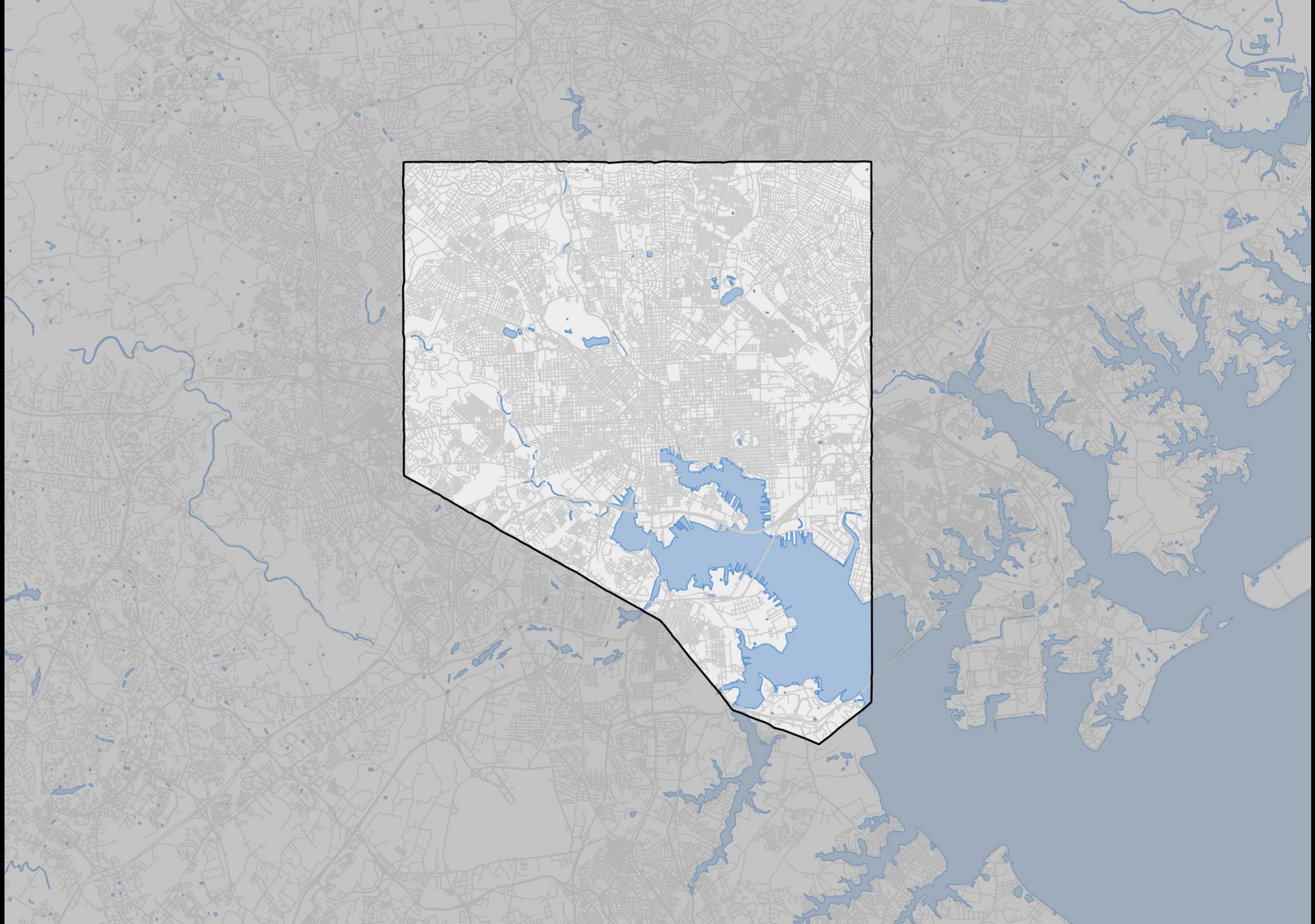


# QGIS Cartography Part 1



# Components

- No basemap? Plugins -> Manage and Install Plugins ...
  - QuickMapServices (load contributor packs) HCMGIS
- State
- Water
- Roads
- Counties?

