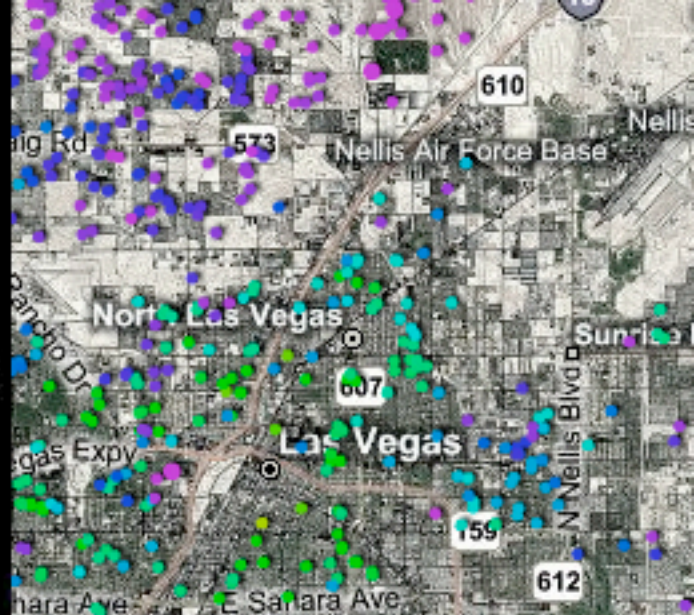
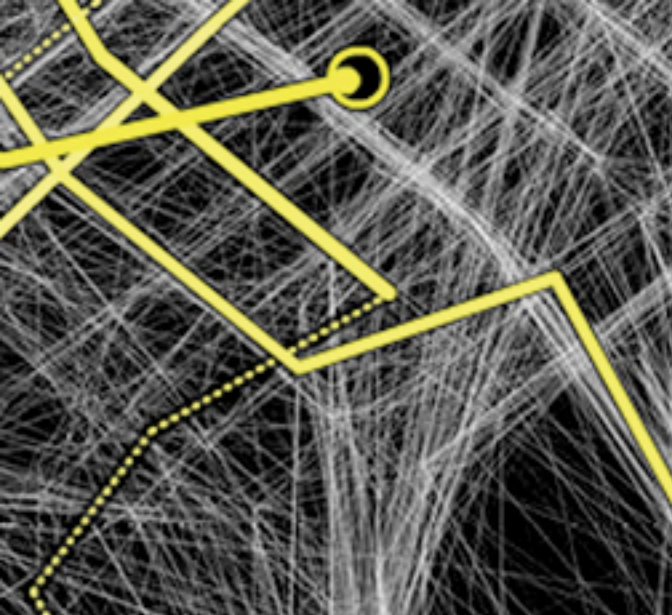


Create Your Own Terrain Maps

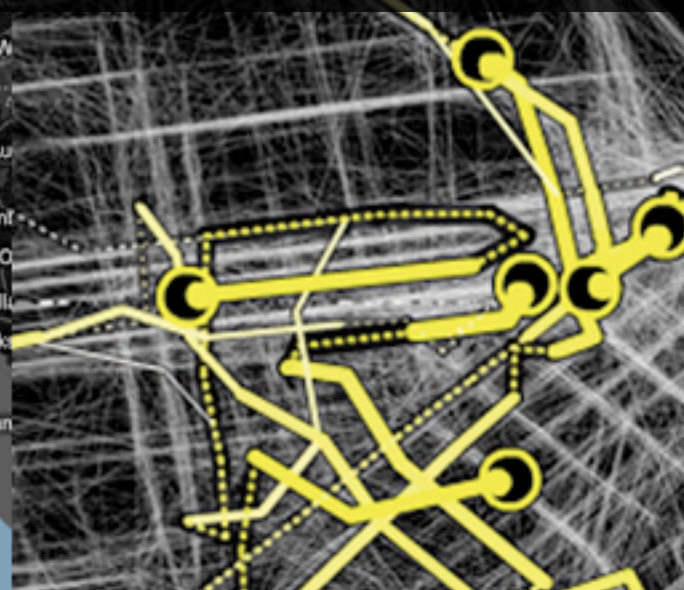
Nathaniel Vaughn Kelso & Michal Migurski
Stamen Design, Portland 2012

We are a fairly small team based in San Francisco

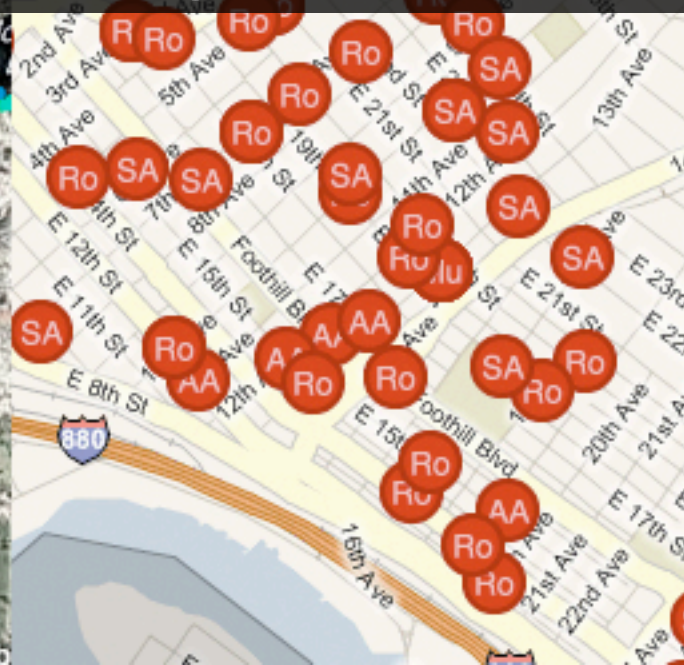
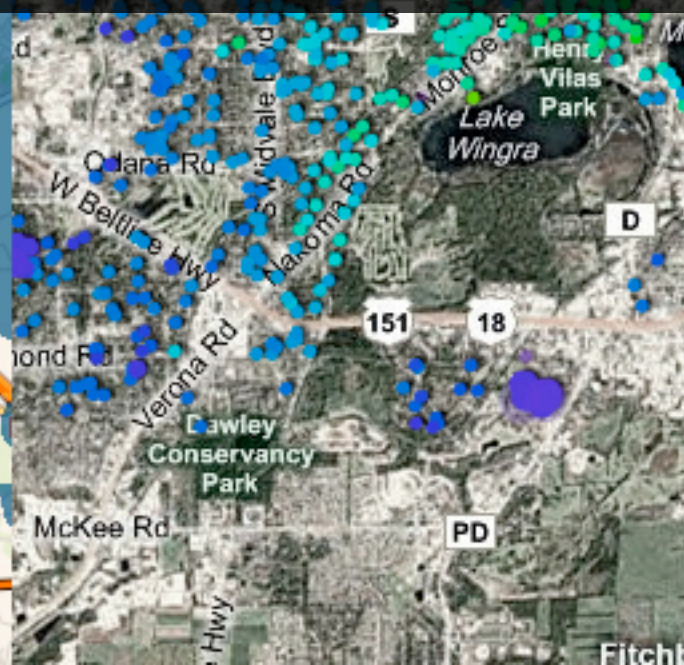
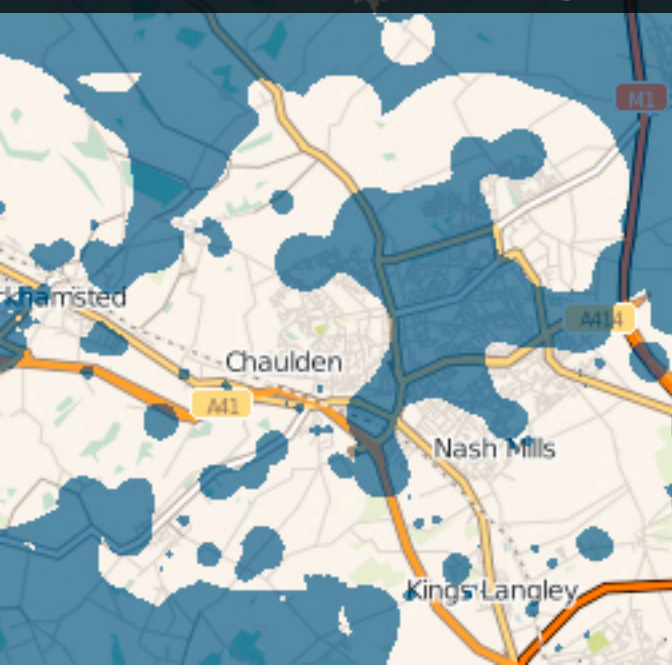




Stamen is a design and technology studio in San Francisco, California



We design and build live, dynamic mappings of rich information datasets



Type a location

Find

+

-

<embed>



maps.stamen.com / **watercolor**

 [report a bug](#)

stamen

Type a location

Find

<embed>

+

-

Map tiles by [Stamen Design](#), under [CC BY 3.0](#). Data by [OpenStreetMap](#), under [CC BY SA](#).

