthemap.ces.census.gov/)
block to block commuting data

injected with noise to ananoymize
based on state agencies unemployment data (possibly)
is it a daily commute?

innovation

1990 standardized

1990 and 2000 census areas

very good change data

population change

sublime prettify fix

[CERTIFICATE_VERIFY_FAILED on macOS Sierra Beta · Issue #1220 · wbond/package_control · GitHub](https://github.com/wbond/package_control/issues/1220)

antarctica map

gdal2tiles.py --profile=raster -z '5' -r 'lanczos' arttype/5.tif artntype

gdal2tiles.py --profile=raster -z '4-5' -r 'lanczos' arttype/4.tif artntype

gdal2tiles.py --profile=raster -z '3-5' -r 'lanczos' arttype/3.tif artntype

gdal2tiles.py --profile=raster -z '2-5' -r 'lanczos' arttype/2.tif artntype

gdal2tiles.py --profile=raster -z '1-5' -r 'lanczos' arttype/1.tif artntype

each time only take zoom folder you want and put into tiles folder in trudy project so you can ..

trudy publish-tiles artntype

wildlife tourism

instagram only

can’t be shared, only followers see

which animals, and where, is this a problem

report

pgrouting

[Drive-time Isochrones from a single Shapefile using QGIS, PostGIS, and Pgrouting | Free and Open Source GIS Ramblings](https://anitagraser.com/2017/09/11/drive-time-isochrones-from-a-single-shapefile-using-qgis-postgis-and-pgrouting/)

[pgRouting Workshop FOSS4G UK 2018 – Ross McDonald – Open source GIS advocate](http://mixedbredie.github.io/pgrouting-workshop/)

[Instead of standard mileage based GPS reports, INRIX Drive Time provides an instant and accurate assessment of potential commute and travel times.](http://inrix.com/products/inrix-drive-time/)

https://towardsdatascience.com/coral-cities-an-ito-design-lab-concept-c01a3f4a2722

[Commute times for District residents are linked to income and method of transportation - D.C. Policy Center](https://www.dcpolicycenter.org/publications/commute-times-for-district-residents-are-linked-to-income-and-method-of-transportation/)

[image:A00E3052-3DB6-4BE8-95F3-7DDA71AC19B7-27744-0001725FE0E13828/Screen Shot 2018-10-29 at 2.53.36 PM.png]

https://i.redd.it/94ugtf5wptk11.png
[Isochrone map - Wikipedia](https://en.wikipedia.org/wiki/Isochrone_map#/media/File:Map_of_Melbourne_and_environs_minimum_railway_or_tramway_time_zones.jpg)

[OSGeo on Twitter: “Drive-time Isochrones from a single Shapefile step-by-step using #QGIS, #PostGIS & #Pgrouting @osgeolive https://t.co/nw4spa8XXa… https://t.co/0sJGRHf0aw”](https://twitter.com/osgeo/status/907334416179109888)

[image:DB3ECCF6-4F62-4453-9A18-4C008E366AA4-27744-000173EDF0FE45B7/Screen Shot 2018-10-29 at 3.22.05 PM.png]

[Commute Flow Mapping](http://www.commute-flow.net/)

[This awesome map shows a commuter flow in the US - Geoawesomeness](http://geoawesomeness.com/awesome-map-shows-commuter-flow-us/)

[Fedir Gontsa (@gontsa) • Instagram photos and videos](https://www.instagram.com/gontsa/)

SILICON VALLEY – MASTER TO-DO LIST
add bridges
check city locations
3d academic buildings
add sources
should housing prices over time be adjusted for inflation?
new locator for CA
ramp color?
add more tech companies (e.g. twitter SF)
add other sites from patty's list

riley: maybe key elements closer?

maybe larger california locator so see more of "bay area" to show full extent of area shown.

EMMET: include note that says minimum down payment jumbo loan (10%) for home in xx district (palo alto?) is as much as average cost of home in u.s. ($217k) - this could also happen in top area near explainer for home owner cost of admission note.

add no residents to map key

Silicon Valley

#

who rents:

20 somethings
low income rent much more often
black and hispanic more likely to rent

[Who Rents Their Home? Here's What the Data Says. - CityLab](https://www.citylab.com/life/2018/08/who-rents-their-home-heres-what-the-data-says/566933/)

[Why so many families are renting, not buying, homes - CBS News](https://www.cbsnews.com/news/why-so-many-families-are-renting-homes-not-buying/)

[Palo Alto CA Home Prices & Home Values | Zillow](https://www.zillow.com/palo-alto-ca/home-values/)

random python path stuff

```
export PATH=/Library/Frameworks/GDAL.framework/Versions/2.2/GDAL:$PATH
```

```
/Library/Frameworks/GDAL.framework/Versions/2.2/Programs

/Users/ryanmor/projects/gdal2tilesp

export PYTHONPATH="/Users/ryanmor/projects/gdal2tilesp"
```

```
#PYTHONPATH
export PYTHONPATH="/usr/local/bin/python:$PYTHONPATH"
```

```
/usr/local/Cellar/python@2/2.7.15_1/Frameworks/Python.framework/Versions/2.7/Resources/Python.app/Contents/MacOS/Python

node_modules/.bin/tl copy -z 7 -Z 7 -b '-180.0 16.3 -64.1 71.44' 'http://localhost:8000/{Z}/{X}/{Y}/' mbtiles://./z6.mbtiles
```

```
/Users/ryanmor/Documents/rmbackup/desktop_9-9/desktop_3-25-16/desktop_01-12-16/desktop_10-29-15/patch.sh

/Users/ryanmor/projects/tl/mbutil/newengland.mbtiles /Users/ryanmor/projects/tl/mbutil/newengland2.mbtiles

Patch /Users/ryanmor/projects/tl/mbutil/newengland.mbtiles => /Users/ryanmor/projects/tl/mbutil/newengland2.mbtiles
```

```
node_modules/.bin/tl copy -z 2 -Z 6 'raster+file://./map_36000_mercGRAY_v2.tif' mbtiles://./newgray06.mbtiles

this one worked for me: http://matplotlib.org/faq/
```

osx_framework.html#pythonhome-script

i named my script "frameworkpython" and put it here:

