note: this is the exact same slide deck that i teach from on “cartography and design” day for GEOG 260. sharing it with you all in case some of the materials are helpful!

cartography and design

foundations of geospatial analysis

2026.09.16

reminder

my office hours are
11-12 (Th) and 10-11 (F)

reminder

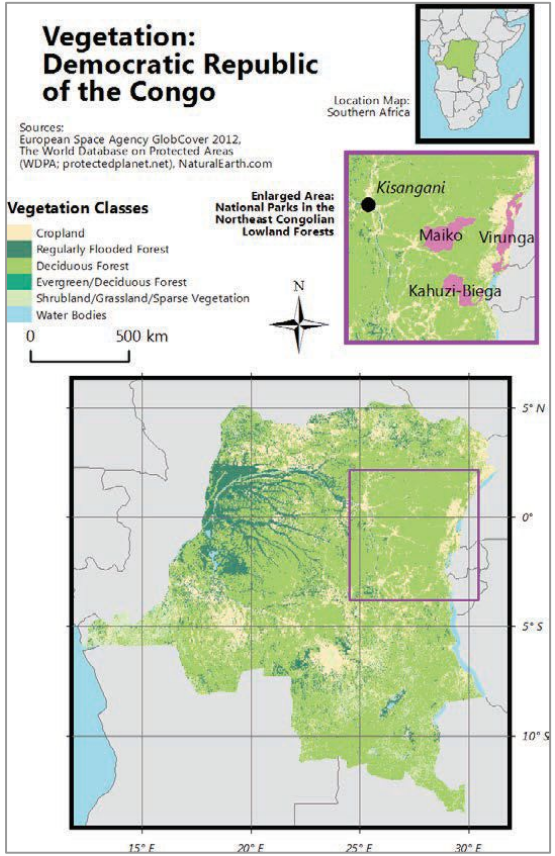
but SAL interns can help you work on labs any day!

reminder

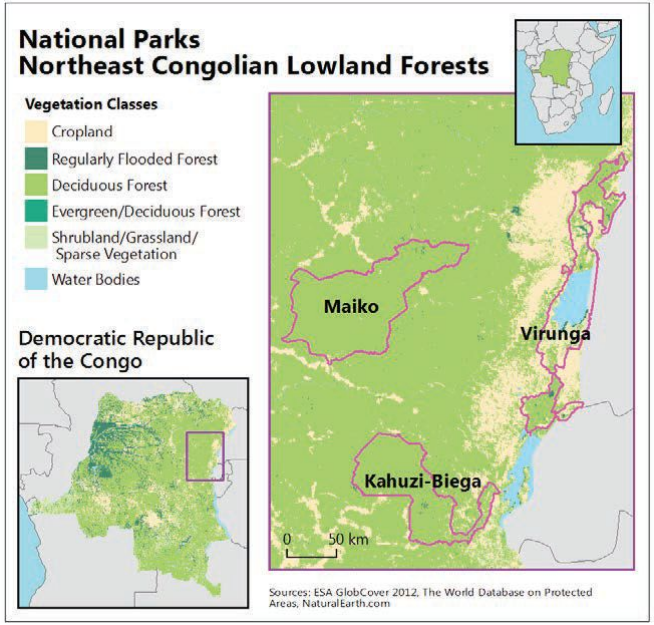
they are available 3-5 (M-Th) and 11-1 (F)

which one of these do you prefer?

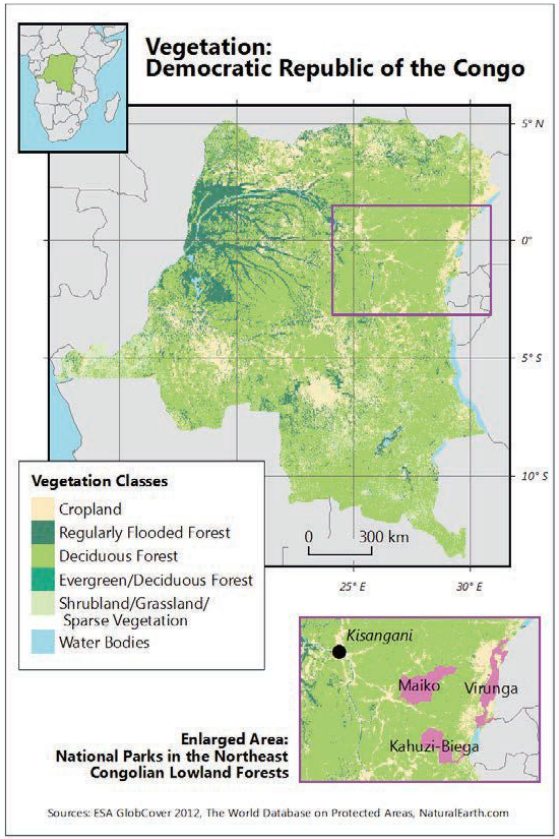
1



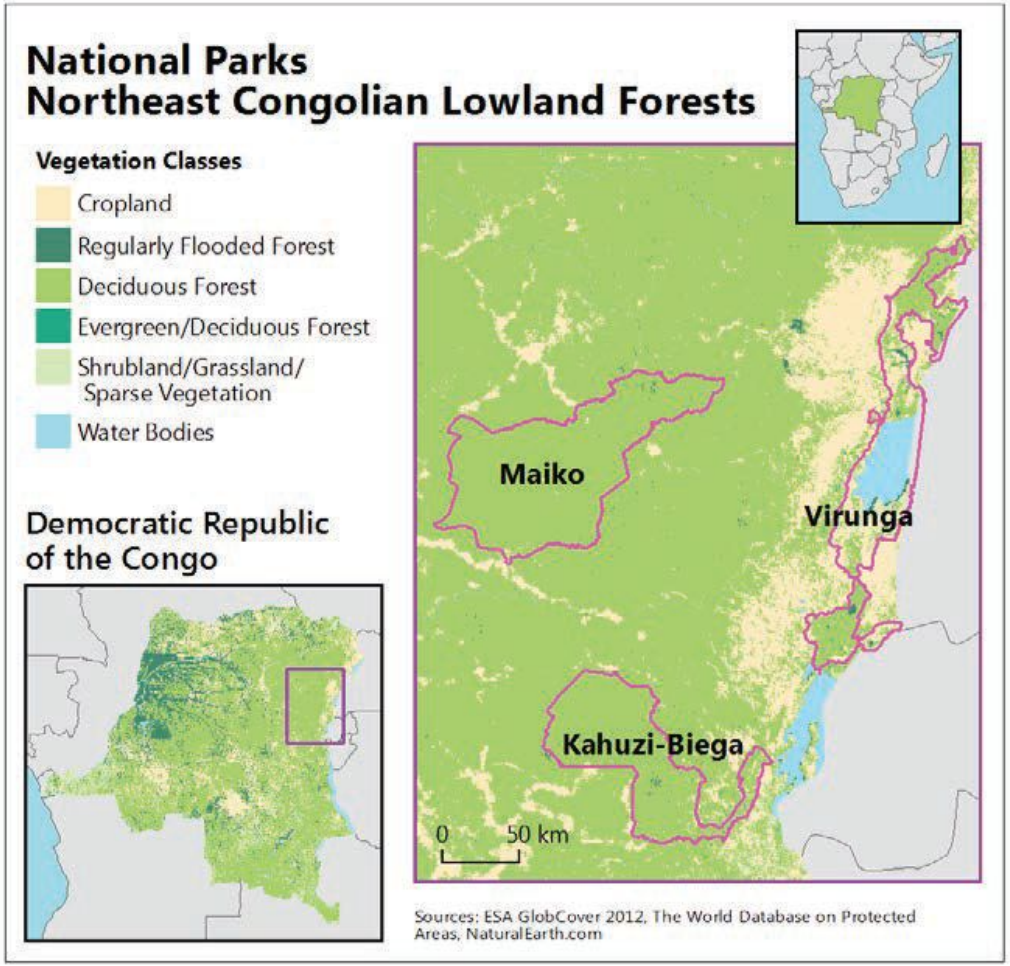
2



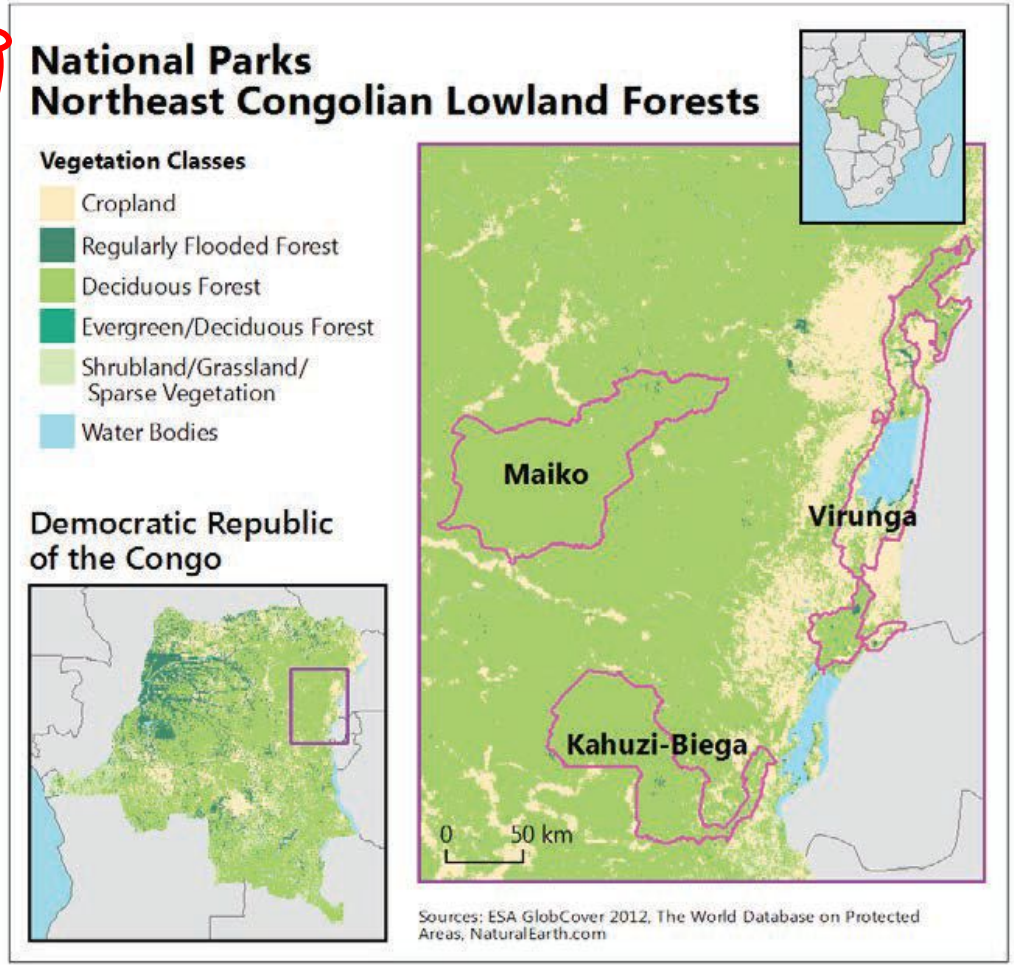
3



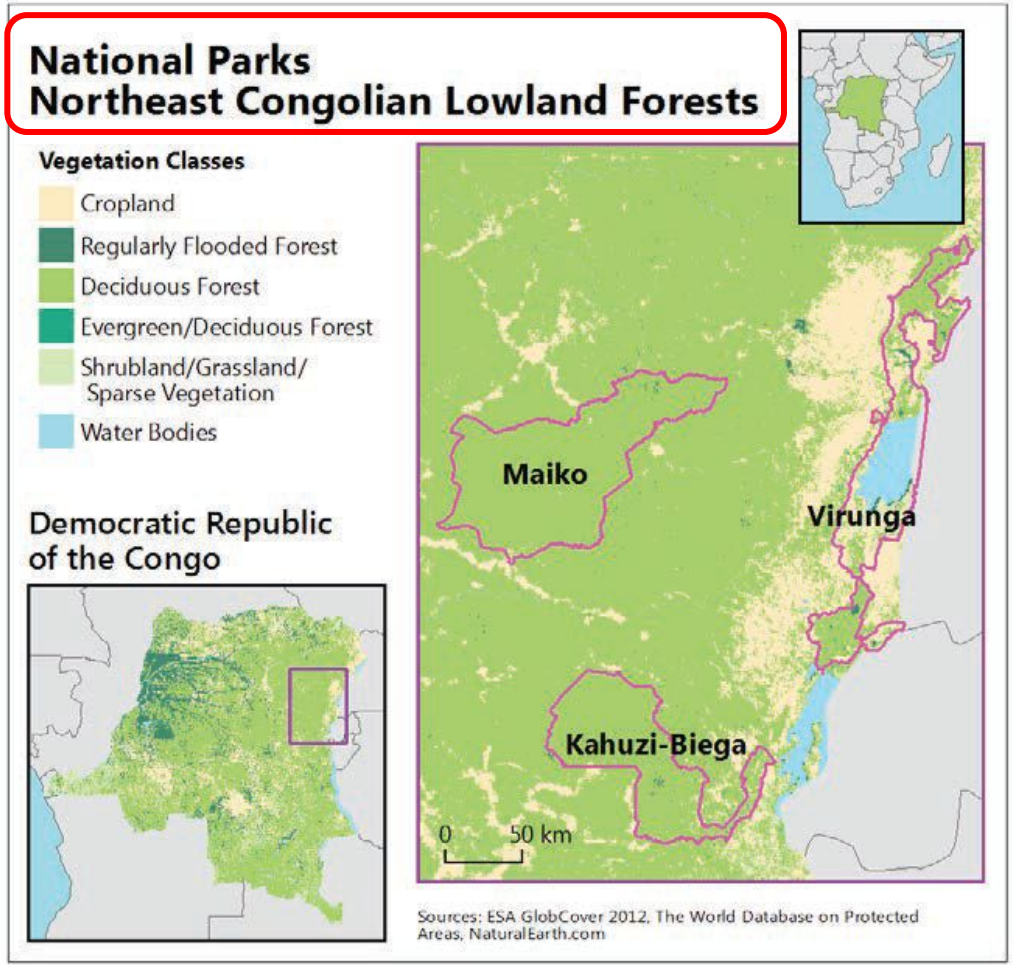
map 2


National Parks
Northeast Congolian Lowland Forests
Vegetation Classes
Cropland
Regularly Flooded Forest
Deciduous Forest
Evergreen/Deciduous Forest
Shrubland/Grassland/
Sparse Vegetation
Water Bodies
Democratic Republic
of the Congo
Maiko
Virunga
Kahuzi-Biega
0
50 km
Sources: ESA GlobCover 2012, The World Database on Protected
Areas, NaturalEarth.com

neatline around map leaves breathing room



clear title


National Parks
Northeast Congolian Lowland Forests
Vegetation Classes
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Regularly Flooded Forest
Deciduous Forest
Evergreen/Deciduous Forest
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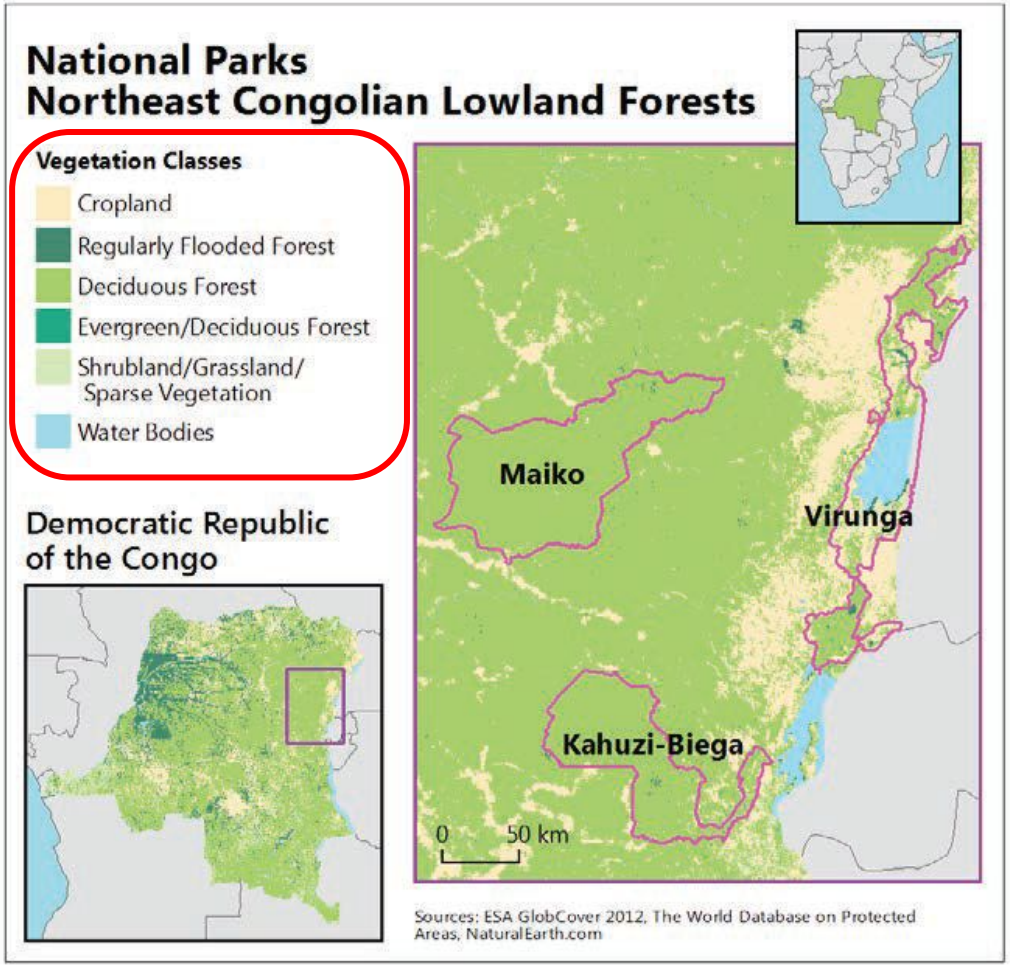
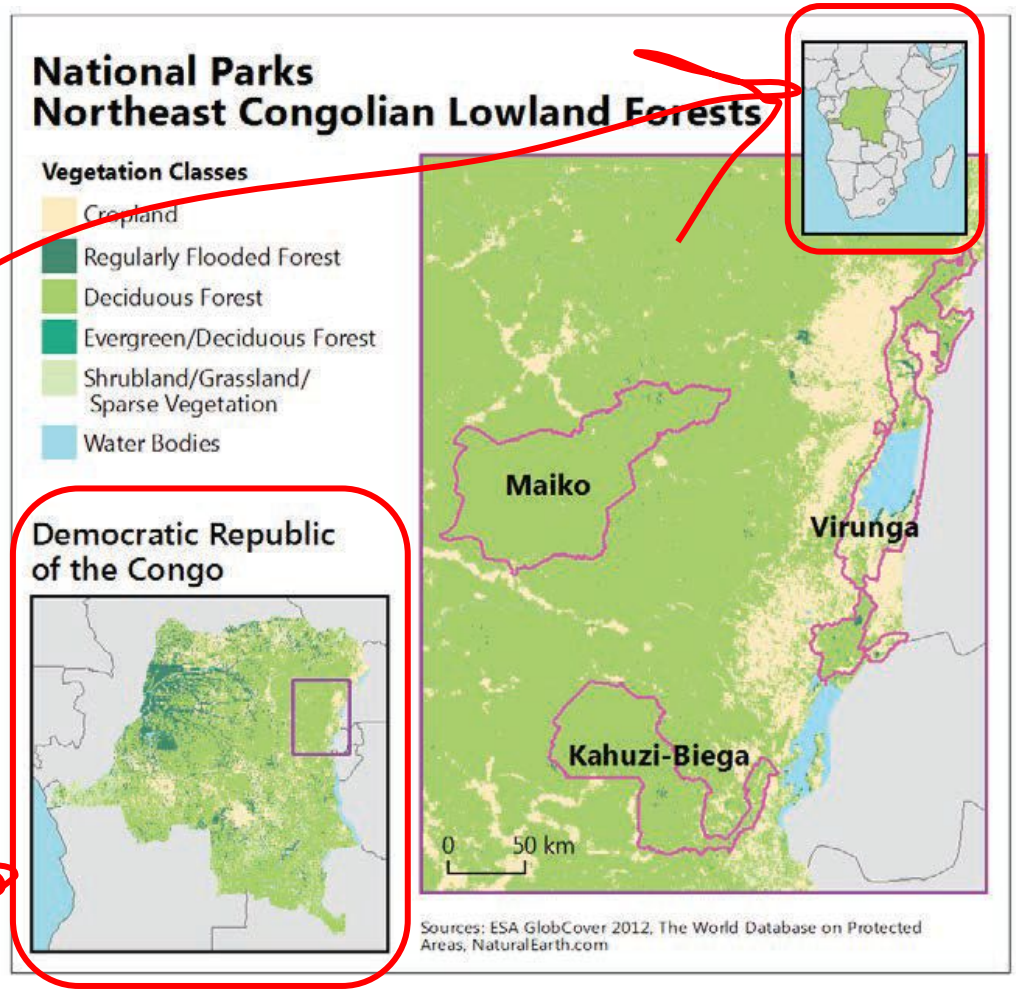
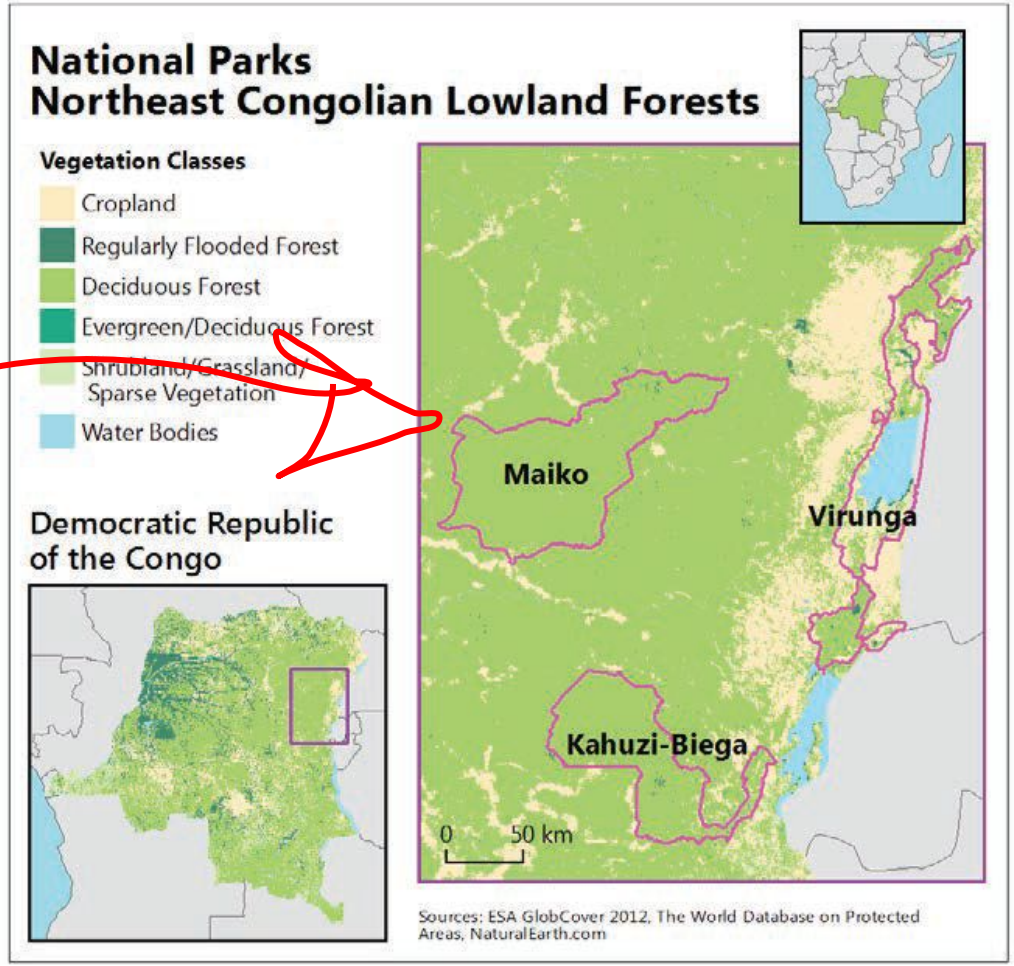
Democratic Republic
of the Congo
Maiko
Virunga
Kahuzi-Biega
0
50 km
Sources: ESA GlobCover 2012, The World Database on Protected
Areas, NaturalEarth.com