# Expanded “Backdrop” Chunk

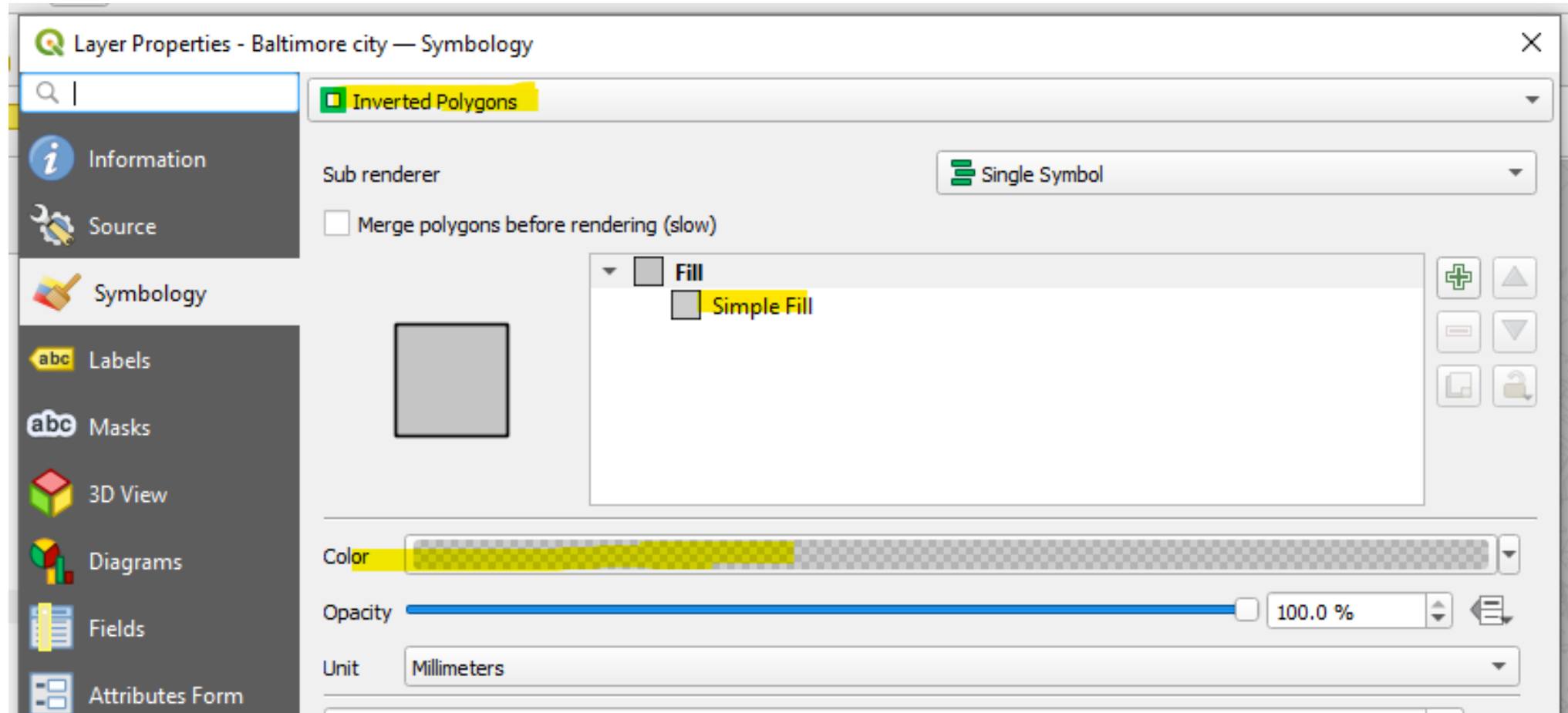
```
{r backdrop}
md_counties <- counties(state = 'MD') %>% st_transform(crs=3857)

md_state <- md_counties %>%
  st_buffer(0.5) %>% # make a buffer of half a meter around all parts (to avoid
slivers)
  st_union() %>% # unite to a geometry object
  st_sf() # make the geometry a data frame object

# Get water: https://rdr.io/cran/tigris/man/area\_water.html
md_water <- area_water(24, c(510,5,3,27)) %>%
  st_union() %>% # unite to a geometry object
  st_sf() %>%
  st_transform(crs=3857)

# Get roads: https://rdr.io/cran/tigris/man/roads.html
md_roads <- roads(24, c(510,5,3,27)) %>% st_transform(crs=3857)
```