/Users/ryanmor/.virtualenvs/nhgis/bin (the bin folder for the virtualenv i created for the project originally "mkvirtualenv nhgis")

then i made it executable chmod +x frameworkpython

then i edited these two lines:

PYVER=2.7
PATHTOPYTHON=/usr/local/bin/

so now instead of python scriptname.py

i do

frameworkpython scriptname.py

that invokes the FRAMEWORK version of python outside of the virutalenv rather than the one inside the virtual env

more here:

https://wiki.wxpython.org/wxPythonVirtualenvOnMac

ogr2ogr -f 'GeoJSON' dest.geojson /vsizip/California.zip/zipped_dir/in.geojson

ogr2ogr -f 'GeoJSON' dest.geojson /vsizip/California.zip/zipped_dir/in.geojson -clipsrc -123.1532 36.8871 -121.0604 38.3572

ogr2ogr -f "ESRI Shapefile" output.shp input.shp -clipsrc <x_min> <y_min> <x_max> <y_max>

gdal_rasterize -tr .001 .001 -burn 255 -te -123.1532 36.8871 -121.0604 38.3572 -l California California.geojson calif.tif

gdal_rasterize -tr .0001 .0001 -burn 255 -te -123.1532 36.8871 -121.0604 38.3572 -l California /vsizip/California.zip/California.geojson calif.tif

for f in calif-chunks* ; do cat head $f tail > $f.json && rm -f $f ;

```
done

for f in calif-chunks*.json ; do gdal_rasterize -tr .0001 .0001 -burn
255 -l California f.tif $f ; done


**********

for f in calif-chunks*.json ; do ogr2ogr -clipsrc -123.1532 36.8871
-121.0604 38.3572 -t_srs EPSG:3310 $f $f ; done

ogr2ogr output.shp -t_srs "EPSG:4326" input.shp

for f in calif-chunks*.json ; do gdal_rasterize -te -123.1532 36.8871
-121.0604 38.3572 -tr .0001 .0001 -burn 255 -l ${f%.*} $f $f.tif ;
done




WORKS:
ogr2ogr -clipsrc -123.1532 36.8871 -121.0604 38.3572 -a_srs EPSG:4326
-t_srs EPSG:3310 x.shp calif-chunksag.json

for f in calif-chunks*.json ; do ogr2ogr -clipsrc -123.1532 36.8871
-121.0604 38.3572 -a_srs EPSG:4326 -t_srs EPSG:3310 ${f%.*}.shp $f ;
done


WORKS: but with erroneous error about not being able to open file with
driver...

for f in $(ls *.json);
do

  ogr2ogr -clipsrc -123.1532 36.8871 -121.0604 38.3572 -a_srs
EPSG:4326 -t_srs EPSG:3310 ${f%.*}.shp $f

done



for f in $(ls *.shp);
do

  ogr2ogr -append -update merged/merged.shp $f

done
```

******for ref

```
for shp in $(ls *.shp);
do
  ogr2ogr -f "PostgreSQL" PG:dbname=weareus2 -append -skipfailures
-t_srs EPSG:3857 -nln public.abc -nlt MULTIPOLYGON $shp


done
```

GroundX, GroundY, Long, Lat
-268280.033, 41959.262, -123 04 27.29975, 38 21 16.86421
-92620.033, -124720.738, -121 02 26.51744, 36 53 23.35464

-92620.033,-124720.738,-268280.033,41959.262

-268280.033, 41959.262, -92620.033, -124720.738 (NOPE SEE FIRST TRY IMAGE)

-268280.033, -92620.033, 41959.262, -124720.738

41959.262, -124720.738, -268280.033, -92620.033

maximum-extent="-92620.033, -124720.738, -268280.033, 41959.262" NO

maximum-extent="-124720.738, -92620.033, 41959.262, -268280.033"

Corner Coordinates:
Upper Left (-268280.033,   41959.262) (123d 4'27.30"W, 38d21'16.86"N)
Lower Left (-268280.033, -124740.738) (123d 0'48.79"W, 36d51'21.06"N)
Upper Right (-92600.033,   41959.262) (121d 3'41.19"W, 38d23'20.95"N)
Lower Right (-92600.033, -124740.738) (121d 2'25.70"W, 36d53'22.71"N)
Center   (-180440.033, -41390.738) (122d 2'50.83"W, 37d37'35.43"N)