legend is left-aligned with other features



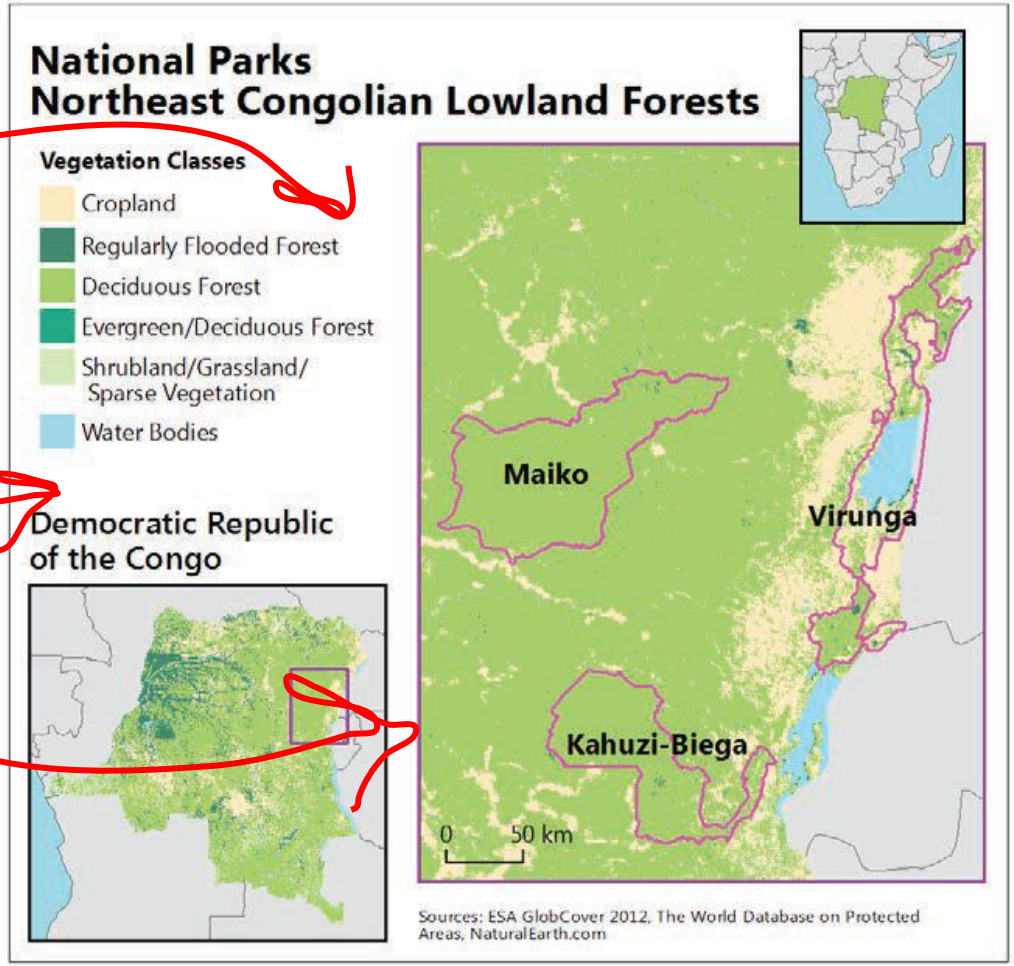
inset maps clarify without distracting





"visual center" (~5° above "cartesian" center) of image contains meaningful information

in general there is empty space between features, giving everything room to breathe



is this map perfect?

is this map perfect?
no, it is not perfect

it helps highlight that people tend to agree on what kinds of designs look better

… but, you shouldn’t assume that “better” design is universal

map design &
elements of the map

goals of map design

clarity: emphasize important points, eliminate or remove things that don't emphasize

order: logic of the map. is there clutter? how is it oriented (X or Y axis)?

balance: place weight at optical center of map (5% above Cartesian center).

contrast: how are you utilizing difference? bright/dark, thick/thin, heavy/light.

unity: how are you building your map elements into a cohesive purpose?

harmony: how are the elements of your map working together visually?

elements of the map

main map
smaller-scale location map
inset maps showing detail
insets of locations outside main map
title
subtitles
legends
scale indicators
orientation indicators

graticule (lines of latitude and longitude)
extent indicators
explanatory notes
source note
publisher credit and copyright notice
author credit
neatline
additional graphics (photos, graphs)

some of these are more important than others

main map
smaller-scale location map
inset maps showing detail
insets of locations outside main map
title
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source note
publisher credit and copyright notice
author credit
neatline
additional graphics (photos, graphs)

and many are not so important at all!

main map

smaller-scale location map

inset maps showing detail

insets of locations outside main map

title

~~subtitles~~

legends

~~scale indicators~~

orientation indicators

~~graticule (lines of latitude and longitude)~~

~~extent indicators~~

explanatory notes

source note

publisher credit and copyright notice

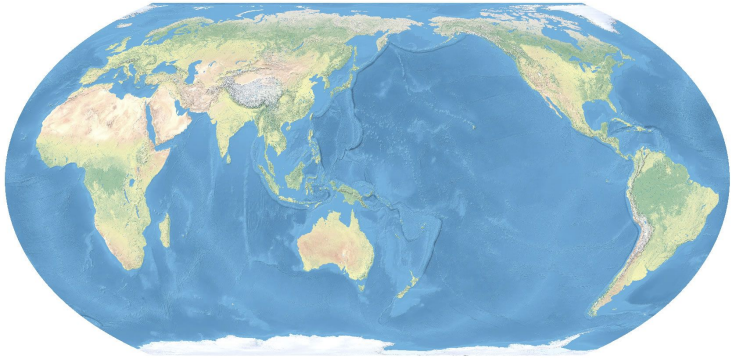
author credit

~~neatline~~

additional graphics (photos, graphs)

case study: the north arrow

put a north arrow on it, by John Nelson



In the hyper-technical world of cartography one must often endure a no-holds-barred review session where a map is scrutinized against a time-tested checklist of must-haves.

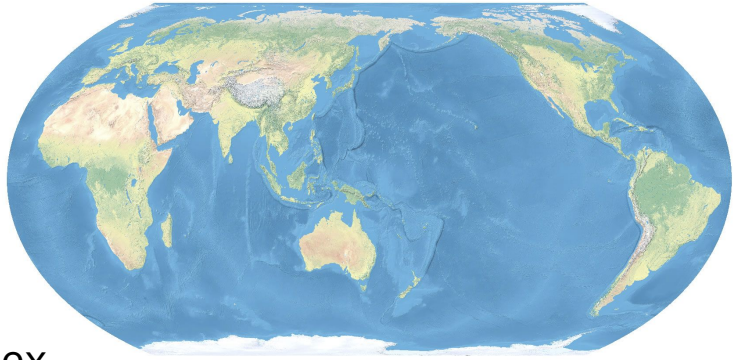
Title? Check.
Scalebar? Check.
Legend? Check.
North arrow? Check.

Only then is it an acceptable spatial document worthy of the masses…

…except not really.

A really great map can have any, or none, of those things. We'll focus on the illustrious north arrow. Do you always need to put a north arrow on a map? No way. In fact, frequently you should *not* put a north arrow on a map. Here are a handful of examples, and how north-arrow worthy they are.

a north arrow should...



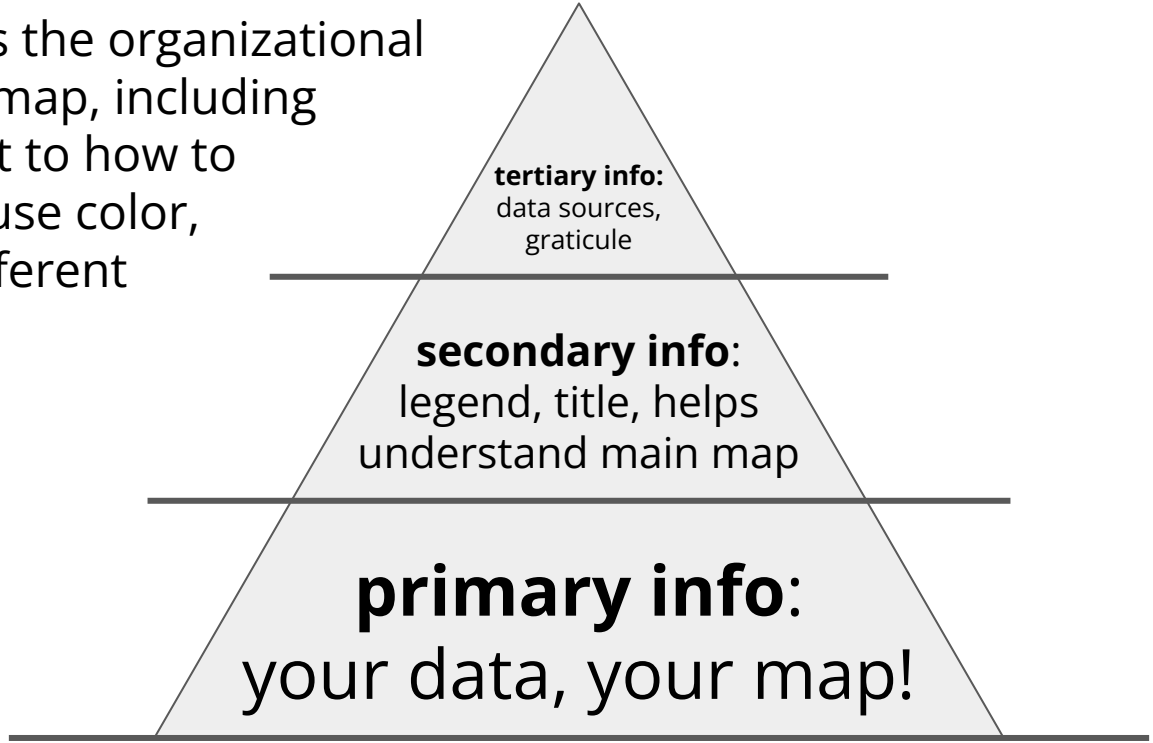
- be a considered addition, not a dogmatic reflex
- compliment the map's visual design
- probably be a lot smaller and simpler than you might think
- graticules (latitude/longitude grid) can often replace a north arrow, and they look cool
- consider making your own branded SVG or PNG north arrow

intellectual &
visual hierarchy

intellectual hierarchy

adapted from axismaps

this describes the organizational logic of your map, including choices about to how to label things, use color, and apply different sizes to fonts



intellectual hierarchy

from gistbok

rank	static map elements	interactive map elements
1	thematic symbols	title/splash screen
2	title/legend/map symbols/labels	symbology, key reference data, info windows (opened)
3	base map: land areas, political boundaries, physical features	base map, base map labels, navigation tools
4	explanatory materials: sources, credits	map interactivity, pan/zoom/selection tools, print/share features
5	base map: water features	locator maps, charts/graphs, multimedia supplements
6	other base map elements: labels, grids, scales	supplemental info, attributions, copyright, neatlines/grid/graticule, tool tips

the *intellectual hierarchy* **that you define will translate into a** *visual hierarchy* **that you** ***design***

visual hierarchy

old woman or young woman?

visual hierarchy

this describes the organization of design such that some things seem more important, and others less so

unless you want to create an optical illusion, show a clear distinction between the **figure** and the **ground**

visual hierarchy

this describes the organization of design such that some things seem more important, and others less so

unless you want to create an optical illusion, show a clear distinction between the **figure** and the **ground**

this is called the figure-ground relationship

this map of new york city in 1895 cleverly uses figure-ground and color to make an argument about urban politics

Map of New York City
SHOWING
CONCRETE
SOCIALISM
IN RED,
AND
PRIVATE ENTERPRISES
IN WHITE,
1895.
CENTRAL PARK
HUDSON RIVER
EAST RIVER

Map of New York City
SHOWING
CONCRETE
SOCIALISM
IN RED,
AND
PRIVATE ENTERPRISES
IN WHITE,
1895.
CENTRAL PARK
BLACKWELL ISLAND
HUDSON RIVER
EAST RIVER

Morphocode Explorer — Inter

explorer.morphocode.com/map

Finish update

Bookmarks | My Zoom | Mail - Spangler, la... | GBTU (non-HWG)... | Atlascope tour ge... | Free Boston Globe... | gbtu-data | GB-Digital-Pedag... | All Bookmarks

MORPHOCODE EXPLORER

Pedestrian Shed

A pedshed represents the area within walking distance from a central point. It is often visualized as a circle with a radius of 0.25 miles — the equivalent of a 5-minute walk. Learn more

Radius

Distance from the center in miles

0.25 — 0.50

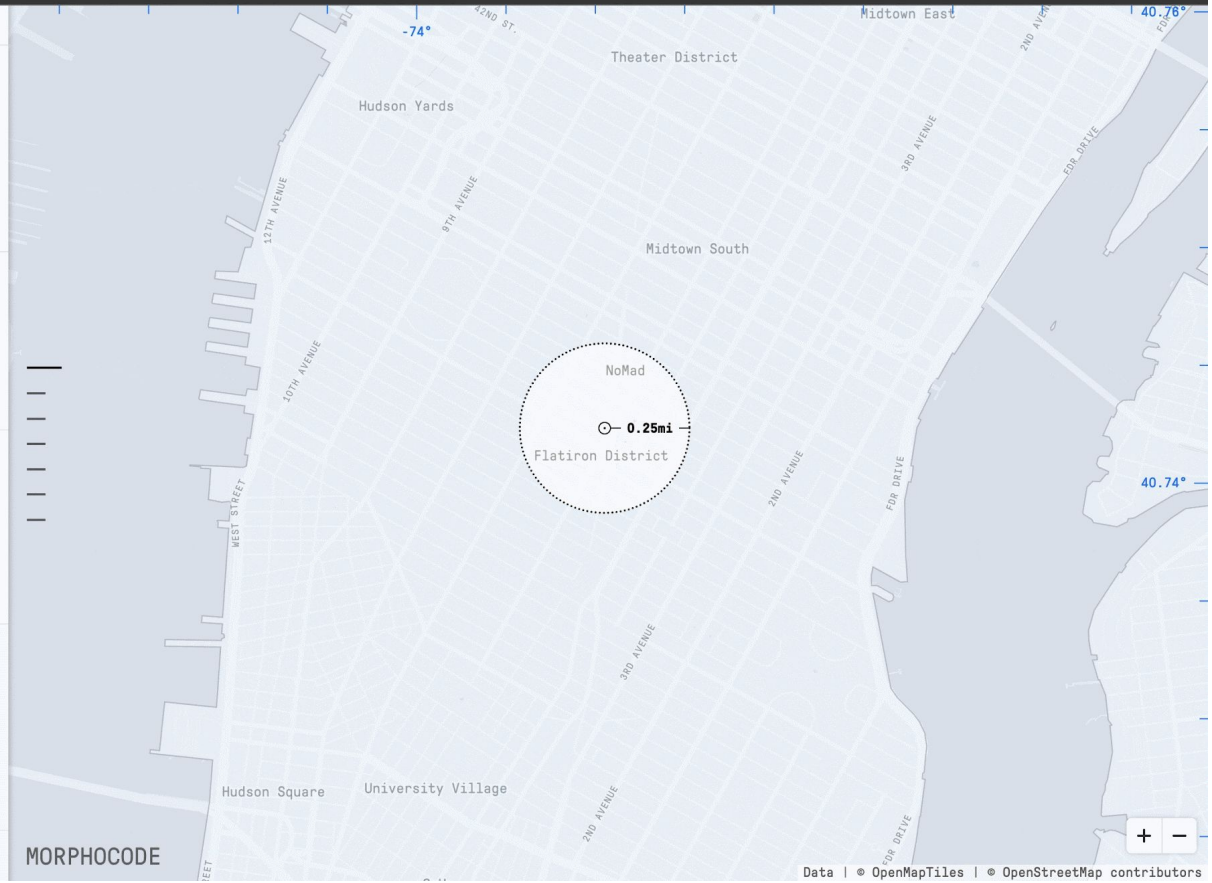
Catchment Area

0.25 mi	05:00
Distance	Walk Time

Figure Ground

A figure-ground map shows the relationship between built and unbuilt space. It conveys the grain of development and the overall morphology of the city. Learn more

Overview



visual hierarchy

the map on the top uses color choices (e.g., darker fonts, blue water) to create figure-ground effects through contrast

from [axismaps]

visual hierarchy

comparison of the same map, designed differently in four ways

A. Poor balance and white space; tips left, not unified

B. Poor balance and white space; bottom heavy, big hole

C. Better balance and white space; tips right, crowded

D. Much better balance and white space

from gistbok

fonts and letters

TABLE 13—*continued.*

LIVERPOOL STREET, FENCHURCH STREET, STRATFORD, ILFORD, ROMFORD, BRENTWOOD, SHENFIELD AND CHELMSFORD.