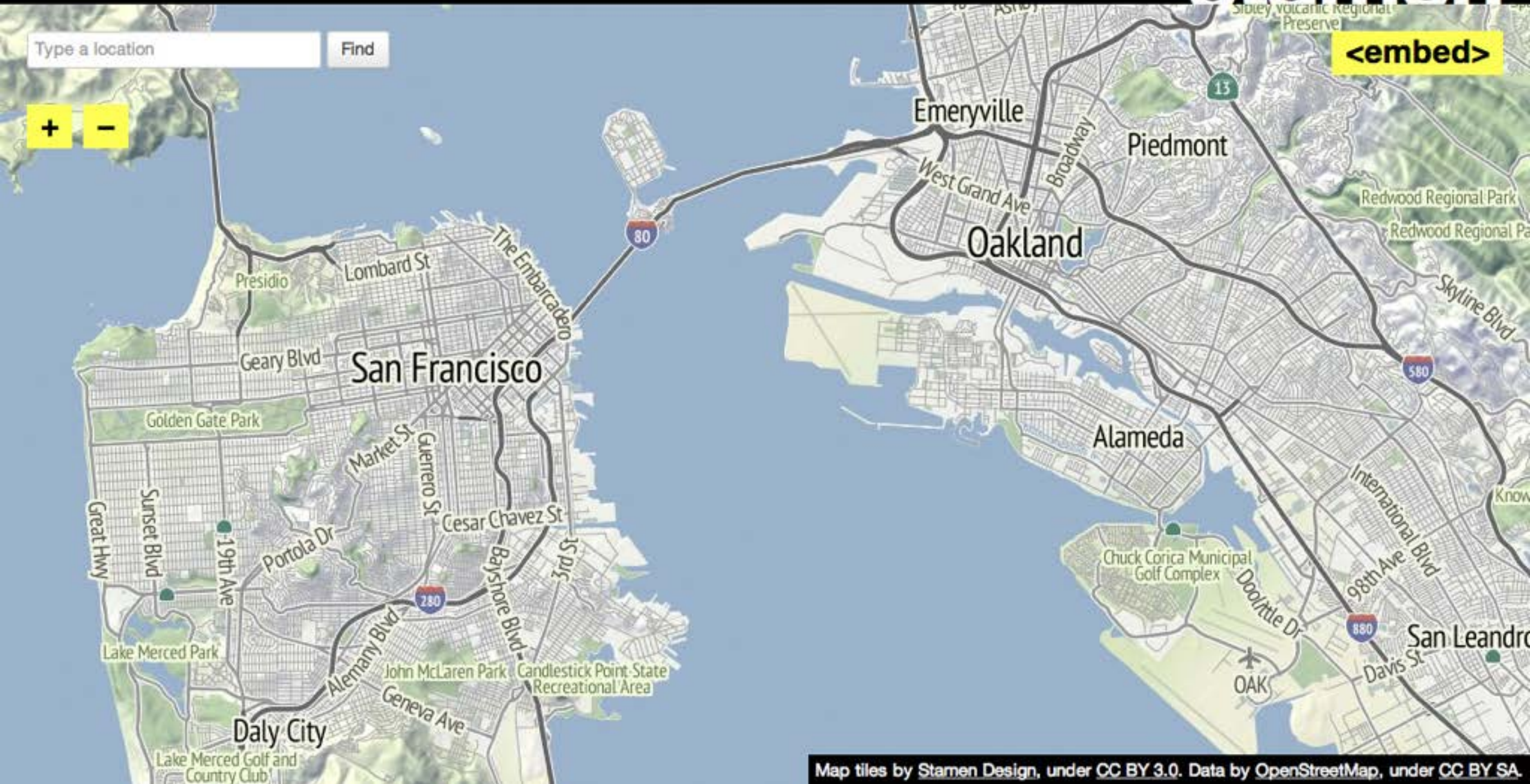
Type a location

Find

+

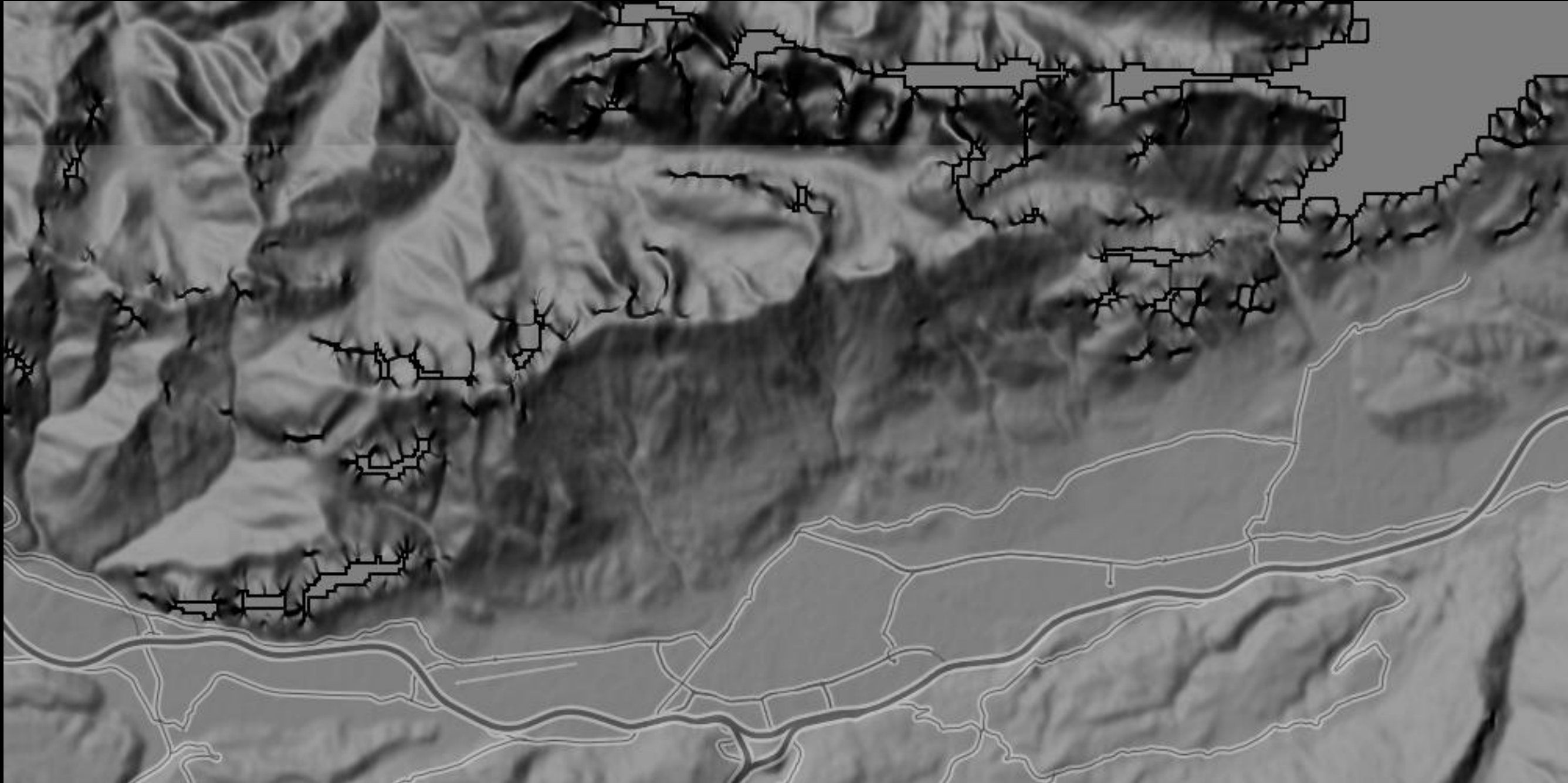
-

<embed>



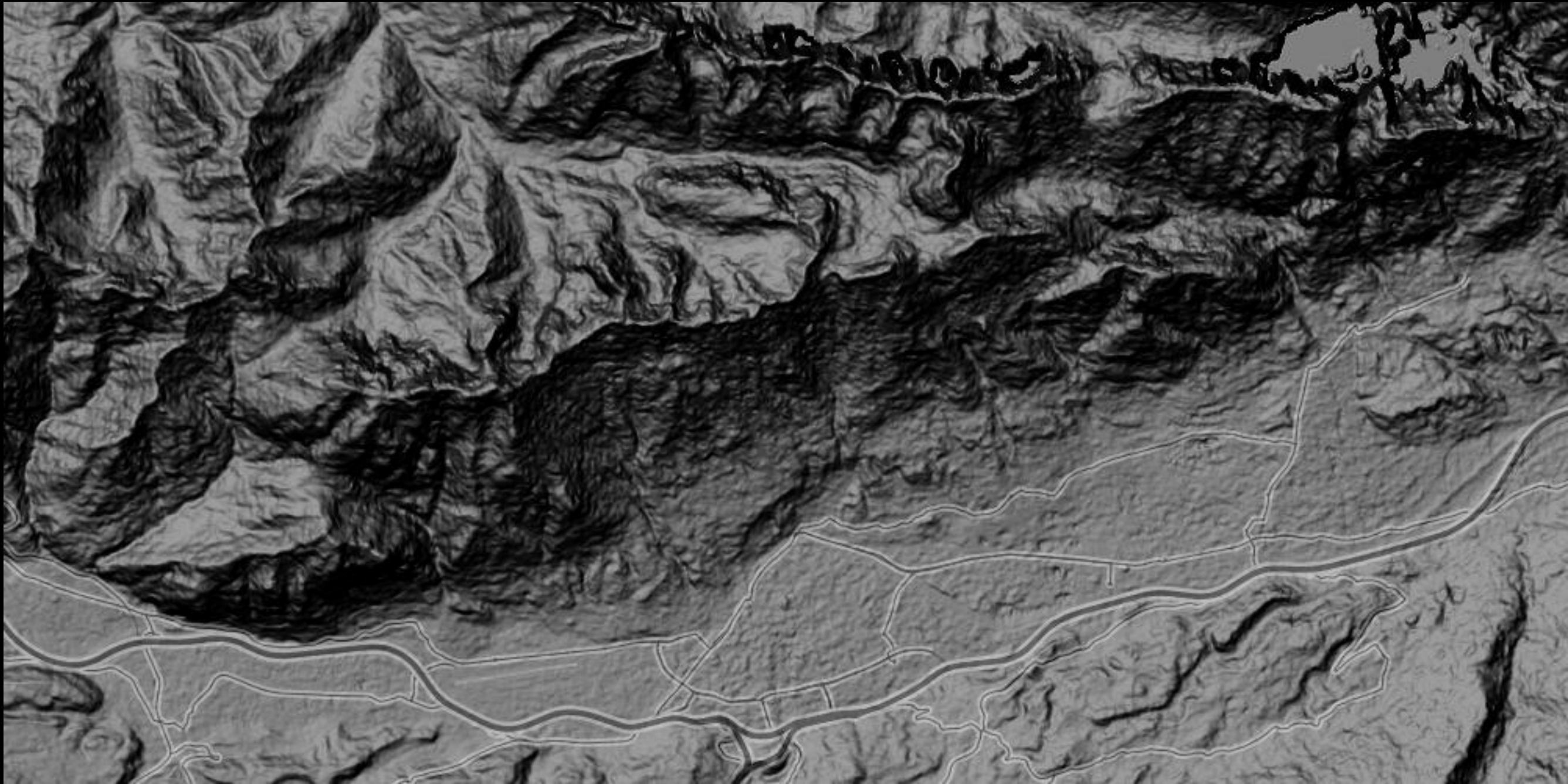
Elevation

SRTM



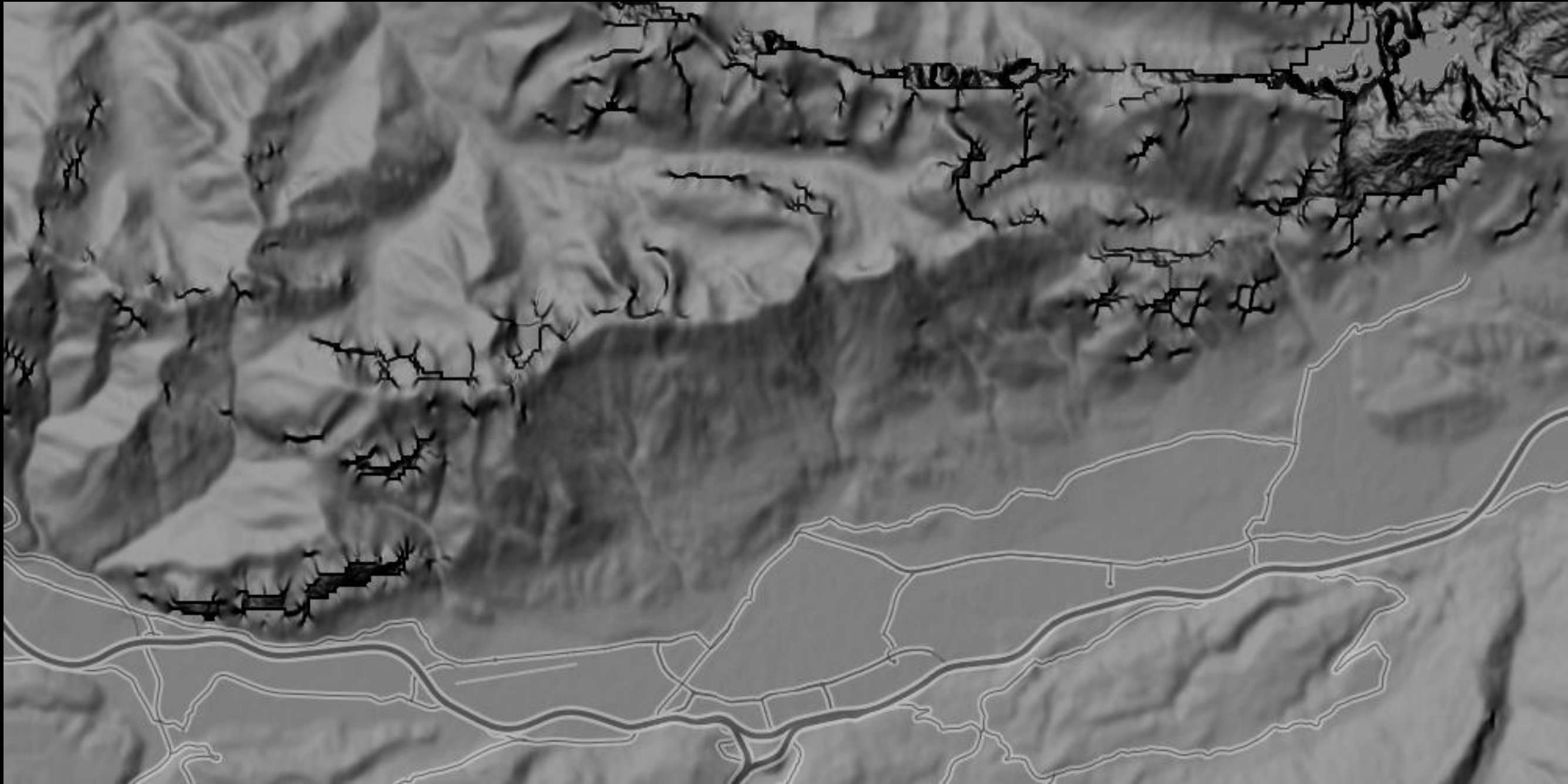
(note voids)