If present, identifies the layer extents and has the following form: minX,minY,maxX,maxY

```
CREATE TABLE california AS
  SELECT * FROM allstates WHERE state = 'California';

ORIGINAL

              <Parameter
name="extent">-14519366.3968,2719935.2145,-6613943.1835,6496535.9080</
Parameter> original


                          <Parameter
name="extent">-13728090.2800,4445577.5651,-13500613.6838,4588667.6820<
/Parameter> works for zoom in

GroundX, GroundY, Long, Lat
-241083.837, -3470.684, -122 44 51.74839, 37 57 13.38093
-153658.491, -108219.334, -121 43 47.28638, 37 01 48.86277

-241083.837,-108219.334,-153658.491,-3470.684

maxx    Right top x-coordinate in map units.
maxy    Right top y-coordinate in map units.
minx    Left bottom x-coordinate in map units.
miny    Left bottom y-coordinate in map units.

array of extent in the form of [minx,miny,maxx,maxy]


-241080.033, -108220.738, -153640.033, -3460.738


GroundX, GroundY, Long, Lat
-241080.033, -3460.738, -122 44 51.60421, 37 57 13.70645
-153660.033, -108200.738, -121 43 47.36261, 37 01 49.46402


ALTER TABLE california
 ALTER COLUMN wkb_geometry TYPE geometry(MultiPolygon,3310)
  USING ST_Transform(wkb_geometry,3310);

  CREATE TABLE california3310 AS
  SELECT * FROM allstates WHERE state = 'California';

GroundX, GroundY, Long, Lat
-241075.084, -3479.885, -122 44 51.37852, 37 57 13.09132
-153655.084, -108219.885, -121 43 47.14795, 37 01 48.84694

sage:
```

```
>>> extent = Box2d(-180.0, -90.0, 180.0, 90.0)
>>> m.zoom_to_box(extent)

-241075.084, -108219.885, -153655.084, -3479.885

GroundX, GroundY, Long, Lat
-13700562.832, 4634546.904, -123 04 27.29975, 38 23 20.95130
-13474182.832, 4419046.904, -121 02 26.31765, 36 51 21.41621


PixelX, PixelY, GroundX, GroundY, Long, Lat
0, 0, -13700562.832, 4634546.904, -123 04 27.29975, 38 23 20.95130
11319, 10775, -13474182.832, 4419046.904, -121 02 26.31765, 36 51
21.41621




Upper Left  (-13700562.832, 4634546.904) (123d 4'27.30"W,
38d23'20.95"N)
Lower Left  (-13700562.832, 4419026.904) (123d 4'27.30"W,
36d51'20.90"N)
Upper Right (-13474162.832, 4634546.904) (121d 2'25.67"W,
38d23'20.95"N)
Lower Right (-13474162.832, 4419026.904) (121d 2'25.67"W,
36d51'20.90"N)
Center      (-13587362.832, 4526786.904) (122d 3'26.49"W,
37d37'35.16"N)

node_modules/.bin/tl copy -z 6 -Z 6 -b '-180 53.173119 -129.023438
72.315785' 'http://localhost:8000/{Z}/{X}/{Y}/' mbtiles://./gray/
z6grayALASKA.mbtiles

mb-util /Users/ryanmor/projects/tlry/gray/z6grayALASKA.mbtiles /Users/
ryanmor/projects/tlry/gray/z6grayALASKA


node_modules/.bin/tl copy -z 6 -Z 6 -b '-160.784912 18.490029
-154.226074 22.705255' 'http://localhost:8000/{Z}/{X}/{Y}/'
mbtiles://./gray/z6grayHAWAII.mbtiles

mb-util /Users/ryanmor/projects/tlry/gray/z6grayHAWAII.mbtiles /Users/
ryanmor/projects/tlry/gray/z6grayHAWAII
```

ideas

https://combined-transport.eu/the-new-silk-road-obor#prettyPhoto/0/
https://www.quora.com/Which-ocean-has-the-most-shipping-lanes
https://ops.fhwa.dot.gov/freight/freight_analysis/nat_freight_stats/compofmajorfghtcorr.htm
https://transportgeography.org/wp-content/uploads/Map_Busiest-Air-Travel-Routes.pdf
https://www.routledge.com/The-Geography-of-Transport-Systems-4th-Edition/Rodrigue-Comtois-Slack/p/book/9781138669574

https://www.book2look.com/embed/9781317210092
http://www.apta.com/resources/statistics/Pages/default.aspx
https://planitmetro.com/2016/03/24/data-download-metrorail-ridership-by-station-by-month-2010-2015/
https://www.fhwa.dot.gov/policyinformation/statistics/2014/index.cfm#sec4
http://www.arcgis.com/home/webmap/viewer.html?url=https%3A%2F%2Fcoast.noaa.gov%2Farcgis%2Frest%2Fservices%2FMarineCadastre%2F2013VesselDensity%2FMapServer&source=sd

https://catalog.data.gov/dataset?q=Traffic+Counts

https://www.ncdc.noaa.gov/data-access/severe-weather/lightning-products-and-services

more random

```
raster2pgsql -I -C -e -Y -F -s 3857 -t 256x256  -l 2,4 /Users/ryanmor/projects/ngm-lightning-flashes-map/Lightning_data/02_GIS/VHRCF_full_climatology/extractedmerc.tif | psql -U ryanmor -d raster
```

copy all dems to another folder:

```
find /Users/ryanmor/Box\ Sync/OOEW_workingFiles/data/GTOPO30 -name '*.dem' -exec cp {} /Users/ryanmor/Desktop/try/ \;

cp -r /Users/ryanmor/Box\ Sync/OOEW_workingFiles/data/GTOPO30/. /Users/ryanmor/Desktop/try/
z


gdalwarp -t_srs '+proj=aeqd +lat_0=40 +lon_0=130 +x_0=0 +y_0=0 +datum=WGS84 +units=m +no_defs' -tr 1500 1500 -r cubic gt30e020n40.dem gt30e020n40RYAN.asc



#!/bin/bash
```

```
         for i in {1..34}
do
   echo -e $flashred"processing file... $i"$none
   gdalwarp -t_srs '+proj=aeqd +lat_0=40 +lon_0=130 +x_0=0 +y_0=0
+datum=WGS84 +units=m +no_defs' -tr 1500 1500 -r cubic $i.dem $i.asc

done

# GitHub pages

collection of news dev github pages


NPR ttps://github.com/nprapps

Chicago Trib https://github.com/newsapps

texas trib no public but ryan murphy https://github.com/rdmurphy
al

Al Jazeera America https://github.com/ajam

WSJ https://github.com/wsj

Guardian https://github.com/guardian

L.A. times https://github.com/datadesk

propublica https://github.com/propublica

wnyc https://github.com/wnyc

nyt https://github.com/newsdev

boston globe https://github.com/BostonGlobe


# overpass

/*
This has been generated by the overpass-turbo wizard.
The original search was:
“waterway=* in Chicago”
*/
[out:json][timeout:25];
```

```
// fetch area “Chicago” to search in
{{geocodeArea:Chicago}}->.searchArea;
// gather results
(
  // query part for: “waterway=*”
  //node["waterway"](area.searchArea);
  //way["waterway"](area.searchArea);
  relation[name="Des Plaines River"](area.searchArea);
);
// print results
out body;
>;
out skel qt;



//////////////////////////////////////mississippi river


[out:json];
// fetch area “united states” to search in
{{geocodeArea:united states}}->.searchArea;
// gather results
(

  relation[name="Mississippi River"](area.searchArea);
);
// print results
out body;
>;
out skel qt;




//////////////////////////////////////missouri river


[out:json];
// fetch area “united states” to search in
{{geocodeArea:united states}}->.searchArea;
// gather results
(

  relation[name="Missouri River"](area.searchArea);
);
// print results
out body;
>;
```

```
out skel qt;

////////////////////////////////////US 1 ref ??? way not relation


[out:json];
// fetch area “united states” to search in
{{geocodeArea:united states}}->.searchArea;
// gather results
(

  way[ref="US 1"] (area.searchArea);
);
// print results
out body;
>;
out skel qt;



https://overpass-turbo.eu/#

https://nominatim.openstreetmap.org/

http://lxbarth.com/bbox/
#-135.00000,9.4711177,-50.273438,55.391812,2,33.45009976929368,6.32812
50000000115

# random

[Is there a Mapbox GL renderer that outputs SVG? - Geographic
Information Systems Stack Exchange](https://gis.stackexchange.com/
questions/214485/is-there-a-mapbox-gl-renderer-that-outputs-svg)

ogr2ogr -f "PostgreSQL" PG:dbname=weareus2 -append -skipfailures
-t_srs EPSG:3857 -nln public.abc -nlt MULTIPOLYGON
MD_block_2010_area.shp


for shp in $(ls *.shp);
do
  ogr2ogr -f "PostgreSQL" PG:dbname=weareus2 -append -skipfailures
-t_srs EPSG:3857 -nln public.abc -nlt MULTIPOLYGON $shp

done

https://stackoverflow.com/questions/20033111/python-pandas-add-column-
for-row-wise-max-value-of-selected-columns
```