MONDAYS TO FRIDAYS INCLUSIVE.

(For trains on Saturdays see pages 63 to 68.)

	a.m.	a.m.	a.m.	a.m.	a.m.		a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.		a.m.	a.m.		p.m.	p.m.	p.m.	p.m.		p.m.	p.m.		p.m.
LIVERPOOL ST. ..dep	1034	..	10 46	1045	1049	..	..	1111	1110	..	1125	1130	..	1140	1145	..	1155	..	..	12 3	12 5	..	1215	..	1235	..	..	12 3
Bethnal Green ..... "	1038	..	..	1049	..	..	..	..	1114	..	..	..	..	1144	..	..	..	..	..	12 7	..	..	1219	..	1239	..	..	..
Coborn Road ..... "	1042	..	..	1053	..	..	..	..	1118	..	..	..	..	1148	..	..	..	..	..	1211	..	..	1223	..	1243	..	..	..
			SS														SS											
FENCHURCH ST. dep	..	1030	..	..	..	..	11 5	..	..	11 8	..	..	1139	..	.	..	..	1151	..	..	..	12 5	..	..	..	1235	..	..
Leman Street ..... "	..	1032	..	..	..	..	..	..	..	1110	..	..	..	..	..	..	..	1153	..	..	..	..	..	..	..	..	..	..
Shadwell & St. George's E.	..	1034	..	..	..	..	..	..	..	1112	..	..	..	..	..	..	..	1155	..	..	..	12 9	..	..	..	..	..	..
Stepney (East) ..... "	..	1037	..	..	..	..	1110	..	..	1115	..	..	1143	..	..	..	..	1158	..	..	..	1212	..	..	..	1240	..	..
Burdett Road ..... "	..	1039	..	..	..	..	1113	..	..	1117	..	..	1145	..	..	..	..	12 0	..	..	..	1214	..	..	..	1242	..	..
Bow Road ..... "	..	1043	..	..	..	..	1115	..	..	1121	..	..	1148	..	..	..	..	12 3	..	..	..	1217	..	..	..	1245	..	..
Stratford Market ..... arr	..	..	..	..	..	..	1121	..	..	..	..	..	1154	..	..	..	..	..	..	..	..	1223	..	..	..	1250	..	..
Stratford ..... arr.	1046	1049	..	1057	1059	..		1120	1123	1126	1134	..		1152	1155	..	..	12 6	..	1214	1218		1227	..	1245		..	..
..... dep.		1050	10 58		11 0	..	..	1121		1128	1136		..		1156	..	1206	1210	..		1216	..	1228				..	..
Maryland Point ..... "	..	1052	..	..	11 2	..	..	1124	..	1130	1138	..	..	..	1159	..	..	1212	..	..	1218	..	1231	..	..	..	..	..
Forest Gate ..... "	..	1055	..	..	11 5	..	..	1127	..	1133	1141	..	..	..	12 2	..	..	1215	..	..	1221	..	1234	..	..	..	..	..
Manor Park ..... "	..	1058	..	..	11 8	..	..	1130	..	1136	1145	..	..	..	12 5	..	..	1219	..	..	1225	..	1237	..	..	..	..	..
Ilford ..... "	..	11 3	..	..	1113	..	..	1134	..	1140	1150	..	..	..	1210	..	1218	1222	..	..	1230	..	1241	..	..	..	..	..
Seven Kings ..... "	..	11 7	..	..	1117	..	..	1138	..	To Woodford.	1154	..	..	..	1214	..	..	..	..	..	1234	..	1245	..	..	..	..	..
Goodmayes ..... "	..	1110	..	..	1120	..	..	1141	..		1157	..	..	..	1217	..	..	..	..	..	1237	..	1248	..	..	..	..	..
Chadwell Heath ..... "	..	1112	..	..	1124	..	..	1143	..		12 0	..	..	..	1220	..	..	..	..	..	1240	..	1251	..	..	..	..	..
Romford ..... "	..		11 13	..	1131	..	..	1151	..		12 6	..	..	..	1226	..	..	..	..	..	1246	..	1257	..	..	..	..	..
Gidea Park & Squirrels Heath	..	..	11 17	..	1135	..	..	1154	..		12 9	..	..	..	1229	..	..	..	..	..	1249	..	1 1	..	..	..	..	..
Harold Wood ..... "	..	..	11 21	..	1139	..	..		..		..	..	..	..		..	..	..	..	..		..	1 5	..	..	..	..	..
Brentwood and Warley .. "	..	..	11 30	..	1146	..	..	..	..		..	..	..	..	..	..	1231	..	..	..	..	..	1 13	..	..	..	..	..
Shenfield and Hutton .... "	..	..	11 36	..	..	..	..	..	..	..	..	..	..	..	..	..	1235	..	..	..	..	..	..	..	..	..	..	..
Ingatestone ..... "	..	..	11 43	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
CHELMSFORD ....arr	..	..	11 52	..	..	..	..	..	..	..	..	1212	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1 21

D Calls at Stratford to take up passengers only.
F Calls at Ilford to take up passengers only.

SS Second class carriages are not run on these trains.

TABLE 13—*continued*

LIVERPOOL STREET, FENCHURCH STREET, STRATFORD, ILFORD, ROMFORD, BRENTWOOD & WARLEY, SHENFIELD & HUTTON AND CHELMSFORD

MONDAYS TO FRIDAYS INCLUSIVE
(For trains on Saturdays see pages 63 to 69)

				S S								N					S S N	P	S S P						R	R				
		a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.		a.m.	a.m.		a.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.		p.m.
LIVERPOOL STREET	dep.	1034	..	10 46	1045	1049	1111	..	1110	..	1125	1130	1137	1142	..		1153	1156	12 0	..	12 3	12 5	..	1219	1225	..	1233	..	..	1242
Bethnal Green — — — — —	,,	1038	—	—	1049	—	—	—	1114	—	—	—	1141	—	—		—	—	—	—	12 7	—	—	1223	—	—	1237	—	—	1246
Coborn Road for Old Ford	,,	1042	..	..	1053	..	..	..	1118	..	..	..	1145	..	..		..	..	..	..	1211	..	..	1227	..	..	1241	..	..	..
FENCHURCH STREET —	dep.	—	1030	—	—	—	—	11 5	—	11 8	—	—	—	—	1138		—	—	—	1154	—	—	12 5	—	—	—	—	1235	—	—
Leman Street	,,	..	1032	..	..	..	..	..	..	1110	..	..	..	..	..		..	..	..	1156	..	..	..	..	..	..	..	..	..	..
Shadwell and St. George's East	,,	—	1034	—	—	—	—	—	—	1112	—	—	—	—	—		—	—	—	1158	—	—	12 9	—	—	—	—	—	—	—
Stepney (East)	,,	..	1037	..	..	..	..	1110	..	1115	..	..	..	..	1143		..	..	..	12 1	..	..	1212	..	..	..	..	1240	..	..
Burdett Road— — — — —	,,	—	1039	—	—	—	—	1112	—	1117	—	—	—	—	1145		—	Restaurant Car	—	12 3	—	—	1214	—	—	—	—	1242	—	—
Bow Road	,,	..	1043	..	..	..	..	1115	..	1121	..	..	..	..	1148		..		..	12 6	..	..	1217	..	..	..	..	1245	..	..
Stratford Market — — — —	arr.	—	—	—	—	—	—	1121	—	—	—	—	—	—	1154		—		—	—	—	—	1222	—	—	—	—	1250	—	—
Stratford	arr.	1046	1049	..	1057	1059	1120	..	1123	1126	1134	..	1149	1152	..		..		..	1212	1215	1215	..	1231	..	..	1245	..	..	1252
	dep.		1050	10B58		11 0	1121	—		1128	1136	—		1153	—		12B3		12B10	1213		1216	—	1232	—	—		—	—	1253
Maryland Point	,,	..	1052	..	..	11 2	1124	..	..	1130	1138	..	..	1155	..		..		..	1215	..	1218	..	1235	..	..	..	..	..	1255
Forest Gate for Upton — — —	,,	—	1055	—	—	11 5	1127	—	—	1133	1141	—	—	1158	—		—		—	1218	—	1221	—	1238	—	—	—	—	—	1258
Manor Park for Little Ilford	,,	..	1058	..	..	11 8	1130	..	..	1136	1144	..	..	12 1	..		..		..	1221	..	1225	..	1241	..	..	..	..	..	1 1
Ilford — — — — — — —	,,	—	11 2	—	—	1113	1134	—	—	1140	1149	—	—	12 6	—		1210	—	1217	1224	—	1230	—	1245	—	—	—	—	—	1 6
Seven Kings	,,	..	11 6	..	..	1117	1138	..	..		1153	..	..	1210	..		..	..	..	..	..	1234	..	1249	..	..	..	..	..	1 10
Goodmayes — — — — —	,,	—	11 9	—	—	1120	1141	—	—		1156	—	—	1213	—		—	—	—	—	—	1237	—	1252	—	—	—	—	—	1 13
Chadwell Heath for Becontree ..	,,	..	1111	..	..	1124	1144	..	..		1159	..	..	1216	..		..	..	..	..	..	1240	..	1255	..	..	..	..	..	1 16
Romford — — — — — —	,,	—		11 13	—	1130	1150	—	—	To Woodford	12 5	—	—	1222	—		1219	—	—	—	—	1246	—	1 1	—	—	—	—	—	1 22
Gidea Park and Squirrels Heath ..	,,	..	..	11 17	..	1134	1153	..	..		12 8	..	..	1225	..		..	..	..	..	..	1249	..	1 5	..	..	..	..	..	1 26
Harold Wood — — — — —	,,	—	—	11 21	—	1138		—	—			—	—		—		—	—	—	—	—		—	1 9	—	—	—	—	—	1 30
Brentwood and Warley	,,	..	..	11 30	..	1145	..	..	..		..	..	..	..	..		1231	..	1235	..	..	..	..	1 16	..	..	..	..	..	1 41
Shenfield and Hutton — — —	,,	—	—	11 36	—	—	—	—	—	—	—	—	—	—	—		1236	—	1240	—	—	—	—	—	12C55	1 2	—	—	—	1 47
Ingatestone	,,	..	..	11 43	..	..	..	..	..	..	..	..	..	..	..		..		..	..	..	..	..	..		1 9	..	..	..	1 53
CHELMSFORD — — — —	arr.	—	—	11 52	—	—	—	—	—	—	—	1212	—	—	—		—	1238	—	—	—	—	—	—	—	1 18	—	—	—	

B Calls to take up passengers only
C Calls to set down passengers only
N Not after 29th September

P Commences 2nd October
R Runs Fridays 15th, 22nd and 29th September only
S S Second class carriages are not run on these trains

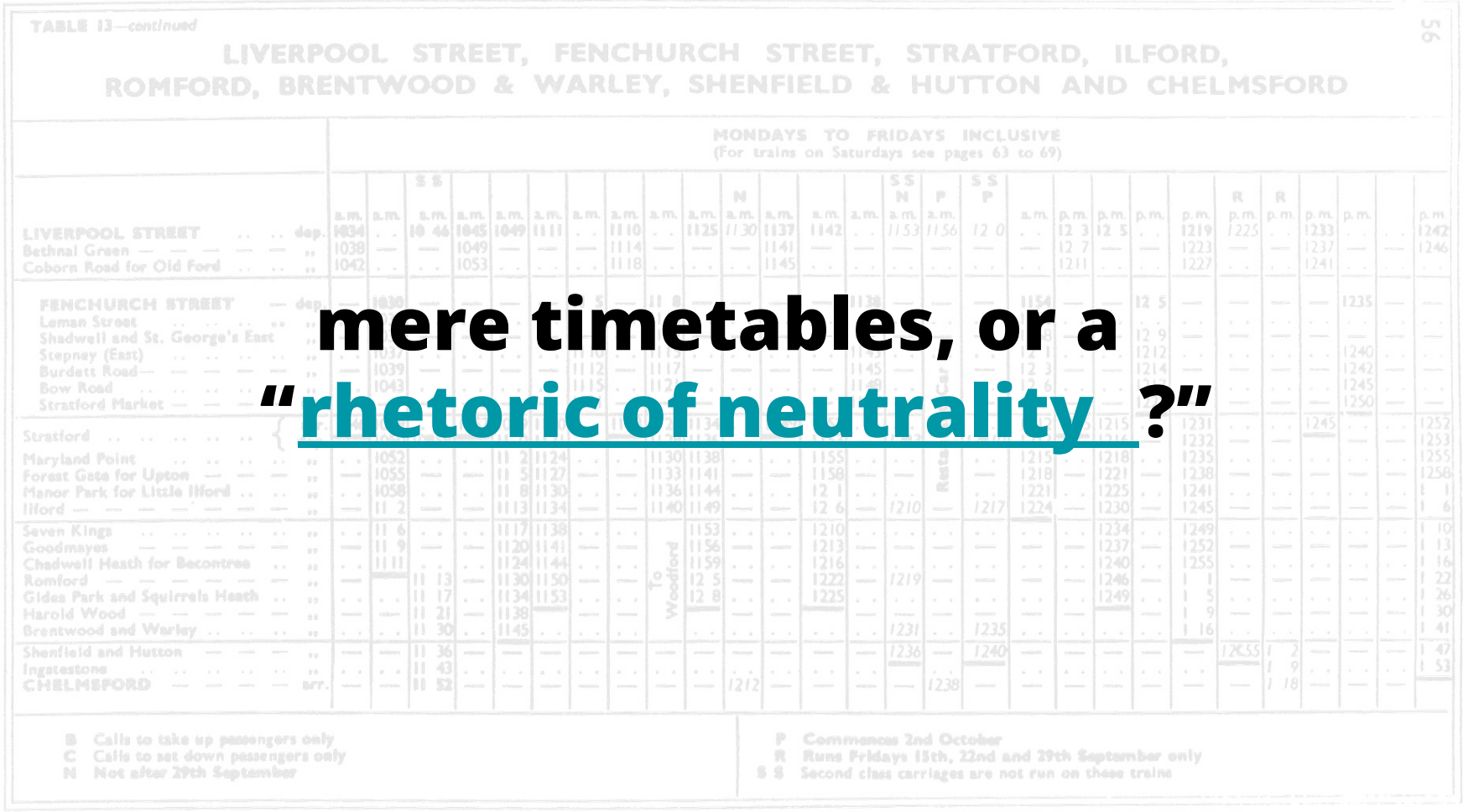


TABLE 13—*continued*

LIVERPOOL STREET, FENCHURCH STREET, STRATFORD, ILFORD, ROMFORD, BRENTWOOD & WARLEY, SHENFIELD & HUTTON AND CHELMSFORD

MONDAYS TO FRIDAYS INCLUSIVE
(For trains on Saturdays see pages 63 to 69)

			S S								N				S S N	P	S S P						R	R				
	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.		a.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.		p.m.
LIVERPOOL STREET .. .. dep.	1034	..	10 46	1045	1049	1111	..	1110	..	1125	1130	1137	1142	..	1153	1156	12 0	..	12 3	12 5	..	1219	1225	..	1233	..	..	1242
Bethnal Green — — — — — — ,,	1038	—	—	1049	—	—	—	1114	—	—	—	1141	—	—	—	—	—	—	12 7	—	—	1223	—	—	1237	—	—	1246
Coborn Road for Old Ford .. .. ,,	1042	..	..	1053	..	..	..	1118	..	..	..	1145	..	..	..	..	..	..	1211	..	..	1227	..	..	1241	..	..	..
FENCHURCH STREET — dep.	—	1030	—	—	—	—	5	—	11 8	—	—	—	—	1138	—	—	—	1154	—	—	12 5	—	—	—	—	1235	—	—
Leman Street .. .. ,,	—	1032	—	—	—	—	7	—	11 10	—	—	—	—	1140	—	—	—	1156	—	—	12 7	—	—	—	—	1237	—	—
Shadwell and St. George's East .. ,,	..	1037	..	..	..	..	..	1110	..	1115	..	..	..	1145	..	..	..	12 1	..	..	12 9	..	..	..	..	1240	..	..
Stepney (East) .. .. ,,	—	1039	—	—	—	—	1112	—	1117	—	—	—	—	1145	—	—	—	12 3	—	—	1214	—	—	—	—	1242	—	—
Burdett Road— — — — — ,,	—	1043	—	—	—	—	1115	—	1120	—	—	—	—	1148	—	—	—	12 6	—	—	12 6	—	—	—	—	1245	—	—
Bow Road .. .. ,,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1250	..	..
Stratford Market — — — ,,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Stratford .. .. ,,	..	..	..	..	11 2	1124	..	..	1130	1138	..	..	1155	..	..	..	..	1215	..	1218	..	1231	..	..	1245	..	..	1252
Maryland Point .. .. ,,	..	1052	..	..	11 5	1127	..	..	1133	1141	..	..	1158	..	..	..	..	1218	..	1221	..	1238	..	..	..	..	..	1258
Forest Gate for Upton — — — ,,	—	1055	—	—	11 8	1130	..	..	1136	1144	..	..	12 1	..	..	..	..	1221	..	1225	..	1241	..	..	..	..	..	1 1
Manor Park for Little Ilford .. .. ,,	..	1058	..	..	11 13	1134	—	—	1140	1149	—	—	12 6	—	1210	—	1217	1224	—	1230	—	1245	—	—	—	—	—	1 6
Ilford — — — — — — — ,,	—	11 2	—	—																								
Seven Kings .. .. ,,	..	11 6	..	..	11 17	1138	..	..		1153	..	..	1210	..	..	..	..	..	..	1234	..	1249	..	..	..	..	..	1 10
Goodmayes — — — — — ,,	—	11 9	—	—	11 20	1141	—	—		1156	—	—	1213	—	—	—	—	—	—	1237	—	1252	—	—	—	—	—	1 13
Chadwell Heath for Becontree .. ,,	..	11 11	..	..	11 24	1144	..	..		1159	..	..	1216	..	..	..	..	..	..	1240	..	1255	..	..	..	..	..	1 16
Romford — — — — — — ,,	—	—	11 13	—	11 30	1150	—	—	To Woodford	12 5	—	—	1222	—	1219	—	—	—	—	1246	—	1 1	—	—	—	—	—	1 22
Gidea Park and Squirrels Heath .. ,,	..	..	11 17	..	11 34	1153	..	..		12 8	..	..	1225	..	..	..	..	..	..	1249	..	1 5	..	..	..	..	..	1 26
Harold Wood — — — — — ,,	—	—	11 21	—	11 38		—	—			—	—		—	—	—	—	—	—		—	1 9	—	—	—	—	—	1 30
Brentwood and Warley .. .. .. ,,	..	..	11 30	..	11 45		..	..		..	..	..	..	..	1231	..	1235	..	..	..	..	1 16	..	..	..	..	..	1 41
Shenfield and Hutton — — — ,,	—	—	11 36	—	—	—	—	—	—	—	—	—	—	—	1236	—	1240	—	—	—	—	—	12C55	1 2	—	—	—	1 47
Ingatestone .. .. ,,	..	..	11 43	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1 9	..	..	..	1 53
CHELMSFORD — — — — arr.	—	—	11 52	—	—	—	—	—	—	—	1212	—	—	—	—	1238	—	—	—	—	—	—	—	1 18	—	—	—	

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56

mere timetables, or a "rhetoric of neutrality ?"