ASTER

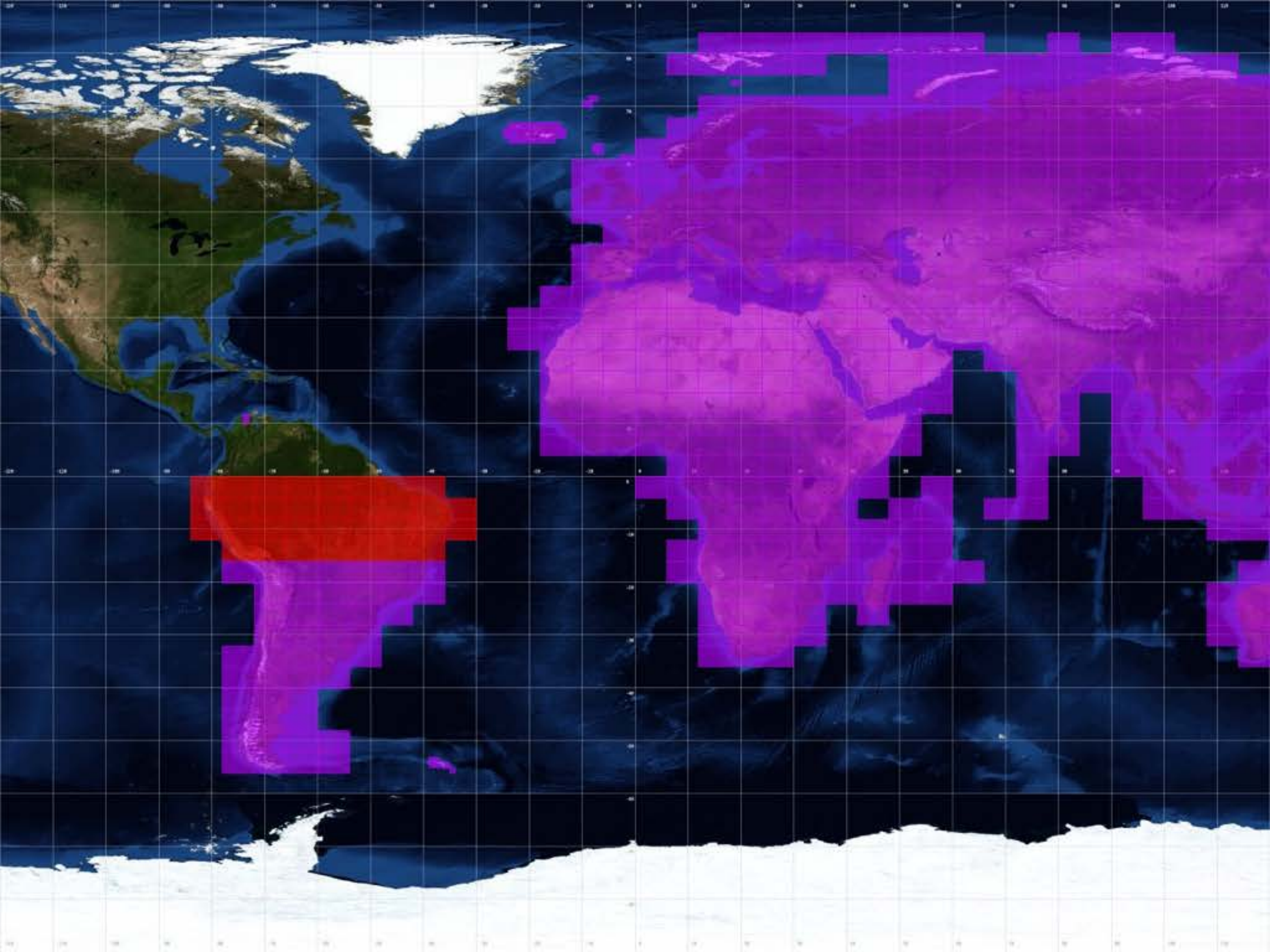


(quite noisy)

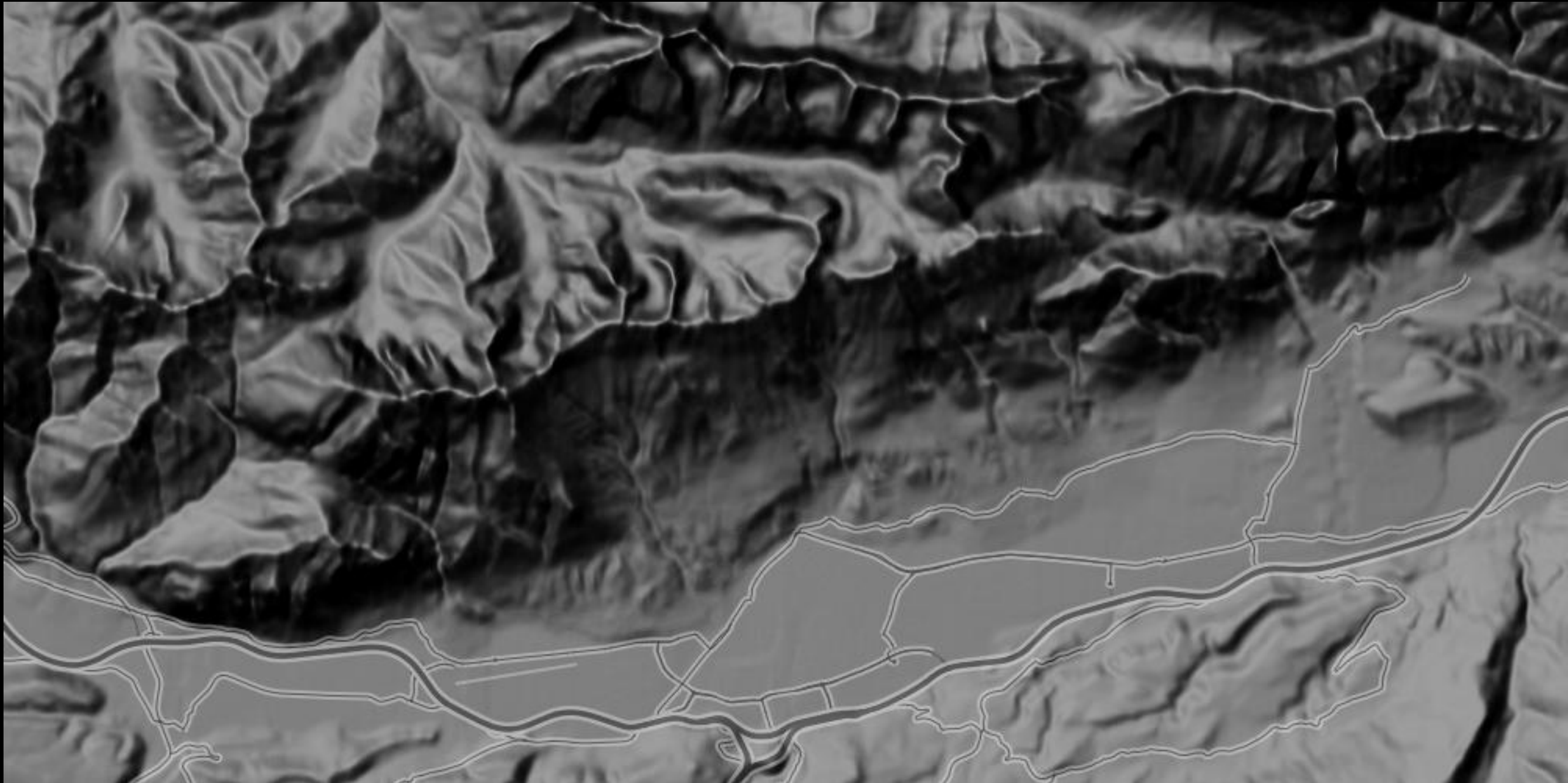
SRTM filled with ASTER



(funky seams)

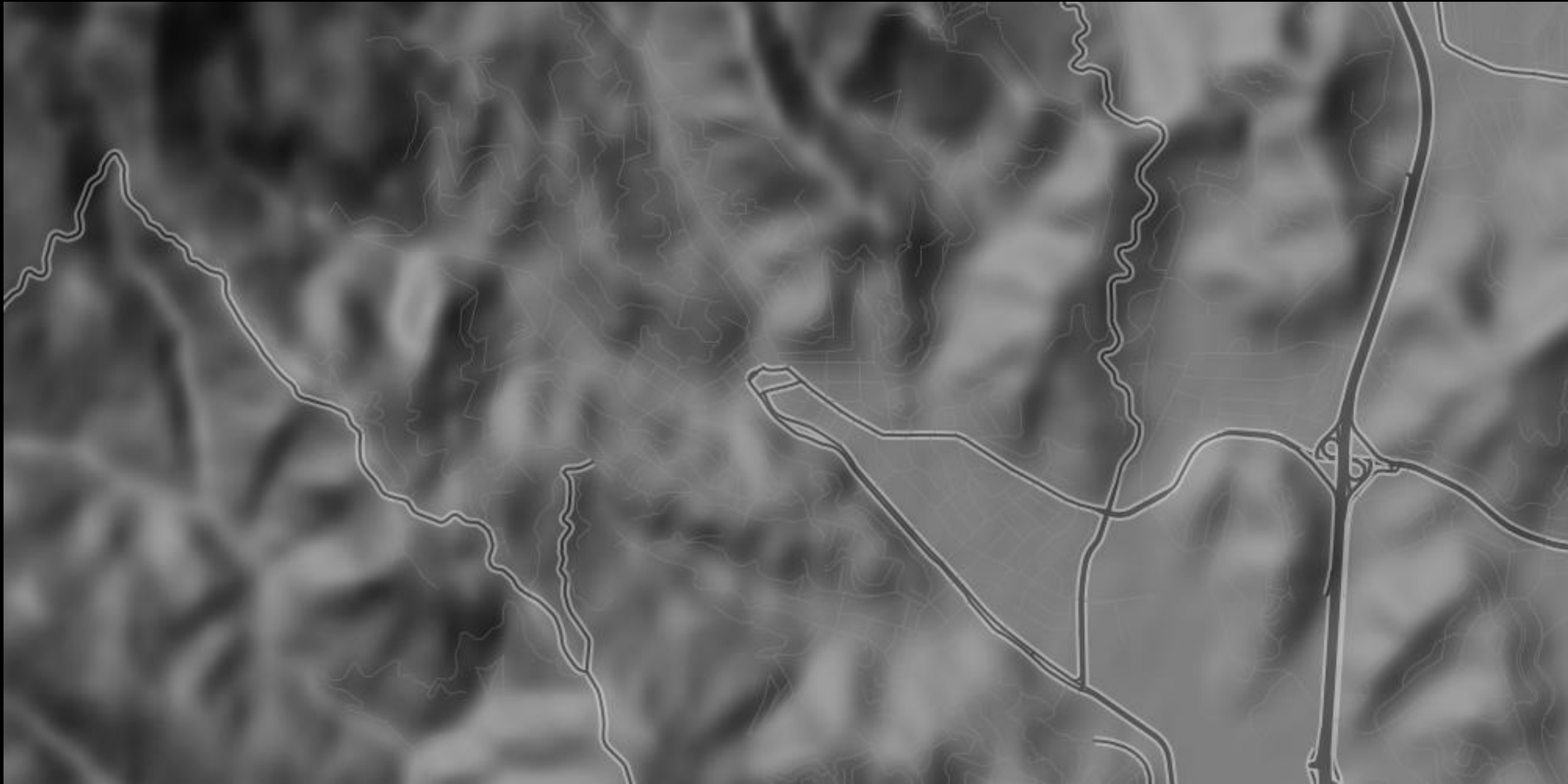


ViewFinder USSR patches



(meters versus feet?)

Mill Valley, California SRTM



Mill Valley, California

USGS 10m, good for zooms 12+



pure



jpeg 95



jpeg 90



jpeg 85



github

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PUBLIC



migurski / DEM-Tools

Watch

Unstar

23

Fork

6

Code

Network

Pull Requests 1

Issues 2

Wiki

Graphs

Tools For DEMs — [Read more](#)