https://stackoverflow.com/questions/29919306/find-the-column-name-which-has-the-maximum-value-for-each-row

https://chrisalbon.com/python/data_wrangling/pandas_list_unique_values_in_column/

https://stackoverflow.com/questions/21733893/pandas-dataframe-add-a-field-based-on-multiple-if-statements

https://stackoverflow.com/questions/25748683/pandas-sum-dataframe-rows-for-given-columns/25748826

https://pandas.pydata.org/pandas-docs/stable/generated/pandas.DataFrame.head.html

https://stackoverflow.com/questions/23539832/how-to-calculate-percentage-with-pandas-dataframe

https://stackoverflow.com/questions/20033111/python-pandas-add-column-for-row-wise-max-value-of-selected-columns

```
node_modules/.bin/tl copy -z 2 -Z 6 '/Users/ryanmor/projects/tlry/georeferencedmercCROPPED.tif' mbtiles://./0-6.mbtiles

node_modules/.bin/tl copy -z 0 -Z 3 -b "-127.3,24.1,-66.0,49.7" "http://localhost:8000/{Z}/{X}/{Y}/" mbtiles://./weareus0-3.mbtiles

node_modules/.bin/tl copy -z 0 -Z 4 -b '-180.0 -85.05 180.0 85.05' 'http://tile.stamen.com/watercolor/{z}/{x}/{y}.png' mbtiles://./testtiles.mbtiles

'http://localhost:8000/{Z}/{X}/{Y}/'

node_modules/.bin/tl copy -z 5 -Z 5 -b '-180.0 -85.05 180.0 85.05' 'http://localhost:8000/{Z}/{X}/{Y}/' mbtiles://./testtilesa.mbtiles


node_modules/.bin/tl copy -z 9 -Z 9 -b '-180.0 -85.05 180.0 85.05' 'http://localhost:8000/{Z}/{X}/{Y}/' mbtiles://./9.mbtiles



nebraska -104.0535 39.9999 -95.3083 43.0017

node_modules/.bin/tl copy -z 9 -Z 11 -b '-104.0535 39.9999 -95.3083 43.0017' 'http://localhost:8000/{Z}/{X}/{Y}/' mbtiles://./nebraska.mbtiles

alaska 172.35 51.18 -129.98 71.44
```

```
node_modules/.bin/tl copy -z 4 -Z 11 -b '-180.0 51.18 -129.98 71.44'
'http://localhost:8000/{Z}/{X}/{Y}/' mbtiles://./alaska.mbtiles

for shp in $(ls *.shp);
do
  ogr2ogr -f "PostgreSQL" PG:dbname=weareus_22 -append -skipfailures
-t_srs EPSG:3857 -nln public.allstates -nlt MULTIPOLYGON $shp

done

node_modules/.bin/tl copy -z 0 -Z 12 -b "-131.3 22.8 -63.1 50.6"
"http://localhost:8000/{Z}/{X}/{Y}/" mbtiles://./BIG.mbtiles

gdal_merge.py -init 255 -o merged.tif w123n37n.tif w122n37n.tif

gdal_rasterize -ts 2000 2000 -burn 255 -l w123n37n w123n37n.shp -a_srs
EPSG:4326  w123n37n.tif

# matplotlib bbox

[python - Definition of matplotlib.pyplot.axes.bbox - Stack Overflow]
(https://stackoverflow.com/questions/29809238/definition-of-
matplotlib-pyplot-axes-bbox)

python make_geotifftry2.py (workon osgeo)

python visualize_v2.py (works nhgis)

[Creating a GeoTIFF in Python — Cameron Cooke — Number Cruncher]
(http://cgcooke.github.io/GDAL/)

[matplotlib.pyplot.savefig — Matplotlib 3.0.0 documentation](https://
matplotlib.org/api/_as_gen/matplotlib.pyplot.savefig.html)

[python - Opening PNG with PIL/Pillow - Stack Overflow](https://
stackoverflow.com/questions/29107694/opening-png-with-pil-pillow)

[numpy.ndarray.argmax — NumPy v1.15 Manual](https://docs.scipy.org/
doc/numpy/reference/generated/
numpy.ndarray.argmax.html#numpy.ndarray.argmax)

[python - Matplotlib plots: removing axis, legends and white spaces -
Stack Overflow](https://stackoverflow.com/questions/9295026/
matplotlib-plots-removing-axis-legends-and-white-spaces)

[python - how to find minimum/maximum values axis by axis in numpy
array - Stack Overflow](https://stackoverflow.com/questions/35930617/
how-to-find-minimum-maximum-values-axis-by-axis-in-numpy-array)

[2.6. Image manipulation and processing using Numpy and Scipy — Scipy
```

lecture notes](http://www.scipy-lectures.org/advanced/image_processing/)