At State Dept., a Typeface Falls Victim in the War Against Woke

Secretary of State Marco Rubio called the Biden-era move to the sans serif typeface "wasteful," casting the return to Times New Roman as part of a push to stamp out diversity efforts.

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377

At State Dept., a Typeface Falls Victim in the War Against Woke

Secretary of State Marco Rubio called the Biden-era move to the sans serif typeface "wasteful," casting the return to Times New Roman as part of a push to stamp out diversity efforts.

By Michael Crowley and Hamed Aleaziz
Reporting from Washington

Dec. 9, 2025

Secretary of State Marco Rubio waded into the surprisingly fraught politics of typefaces on Tuesday with an order halting the State Department's official use of Calibri, reversing a 2023 Biden-era directive that Mr. Rubio called a "wasteful" sop to diversity.

serif	sans serif
Usually reserved for natural features	Usually reserved for human-made features
Implies tradition, dignity, and solidity	Implies newness, precision, and authority
Italics indicate motion, such as in a river	*Italics indicate motion, such as on a road*

Avoid using MORE *than* **two** typefaces

Watch out for **over-bolding** and SHOUTING

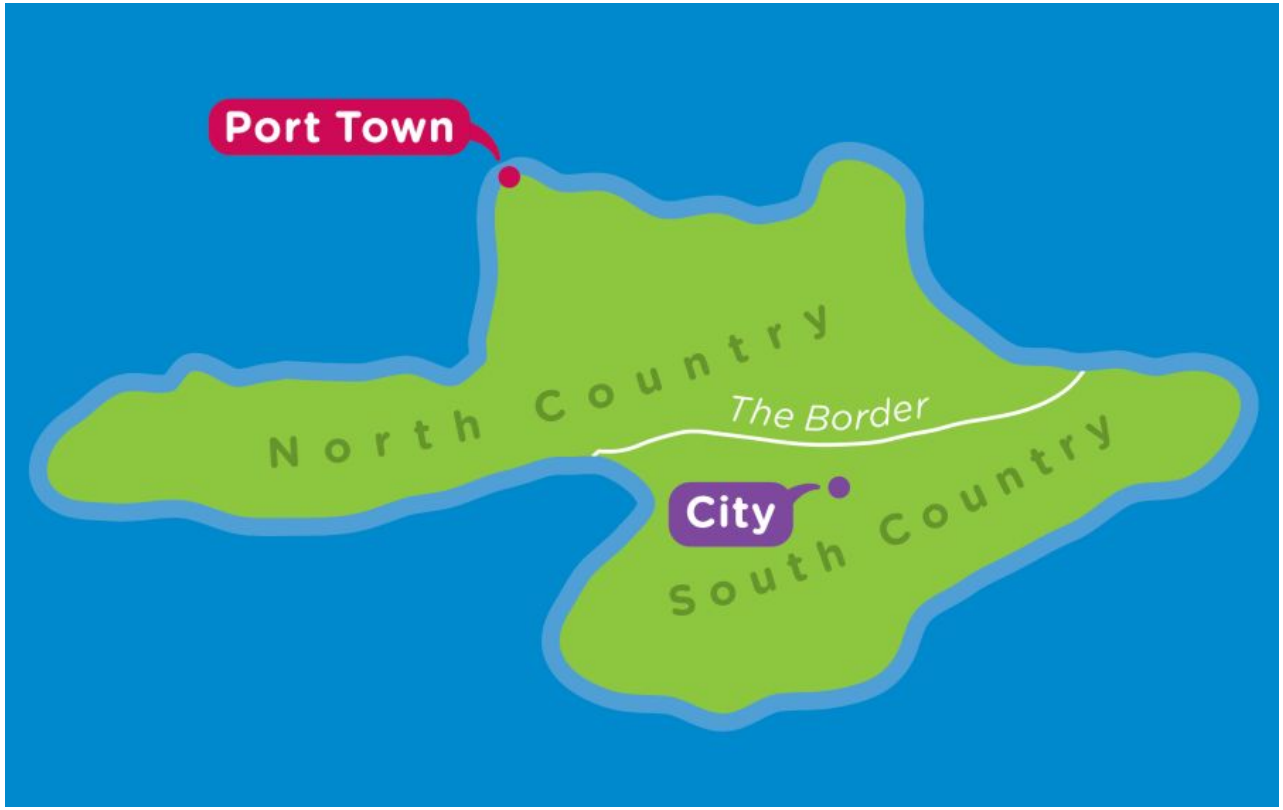
consider font size **discipline**

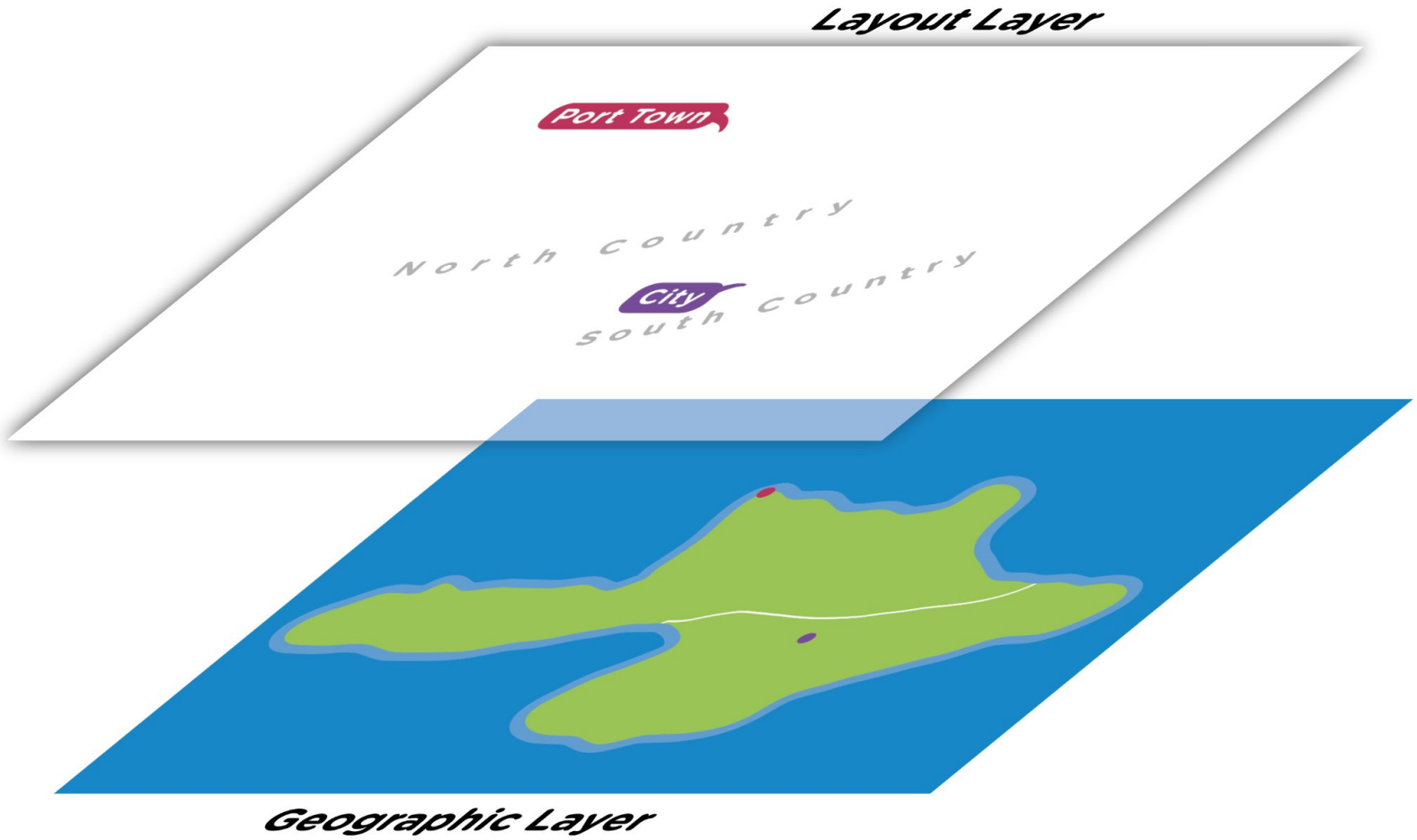
<u>don't underline</u> 😁

the only difference between these two maps is the font. some considerations:

- the typeface must be legible in small sizes
- typeface should be narrow
- different styles and weights of the typeface must be clearly differentiated
- individual letters should appear different from one another

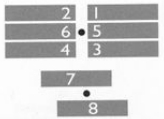
labeling


Port Town
North Country
The Border
City
South Country


Layout Layer
Port Town
North Country
City
South Country
Geographic Layer

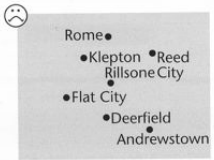
Labeling Point Data

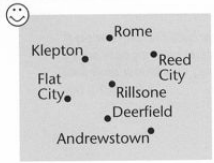
When labeling point symbols on a map, start at the center of the map and work outward. For each symbol, follow these priorities, where 1 is best, 8 is worst.

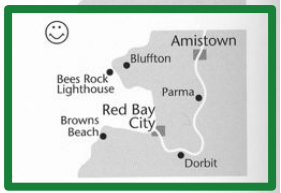


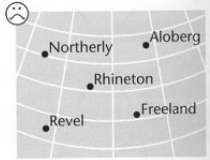
Show characteristics of the labeled location with type placement.

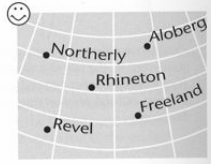
Label ports and harbor towns on the sea
Label inland towns on the land
Label land features on land; water features on water
Label towns on the side of the river on which they are located
Align type to grid (latitude) if grid is included





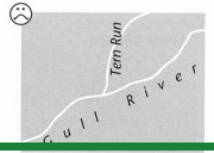


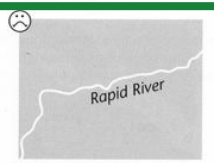


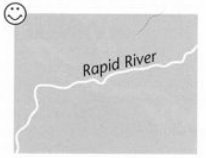


Labeling Line Data

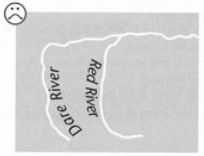
Curve or slant type, following symbol
Keep type above symbol if possible
Keep type as horizontal as possible for ease of reading

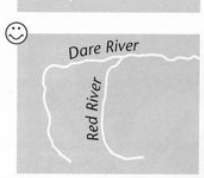


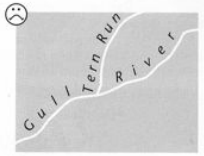


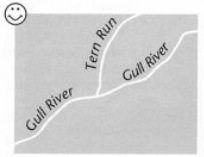


Never place type upside-down
With vertical type, place the first letter of the label at the bottom
Repeat rather than stretch type





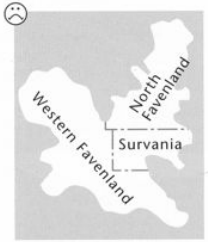




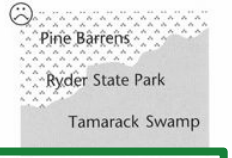
Labeling Area Data

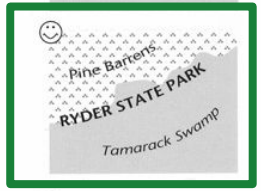
Curve and space type to fit areas. Ensure that the area and the label are clearly associated.

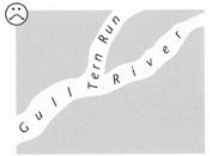
Entire area label should follow a gentle and smooth curve
Keep area labels as horizontal as possible (they are easier to read)
Avoid vertical and upside-down labels (they are harder to read)
Keep labels away from area edges
Avoid hyphenating or breaking up area labels

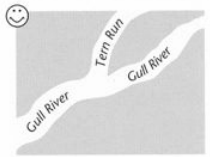


Distinguish overlapping areas by varying type size, weight, form
Label linear areas like line symbols









titles

SOFTWARE, E-RESOURCE

Dataset of the 1861 railroad system in America

Historical GIS : the 1861 railroad system in America, 1861 dataset

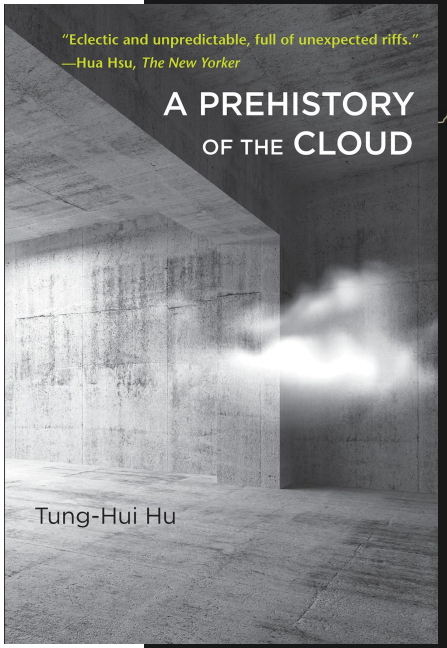
[dataset]

Download: ZIP (1.6 MB) Go

Railroad network of the United States, 1870

Internet cableways, 100 years early

Internet cableways, 100 years early



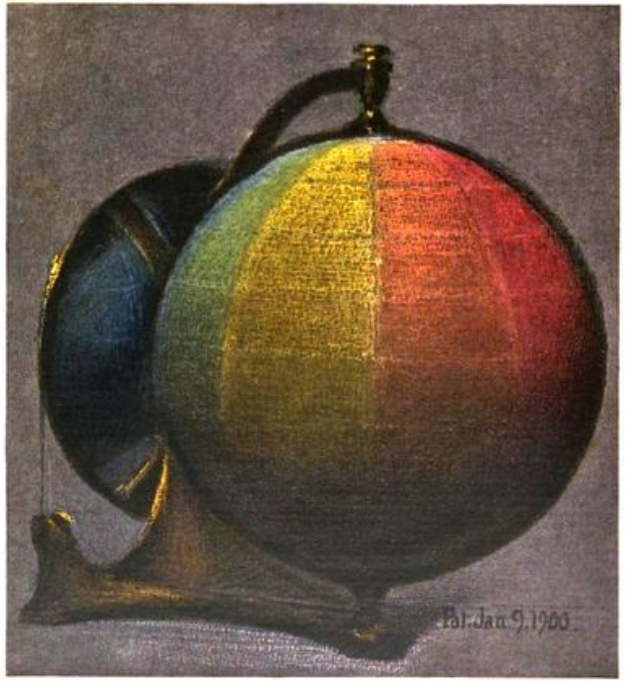
But the relatively recent gouges and tire marks in Ruwedel's photograph suggest that the railroad has not been swept aside entirely by new technologies. In fact, the relationship between old and new is a complicated one, because beneath the abandoned railroad bed from the nineteenth century lies fiber-optic cable, technology of the twenty-first century. In 1978, the track's owner, the Southern Pacific Railroad, realized that it could sell excess capacity on its network—heretofore used for internal communications, such as train signaling—to corporate customers. A few years later, the Southern Pacific spun off this telecommunications division, the Southern Pacific Railroad Internal Network; its new acronym was SPRINT. Around ten years later, it spun off a second company, Southern Pacific Telecommunications Company, later renamed Qwest, to run fiber beneath its rights-of-way. Together, the corporate descendants of a single railroad company comprise two of the six major fiber-optic carriers of the US Internet (figure 1.2).[3]

color

Munsell’s color sphere, c. 1900

munsell’s color sphere highlights the three dimensions of color:

- **hue**: basic color (red, green)
- **saturation** (chroma): purity
- **value**: lightness



A BALANCED COLOR SPHERE

Munsell’s color sphere, c. 1900

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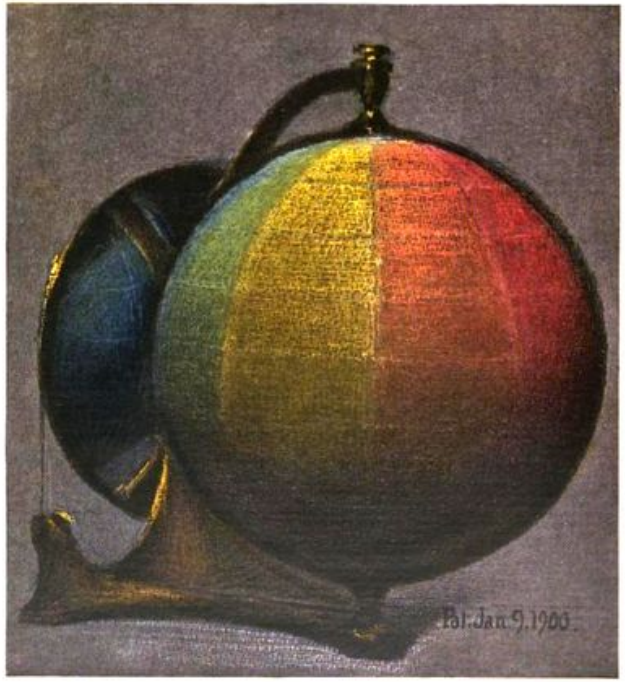

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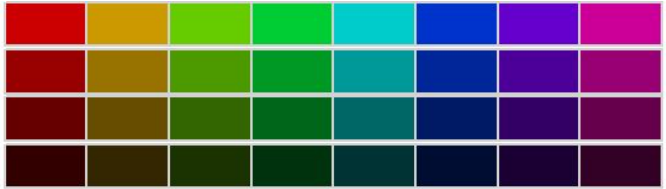