Clone in Mac

ZIP

HTTP

Git Read-Only

git://github.com/migurski/DEM-Tools.git

Read-Only access

branch: master

Files

Commits

Branches 1

Tags

Downloads

Latest commit to the master branch

Bumped to 0.5.2 with correct file handle closures

migurski authored 20 days ago

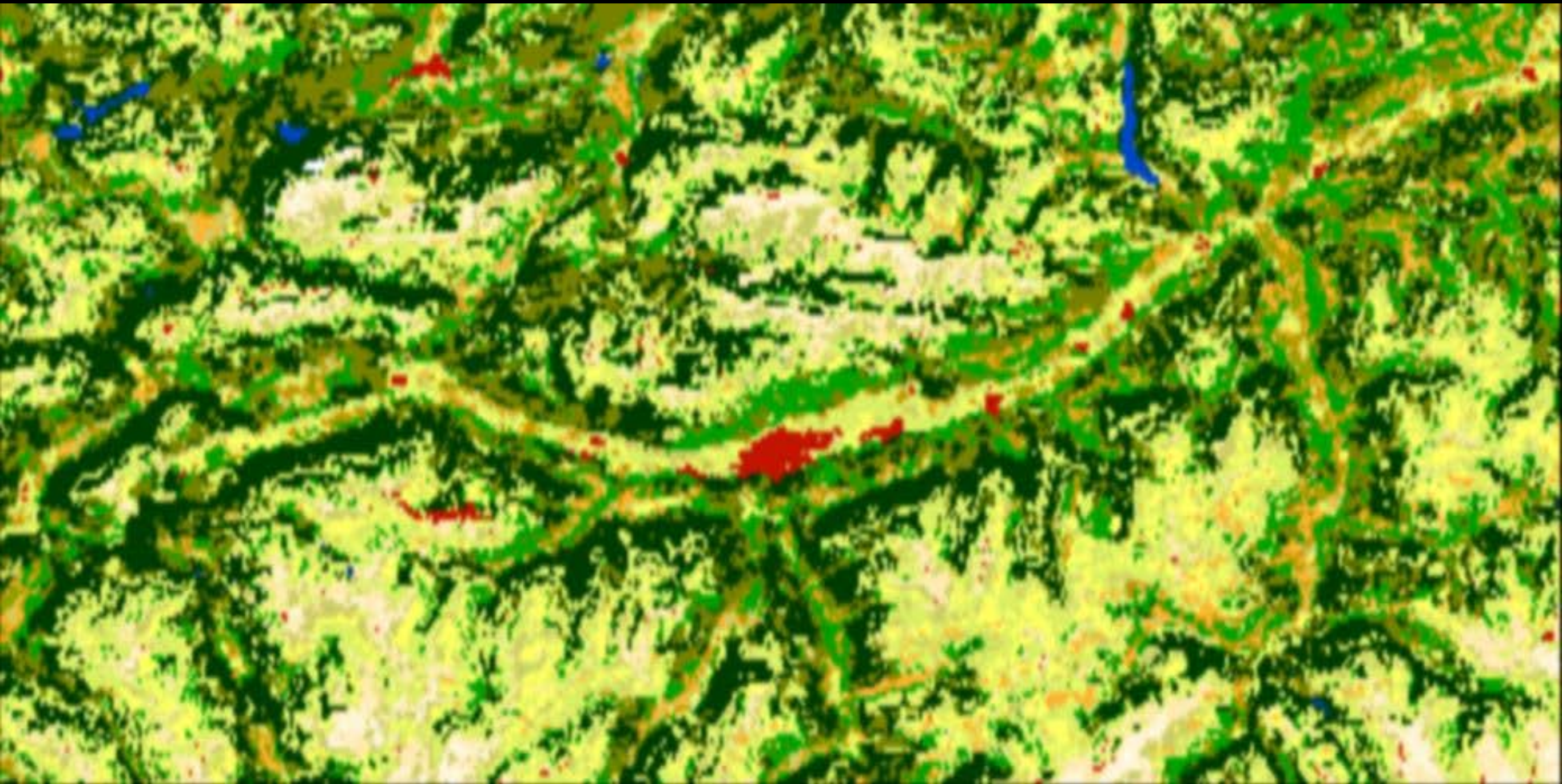
commit 6aac554303

DEM-Tools /

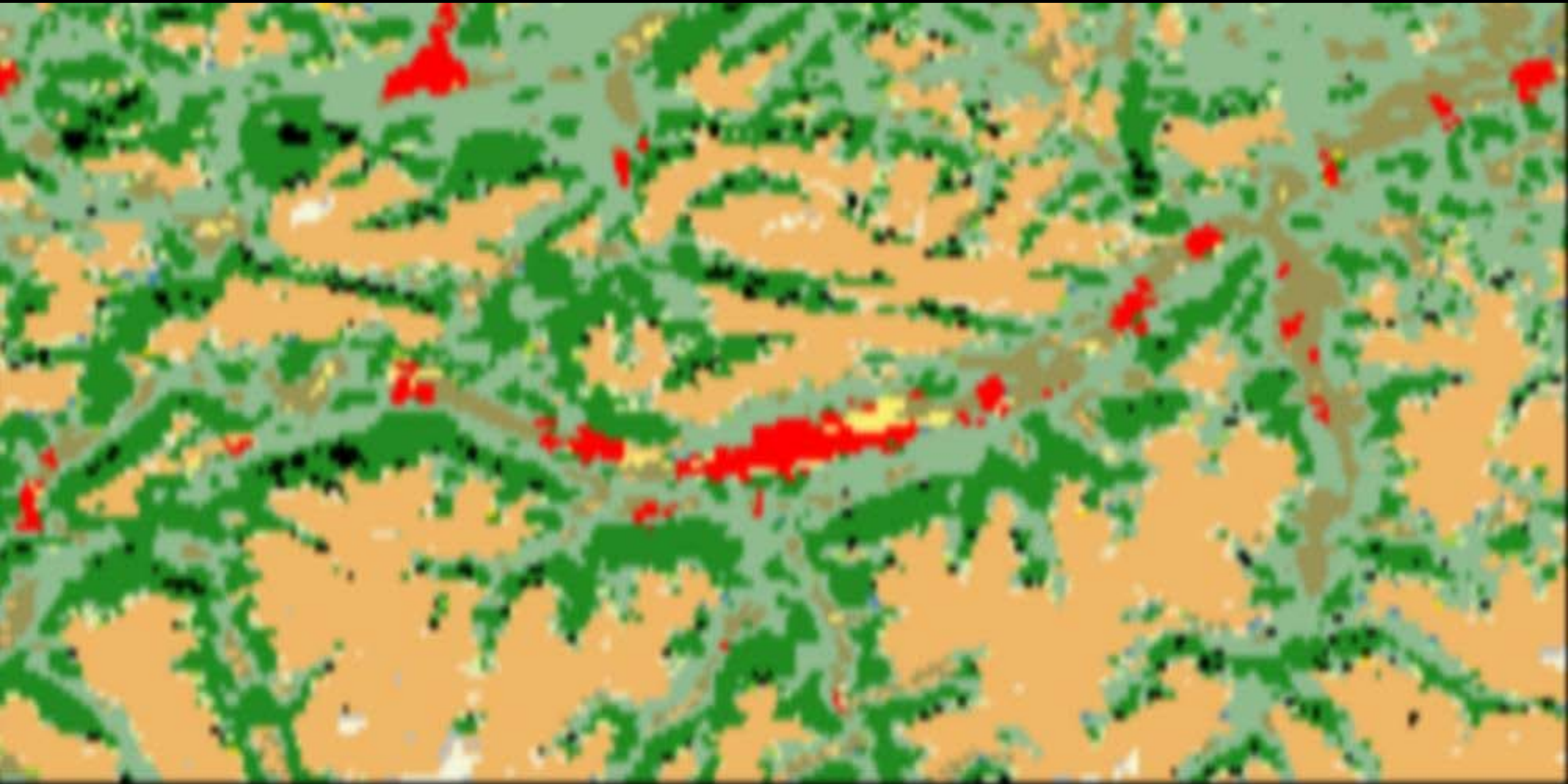
name	age	message	history
Hillup	20 days ago	Bumped to 0.5.2 with correct file handle closures [migurski]	
render	9 months ago	Inverted to black land / white water and added reservoirs [Michal Migurski]	
LICENSE	11 months ago	Updated README, added LICENSE, bumped version to 0.1.0 [Michal Migurski]	
README.md	11 months ago	Tweaked README [Michal Migurski]	
VERSION	20 days ago	Bumped to 0.5.2 with correct file handle closures [migurski]	
hillup-seed.py	21 days ago	Made new Worldwide provider the default [migurski]	
setup.py	11 months ago	Fixed setup.py bug [Michal Migurski]	