[PythonGotchas – GDAL](https://trac.osgeo.org/gdal/wiki/PythonGotchas)

[Installing GDAL in a Python virtual environment · GitHub](https://gist.github.com/cspanring/5680334)

micros

collected excel from 8 different countries

going to advance

working for PAME since 2014

MASTERS THESIS ON ARCTIC SHIPPING

allow us to do a lot of things

100 compatible data goes back to 2013

could compare data to 2004 – 2018 different ways to collect data
now via satellite (last 5 years)

consulting with NOAA not comfortable 2004

fuel ships are using is of interest

how much ships are pollution

bulk carriers high polluting
opened mine brings a lot of pollution

identify case study

case study cruise ships and passenger ships

huge ships outside the coast of greenland (some times 4000 people on board)

very remote

also density maps for total

which are biggest polluters

climate change ship emissions

risks of shipping hitting ice

exclusive economic zone definition of arctic
each state regulates their own

could a

polar code area is another (smaller area) regulated by

2013-2017
both areas all ship types all year

unique ships

distance sailed from 2013 - 2017 operational hours, how much time was spent

pass lines (Trip wire) to see what's passing a line

can also draw area and analyze shipping

ship types

300 ship types in world

aggregate to 15 types

wears adding alaska and hawaii z6

```
node_modules/.bin/tl copy -z 6 -Z 6 -b '-180 53.173119 -129.023438 72.315785' 'http://localhost:8000/{Z}/{X}/{Y}/' mbtiles://./gray/z6grayALASKA.mbtiles
```

```
mb-util /Users/ryanmor/projects/tlry/gray/z6grayALASKA.mbtiles /Users/ryanmor/projects/tlry/gray/z6grayALASKA
```

```
node_modules/.bin/tl copy -z 6 -Z 6 -b '-160.784912 18.490029 -154.226074 22.705255' 'http://localhost:8000/{Z}/{X}/{Y}/' mbtiles://./gray/z6grayHAWAII.mbtiles
```

```
mb-util /Users/ryanmor/projects/tlry/gray/z6grayHAWAII.mbtiles /Users/ryanmor/projects/tlry/gray/z6grayHAWAII
```

from osgeo import gdal SOLUTION!! #python

[python - Install GDAL in virtualenvwrapper environment - Stack Overflow](https://stackoverflow.com/questions/32066828/install-gdal-in-virtualenvwrapper-environment)

recent round of command line stuff for WeAreUS
duck --upload sftp://rmorris@access.nationalgeographic.com/home/rmorris/tiles/weareus_v5/ /Users/ryanmor/projects/tlry/gray/newz06graybig06/6 -q -e overwrite --parallel 100

node_modules/.bin/tl copy -z 2 -Z 6 'raster+file://./map_36000_mercGRAY_v2big.tif' mbtiles://./newgray06big.mbtiles

mb-util /Users/ryanmor/projects/tlry/newgray06big.mbtiles /Users/ryanmor/projects/tlry/gray/newz06graybig06

if you want alpha geotiff

use big tiff format from geographic imager

cyberduck commandline

duck --upload sftp://rmorris@access.nationalgeographic.com/home/rmorris/tiles/weareus_v5/ /Users/ryanmor/projects/tlry/gray/z8gray/8 -q -e resume --parallel 100
#cartographynode

duck -D sftp://rmorris@access.nationalgeographic.com/home/rmorris/tiles/weareus_v3/
Deleting weareus_v3…
Execution time: 0h:00m:04s

z8 Execution time: 0h:00m:29s
z9 Execution time: 0h:01m:37s
z10 Execution time: 0h:15m:19s
z11 0h:27m:54s
z12 Execution time: 1h:35m:22s

time for mapnik to render 36,000 px image of US
Execution time: 0h:08m:28s

upload times:

__z12
6.87 GB (1,311,089 items)
Execution time: 2h:00m:07s

__z11
Execution time: 0h:34m:05s

__z10

things to look at when time

[GitHub - camptocamp/tilecloud: A powerful utility for generating, managing, transforming, and visualizing map tiles in multiple formats.](https://github.com/camptocamp/tilecloud)

gray render
node_modules/.bin/tl copy -z 11 -Z 11 -b '-180.0 16.3 -64.1 71.44' 'http://localhost:8000/{Z}/{X}/{Y}/' mbtiles://./gray/z12gray.mbtiles

zoom7 ?
zoom 8 Execution time: 0h:05m:00s
zoom 9 Execution time: 0h:10m:37s
zoom 10 Execution time: 0h:36m:44s
zoom 11 Execution time: 1h:55m:12s
zoom 12 8h:35m:26s

to render 36,000 x 18,000 px mercy of contiguous U.S. (1.81 Gigs)
Execution time: 0h:06m:49s

`node forlessthanz6merc.js`

the georeference it

then tile it

`node_modules/.bin/tl copy -z 2 -Z 6 'raster+file://./map_36000_mercGRAY.tif' mbtiles://./2to6gray.mbtiles1`

Execution time: 0h:03m:05s

*****EXTRA CREDIT BONUS GOTCHA: MAKE SURE PS ISN’T RUNNING CUZ IT WILL BLOCK YOUR NODE SCRIPT……******

#

fire

[antonio vecoli on Twitter: “With this 3D mosaic of multiple #Sentinel2 subsets, burn scars of the two largest #California wildfires in 2018 are clearly visible, together with the current active #DeltaFire. Processing and data available at https://t.co/3btxJ8W570… https://t.co/ajWH10IU64”](https://twitter.com/tonyveco/status/1039915834867687425)

more microsoft buildings for Silicon valley

to break down big california geojson into workable parts

do what this guy says (answer that starts with “Unfortunately JSON is, much like XML, badly suited for”)

[convert - Alternatives to ogr2ogr for loading large GeoJson file(s) to PostGIS - Geographic Information Systems Stack Exchange](https://gis.stackexchange.com/questions/16340/alternatives-to-ogr2ogr-for-loading-large-geojson-files-to-postgis)

then

WORKS: but with erroneous error about not being able to open file with driver...