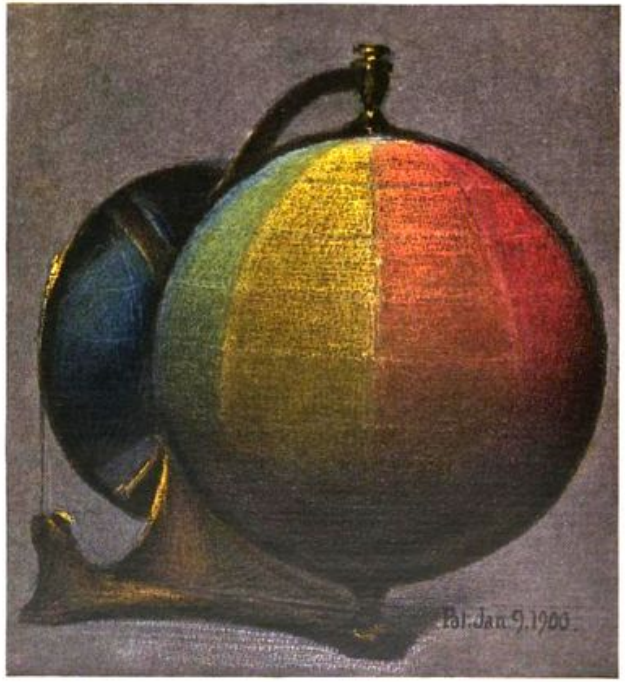

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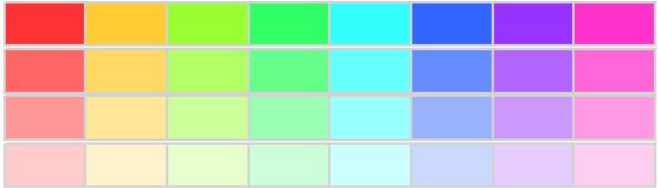
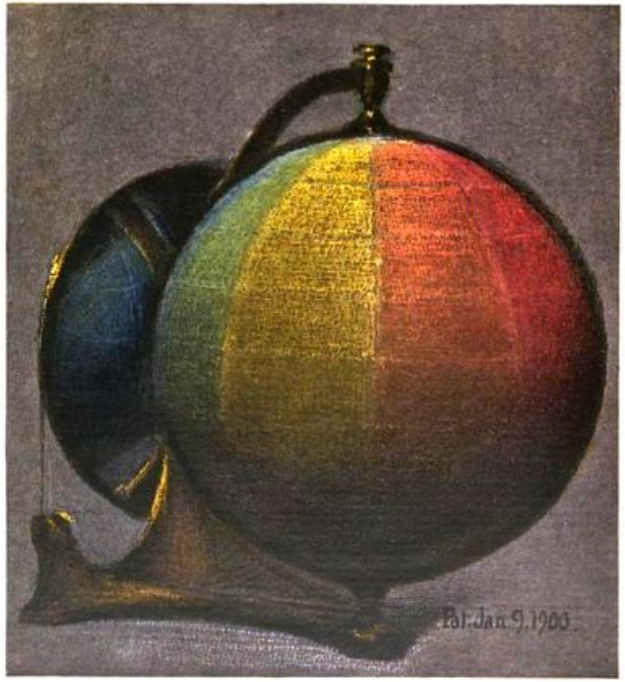
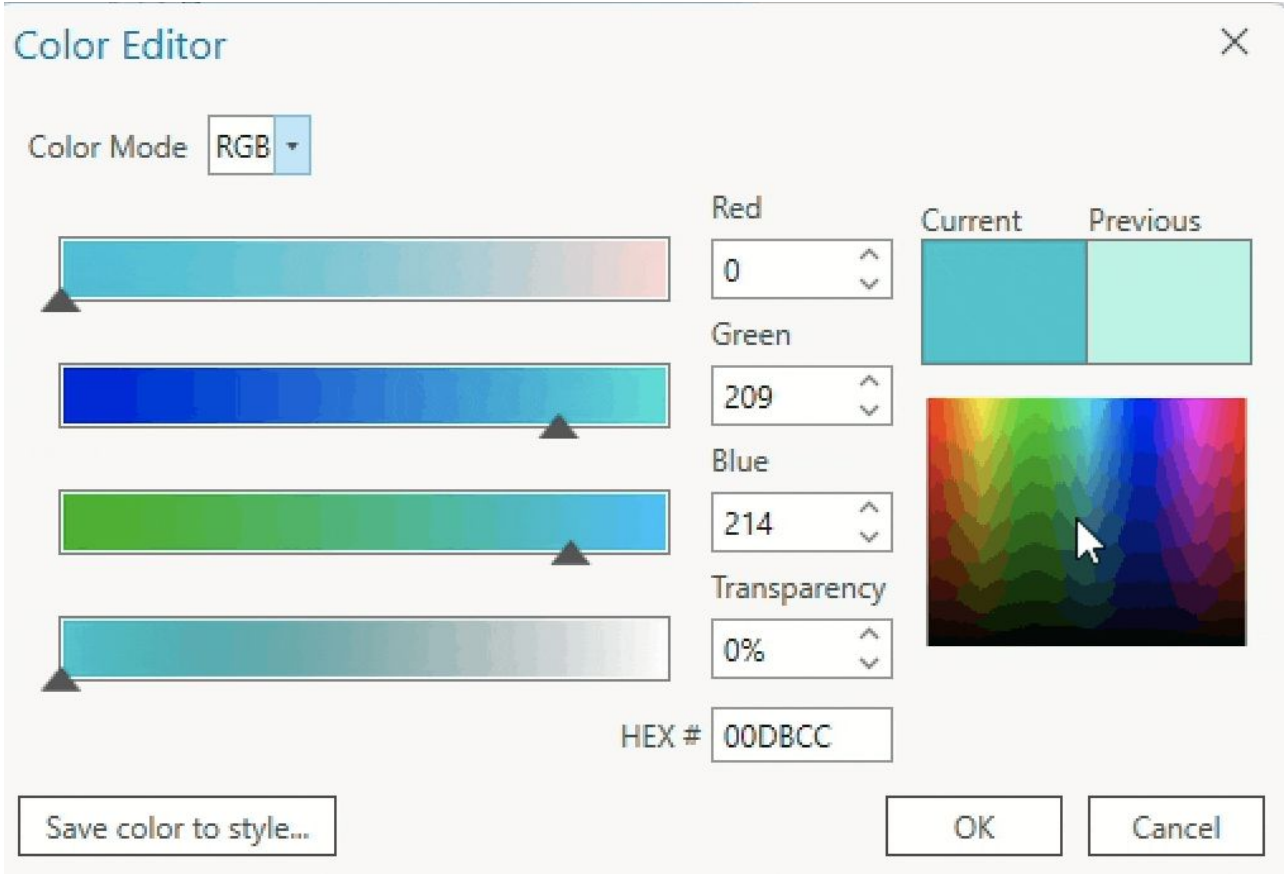




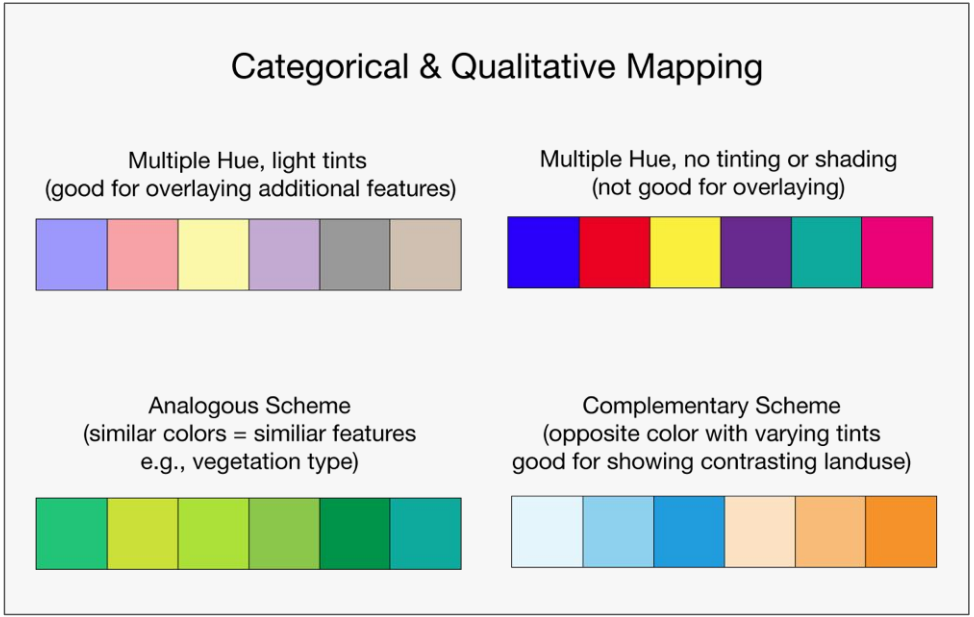
A BALANCED COLOR SPHERE


Color Editor
Color Mode
RGB
Red
0
Green
209
Blue
214
Transparency
0%
HEX #
00DBCC
Current
Previous
Save color to style...
OK
Cancel

qualitative maps show difference of *type*

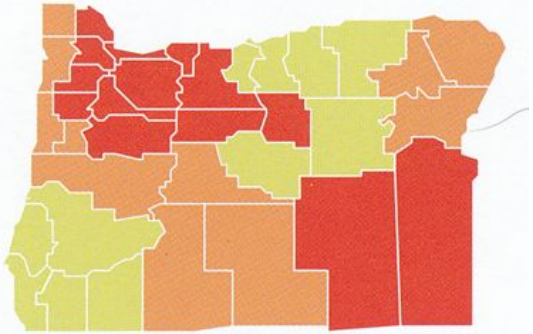
quantitative maps show difference of *magnitude*

qualitative maps



☹ qualitative colors (value)

Favorite Hotdog Condiment
Plurality Opinion, Oregon, 2009

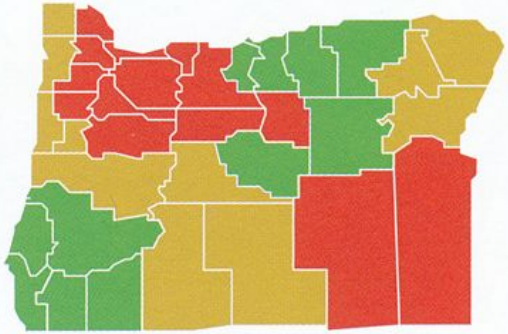


Ketchup
Mustard
Relish

This value series suggests an order in the data that does not exist

☺ qualitative colors (hue)

Favorite Hotdog Condiment
Plurality Opinion, Oregon, 2009



Ketchup
Mustard
Relish

Hues suggest no order and reflect actual condiment color

Explanation

MapUnitPolys

- Igneous, intrusive
- Igneous, volcanic
- Igneous, undifferentiated
- Igneous and Metamorphic, undifferentiated
- Igneous and Sedimentary, undifferentiated
- Melange
- Metamorphic, amphibolite
- Metamorphic, carbonate
- Metamorphic, gneiss
- Metamorphic, granulite
- Metamorphic, igneous
- Metamorphic, intrusive
- Metamorphic, other
- Metamorphic, schist
- Metamorphic, metasedimentary
- Metamorphic, sedimentary
- Metamorphic, undifferentiated
- Metamorphic and Sedimentary, undifferentiated
- Metamorphic, volcanic
- Metamorphic, undifferentiated
- Metamorphic and Sedimentary, undifferentiated
- Sedimentary, carbonate
- Sedimentary, chemical
- Sedimentary, clastic
- Sedimentary, evaporite
- Sedimentary, iron undifferentiated
- Sedimentary, undifferentiated
- Ultramafic, undifferentiated
- Unconsolidated and Sedimentary, undifferentiated
- Unconsolidated, undifferentiated
- Water
- Ice
- Dam
- Unknown

OverlayPolys

- Ellipse
- Window
- overprint - Zone of intense cataclasis

ContactsAndFaults

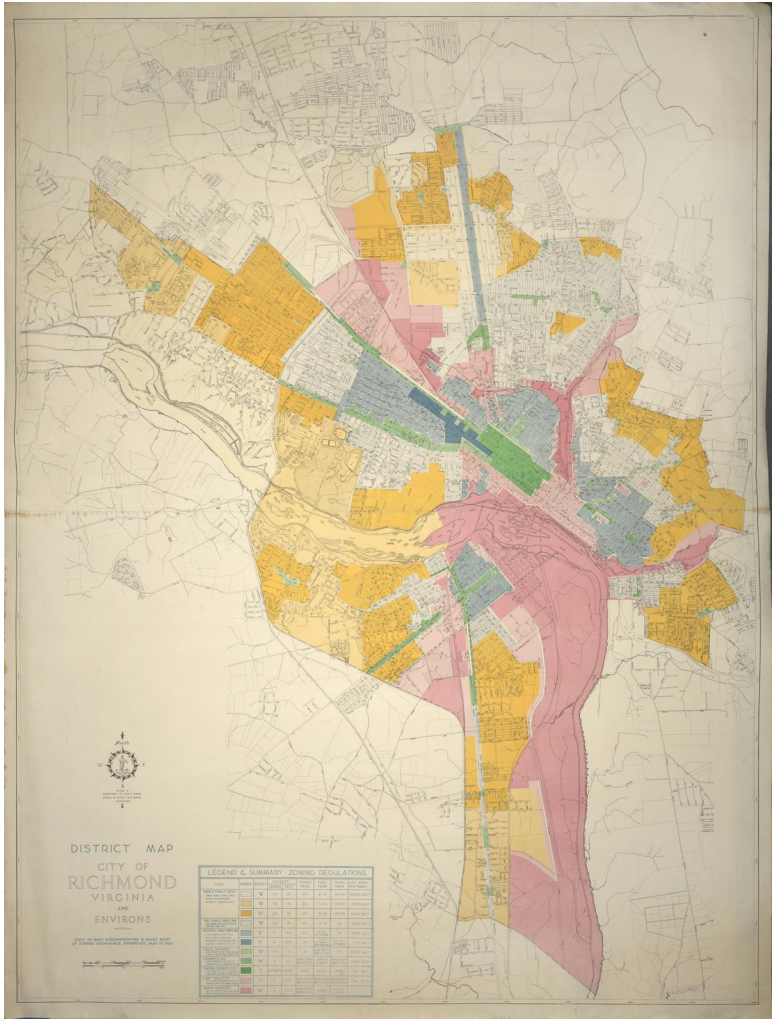
- 01.01.01 - Contact, certain
- 01.01.02p - Contact, pinched, certain
- 01.01.03 - Contact, approximate
- 01.01.04 - Contact, inferred or queried
- 01.01.07 - Contact, gradational
- 01.01.09 - Metamorphism change, certain
- 01.01.17 - Contact, gradational, certain
- 02.01.01 - Fault, sense of displacement unknown or undefined, certain
- 02.01.01 - Fault, sense of displacement unknown or undefined, approximate
- 02.01.01 - Fault, sense of displacement unknown or undefined, inferred or queried
- 02.01.01 - Fault, sense of displacement unknown or undefined, concealed
- 02.02.01 - Normal fault, certain, (U/D designated in source)
- 02.02.01 - Normal fault, approximate, (U/D designated in source)
- 02.02.02 - Normal fault, inferred or queried
- 02.02.03 - Normal fault, concealed, (U/D designated in source)
- 02.02.06 - Normal fault, inferred or queried, (U/D designated in source)
- 02.02.08 - Normal fault, certain
- 02.02.09 - Normal fault, approximate
- 02.02.10 - Normal fault, inferred or queried
- 02.02.11 - Normal fault, concealed, (U/D designated in source)
- 02.02.07 - Normal fault, concealed
- 02.02.09 - Normal fault, low-angle, certain (U/D designated in source)
- 02.04.01 - High-angle reverse fault, (both on right from origin), certain
- 02.04.02 - High-angle reverse fault, (both on right from origin), approximate
- 02.04.07 - High-angle reverse fault, (both on right from origin), concealed
- 02.06.01 - Right lateral fault, certain
- 02.06.03b - Strike slip fault, motion unknown, certain
- 02.06.03 - Right lateral fault, approximate
- 02.06.06 - Right lateral fault, inferred or queried
- 02.06.07 - Right lateral fault, concealed
- 02.06.09 - Right lateral fault, low-angle, certain
- 02.06.10 - Right lateral fault, low-angle, approximate
- 02.06.11 - Right lateral fault, low-angle, inferred or queried
- 02.06.12 - Right lateral fault, low-angle, concealed
- 02.06.13 - Right lateral fault, having left lateral strike-slip, certain
- 02.06.14 - Right lateral fault, having left lateral strike-slip, approximate
- 02.06.15 - Right lateral fault, having left lateral strike-slip, inferred or queried
- 02.06.16 - Right lateral fault, having left lateral strike-slip, concealed
- 02.08.01 - Thrust fault, certain, (both on right from origin)
- 02.08.02 - Thrust fault, approximate, (both on right from origin)
- 02.08.03 - Thrust fault, inferred or queried, (both on right from origin)
- 02.08.04 - Thrust fault, concealed, (both on right from origin)
- 02.08.05 - Thrust fault, certain, (both on right from origin)
- 02.08.06 - Thrust fault, approximate, (both on right from origin)
- 02.08.07 - Thrust fault, concealed, (both on right from origin)
- 02.08.09 - Thrust fault, inferred or queried, (both on right from origin)
- 02.09.01 - Thrust fault, overturned, certain, (both on right from origin)
- 02.10.01 - Detachment fault, certain
- 02.10.03 - Detachment fault, approximate
- 02.10.07 - Detachment fault, concealed
- 02.10.10 - Listric fault (detachment fault)
- 03.15.01 - Slump
- 04.01.01 - Lineament
- 15.4M - Joint
- 21.0B - Map boundary
- 30.02.32 - Shoreline or riverbank
- 30.02.37b - Dam
- generic
- normal fault, overturned
- scratch boundary
- shear zone
- thrust normal certain - Thrust fault, reactivated with normal motion, certain
- thrust normal approximate - Thrust fault, reactivated with normal motion, approximate
- thrust normal concealed - Thrust fault, reactivated with normal motion, concealed

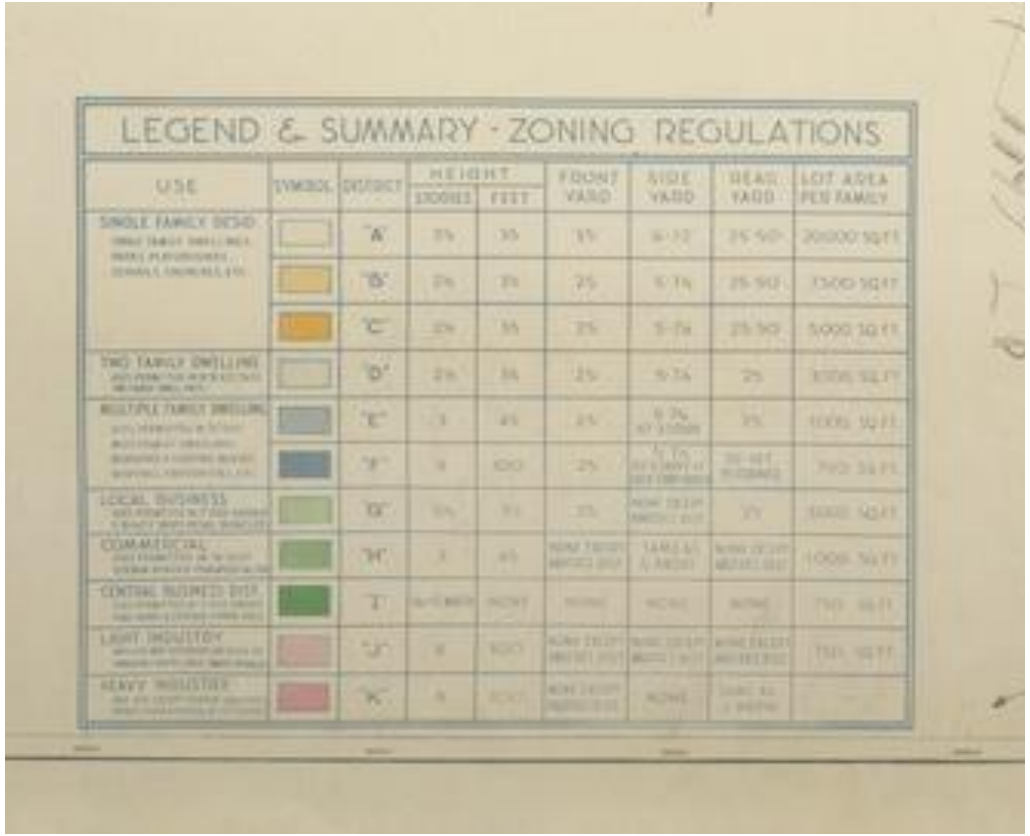
GeologicLines

- 01.01.01 - Contact, certain
- 01.01.25 - Contact, unconformity
- 01.02.01 - Dam
- 01.03.01 - Dike or sill, unspecified
- 01.10.01 - Dike or sill, unspecified
- 01.10.02 - Dike or sill, unspecified
- 01.10.04 - Dike or sill, unspecified
- 01.10.05 - Dike or sill, fulsic, approximate
- 01.10.06 - Dike or sill, mafic
- 01.10.06 - Dike or sill, mafic, approximate
- 01.10.07 - Dike or sill, mafic and felsic
- 01.10.09 - Dike or sill, metamorphosed
- 04.11.01 - Scarp
- 04.16.01 - Lineament
- 05.01.20 - Anticline, certain
- 05.01.20 - Anticline, approximate
- 05.01.20 - Anticline, inferred or queried
- 05.01.25 - Syncline, overturned, certain
- 05.02.20p - Syncline, overturned, plunging, certain
- 05.02.20 - Syncline, inverted, certain
- 05.04.01 - Monocline, certain
- 05.06.03 - Monocline, approximate
- 05.06.03 - Monocline, inferred or queried
- 05.06.07 - Monocline, concealed
- 05.06.05 - Anticline, plunging, certain
- 05.06.05a - Anticline, plunging, approximate
- 05.06.05e - Anticline, plunging, concealed
- 05.06.05b - Anticline, plunging, inferred or queried
- 05.07.01 - Anticline, overturned, certain
- 05.07.01 - Anticline, overturned, plunging, certain
- 05.07.17 - Anticline, overturned, certain
- 05.07.17p - Anticline, overturned, plunging, certain
- 05.07.23 - Syncline, approximate
- 05.07.23 - Syncline, inferred or queried
- 05.07.67 - Anticline, concealed
- 05.07.61 - Anticline, certain
- 05.07.17 - Anticline, overturned, certain
- 05.07.17p - Anticline, overturned, plunging, certain
- 05.07.23 - Syncline, approximate
- 05.07.23 - Syncline, inferred or queried
- 05.07.67 - Syncline, concealed
- 05.08.61 - Syncline, certain
- 05.07.17 - Syncline, overturned, certain
- 05.11.06 m - Anticline, double plunging (m), certain
- 05.11.06 ad - Anticline, double plunging (ad), certain
- 05.11.06e ad - Anticline, double plunging (ad), concealed
- 05.11.06b ad - Anticline, double plunging (ad), inferred or queried
- 05.11.07 - Syncline, plunging, certain
- 05.11.07a - Syncline, plunging, approximate
- 05.11.07e - Syncline, plunging, concealed
- 05.11.07b - Syncline, plunging, inferred or queried
- 05.13.09 m - Syncline, double plunging (m), certain
- 05.13.09a m - Syncline, double plunging (m), approximate
- 05.13.09 ad - Syncline, double plunging (ad), certain
- 13.17 - Esker
- 13.49 - Ice contact (glacial lake)
- 13.54 - Ice contact (glacial lake), uncertain
- 19.01.01 - Vein
- 19.01.05 - Vein, concealed
- 19.01.23 - Metasomatic bodyies, approximate
- dome, certain
- dome, inferred
- fold, certain
- fold, approximate
- fold, concealed
- fold, inferred or queried
- fossiliferous - inferred from aerimag
- generic
- shear zone
- structure boundary