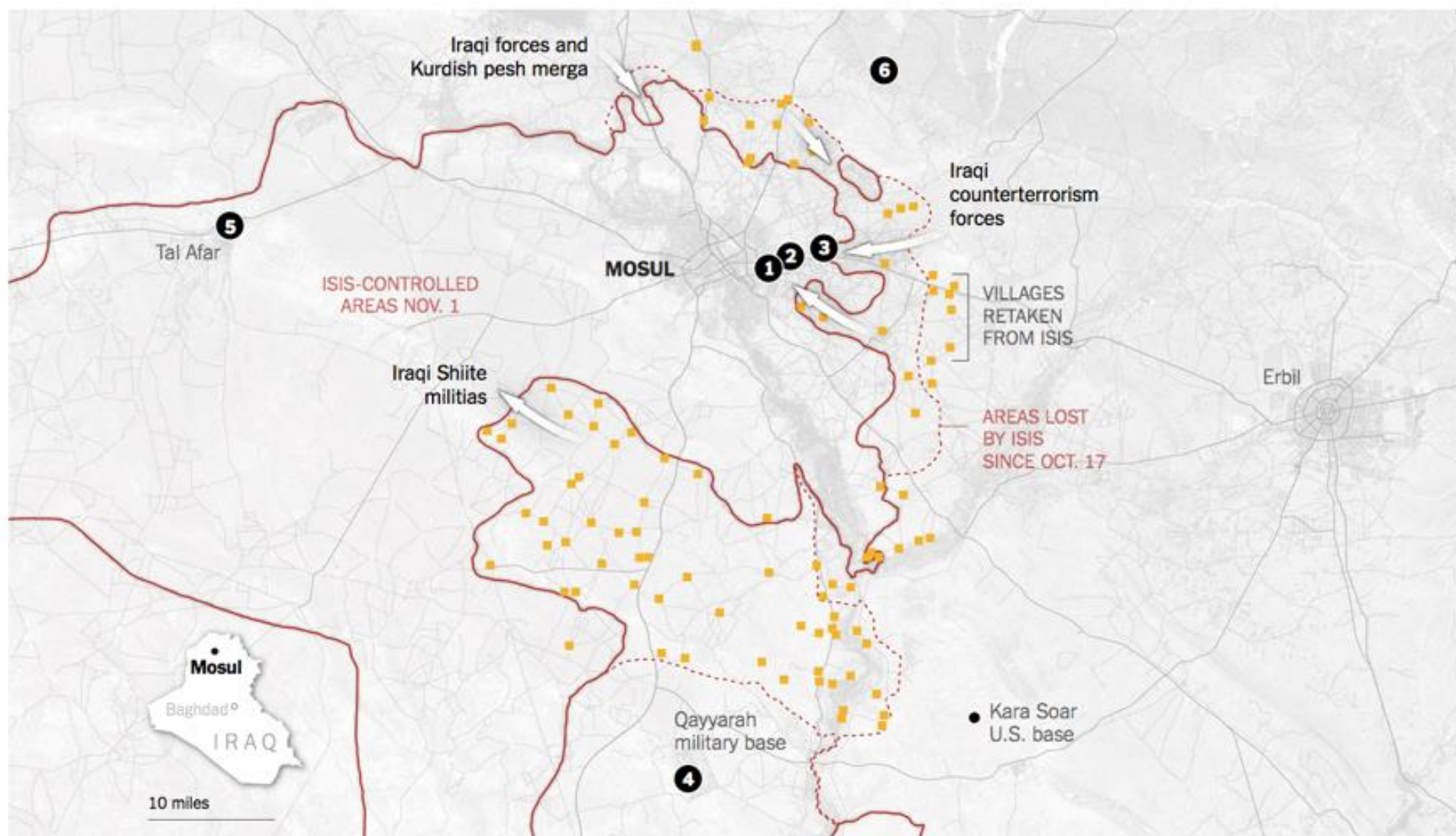
# Inverted Polygon Styling



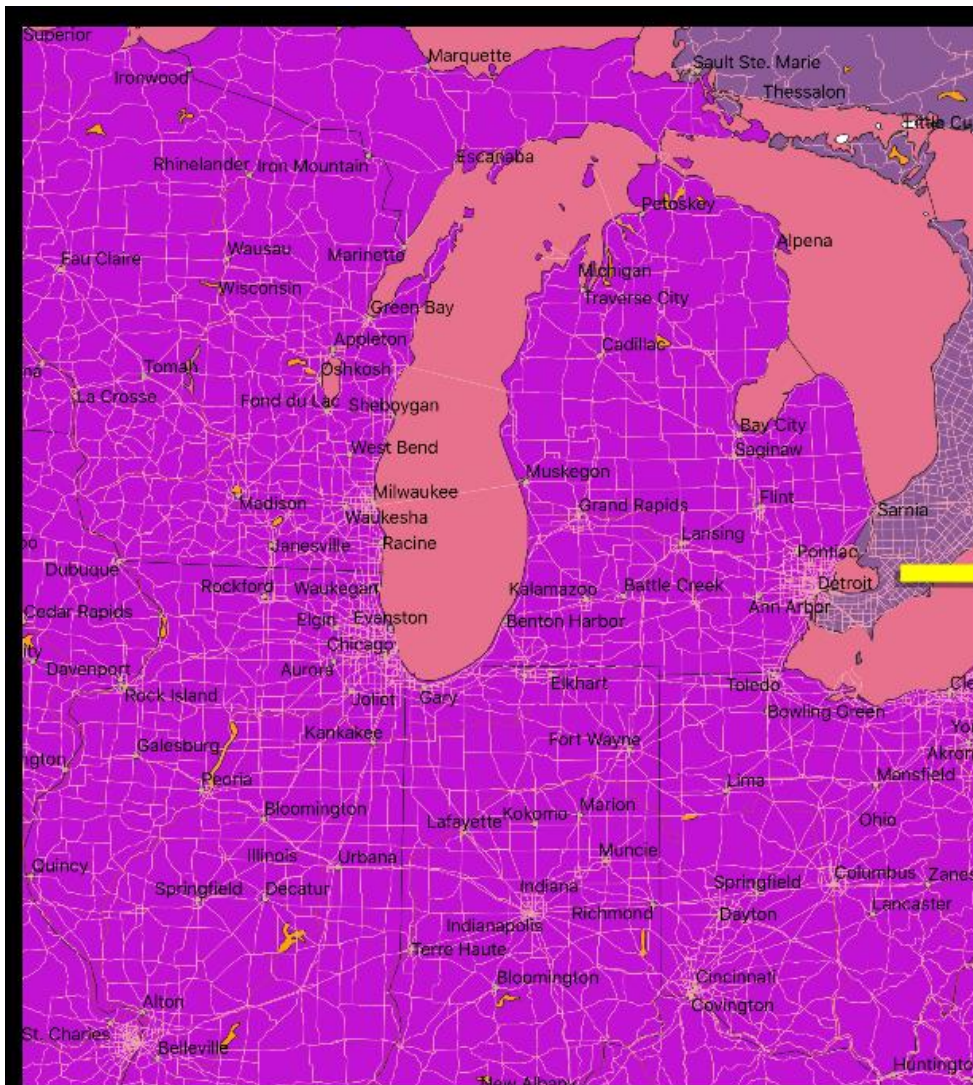
# Develop a Visual Hierarchy

- It would be very easy to have a point layer stand out on my map (although, it doesn't have to be so gray)
- Preview in grayscale (View > Preview Mode) to make sure things still look good!