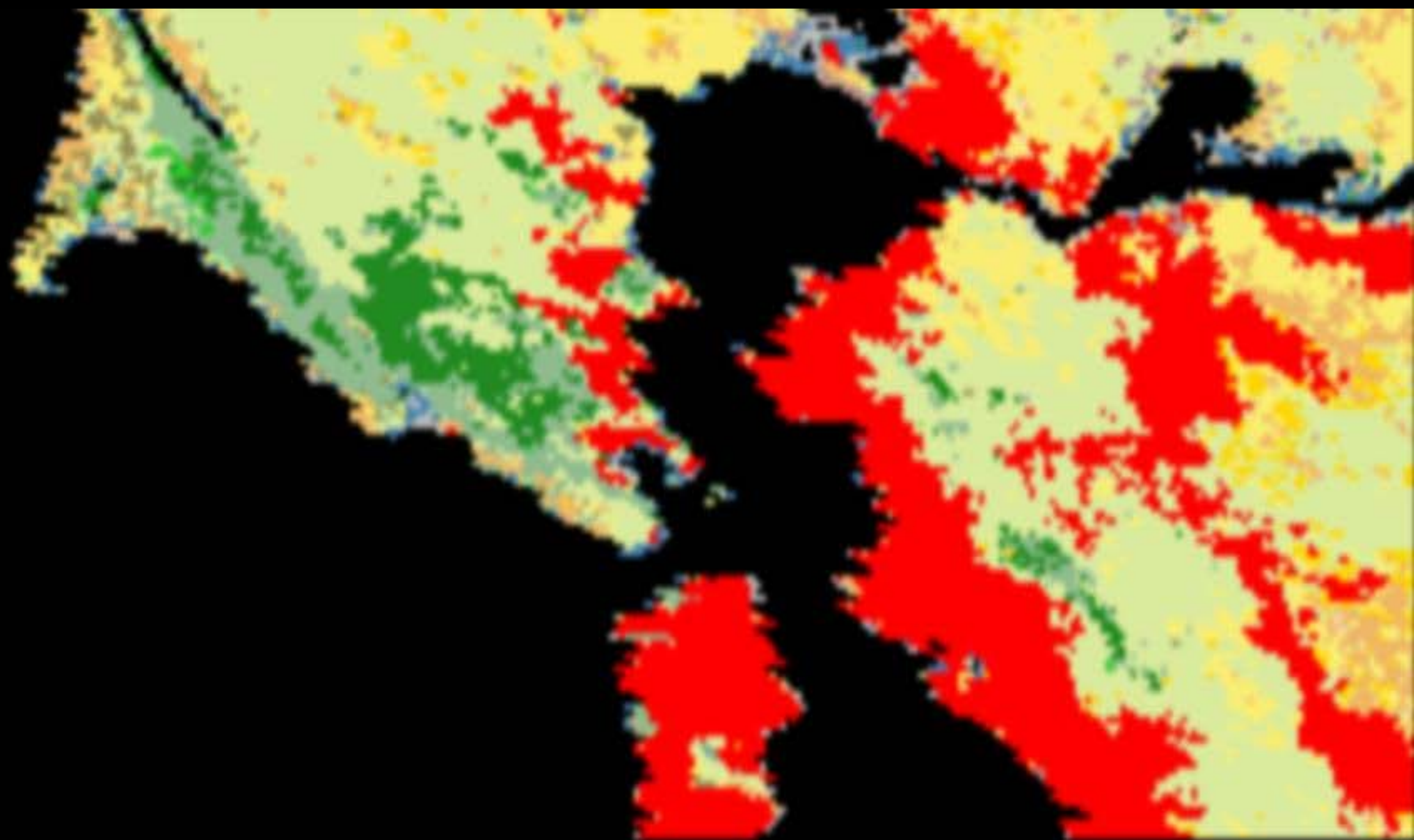
Landcover

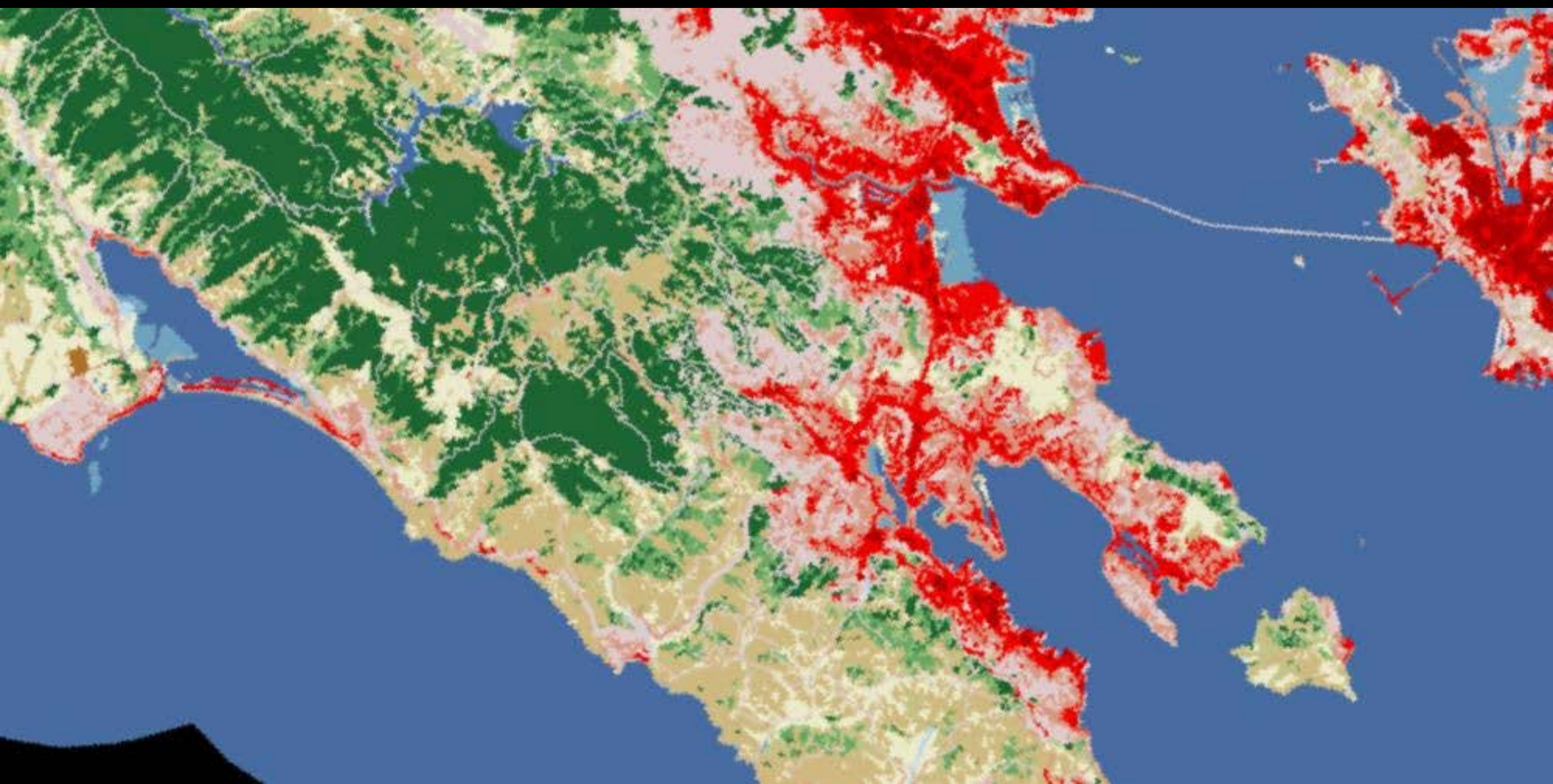
GLOBCOVER, 2009



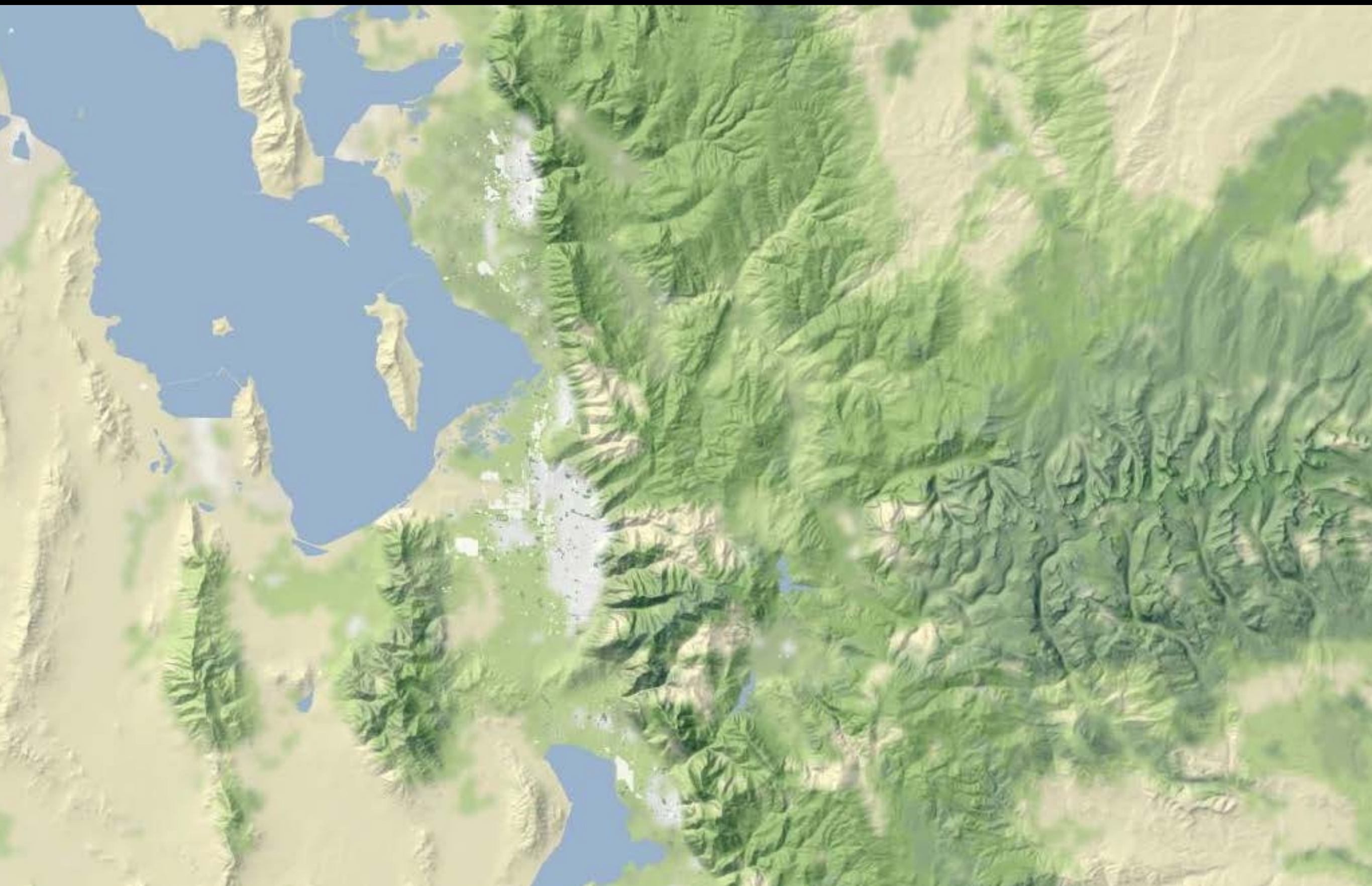
Boston University's MODIS, 2012







**Together,
Background**







github

Search...



Explore Gist Blog Help



nvkelso



PUBLIC



migurski / TileStache

Watch



★ Unstar

186

Fork

55

Code

Network

Pull Requests 0

Issues 25

Graphs

A stylish alternative for caching your map tiles. — [Read more](#)<http://tilestache.org>

Clone in Mac



ZIP

HTTP

Git Read-Only

<git://github.com/migurski/TileStache.git>

Read-Only access



branch: master

Files

Commits

Branches 22

Tags

Downloads 40

Latest commit to the **master** branchBumped to 1.39.0 with addition of TileStache.Goodies.ExternalConfigSe... [...](#)

Michal Migurski authored 2 months ago



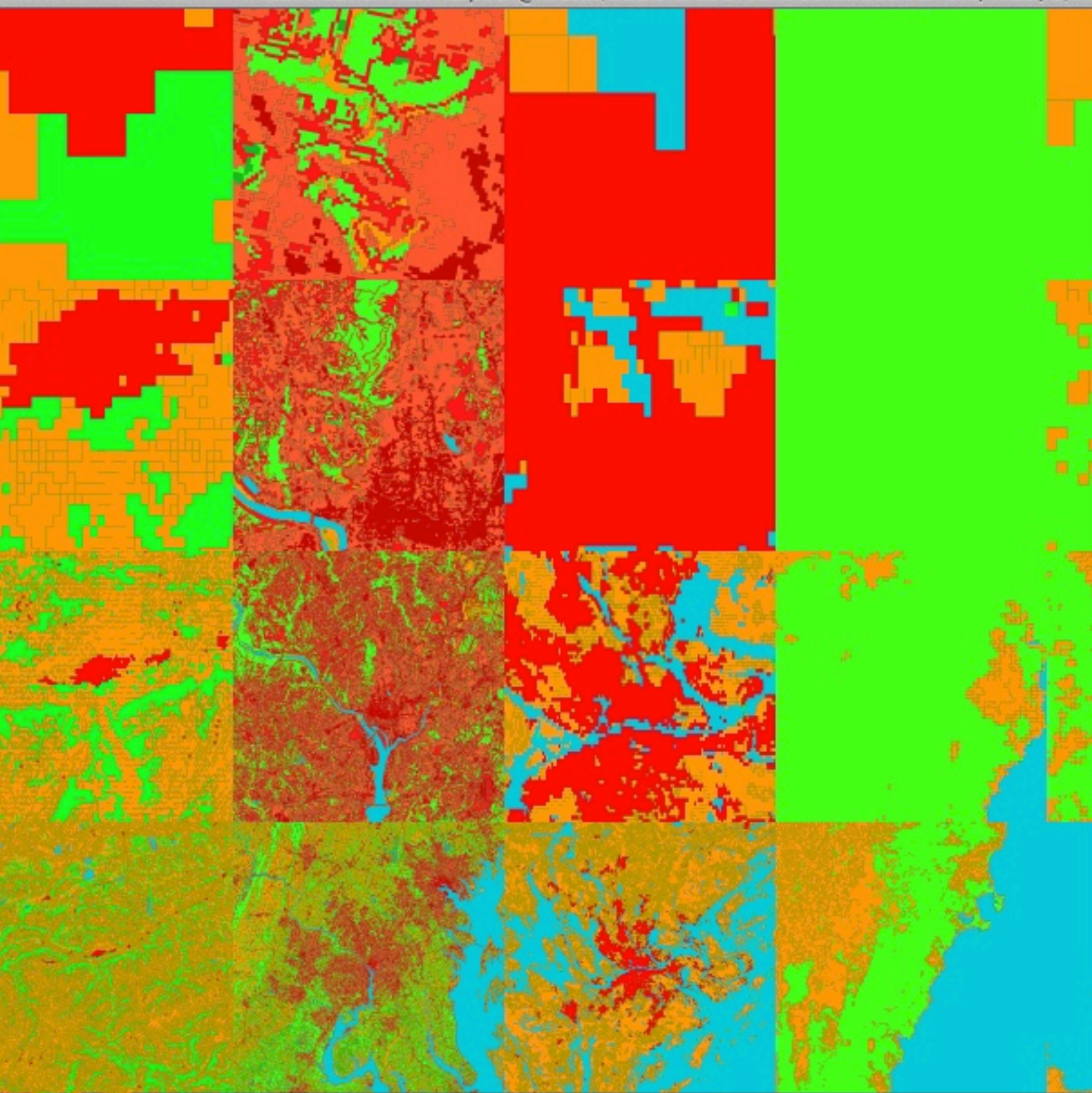
commit 84b26f5a1d

TileStache /

name	age	message	history
TileStache	2 months ago	Using built-in set instead of deprecated sets.Set [Michal Migurski]	
examples	4 months ago	Correction to example config for Composite provider [cyberttoast]	
man	3 months ago	Added --jsonp-callback option to tilestache-seed.py [Michal Migurski]	
scripts	3 months ago	Added --jsonp-callback option to tilestache-seed.py [Michal Migurski]	
www	2 months ago	Bumped to 1.39.0 with addition of TileStache.Goodies.ExternalConfigSe... [Michal Migurski]	
.gitignore	a year ago	Added a few more ignores [Michal Migurski]	
API.html	2 months ago	Changed Mapnik Grid "layer_id_key" parameter to "layer id key" and up... [Michal Migurski]	

Color Process

Landcover Masks.psd @ 25% (NLCD 2006 41 Deciduous Forest, RGB/8)



1/152.8M

LAYERS

CHANNELS

PATHS

Linear Dodge (Add)

Opacity: 100%

Lock: ☐ ☐ ☐ ☐

Fill: 100%

Curves

Elevation

NLCD water fill-in

Landcover (nearest)

NLCD 2006 95 Emergent Herbaceous Wetlands

NLCD 2006 90 Woody Wetlands

NLCD 2006 82 Cultivated crops

NLCD 2006 81 Pasture or Hay

NLCD 2006 71 Grassland or Herbaceous

NLCD 2006 52 Scrub or scrub

NLCD 2006 43 Mixed Forest

NLCD 2006 42 Evergreen Forest

NLCD 2006 41 Deciduous Forest

NLCD 2006 31 Barren Land (Rock or Sand or Clay)