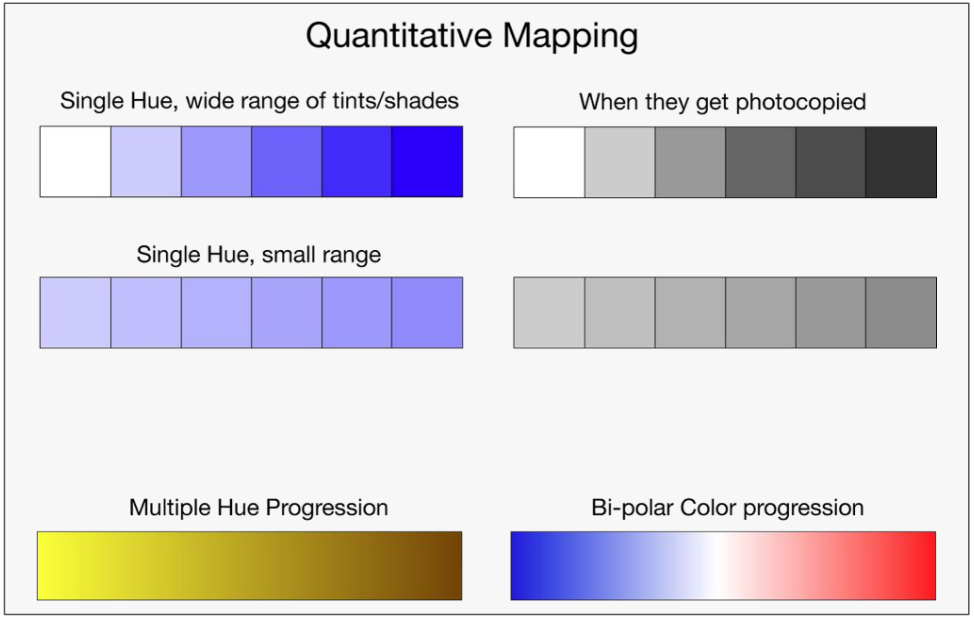
GenericPoints

- 06.02 - Bedding
- 06.04 - Bedding, overturned
- 18.55 - Volcanic neck
- 18.56 - Volcanic vent
- 18.68 - Volcanic cinder cone or crater
- 18.69 - Diatreme
- cassiderite
- kimberlite
- Pegasite
- U-Pb

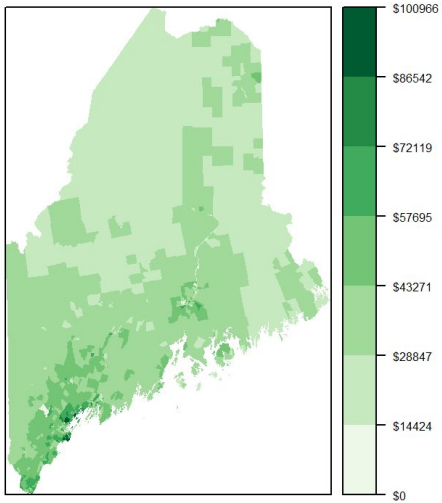

DISTRICT MAP
CITY OF
RICHMOND
VIRGINIA
AND
ENVIRONS
LEGEND & SUMMARY - ZONING REGULATIONS


LEGEND & SUMMARY - ZONING REGULATIONS
USE
SYMBOL
DISTRICT
HEIGHT
STORIES
FEET
FRONT YARD
SIDE YARD
REAR YARD
LOT AREA PER FAMILY
SINGLE FAMILY DESID.
"A"
"B"
"C"
TWO FAMILY DWELLING
"D"
MULTIPLE FAMILY DWELLING
"E"
"F"
LOCAL BUSINESS
"G"
COMMERCIAL
"H"
CENTRAL BUSINESS DIST.
"I"
LIGHT INDUSTRY
"J"
HEAVY INDUSTRY
"K"

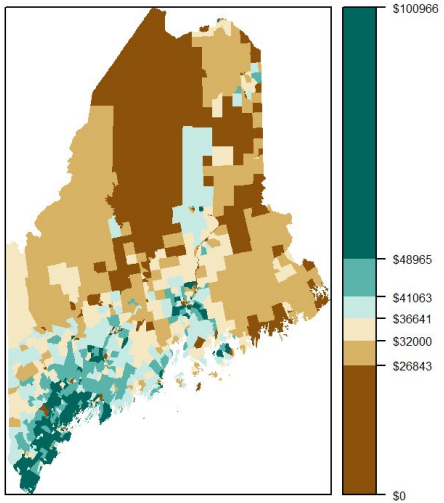
quantitative maps



sequential choropleth map



divergent choropleth map



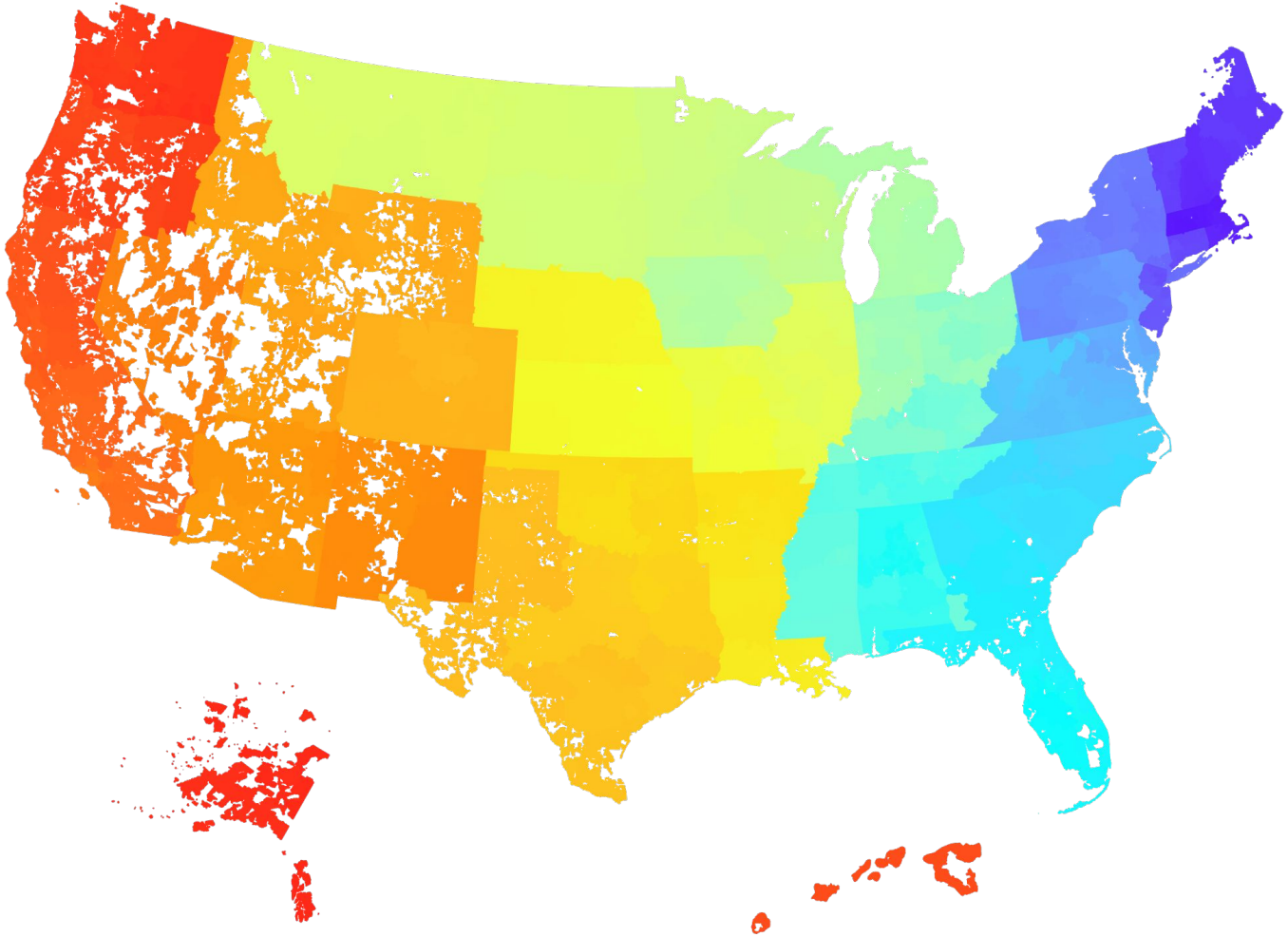
sequential color scheme

#EFF3FF	#C6DBEF	#9ECAE1	#6BAED6	#3182BD	#08519C
#FEEDDE	#FDD0A2	#FDAE6B	#FD8D3C	#F06500	#A63603
#FFFFCC	#D9F0A3	#ADDD8E	#78C679	#31A354	#006837
#FFFFD4	#FEE391	#FEC44F	#FE9929	#D95F0E	#993404

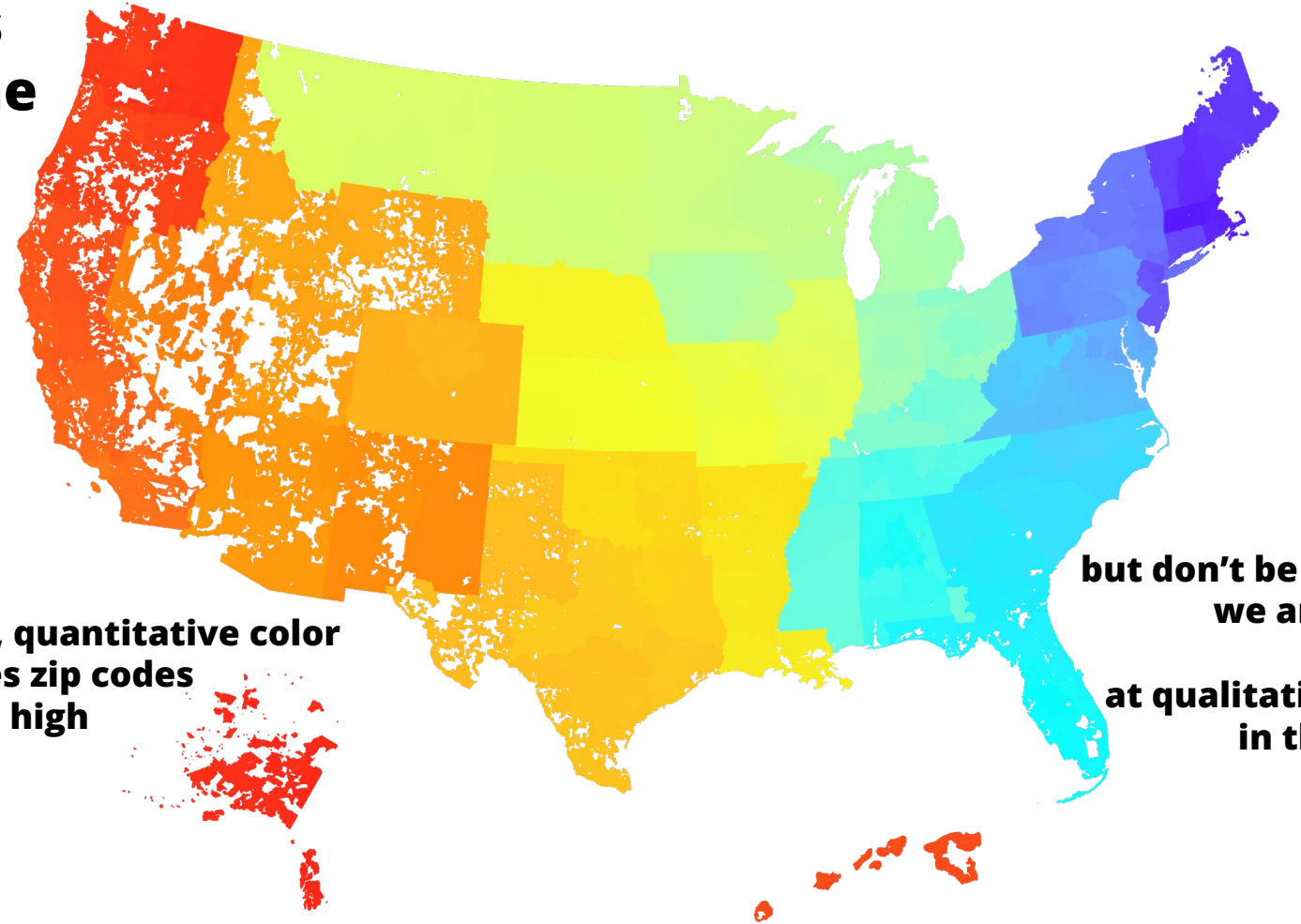
divergent color scheme

#8C510A	#D8B365	#F6E8C3	#C7EAE5	#5AB4AC	#01665E
#B2182B	#EF8A62	#FDDBC7	#D1E5F0	#67A9CF	#2166AC
#8E8808	#F1A340	#FEE0B6	#D8DAEB	#998EC3	#542788
#D7191C	#FC8D59	#FEE08B	#D9EF8B	#91CF60	#1A9641

there are edge cases, too



zip codes across the united states



continuous, quantitative color ramp shades zip codes from low to high

but don’t be fooled - we are really looking at qualitative data in this map!

Symbolic Color Connotations

Color has symbolic connotations. Such connotations subtly shape viewer reactions and should be guided by your goals for your map. Generic Western cultural color connotations include:

Blue: water, cool, positive numbers, serenity, purity, depth

Green: vegetation, lowlands, forests, youth, spring, nature, peace

Red: warm, important, negative numbers, action, anger, danger, power, warning

Yellow/tan: dry, lack of vegetation, intermediate elevation, heat

Orange: harvest, fall, abundance, fire, attention, action, warning

Brown: landforms (mountains, hills), contours, earthy, dirty, warm

Purple: dignity, royalty, sorrow, despair, richness, elegant

White: purity, clean, faith, illness, life, clarity, absence, light

Black: mystery, strength, heaviness, death, nighttime, presence

Gray: quiet, reserved, sophisticated, controlled, light, bland, dull

Cultural Color Connotations

The symbolic connotations of different colors varies from culture to culture, further complicating the use of color on maps. Check for cultural color connotations if you are mapping for a global audience.

Blue: safe cross-cultural color, because it is the color of the sky, which stands over all peoples

Green: fertility and paganism in Europe, sacred for Muslims, mourning and unhappiness in Asia

Red: Bolsheviks, communists, and other politically left organizations, purity in India

Yellow/tan: peaceful resistance movement associated with Carazon Aquino in Philippines

Orange: pro-Western activists in Ukraine, Protestants in Ireland, sacred Hindu color

Brown: mourning in India, Nazis in West, ceremonial for Australian Aboriginals

Purple: death and crucifixion in Europe, mysticism, prostitution in the Middle East

White: unhappiness in India, mourning in China, royalists and traditionalists in Western

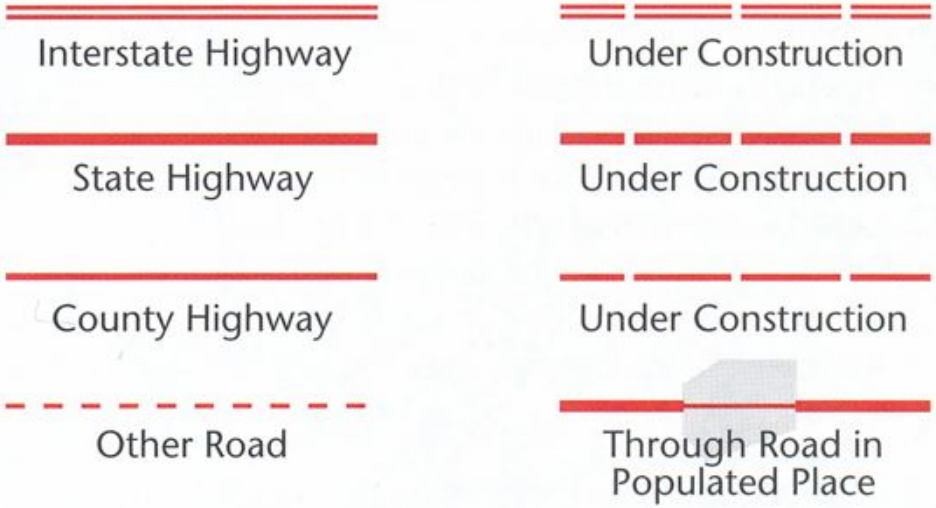
Black: fascists, anarchists, and other extremists in Western world, death, mourning in West

Gray: corporate culture in the West (also blue), dead and dull in Feng Shui

symbolization

Difference

All symbols work by being different from other symbols. But some symbols can be developed from others by using a process of visual differentiation.



Resemblance

Some map symbols look like particular data or concepts. A map showing the location of airports uses an airplane symbol. Airplanes make us think of airports.

Maps in a war atlas use red explosion symbols to show the location of battles. The symbol looks like an explosion, and we think of danger or conflict.

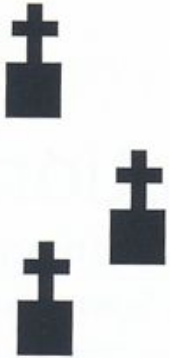
Relationship

Some map symbols intuitively suggest general kinds of data. A map showing the population of different cities uses circle sizes from small to large: sizes vary in amount, as do the data.

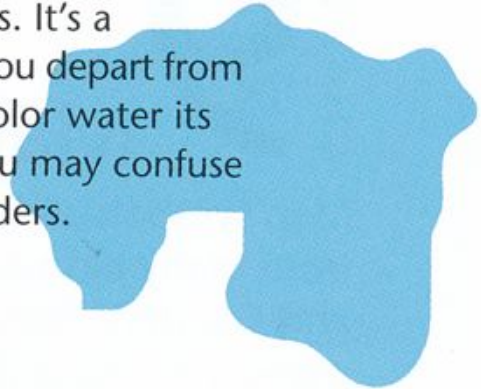
A map showing restaurants, antique stores, and museums in a town uses different shapes; shapes vary in kind, as do the data.

Convention

Of course, all map symbols are symbols by convention. But this is particularly clear when symbols reveal cultural bias or don't resemble what they symbolize. The U.S. Geological Survey uses a Christian cross to symbolize all places of worship – church, mosque, synagogue. Fail!