this clips to relevant area, retrojects to required projection, and exports to shape files

```
for f in $(ls *.json);
do

  ogr2ogr -clipsrc -123.1532 36.8871 -121.0604 38.3572 -a_srs EPSG:4326 -t_srs EPSG:3310 ${f%.*}.shp $f

done
```

THEN

MERGE TO ONE SHAPEFILE

```
for f in $(ls *.shp);
do

  ogr2ogr -append -update merged/merged.shp $f

done
```

THEN RASTERIZE AT REQUIRED RESOLUTION

gdal_rasterize -tr 20 20 -burn 255 merged.shp svbuild.tif

THEN clip to specific area in Geographic imager and overlay in NSD
“stretch to fit” because california albers not supported

OTHER RESOURCES:
WHAT KILLED MY PROCESS?
[linux - What killed my process and why? - Stack Overflow](https://stackoverflow.com/questions/726690/what-killed-my-process-and-why)

READ FROM ZIPPED FILE
[GDAL: GDAL Virtual File Systems (compressed, network hosted, etc…): /vsimem, /vsizip, /vsitar, /vsicurl, …](https://www.gdal.org/gdal_virtual_file_systems.html)

ulimit stuff

[Apple - Lists.apple.com](https://lists.apple.com/archives/darwin-kernel/2008/Mar/msg00025.html)
[Increase the open files limit on Linux](https://ro-che.info/articles/2017-03-26-increase-open-files-limit)
[ulimit Man Page - macOS - SS64.com](https://ss64.com/osx/ulimit.html)
[IBM Knowledge Center](https://www.ibm.com/support/knowledgecenter/en/ssw_aix_72/com.ibm.aix.cmds5/ulimit.htm)

SILICON VALLEY LAND GRAB FT
[The great Silicon Valley land grab](http://archive.is/3KJHX)

SAT UTIL

[Sat-utils · GitHub](https://github.com/sat-utils)

HOW TO ZAP SUFFIX IN BASH SCRIPT
[linux - How to extract the filename without the extension from a full path? - Super User](https://superuser.com/questions/731227/how-to-extract-the-filename-without-the-extension-from-a-full-path)

california albers [NAD83 / California Albers: EPSG Projection – Spatial Reference](http://spatialreference.org/ref/epsg/nad83-california-albers/)

WORKS:
ogr2ogr -clipsrc -123.1532 36.8871 -121.0604 38.3572 -a_srs EPSG:4326 -t_srs EPSG:3310 x.shp calif-chunksag.json

#bash

gal rasterize microsoft buildings

gdal_rasterize -ts 1000 1000 -burn 255 -l DistrictofColumbia DistrictofColumbia.geojson a.tif
#bash

gdal_rasterize -tr .0001 .0001 -burn 255 -te -74.4155 40.3994 -71.399 41.1493 -l NewYork NewYork.geojson d.tif

makes a 1.81G image

notes silicon valley

housing expansion

show land use over time (how much agricultural land is lost and when how much)

#bash

Pillow
#gotcha
gotta use this pillow https://stackoverflow.com/questions/49969800/why-is-pip-installing-pillow-for-os-x-10-12-when-i-have-os-x-10-11-installed/49987984#49987984

Google Earth Engine links (AWS etc)
[Registry of Open Data on AWS](https://registry.opendata.aws/)
[Image Visualization | Google Earth Engine API | Google Developers](https://developers.google.com/earth-engine/image_visualization)

[Sentinel-2 Data | Cloud Storage Documentation | Google Cloud](https://cloud.google.com/storage/docs/public-datasets/sentinel-2)

[FAQ – Google Earth Engine](https://earthengine.google.com/faq/)
#data# #web-mapping

tl and geographic imager to georeference
[image:80034BA6-0261-4A1F-BFE0-98C5F7895D48-90237-0000A49AFB7B225F/Screen Shot 2018-09-02 at 9.03.22 PM.png]

mode cap seems to need one more transformation in order to burn tiles.

i exported tiles directly from GI to 06_v2 mbtiles on desktop
#cartographynode

raster to tiles node

/Users/ryanmor/projects/tlry

node_modules/.bin/tl copy -z 2 -Z 6 'raster+file://./
georeferencedmercCROPPED.tif' mbtiles://./06.mbtiles

worked!!

#cartographynode

#

 [geotiff - npm](https://www.npmjs.com/package/geotiff)
#cartographynode

[mapbox/node-mapnik-bench - Libraries.io](https://libraries.io/github/
mapbox/node-mapnik-bench)

error when trying to render zoom 6

6/12/20 334
6/15/20 334
6/13/20 334
6/16/20 334
6/17/20 334
6/18/20 334
6/19/20 334
6/20/20 334
6/0/21 3752
6/1/21 1593
6/2/21 334
6/3/21 334
6/4/21 334
6/5/21 334
6/6/21 334
6/7/21 334
6/8/21 334
6/9/21 334
6/12/21 3201
6/11/21 3911
6/10/21 3468
6/13/21 4018
6/17/21 334
6/18/21 334