NLCD 2006 24 Developed, High Intensity

NLCD 2006 23 Developed, Medium Intensity

NLCD 2006 22 Developed, Low Intensity

NLCD 2006 21 Developed, Open Space

NLCD 2006 11 Open

GLOBCOVER 2009 220 Permanent snow and ice

GLOBCOVER 2009 210 Water bodies

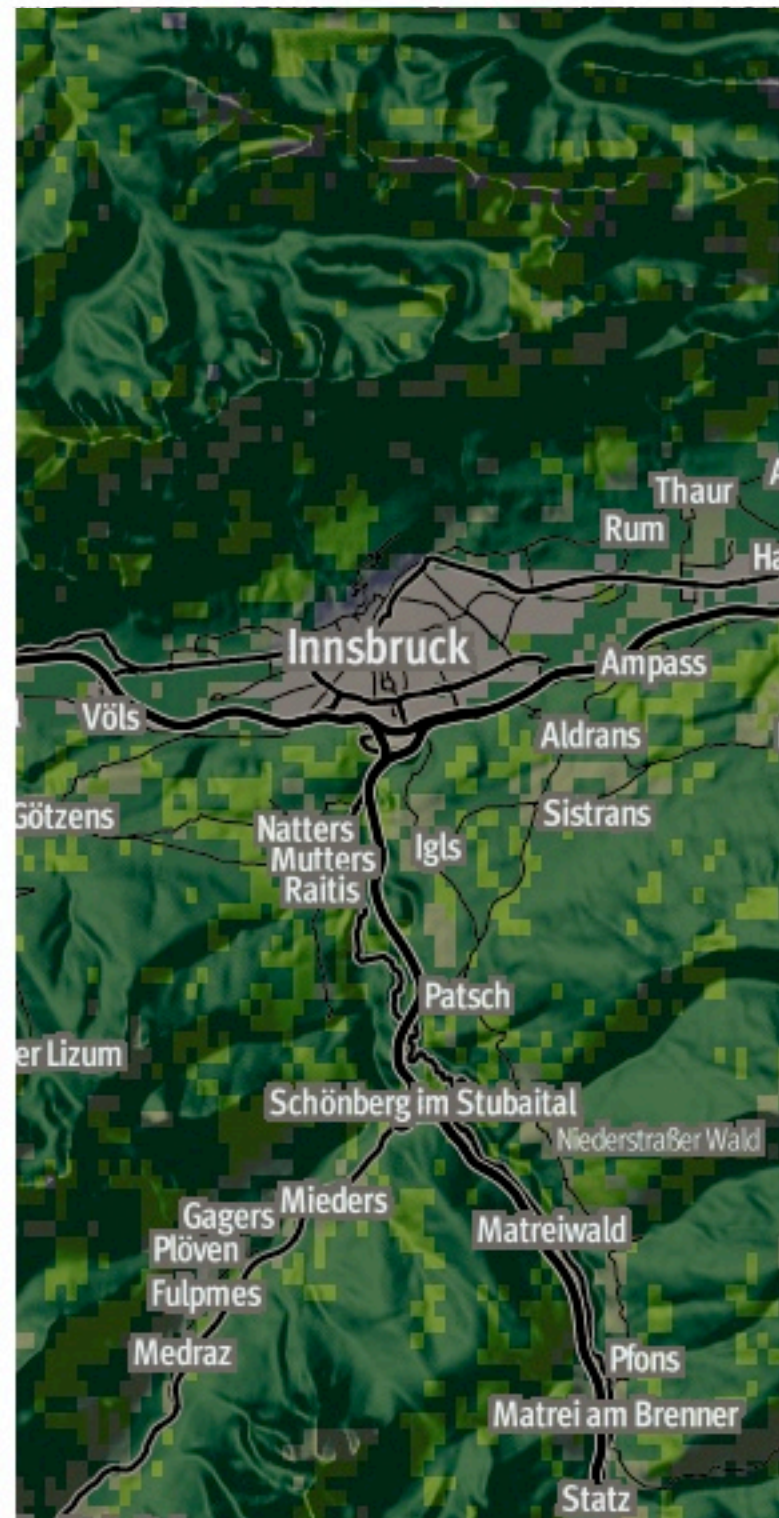




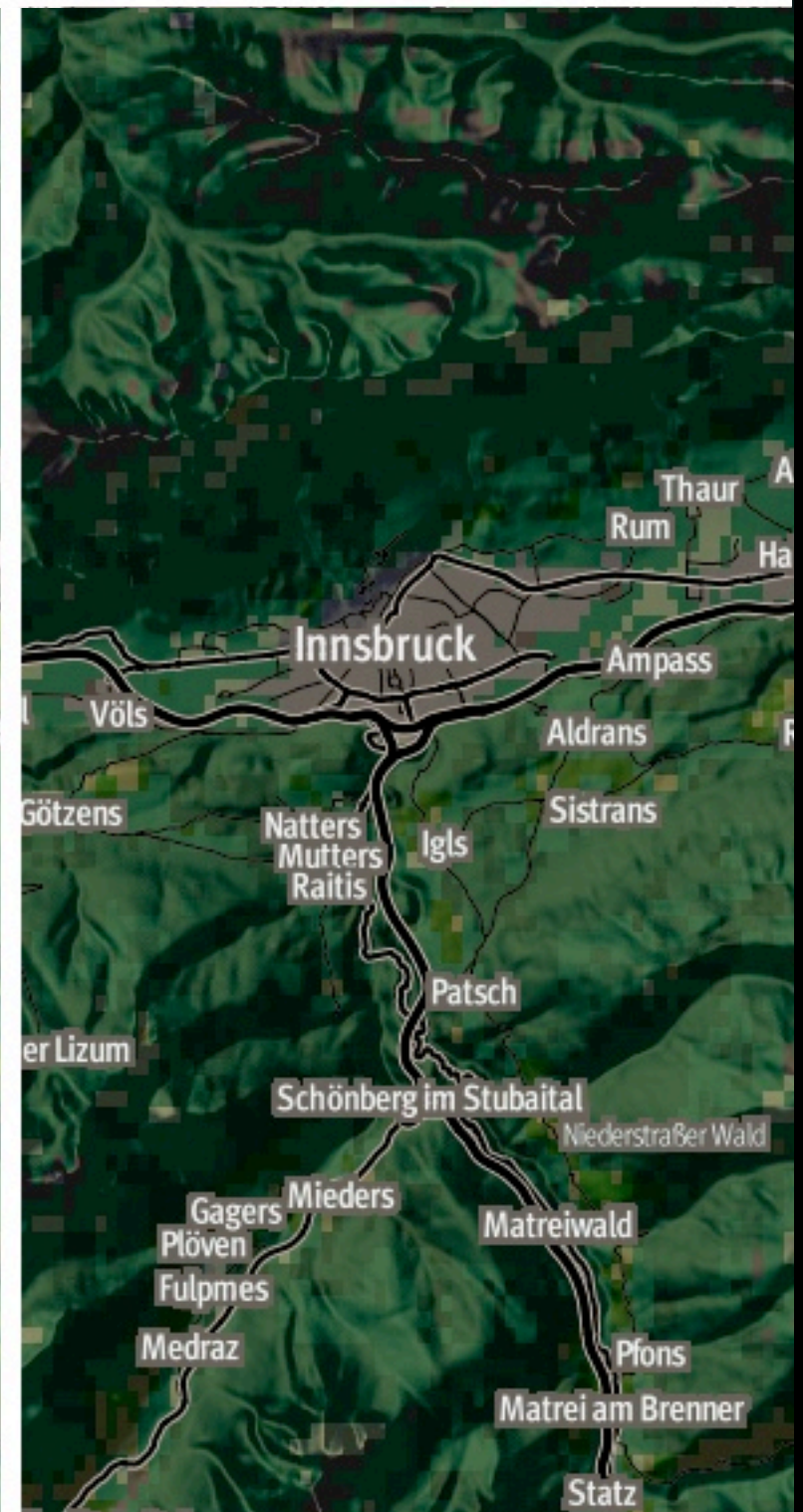
Darker Green



Midnight Terrain



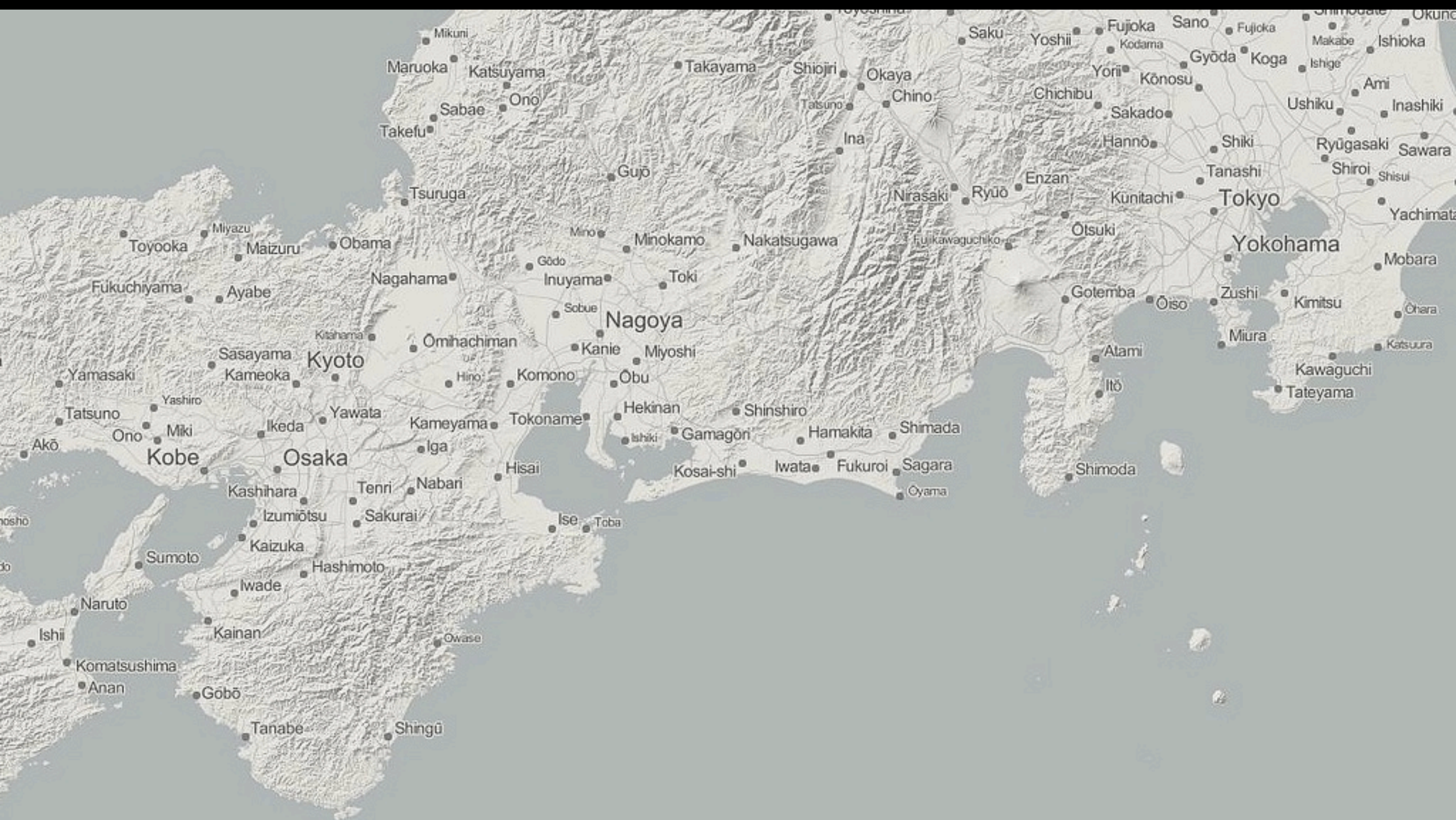
Darker Midnight Terrain





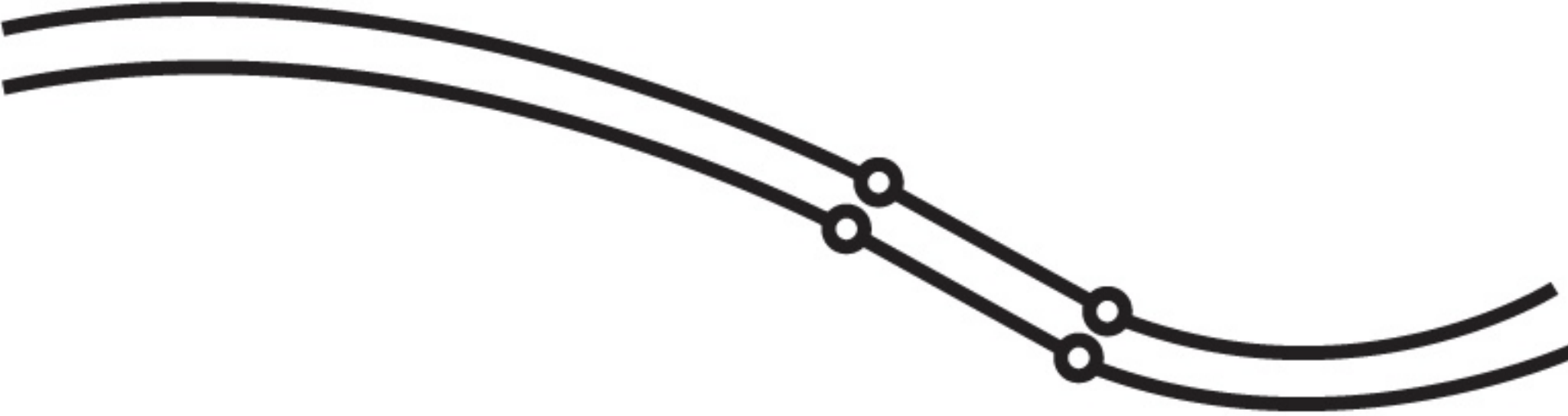


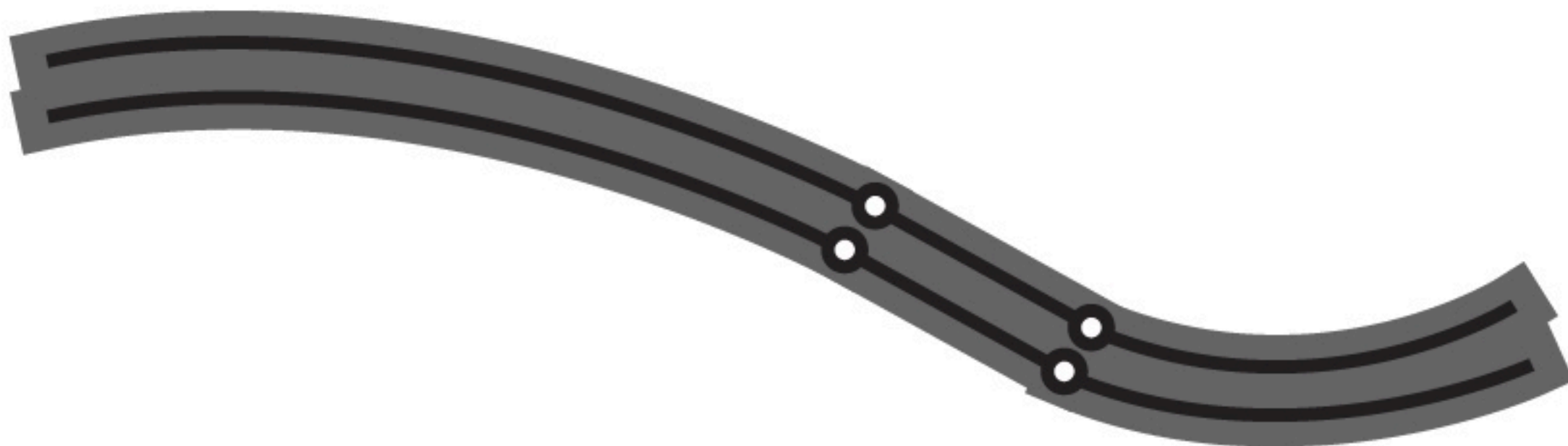
Labels & Roads



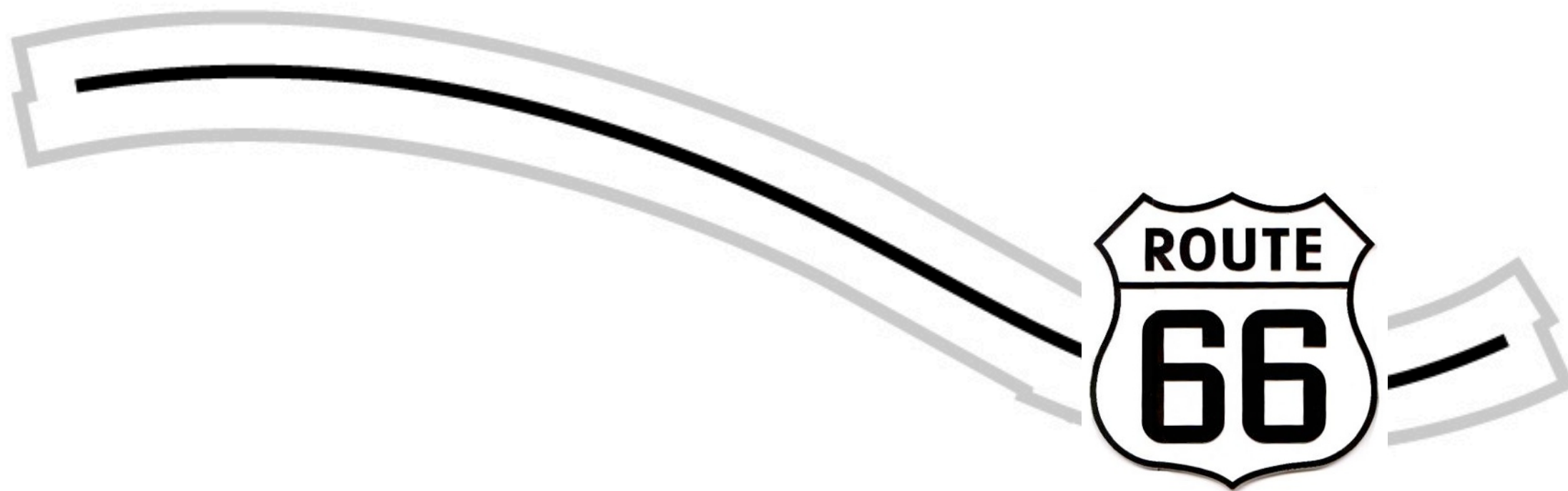






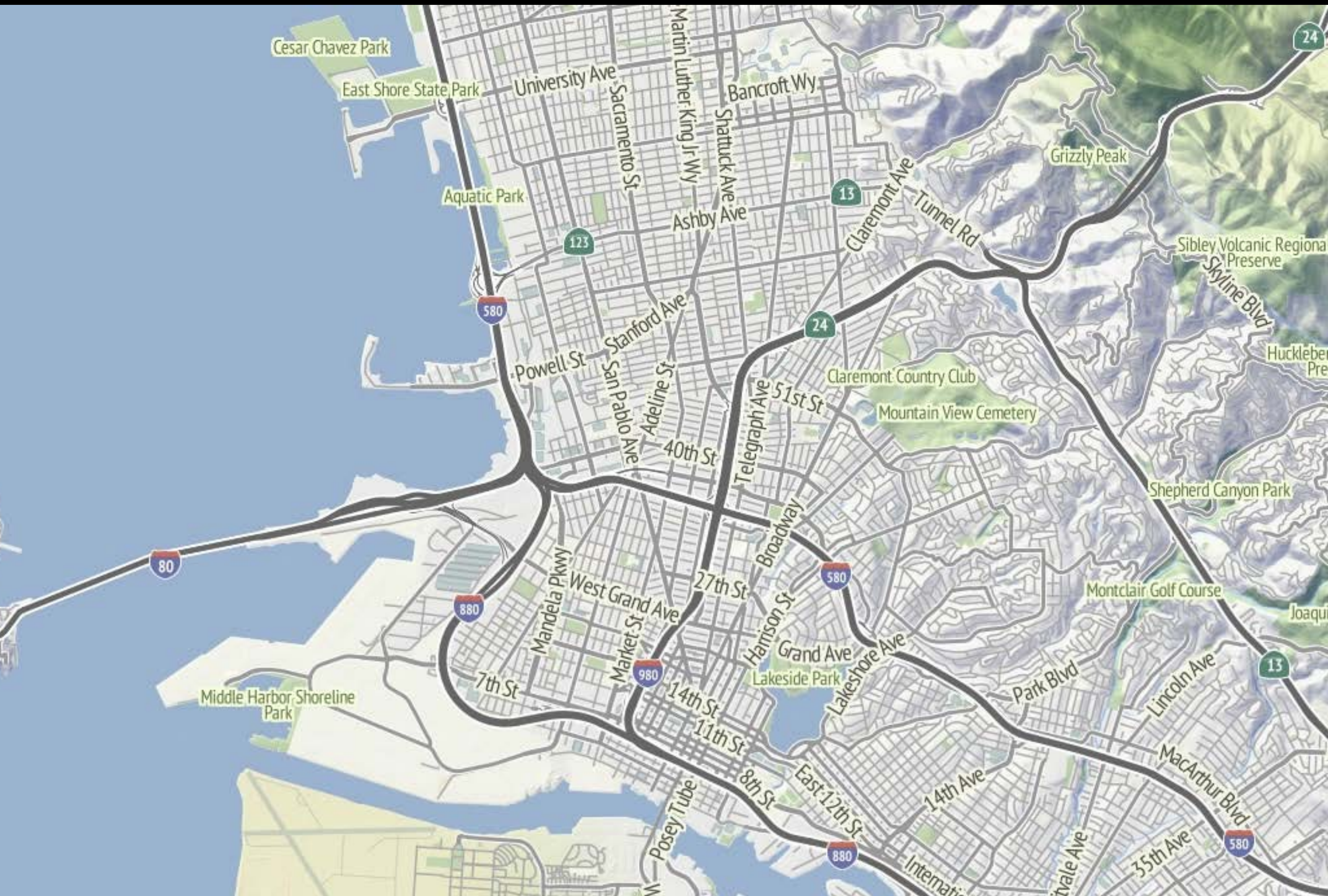