Most maps use blue for water. But water is not usually blue. Except on maps. It's a convention. If you depart from conventions (color water its actual color) you may confuse your map's readers.



symbol libraries

NPS Map Symbols: Updated August, 2022

Accessibility
- Assistive listening systems
- Assistive listening systems T-coil compatible
- Audio description
- Automated entrance
- Braille
- Closed captioning (CC)
- Elevator
- Entrance
- Large print
- Low vision access
- Live audio description
- Open captioning (OC)
- Text Telephone (TTY) service
- Sign language interpretation
- Volume control telephone
- Wheelchair accessible

Camping and Picnicking
- Bear box
- Bear canister
- Bear spray
- Bear spray purchase
- Bear spray rental
- Bear spray recycling
- Campfire
- Campground
- Electrical hookup
- Fire grate
- Firewood
- Firewood cutting
- Food storage
- Generator
- Grill
- Picnic area
- Picnic shelter
- RV campground
- Sewer hookup
- Sleeping shelter
- Trailer site
- RV/trailer hookup
- Water hookup
- Wood gathering

Clean Environment
- Ash disposal
- Bottles
- Cans or bottles
- Floating dump station
- Litter receptacle
- Propane bottle recycling
- Recycling
- Sanitary disposal station
- Trash dumpster

Communications and Technology
- Mobile device charging
- No mobile devices
- Silence mobile devices
- Telephone
- Webcam
- Wi-Fi

Health and Safety
- AED – Automated external defibrillator
- Emergencies
- Emergency telephone
- Falling rocks
- Fire extinguisher
- First aid
- Hold hand rail
- Hospital
- Pedestrian crossing
- Rattlesnakes
- Safety/Caution/Alerts
- Stay back from edge
- Stay back from edge
- Slippery ramp
- Slippery steps
- Smoking area
- Tornado shelter
- Uneven walkways
- Watch for falling ice

Information and Interpretation
- Amphitheater
- Audio tour
- Brochure
- Calendar/Events
- Directions
- Driving tour
- Information
- Interpretive exhibit
- Library
- Maps
- Museum
- Newspaper
- Passport stamps
- Ranger led events
- Self-guiding trail
- Tactile exhibit
- Theater
- Theater
- Things to do
- Trailhead information

Nature and Wildlife
- Bear viewing
- Birding/Wildlife viewing
- Deer viewing
- Fish hatchery
- Fish ladder
- Flower viewing
- Foraging and gathering
- Sea lion viewing
- Tidepooling
- Viewing area
- Waterfowl
- Whale viewing

Park Buildings
- Cabin
- Entrance station
- Event facility
- Ranger station
- Shelter

Park Sites
- Chapel
- Dam
- Lighthouse
- Lookout tower
- Monument
- Point of interest
- Scenic viewpoint
- Shipwreck
- Statue
- Trailhead
- Waterfall
- Wilderness
- Windmill

Permits and Regulations
- AIS – Aquatic invasive species decontamination station
- AIS – Aquatic invasive species inspection sticker
- Backcountry camping permit
- Boating permit
- Customs
- Fishing license
- Passes and fees
- Pets on leash
- Quagga mussel decontamination station
- Quiet
- Stay on trail
- Walk on boardwalk
- Zebra mussel decontamination station

Recreation (Land)
- Archery
- All-terrain trail
- Baseball
- Caving
- Climbing
- Exercise/Fitness
- Hang gliding
- Hiking
- Hunting
- In-line skating
- Metal detecting
- Playground
- Rock collecting
- Skateboarding
- Technical rock climb
- Tennis
- Star gazing
- Golfing
- Horseback riding (rental, guided tour)
- Stable
- Volleyball
- Walking

Recreation (Water)
- Beach access
- Boat launch
- Boat tour
- Boat trailer parking
- Canoe access
- Canoe portaging
- Diving
- Fishing
- Fish cleaning
- Fishing pier
- Hand launch/Small boat launch
- Personal watercraft
- Kayaking
- Lifeguard
- Life jackets
- Paddle boating
- Marina
- Motorboating
- River rafting
- Rowboating
- Sailing
- Scuba diving
- Snorkeling
- Surfing
- Swimming
- Tubing
- Wading
- Waterskiing
- Wind surfing

Recreation (Winter)
- Chair lift/Ski lift
- Crosscountry ski trail
- Dogsledding
- Downhill skiing
- Ice fishing
- Ice skating
- Ski jumping
- Sledding
- Snowboarding
- Snowmobile trail
- Snow-shoeing
- Winter Recreation area

Services
- Art
- Alcohol
- ATM
- Baby changing station
- Book and souvenir shop
- Bookstore
- Bottle filling station
- Breastfeeding station
- Coffee
- Drinking water
- Family restroom
- Flush toilet
- Food service
- Ice
- Ice cream
- Kennel
- Laundromat
- Lockers/Storage
- Lodging
- Lounge
- Pit toilet
- Post office
- Propane
- Rentals
- Reservations
- Restrooms
- Men's restroom
- Women's restroom
- Showers
- Souvenir shop
- Snack bar
- Stagecoach rides
- Store
- Ticket sales
- Vending machine
- Wine

Transportation
- Airboat
- Airfield
- Airport
- Automobiles
- Bicycle trail
- Bike rack
- Bike rental
- Lock bikes
- Bike repairs
- Bridge
- Bus stop/Shuttle stop
- Diesel
- Electric car charging
- 4-wheel-drive road
- Gas station
- Mechanic
- Metro station
- Motor bike trail
- Parking
- Radiator water
- Sea plane
- Shuttle service
- Towing
- Train station
- Tram tour
- Tramway
- Trucks
- Tunnel
- UTV
- Vehicle ferry

Miscellaneous
- Benches/Seating
- Community garden
- Photography
- Radios
- Strollers
- Sunny
- Video surveillance

BOSTON
Welcome Center
Fan Pier
Institute of Contemporary Art
Boston Children's Museum
Market-place
Seaport District EDIC Pier
Black Falcon Cruise Terminal
BOSTON INNER HARBOR
Castle Island
Fort Independence
Marine Park
Pleasure Bay
SOUTH BOSTON
L STREET BEACH
CARSON BEACH
OLD HARBOR
JFK / UMass
Savin Hill
John F. Kennedy Presidential Library and Museum
UMASS Boston
Fallon State Pier
Columbia Point
SAVIN HILL BEACH
MALIBU BEACH
TENEAN BEACH
DORCHESTER BAY
Gas tank
Squantum Point
Squantum Point Park
DORCHESTER
SQUANTUM
WOLLASTON BEACH
Quincy Shore Dr
Hancock St
North Quincy
WOLLASTON
Neponset River
BOSTON HARBOR
Deer Island Wastewater Treatment Plant
DEER ISLAND
Wind turbines
President Roads
SPECTACLE ISLAND
Visitor Center
THOMPSON ISLAND
Thompson Island Outward Bound Education Center
Long Island Head Light
Camp Harbor View
Long Island Head
Fort Strong
LONG ISLAND
NIXES MATE
Day marker
LOVELLS ISLAND
Fort Standish
The Narrows
Black Rock Channel
GALLOPS ISLAND
(temporarily closed)
Fort Warren
GEORGES ISLAND
Visitor Center
RAINSFORD ISLAND
Nantasket Roads
MOON ISLAND
Hull Gut
East Head
Fort Andrews
PEDDOCKS ISLAND
Middle Head
West Head
Prince Head
HANGMAN ISLAND
QUINCY BAY
NUT ISLAND
HINGHAM BAY
SHEEP ISLAND
GRAPE ISLAND
Wind turbine
Pemberton Point
US Coast Guard Station
Main St
Spring St
Historic Water Tower
Fort Revere
Hull Lifesaving Museum
Point Allerton
HULL
Spinnaker Island
HULL BAY
Nantasket Ave
NANTASKET BEACH
BUMPKIN ISLAND
Sunset Point
GREEN ISLAND
Hypocrite Channel
LITTLE CALF ISLAND
CALF ISLAND
OUTER BREWSTER ISLAND
MIDDLE BREWSTER ISLAND
GREAT BREWSTER ISLAND
Boston Light
SHAG ROCKS
LITTLE BREWSTER ISLAND
National Park Service | This map is a graphical representation designed for general reference purposes only.

STRUCTURES

Emergency Service Features
- Fire Station
- Hospital
- Police

Public Service Features
- Cemetery
- City/Town Hall
- College/University
- Court House
- Post Office
- Prison
- School (K-12)
- State Capitol
- Trade/Technical School
- US Supreme Court
- The White House

Recreational Features
- Cabin
- Campground
- Park Headquarters
- Picnic Area
- Ranger Station
- Shelter
- Trailhead
- Visitor Center

Oil & Gas Pipeline Features
- Oil/Gas Pipeline*

TRANSPORTATION

Airport Features
- Airport Runway
- Heliport
- Seaplane

Railroad Features
- Railroad

Road Features
- Closed Road
- Expressway
- Ferry
- Four Wheel Drive
- Local Connector
- Local Road
- Ramp
- Secondary Highway
- Tunnel

Road Shields
- Interstate Route
- State Route
- US Route
- Forest Service Primary Route
- Forest Service Secondary Route
- Forest Service High Clearance Route

Trails
- Snow
- Terra
- Water

HYDROGRAPHY

Hydrographic Features
- Area of Complex Channels
- Canal/Ditch
- Coastline
- Underground Conduit
- Dam
- Earthen Dam
- Nonearthen Dam
- Estuary
- Flume
- Foreshore
- Gaging Station
- Gate
- Ice Mass
- Inundation Area

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HYDROGRAPHY – *continued*
- Intermittent Lake
- Perennial Lake
- Levee
- Lock Chamber/Spillway
- Ocean
- Pipeline
- Underground Pipeline
- Playa
- Settling Pond
- Tailings Pond
- Rapids
- Reef
- Reservoir
- Nonearthen Reservoir
- Rock
- Nonearthen Shore
- Spring
- Intermittent Stream
- Perennial Stream
- Submerged Stream
- Tunnel
- Wash
- Waterfall
- Well

Wetland Features
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland

TERRAIN

Shaded Relief
- Shaded Relief

Contour Features
- Index
- Intermediate
- Supplemental
- Depression Index
- Depression Intermediate
- Depression Supplemental

LAND COVER
- Woodland

IMAGES
- Orthoimage

BOUNDARIES

Designated Areas
- National Wild and Scenic Rivers

Federal Administered Lands
- American Indian, Alaska Native, and Native Hawaiian Area
- Bureau of Land Management*
  National Park Service
  U.S. Fish and Wildlife Service
  U.S. Forest Service
- Department of Defense National Cemetery
- National Monument
- Wilderness Area

Jurisdictional Boundaries
- County or Equivalent
- State or Territory
- International

*Currently on Alaska US Topo maps only

PLSS
- Land Grants
- Section (1 — 36)
- Section (protracted) (1 — 36)
- Township/Range (T 34 NR 79 W)
- Township/Range (protracted) (T 34 HR 79 W)

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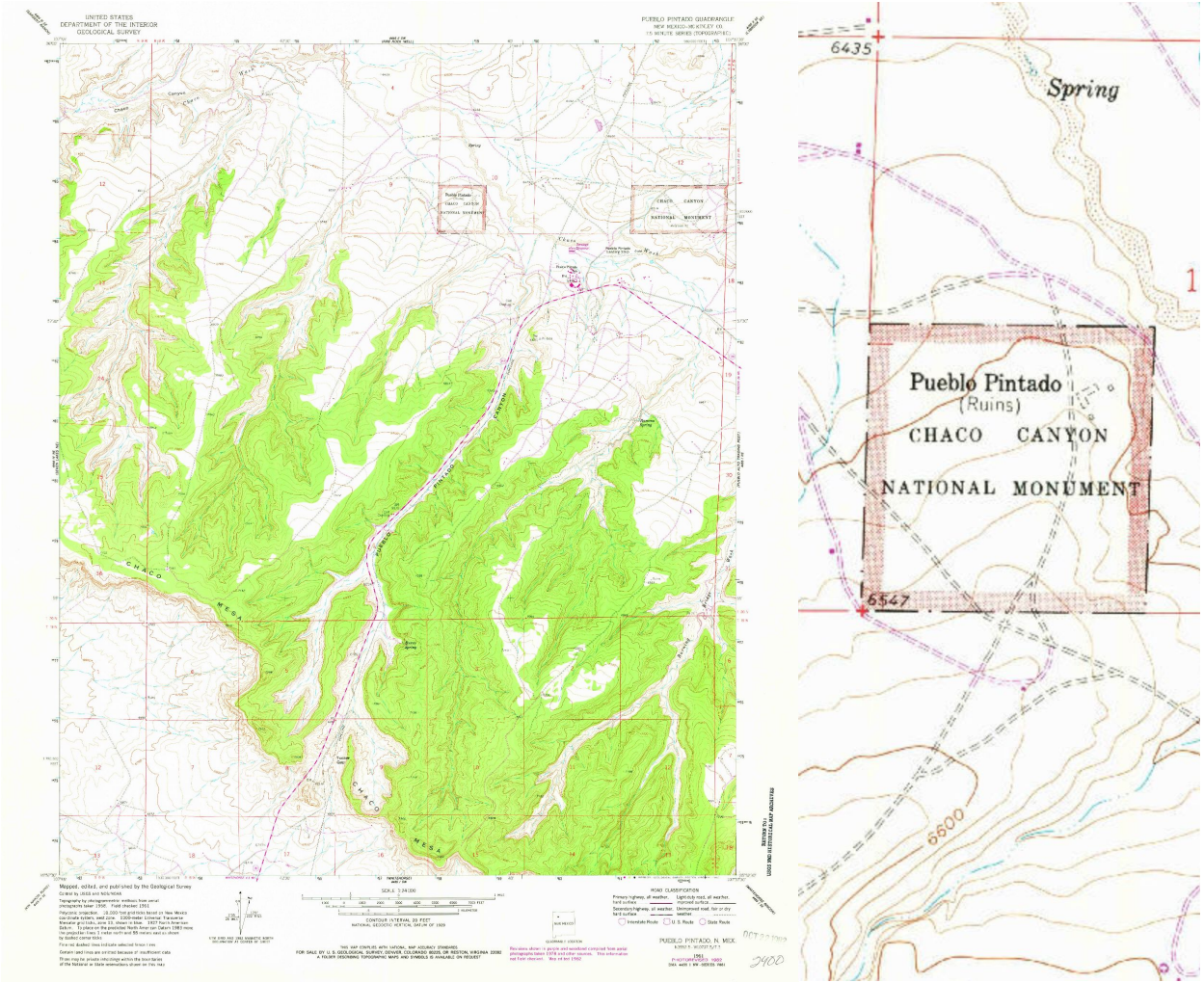

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
PUEBLO PINTADO QUADRANGLE
NEW MEXICO-MCKINLEY CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
CHACO CANYON
NATIONAL MONUMENT
CHACO MESA
PUEBLO PINTADO CANYON
Spring
Pueblo Pintado
(Ruins)
CHACO CANYON
NATIONAL MONUMENT
6435
6547
6600
1
Mapped, edited, and published by the Geological Survey
Control by USGS and NOS/NOAA
Topography by photogrammetric methods from aerial photographs taken 1956. Field checked 1961.
Polyconic projection. 10,000-foot grid ticks based on New Mexico coordinate system, east zone. 1000-meter Universal Transverse Mercator grid ticks, zone 13. Shown in blue. 1927 North American Datum. Explanation of the prescribed North American Datum 1983 mesh (no projection lines 3 meter north and 55 meters east as shown by dashed corner ticks)
Fine red dashed lines indicate selected fence lines
Certain land lines are omitted because of insufficient data
Fence may be private inclosings within the boundaries of the National or State reservations shown on this map
SCALE 1:24 000
CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST
ROAD CLASSIFICATION
Primary highway, all weather, hard surface
Light-duty road, all weather, improved surface
Secondary highway, all weather, hard surface
Unimproved road, fair or dry weather
Interstate Route
U.S. Route
State Route
QUADRANGLE LOCATION
Revisions shown in purple and woodland compiled from aerial photographs taken 1978 and other sources. This information not field checked. Map edited 1982
PUEBLO PINTADO, N. MEX.
NJ 13-2-2-2-2-2
PHOTOGRAPHIC 1983
DMA 4400 I NW SERIES 1983
2400

KEY

(FIRE PROOF)	Fire proof construction. (OR FIRE RESISTIVE CONST'N)
ADOBE	Adobe building.
HEIGHT OF BUILDING IN FEET FROM GROUND TO ROOF LINE	Stone building.
(C. BR.)	Concrete, lime, cinder or cement brick
(C. B.)	Hollow concrete or cement block constn
(CONC)	Concrete or reinforced concrete constn
(TILE)	Tile building.
NUMBER OF STORIES	Brick building with frame cornice.
TWO STORIES AND EIGHT FOR COMPOSITION ROOF	" " " stone front.
(FRAME)	" " " frame side. (DIVIDED BY FRAME PARTITION)
(VEND)	Brick veneered building.
BRICK (B)	" and frame building.
FRAME, BRICK LINED	Frame building, brick lined.
F=FLAT S=STORE	" " metal clad.
D=DWELLING	Frame building.
A=B AUTO IN BSMT	Iron building.
LOFT	Tenant building occupied by various manufacturing or occupancies
(ASB. CL.)	Frame building covered with asbestos
NON-COMBUSTIBLE ROOF (OR KIND OF ROOF—SLATE, TILE OR ASBESTOS SHINGLES)	Brick building with brick or metal cornice.

DWELLINGS.

DWELLING · DWELLING STORE · DWELLING · DWELLING STORE

Framed air-shafts are shown but *colored over*. Brick air-shafts are left white.

CLASSIFICATION OF BUILDINGS

Shown by varying number of dots or circles. Classed by New York Board of Fire Underwriters as follows:

BRICK		FRAME	
1st Class (.)	Slate or metal roof, coped walls.	1st Class (.)	Slate or metal roof.
2nd " (. .)	" " walls not coped.	2nd " (. .)	Shingle roof.
3rd " (. . .)	Shingle roof.		

Frame Buildings with Brick Fronts.

Height of Buildings, in Stories and feet (74 ft. 6 in. and over).

Fronts of marble or other stone.

Iron Fronts.

"Dotted line." Interior brick wall, omitted on one or more floors.

Superior construction. { Built of non-inflammable material "*throughout*," except flooring and trim.

Communications protected by single fire-proof doors " " " " " } With designation of floors.

FLOOR SHOWN INTERRUPTED. Openings exposing Buildings.

Elevators with steam or other power. { Where enclosed with Brick or Fire-proof material a *heavy line* is drawn around them.

Hatchways or "Dumb-waiters."

Sky-lights in Roof only.

" over Opening in floor.

Smoke-houses. Retorts, and Ovens.

IRON. FRAME. Mansard Roofs. Corrugated Iron. Steam-boilers.

REFERENCE.

SPECIAL HAZARDS.

NAMES of Manufactories, &c., are written on buildings, when there is sufficient space, and their *construction* classified by the same marks as on Dwellings. Other Specially Hazardous Risks are **COLORED GREEN**, the varying number of dots (*brick*) and crosses (*frame*) showing the comparative danger from fire by occupancy.

A — BRICK. G — FRAME.

NOTE.—In classifying a building as a Special, its CONSTRUCTION is obliterated, necessitating a series of letters, as follows:

BRICK		FRAME	
A Construction	= to 1st class Warehouse.	G Construction	= to 1st class Store or Dwelling.
B "	= " 2nd " "	H "	= to 2nd class Store or Dwelling.
C "	= " 3rd " "		
D "	= " 1st " Store or D'w'g.		
E "	= " 2nd " " "		
F "	= " 3rd " " "		

Brick .... Frame

Bakeries (ovens in building). Breweries. Cooperages. Drug stores (retail, with privilege of compounding). Dyeing establishments. Fur dressers. Glass stainers. Hat finishers. Hay (open stock, loose). Lamp sellers (privilege for kerosene &c.) Laundries. Malt houses. Manufactories of Baskets, Bonnet-frames, Boots and shoes, Caps, Clothing, Combs, Envelopes, Feather dusters, Fringe &c., Gas fixtures, Gold pens, Hats, Hemp, Jewelry cases, Morocco, Paper bags, Pocket-books, Ruffling and ruches, Segars, Shirts, Tobacco, Umbrellas, Vinegar, Watches, Watch-cases, Writing ink. Map mounting and varnishing. Metal mills. Molasses houses. Photographers. Private stables. Smoke-houses. Tanneries. Tin-shops. Wheelwrights. Wire workers. Wool-pullers.

