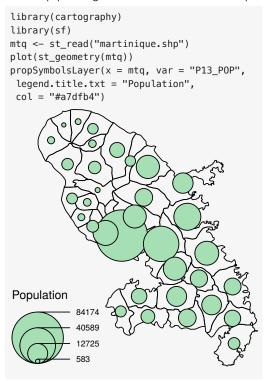
Thematic maps with cartography:: cheat sheet

Use cartography with spatial objects from sf or sp packages to create thematic maps.



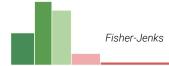
Classification

Available methods are: quantile, equal, q6, fisher-jenks, mean-sd, sd, geometric progression...

```
bks1 <- getBreaks(v = var, nclass = 6,
    method = "quantile")
bks2 <- getBreaks(v = var, nclass = 6,
    method = "fisher-jenks")
pal <- carto.pal("green.pal",3, "wine.pal", 3)
hist(var, breaks = bks1, col = pal)</pre>
```



hist(var, breaks = bks2, col = pal)



Symbology

In most functions the x argument should be an sf object. sp objects are handled through spdf and df arguments.



Choropleth
choroLayer(x = mtq, var = "myvar",
 method = "quantile", nclass = 8)



Typology
typoLayer(x = mtq, var = "myvar")



Proportional Symbols propSymbolsLayer(x = mtq, var = "myvar", inches = 0.1, symbols = "circle")



Colorized Proportional Symbols (relative data)
propSymbolsChoroLayer(x = mtq, var = "myvar",
var2 = "myvar2")



Colorized Proportional Symbols (qualitative data) propSymbolsTypoLayer(x = mtq, var = "myvar", var2 = "myvar2")



Double Proportional Symbols
propTrianglesLayer(x = mtq, var1 = "myvar",
 var2 = "myvar2")



OpenStreetMap Basemap (see rosm package)
tiles <- getTiles(x = mtq, type = "osm")
tilesLayer(tiles)</pre>



Isopleth (see SpatialPosition package)
smoothLayer(x = mtq, var = "myvar",
typefct = "exponential", span = 500,
heta = 2)



Discontinuities discLayer(x = mtq.borders, df = mtq, var = "myvar", threshold = 0.5



Flows
propLinkLayer(x = mtq_link, df = mtq_df,
 var = "fij")



Dot Density
dotDensityLayer(x = mtq, var = "myvar")



Labels labelLayer(x = mtq, txt = "myvar", halo = TRUE, overlap = FALSE)

Transformations

Polygons to Grid
mtq_grid <- getGridLayer(x = mtq, cellsize = 3.6e+07,
 type = "hexagonal", var = "myvar")</pre>



Grids layers can be used by choroLayer() or propSymbolsLayer().

Points to Links

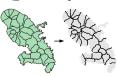
mtq_link <- getLinkLayer(x = mtq, df = link)





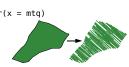
Links layers can be used by *LinkLayer().

Polygons to Borders mtq_border <- getBorders(x = mtq)



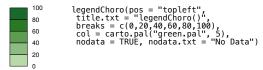
Borders layers can be used by discLayer() function

Polygons to Pencil Lines mtq_pen <- getPencilLayer(x = mtq)

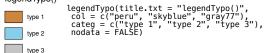


Legends

legendChoro()



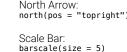
No Data legendTypo()



legendCirclesSymbols()



Map Layout



Full Layout: layoutLayer(title = "Martinique", tabtitle = TRUE, frame = TRUE, author = "Author", sources = "Sources", north = TRUE, scale = 5)

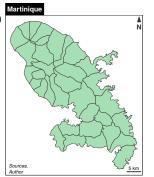
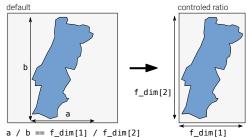


Figure Dimensions

Get figure dimensions based on the dimension ratio of a spatial object, figure margins and output resolution.

```
f_dim <- getFigDim(x = sf_obj, width = 500,
    mar = c(0,0,0,0))
png("fig.png", width = 500, height = f_dim[2])
par(mar = c(0,0,0,0))
plot(sf_obj, col = "#729fcf")
dev.off()</pre>
```



Color Palettes

carto.pal(pal1 = "blue.pal", n1 = 5,
 pal2 = sand.pal, n2 = 3)