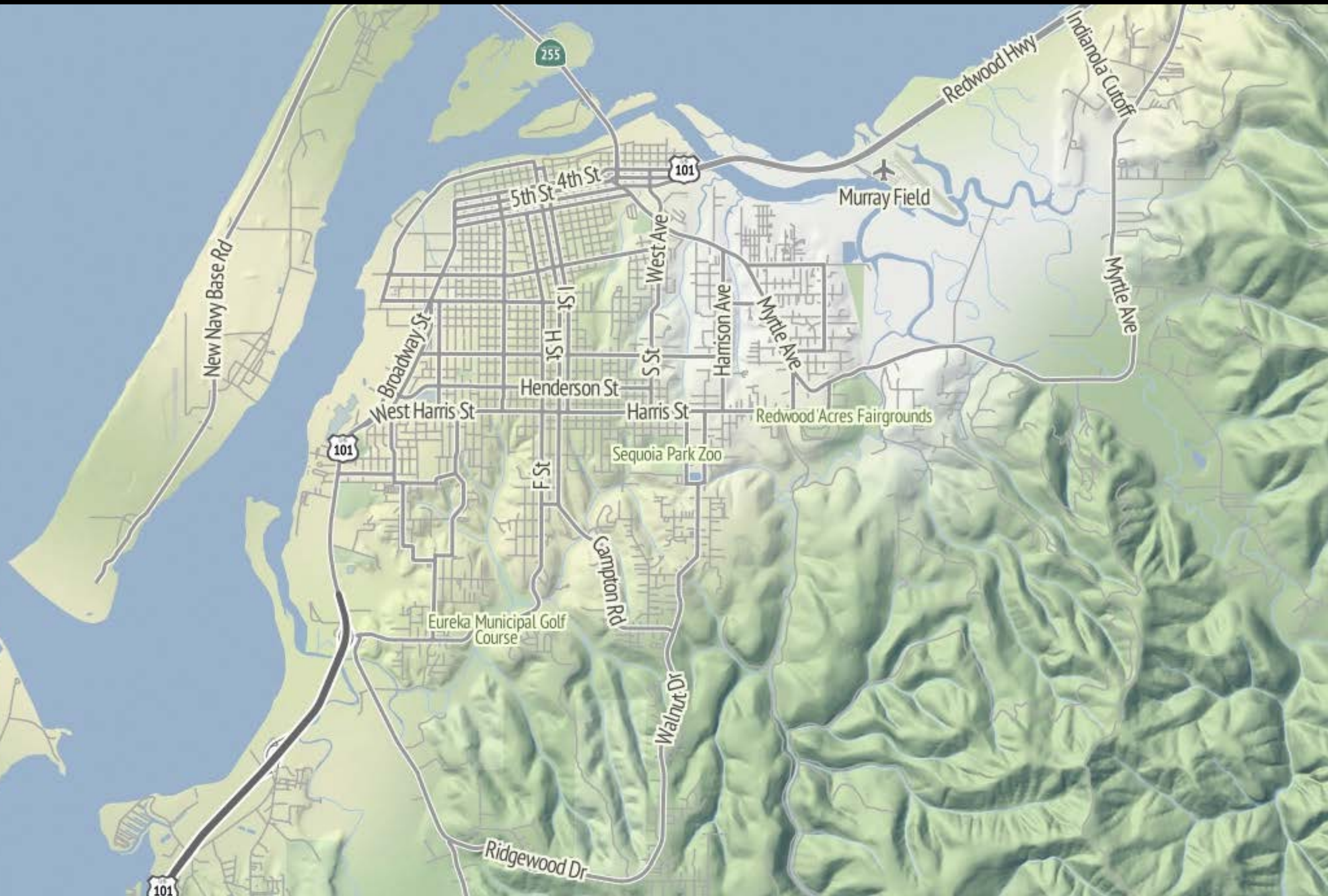




**Stamen Terrain,
Smugmug Tiles**















Farchant

Garmisch-Partenkirchen

Wallgau
Krün

Kirchbichl
Bad Häri
Wörgl

Mittenwald

Lermoos

Jenbach

Alpbach

Leutasch

Fügen

Seefeld in Tirol

Schwaz

Telfs

Absam

Zirl

Rum

Häll in Tirol

Wattens

Innsbruck

Völs

Sautener Forchet

Homer Wald

Oetz

Mühlwald

Schönberg im Stubaital

Mayrhofen

Neustift im Stubaital

Brennero

Valle Aurina - Ahrntal

Sölden

San Giacomo Val di Vizze

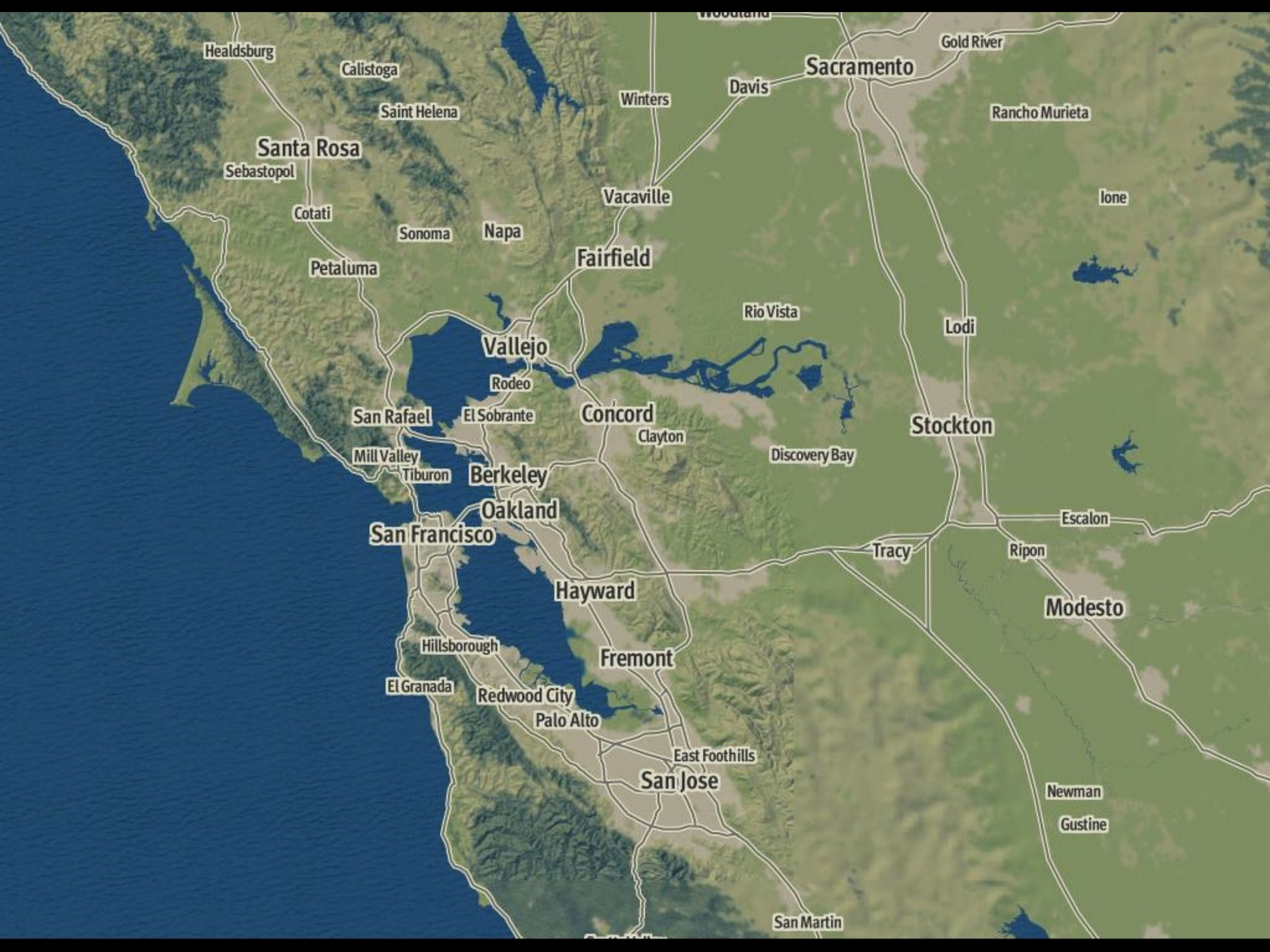
Campo Tures - Sand in Taufers

Vipiteno - Sterzing

Selva dei Molini - Muehlwald

Campo di Trens - Freienfeld

Racines