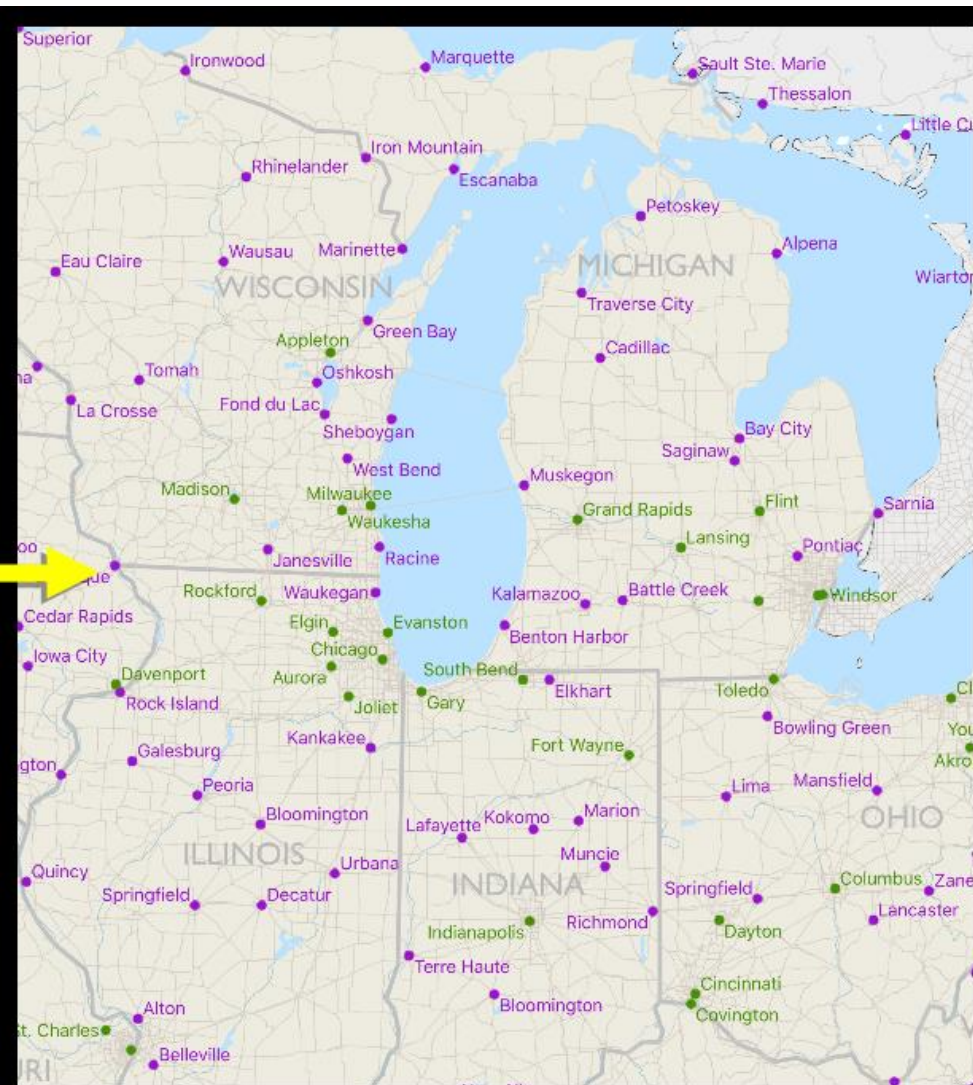








Default colors in QGIS



Developing a visual hierarchy through colors

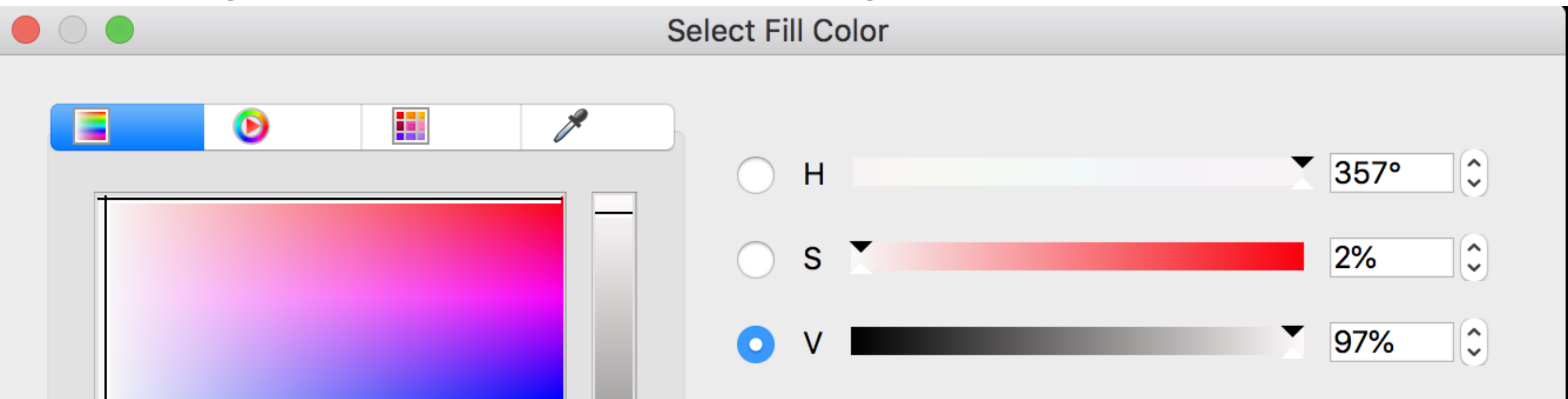


# Visual Hierarchy Cheatsheet

1. Start with a color for land that has very low saturation ('S') and very high value ('V'), which makes it very light/faded
2. Put roads on top, decreasing (or increasing) the value slightly. Also, make them very thin.
3. Add water features and other base layers. Change the hue (color), but maintain low saturation and high value levels. Remove all strokes around polygons.
4. Now you will have plenty of color space to make the most important things on the map highest in the visual hierarchy—high saturation and/or darker values will put them in high contrast against your subtle background
5. For representing data, ColorBrewer is always a good guide for colors:  
<http://colorbrewer2.org>

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