6/19/21 334
6/20/21 334
6/0/22 334
6/16/21 334
6/1/22 334
6/2/22 334
6/3/22 334
6/4/22 334
6/5/22 334
6/6/22 334
6/7/22 334
6/8/22 334
6/15/21 1858
6/14/21 4963
6/12/22 138131
6/9/22 12576
6/11/22 140265
6/13/22 146322
6/10/22 157792
6/14/22 191687
6/16/22 69786
6/17/22 7459
6/20/22 1167
6/18/22 334
6/1/23 334
6/0/23 334
6/2/23 334
6/3/23 334
6/4/23 334
6/5/23 334
6/6/23 334
6/8/23 334
6/7/23 334
6/19/22 37974
6/15/22 144972
6/9/23 17626
6/10/23 136400
6/11/23 120676
6/12/23 121736
6/13/23 148016
6/14/23 186340
6/1/24 334
6/2/24 334
6/3/24 334
6/4/24 334
6/5/24 334
6/6/24 334
6/7/24 334
6/8/24 334
6/9/24 6474

```
6/10/24  148914
6/11/24  91428
6/12/24  129487
6/13/24  166260
6/14/24  202137
6/15/23  194721
6/17/23  90088
6/20/23  2993
6/0/24   334
Error reading 6/16/23: Error: ESOCKETTIMEDOUT
    at ClientRequest.<anonymous> (/Users/ryanmor/projects/tlry/
node_modules/request/request.js:816:19)
    at Object.onceWrapper (events.js:272:13)
    at ClientRequest.emit (events.js:180:13)
    at Socket.emitTimeout (_http_client.js:702:34)
    at Object.onceWrapper (events.js:272:13)
    at Socket.emit (events.js:180:13)
    at Socket._onTimeout (net.js:393:8)
    at ontimeout (timers.js:466:11)
    at tryOnTimeout (timers.js:304:5)
    at Timer.listOnTimeout (timers.js:267:5)
Error: ESOCKETTIMEDOUT
    at ClientRequest.<anonymous> (/Users/ryanmor/projects/tlry/
node_modules/request/request.js:816:19)
    at Object.onceWrapper (events.js:272:13)
    at ClientRequest.emit (events.js:180:13)
    at Socket.emitTimeout (_http_client.js:702:34)
    at Object.onceWrapper (events.js:272:13)
    at Socket.emit (events.js:180:13)
    at Socket._onTimeout (net.js:393:8)
    at ontimeout (timers.js:466:11)
    at tryOnTimeout (timers.js:304:5)
    at Timer.listOnTimeout (timers.js:267:5)
Error reading 6/18/23: Error: ESOCKETTIMEDOUT
    at ClientRequest.<anonymous> (/Users/ryanmor/projects/tlry/
node_modules/request/request.js:816:19)
    at Object.onceWrapper (events.js:272:13)
    at ClientRequest.emit (events.js:180:13)
    at Socket.emitTimeout (_http_client.js:702:34)
    at Object.onceWrapper (events.js:272:13)
    at Socket.emit (events.js:180:13)
    at Socket._onTimeout (net.js:393:8)
    at ontimeout (timers.js:466:11)
    at tryOnTimeout (timers.js:304:5)
    at Timer.listOnTimeout (timers.js:267:5)
Error: ESOCKETTIMEDOUT
    at ClientRequest.<anonymous> (/Users/ryanmor/projects/tlry/
node_modules/request/request.js:816:19)
    at Object.onceWrapper (events.js:272:13)
    at ClientRequest.emit (events.js:180:13)
```

```
    at Socket.emitTimeout (_http_client.js:702:34)
    at Object.onceWrapper (events.js:272:13)
    at Socket.emit (events.js:180:13)
    at Socket._onTimeout (net.js:393:8)
    at ontimeout (timers.js:466:11)
    at tryOnTimeout (timers.js:304:5)
    at Timer.listOnTimeout (timers.js:267:5)
Error reading 6/19/23: Error: ESOCKETTIMEDOUT
    at ClientRequest.<anonymous> (/Users/ryanmor/projects/tlry/
node_modules/request/request.js:816:19)
    at Object.onceWrapper (events.js:272:13)
    at ClientRequest.emit (events.js:180:13)
    at Socket.emitTimeout (_http_client.js:702:34)
    at Object.onceWrapper (events.js:272:13)
    at Socket.emit (events.js:180:13)
    at Socket._onTimeout (net.js:393:8)
    at ontimeout (timers.js:466:11)
    at tryOnTimeout (timers.js:304:5)
    at Timer.listOnTimeout (timers.js:267:5)
Error: ESOCKETTIMEDOUT
    at ClientRequest.<anonymous> (/Users/ryanmor/projects/tlry/
node_modules/request/request.js:816:19)
    at Object.onceWrapper (events.js:272:13)
    at ClientRequest.emit (events.js:180:13)
    at Socket.emitTimeout (_http_client.js:702:34)
    at Object.onceWrapper (events.js:272:13)
    at Socket.emit (events.js:180:13)
    at Socket._onTimeout (net.js:393:8)
    at ontimeout (timers.js:466:11)
    at tryOnTimeout (timers.js:304:5)
    at Timer.listOnTimeout (timers.js:267:5)

#cartographynode

# tilesplash notes

Make sure data uploaded to postgres is EPSG:4326 (WGS 84)



[image:26540D48-B7E0-4019-93D0-29FAB2AC2736-96132-000014BBA81A73B8/
unknown.png]


What projection is my data?



SELECT ST_SRID(wkb_geometry) FROM rivers LIMIT 1;
```

Change projection

SELECT UpdateGeometrySRID('rivers','wkb_geometry',4326);

https://postgis.net/docs/UpdateGeometrySRID.html

#cartographynode

from /Users/ryanmor/projects/tl_try2/tl/bin

`node_modules/.bin/tl copy -z 4 -Z 11 -b '-180.0 51.18 -129.98 71.44' 'http://localhost:8000/{Z}/{X}/{Y}/' mbtiles://./alaska.mbtiles`

above works from `/Users/ryanmor/projects/tlry`

#cartographynode `tl copy -z 11 -Z 11 -b "-88.978271 30.164126 -87.352295 31.194008" -r tilelive-http "http://localhost:8000/{Z}/{X}/{Y}/" mbtiles://./BADBREADmobile.mbtiles`

this is the new version of tl (v0.10.2) but here you have to require, with the -r flag, the http tilelive module #node #bash #mbtiles

[npm Documentation](https://docs.npmjs.com/all)
#node

silicon valley interim

map to show spread of silicon valley over time *what is silicon valley geography

show demographics?

wealth creation - housing costs

what is the tech of the day

now hardware robots because sensors lidar less expensive and data because machine learning and ar / vr etc

#[Fire Information for Resource Management System (FIRMS) | Earthdata](https://earthdata.nasa.gov/earth-observation-data/near-real-time/firms)

#cartography #fire #data

[NASA GISS: G.Projector – Global Map Projector](https://www.giss.nasa.gov/tools/gprojector/) #cartography #software

Welcome to Bear
[image:SFNoteIntro0_File0/Welcome@2x.jpg]

Bear is a beautiful, flexible writing app for notes and prose. It's easy to get started and master Bear, so let's show you around.