Healdsburg

Calistoga

Saint Helena

Santa Rosa

Sebastopol

Cotati

Sonoma

Napa

Petaluma

Winters

Davis

Sacramento

Gold River

Rancho Murieta

Ione

Vacaville

Fairfield

Rio Vista

Lodi

Vallejo

Rodeo

San Rafael

El Sobrante

Concord

Clayton

Discovery Bay

Stockton

Mill Valley

Tiburon

Berkeley

Oakland

San Francisco

Escalon

Tracy

Ripon

Modesto

Hayward

Hillsborough

Fremont

El Granada

Redwood City

Palo Alto

East Foothills

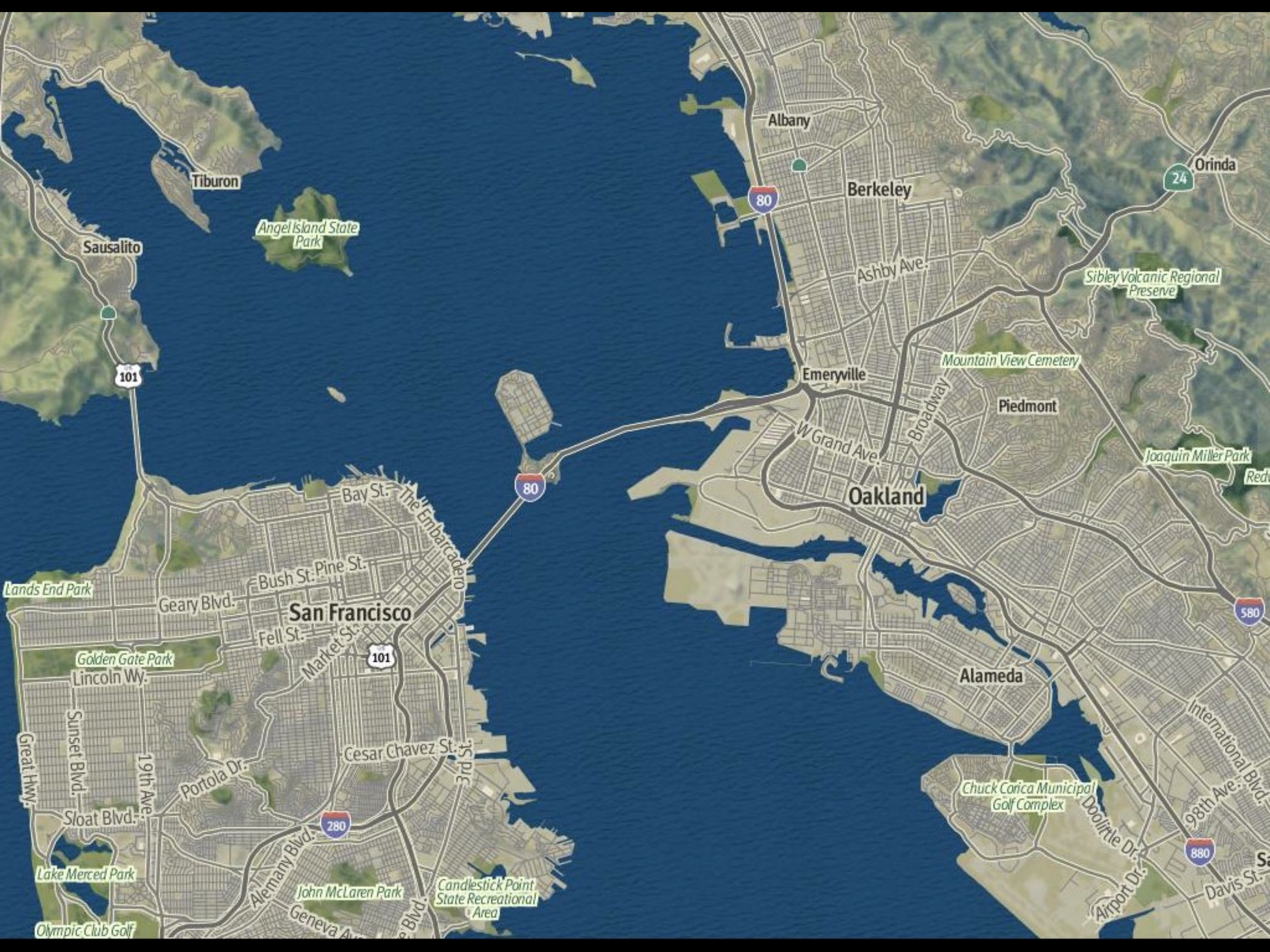
San Jose

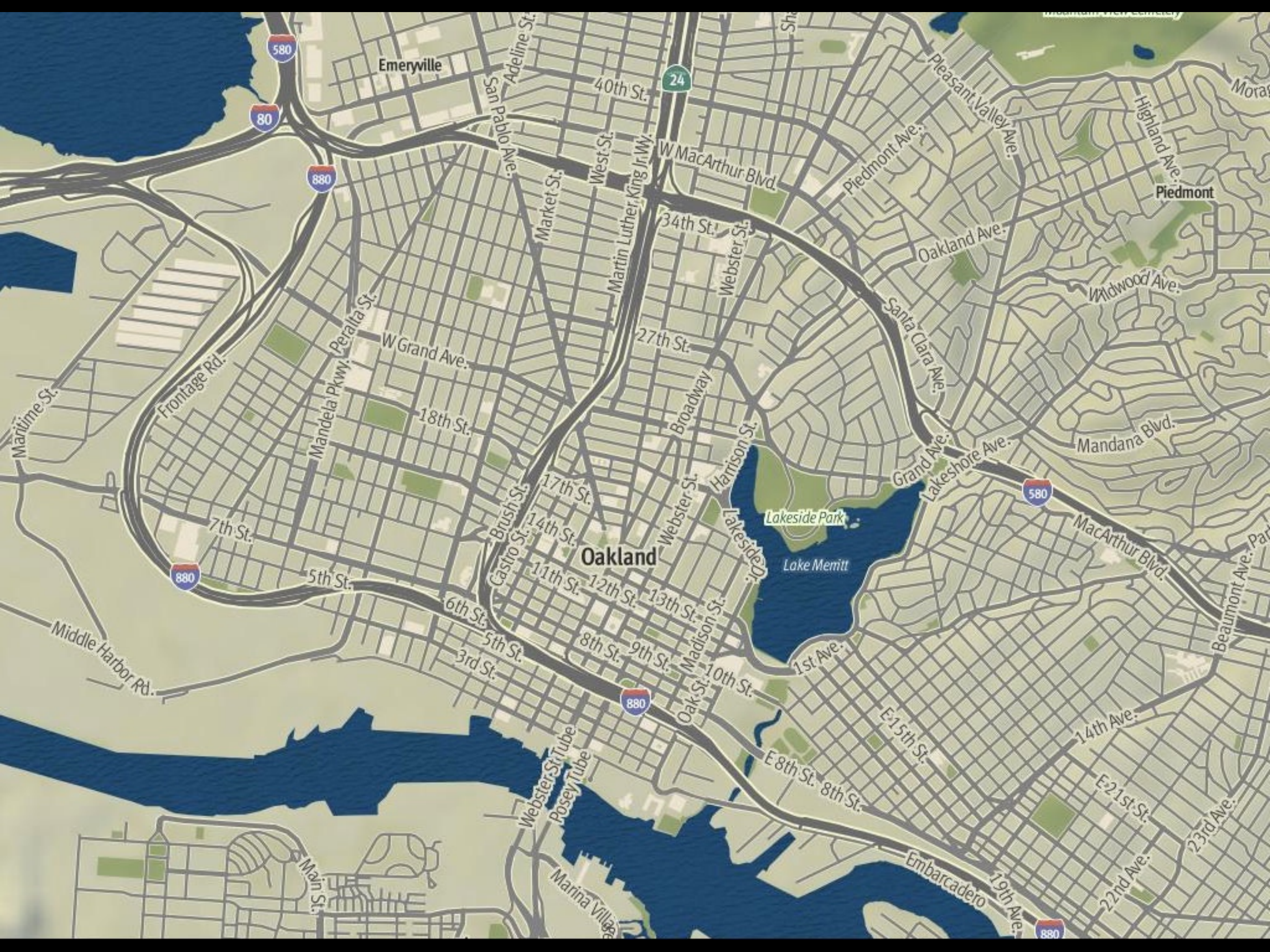
Newman

Gustine

San Martin









Thank You!

**@michalmigurski, @kelsosCorner
stamen.com**