ggplot-map-test.R

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```
# ggplot map test
library(ggplot2) # beautiful graphs
library(sf) # simple (spatial) features
## Warning: package 'sf' was built under R version 4.1.1
## Linking to GEOS 3.9.1, GDAL 3.2.1, PROJ 7.2.1
library(here) # where am I?
## Warning: package 'here' was built under R version 4.1.1
## here() starts at C:/Users/agrogan/Desktop/GitHub/dataviz
setwd(here()) # set working directory so pathnames below work correctly
# getting the directory and filename right is important
buildings <- read_sf("./mapping/shapefiles/AA_Building_Footprints/AA_Building_Footprints.shp")</pre>
trees <- read_sf("./mapping/shapefiles/a2trees/AA_Trees.shp")</pre>
# plot(buildings)
# shp %>% ggplot(aes(fill = NAME)) + geom_sf()
# pdf("./mapping/mymap.pdf") # open PDF device
ggplot(buildings) +
  geom_sf(aes(color = Struc_Type, # color helps to see shapes on map
              fill = Struc_Type)) + # fill helps to see legend
  # geom_sf(data = trees,
            size = .1,
            color = "darkgreen") +
  scale_color_manual(name = "Structure Type",
                     values = c("red",
                                "orange",
                                "blue",
                                "grey")) +
  scale_fill_manual(name = "Structure Type",
                    values = c("red",
                                "orange",
                                "blue",
```

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"grey")) +
labs(title = "Ann Arbor") +
theme_minimal() +
theme(axis.text = element_text(size = rel(.5)))
```

Ann Arbor 42.32°N 42.28°N 42.28°N Ann Arbor Structure Type Commercial Office Public Residential

83.68°W

83.66°W

dev.off() # turn off PDF device

83.78°W

83.76°W

83.74°W

83.72°W

83.70°W

83.80°W

42.22°N