Bear has three parts 📐
Bear has three main columns where you create, edit, and organize your notes:

* *Sidebar* (on the left): when you add tags anywhere in your notes, Bear will collect them in this sidebar. Think of them like folders you can create and use on the fly, while you write.
* *Notes List* (in the middle): all your notes live here, ordered by modification date. You can *pin a note* to the top of this list for quick access.
* *Editor* (on the right): this is where your magic happens; you're looking at it. 😄

Bear has style 🔪
Bear supports many text styles like: *bold*, /italic/, _underline_, -strike-, headings 1-6, and others. You can find shortcuts for them in the /style panel/:

* on a Mac, click on the pen symbol in the bottom right of the Editor
* On an iPhone or iPad, it's in Bear's shortcut bar above the keyboard

Bear also has a range of themes to give you a comfortable, beautiful writing canvas. They are part of the features you can unlock with an in-app [Bear Pro](bear://x-callback-url/open-bear-pro) subscription.

Link notes together ⛓
One of Bear's really fun and useful features is Note Linking. It's great for quickly moving between multiple notes in a project, creating a choose-your-own adventure, or using more than one note to explain an app's features! Speaking of, continue your Bear introduction in [[Organize and publish]]. 😉

#welcome

Organize and Publish
[image:SFNoteIntro1_File0/Organize@2x.jpg]

Let’s learn more about Bear and some of its best features you can start playing with. If you need to start from the beginning, head back to [[Welcome to Bear]] or skip to the final note, [[Bear Pro]].

Work Anywhere ☁️
Your notes are automatically saved as you write; that’s why there’s no save button. 😄

Bear uses Apple’s CloudKit for sync, available via an in-app subscription to [Bear Pro](bear://x-callback-url/open-bear-pro). All your notes will stay in sync across Bear for iPad, iPhone, and Mac.

Bear also supports Handoff between your iPad, iPhone, and Mac. This lets you start a note on one device and *instantly* switch.

Publish Everywhere
The *info panel*, reachable via the ⓘ icon in the Editor, has all your export options for when it’s time to send your notes and prose elsewhere (available with an in-app Bear Pro subscription). You can export to PDF, HTML, Word (DOCX), and even create images of your writing, which are handy for posting on social media and other places that have limited character counts.

The Details
In that information panel you can also find *word count tools* including characters, paragraphs, and an estimated *read time*.

Tags and Sub-Tags
One of Bear’s most powerful features is *tags*. When you add a word with a pound sign like this #welcome, Bear treats that as a sort of folder or category for collecting all notes with that same tag. It's a great way to group multiple notes of ideas, for a project, by topic, or in any way you can imagine.

You can add as many tags as you want to each note, and they’re created on the fly. Just use a word with a pound sign, and Bear takes care of the rest. All tags appear in the Sidebar, the left-most panel of Bear’s window. See [[Welcome to Bear]] to learn more about Bear’s layout and other core features.

But wait, there’s more!
Bear can also group related tags together as sub-tags. For example: say you add a note with the tag #welcome/organize . The /organize/ tag in the Sidebar will become a sub-tag of /welcome/!

Sub-tags work like folders in the sidebar. Tap or click the close/open button next to them, and you'll see their related sub-tags. This gives you even more organizational power with tags in Bear, and we encourage you to give them a try for your workflow.

Finally, Bear supports *multi-word tags* for example: #welcome/tags multiword# Just surround the words with a pound sign on either end.

Learn about Bear Pro
Continue on to the final note, [[Bear Pro]], to learn about a couple more of our favorite features and some handy tips.

Bear Pro
[image:SFNoteIntro2_File0/Pro.jpg]

We're on the home stretch! If you'd like to see the rest of the Bear tour, see [[Welcome to Bear]] and [[Organize and publish]].

Additional Features
Bear and most of its core features are free to use on iPad, iPhone, and Mac. We want everyone to be able to write beautifully and organize notes with our unique tools.

If you want to unlock some extra features and beautiful themes, and support Bear's future development, you can subscribe in-app to [Bear Pro](bear://x-callback-url/open-bear-pro). Subscribing to Bear Pro unlocks:

* *Sync* all your notes between Bear for iPad, iPhone, and Mac. Powered by CloudKit. Learn more about Bear's sync and autosave in [[Organize and publish]].
* *Export* your notes to a variety of formats for publishing and sharing elsewhere.
* *Beautiful Themes* - eight at launch, and more to come, to give you just the right, comfortable environment for your creativity to flourish.

There are free trials for Bear Pro, too. The monthly subscription gives you one free week to try it out. The yearly subscription gives you a free month. Check out [Bear Pro](bear://x-callback-url/open-bear-pro) in the in-app settings on iPad, iPhone, or Mac.

Advanced Search
Bear can instantly search all your notes, but it also has a number of *search triggers* that can zero in on certain *types* of things in your notes.

For example, you can add tasks to notes to help you plan what still needs to be done with them. On iOS, swipe the shortcut bar above the keyboard to the left, and tap the task button (a square with a checkmark). On a Mac, use Format -> Todo -> Toggle.

Now, in Bear's search box, you can type `@todo` or `@task` in to find

all your notes that still have tasks to finish. For bonus points, you can also search `@done` to find all notes with tasks that you've already completed.

Bear's search triggers are: `@todo, @task, @done, @code @tagged, @untagged, @files, @images, @attachments`.
[Check out this video](https://vimeo.com/182400202) to see Bear's search features in action.

Finally, you can use double quotes to search specific phrases, such as `"bear is cool"`

Tips 🎩
All tags in Bear are tappable and clickable. To give it a try, hide the keyboard and tap #welcome/pro — the Notes List will appear and show you all notes that contain it.

On Mac, you can hide the Sidebar and/or Notes List to enjoy distraction-free writing (on iOS, this happens automatically 😉). Use the *layout selector* (the bottom right icon) to see your options.

Feedback 💬
We would /love/ to hear your feedback at bear@shinyfrog.net.

Thank you so much for trying the Bear, and happy writing!

🎉 🐻 🎉