Brick .... Frame

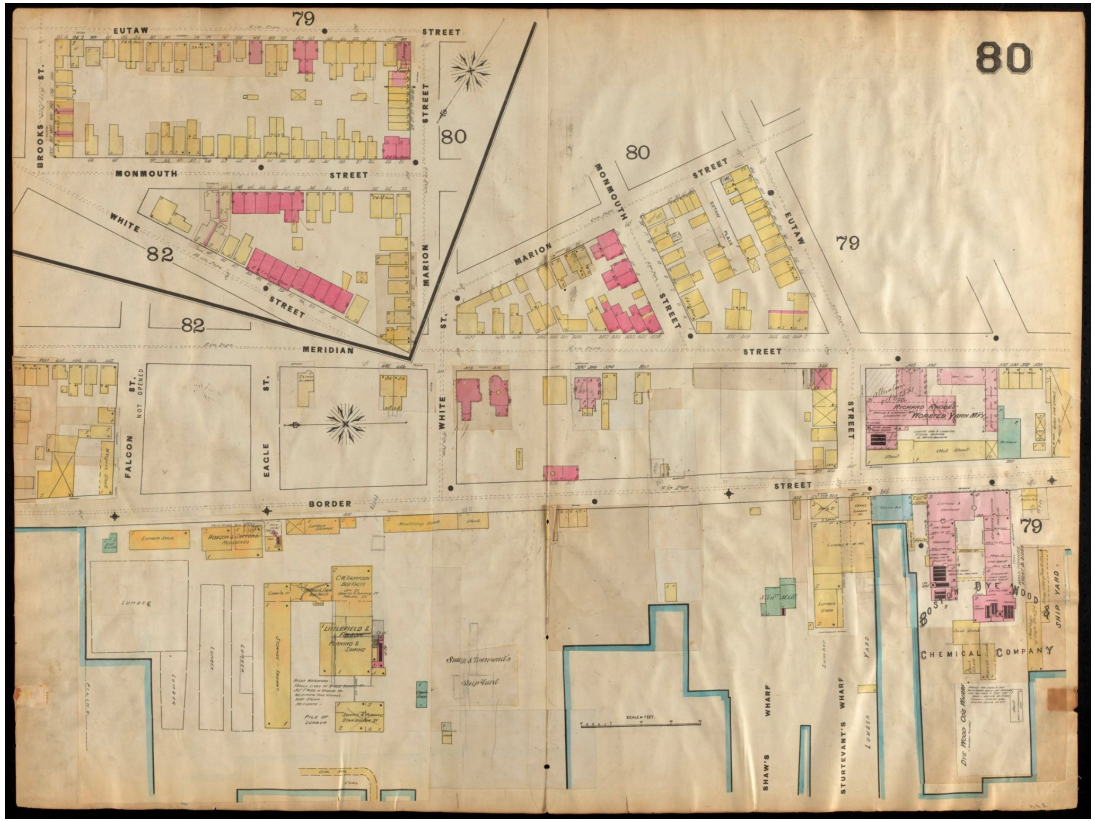
Bleaching works. Book-binderies. Brass and iron foundries. Coppersmiths. Cotton presses. Fulling mills. Junk shops. Letter-press printers. Lithographers. Livery and Carmen's stables. Machine shops. Manufactories of Agricultural Implements. Artificial flowers, Brooms, Brushes, Carriages, Cedar-ware, Floor-cloth, Grates, Guns, Hoop-skirts, Jewelry, Lamps, Musical instruments, Oil-cloths, Paper boxes, Paper collars, Paper patterns, Patent Medicines, Plated ware, Rope and cordage, Safes, Silverware, Starch, Stoves, Tin cans, Upholstery. Oil stores (petroleum and products). Print works. Rag stores. Slaughter houses. Snuff mills. Type and stereotype foundries. (And generally buildings not occupied by workers of light wood).

Brick .... Frame

Box repairing. Cabinet-making. Carpenters' shops. Distilleries. Flax mills. Flour or Grist mills. Japanners. Lard refineries. Manufactories of Artificial hair, Bagging, Candles, Chairs, Clocks, Confectionery, India-rubber or gutta-percha, Ivory or lamp-black, Looking-glass and Picture frames, Oiled clothing, Organs, Paper-hangings, Perfumery, Pianos, Soap, Trunks. Oil mills. Paper mills. Rectifying establishments. Sugar refineries. Tallow-melting or chandleries. Wholesale druggists (with compounding). Woolen mills. (And generally risks where much heat or light wood is used.)

Brick .... Frame

Chemical laboratories. Coffee and Spice mills. Drug mills. Fireworks on sale. Match factories. Oil-boiling houses. Planing and Moulding mills. Printing-ink factories. Sash, blind and door factories. Saw mills. Tar-boiling houses. Turpentine distilleries. Varnish making. Window-shade factories.



What would feminist data visu
visionscarto.net/feminist-data-visualization
Finish update
Bookmarks My Zoom Mail - Spangler, la... GBTU (non-HWG)... Atlascope tour ge... Free Boston Globe... gbtu-data GB-Digital-Pedag... All Bookmarks

What would feminist data visualization look like?

#methodology #visualization #cartography #critic #situated_knowledge #feminism #gender

23 JANUARY 2017

by Catherine D'Ignazio

Assistant Prof of Data Visualization & Civic Media, Journalism Dept, Emerson College, Boston (USA) ; kanarinka.com.

While there is a lot of hype about data visualization, and a lot of new tools for doing it (my colleague Rahul Bhargava and I have counted over 500!), fewer people are thinking critically about the politics and ethics of representation. This, combined with a chart-scared general public, means that data visualizations wield a tremendous amount of rhetorical power. Even when we rationally know that data visualizations do not represent "the whole world", we forget that fact and accept charts as facts because they are generalized,

The Seven Principles of Data Feminism

Catherine d'Ignazio and Lauren Klein

The seven principles of data feminism are as follows:

- Examine power. Data feminism begins by analysing how power operates in the world.
- Challenge power. Data feminism commits to challenging unequal power structures and working toward justice.
- Elevate emotion and embodiment. Data feminism teaches us to value multiple forms of knowledge, including the knowledge that comes from people as living, feeling bodies in the world.
- Rethink binaries and hierarchies. Data feminism requires us to challenge the gender binary, along with other systems of counting and classification that perpetuate oppression.
- Embrace pluralism. Data feminism insists that the most complete knowledge comes from synthesising multiple perspectives, with priority given to local, Indigenous, and experiential ways of knowing.
- Consider context. Data feminism asserts that data is not neutral or objective. It is the product of unequal social relations, and this context is essential for conducting accurate, ethical analysis.
- Make labour visible. The work of data science, like all work in the world, is the work of many hands. Data feminism makes this labour visible so that it can be recognised and valued.

some good (free) general resources for map design

Labeling and text hierarchy in
axismaps.com/guide/labeling
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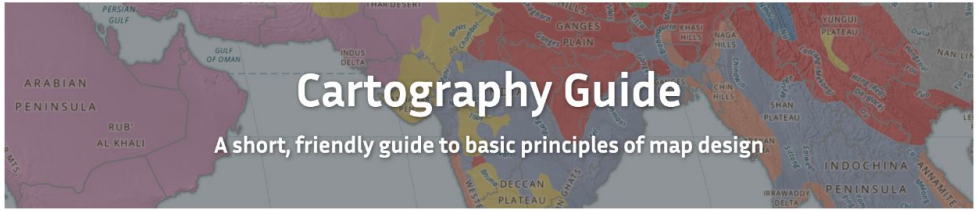
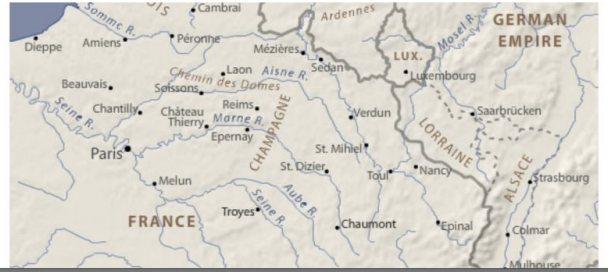


Labeling and text hierarchy in cartography



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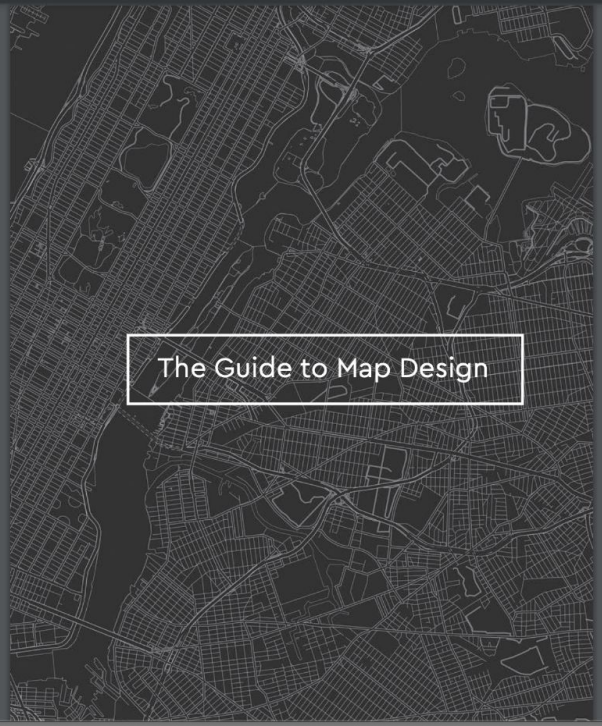

- Topic Description
- References
- Author and citation info
- Instructional Resources
- Additional Resources
- Related Topics
- Keywords

CV-07 - Visual Hierarchy and Layout

Mapmaking, by digital or manual methods, involves taking complex geographic information and building a visual image with many components. Creating effective maps requires an understanding of how to construct the elements of the map into a coherent whole that executes the communicative purpose of the map. Visual hierarchy and layout are the cartographer's tools for organizing the map and completing the map construction. The cartographer layers the mapped geography in an image into a visual hierarchy emphasizing some features and de-emphasizing others in vertical ordering of information. Likewise, the cartographer arranges the components of a map image—title, main map, inset map, north arrow, scale, legend, toolbar, etc.—into a layout that guides the reader's eye around the horizontal plane of the map. The visual hierarchy and layout processes work together to create the structure of the map image.

Author and Citation Info:

Tait, A. (2018). Visual Hierarchy and Layout. *The Geographic Information Science & Technology Body of Knowledge* (2nd Quarter 2018 Edition), John P. Wilson (ed.). DOI: 10.22224/gistbok/2018.2.4

This entry was published on May 15, 2018.

This Topic is also available in the following editions: DiBiase, D., DeMers, M., Johnson, A., Kemp, K., Luck, A. T., Plewe, B., and Wentz, E. (2006). Map design fundamentals. *The Geographic Information Science & Technology Body of*

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krygier.owu.edu/krygier_html/geog_353/geog_353_lo/geog_353_lo10.html
Finish update
Bookmarks My Zoom Mail - Spangler, la... GBTU (non-HWG)... Atlascope tour ge... Free Boston Globe... gbtu-data GB-Digital-Pedag... All Bookmarks

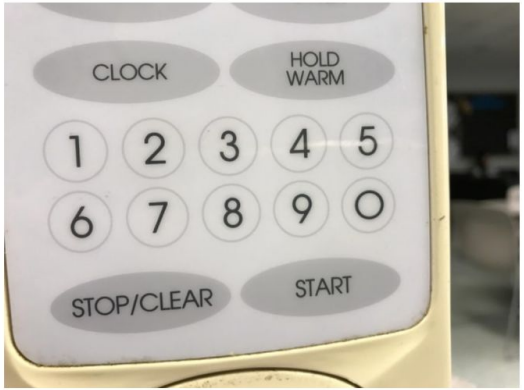
Geography 353 Cartography and Visualization

...to Geog 353 Main Page and Course Description
...to Geog 353 Syllabus
...to Geog 353 Course Schedule and Lecture Outlines
...to Geog 353 Laboratory Information and Student Projects

Geog 353 Lecture Outline: Type on Maps
Update: 10/13/19

We will review chapter 11 (Type on Maps) from the *Making Maps* book. Additional information and examples can be gleaned from the material below.

- ***Making Maps*** Ch 11. Type on Maps



gallery

how are these maps following or disobeying “best principles” in order to convey meaning?

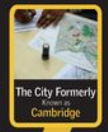
consider why these maps look good

or, well - *whether* they look good

and whether they communicate their argument well

and whether it’s easy to grasp what the argument is

A hypothetical *(but entirely possible!)* map of Cambridge, Massachusetts.



About this map

The City Formerly Known as Cambridge is a hypothetical (but entirely possible!) map of Cambridge, Massachusetts. During 2006–7, the Institute for Infinitely Small Things invited residents and visitors to the city (you) to rename any public place in Cambridge. This was a big experiment to see what the city would look like if the people that live and work here renamed it, right now. We collected over 330 new names along with reasons that ranged from vanity to politics to silliness to forgotten histories to the contested present. This map is a collection of your names and stories about Cambridge, its diverse inhabitants and visitors, its traditions and ever-changing attitudes.

This map also makes the case that names matter. Who gets to name things? Whose stories get remembered? Whose history is consecrated and whose is forgotten? Most Cambridge history books, for example, begin in 1636 with the founding of Newtowne, though there were Native Americans living here long before that time with their own names for its geography. On this map, we have mixed in some real renamed places from the city's history to recall those geographic places that have been contested, disputed, and transformed over time. A city's names, like its communities, are a living, breathing organism.

We collected
over 330 new names.

Whose history
is consecrated
and whose is forgotten?

How it worked

All of these names were collected through face-to-face conversations with people in Cambridge. The Institute for Infinitely Small Things set up its Renaming Booth in commercial centers, at farmers markets, at community festivals and even at a four-square tournament to collect names. Renaming was open to everyone and the Institute did not play any editorial role other than correcting spelling mistakes. Everyone who contributed a new name to the map received a free copy mailed to them.

What about the $$?

You may notice the dollar amounts ($) attached to names on the map. In effect, the most popular parts of Cambridge were auctioned off for small amounts of money. This was designed both to make a political point and to solve a problem: what should happen when 2 people or more wished to rename the same place (say, Harvard Square)? Instead of making a curatorial decision, we decided to mirror real life, which is to say: the person who pays the most money wins. The first time a place was renamed it was free. Each time it was subsequently renamed by a different person, the price went up by $0.25. The money earned from auctioning off names (in total about $20) went towards the production of this map and represents about 0.0025% of the cost of producing the map.

About the Institute for Infinitely Small Things

The Institute for Infinitely Small Things conducts creative participatory research that aims to transparently transform public spaces dominated by corporate and political agendas. Using performance, self-organization, and other tactics, the Institute works with communities from isolated corporate site, shrink-wrapped, and post-9/11 security terrorizing. The Institute advocates for a public engagement through its research reports in the form of a public library, a public forum, a public performance, and a central and open membership which includes artists, filmmakers, complicit programmers, historians and folk hoaxers. For the project, the Institute says "Thanks to Ryan Bennett, Ryan Tierney, Tarek Awad, Ryan Bennett, Lee, James Mayhew, James Manning, Dave Mazzone, Heather Mary, Katherine Urban, Matthew Sakol, Ryan Sakol, Rob Sakol, Kevin Gagnon, and Sean Nahum.

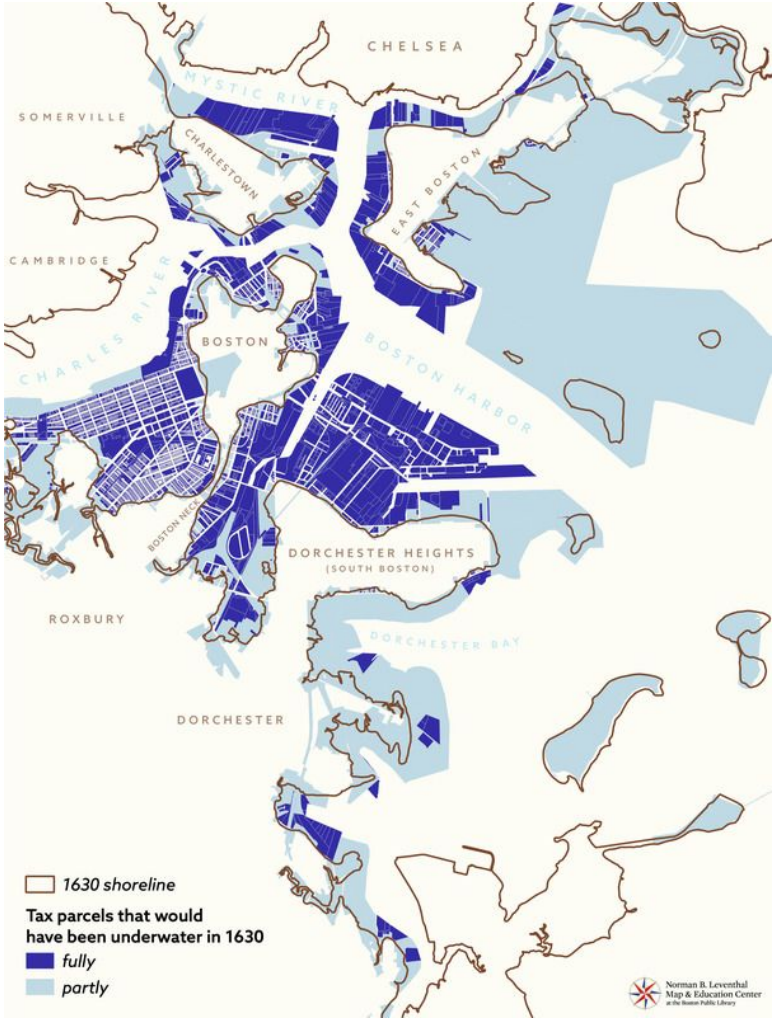
The Institute for Infinitely Small Things

www.infinitelysmallthings.net
info@infinitelysmallthings.net

This project was made possible with the support of the Cambridge Arts Council, the CIF Foundation and Mazzone Hospitality.

Map design by
Mazzone Photo, Ryan Tierney and Tarek Awad

Special thanks to
Alice Shapiro & Nikki Lucarelli/Wellington Insurance
table design, James Manning Construction &
Renovation/Cambridge Arts Council, Cambridge Arts Council, Ken Cole & Anthony Mego
(cartographer), the Cambridge Historical Commission,
Rob Erickson (filing photographs), Jessica Millhouse (art
director) and Sean Nahum and the Same Group Studio
(offices of the Art Institute of Boston).


CHELSEA
MYSTIC RIVER
SOMERVILLE
CHARLESTOWN
EAST BOSTON
CAMBRIDGE
CHARLES RIVER
BOSTON
BOSTON HARBOR
BOSTON NECK
DORCHESTER HEIGHTS
(SOUTH BOSTON)
ROXBURY
DORCHESTER BAY
DORCHESTER
1630 shoreline
Tax parcels that would have been underwater in 1630
fully
partly
Norman B. Leventhal Map & Education Center at the Boston Public Library

What lies directly across the ocean changes constantly as you move along the crooked, ever-turning coast. Following a straight line around the curve of the Earth, sometimes the opposite shore is half a world away.
Seattle
Portland
San Francisco
Los Angeles
San Diego
Boston
New York
Philadelphia
Washington
Charleston
Jacksonville
Miami
Asia
Europe
Africa
Australia
Antarctica
South America
By Andy Woodruff, Axis Maps | @awoodruff
Data: Natural Earth

1 Harvard
Several noteworthy stories came from Harvard in 2011. In May, Tiffany Smalley became the first Wampanoag to graduate from Harvard since 1665. From Harvard Law School, Elizabeth Warren entered the race for Scott Brown's Senate seat in 2012. Meanwhile, Harvard Yard remains locked to outsiders in response to an "Occupy Harvard" protest.

2 Hubway
Boston's bicycle-sharing program launched in July and was a fast success with over 140,000 trips logged in its first four months. When the system reopens in the spring, it will expand to Cambridge, Somerville, and Brookline.

3 MIT
MIT celebrated its 150th birthday with, among other things, high-tech light displays and fireworks on the Charles River.

4 Carolers
On December 3, Boston Pops conductor Keith Lockhart, and members of Tanglewood Orchestra led a failed attempt at breaking the world record for the largest group of carolers gathered in the same place at the same time. This is the second year in a row they have failed.

5 Smoots
In October, the Word "Smoot" was added to The American Heritage Dictionary, as "a unit of measurement equal to five feet, seven inches" after Oliver Smoot, a 1962 graduate of MIT, whose height was used as the basis of the measurement. Many locals know the length of the Mass. Ave. bridge as 364.4 smoots and one ear.

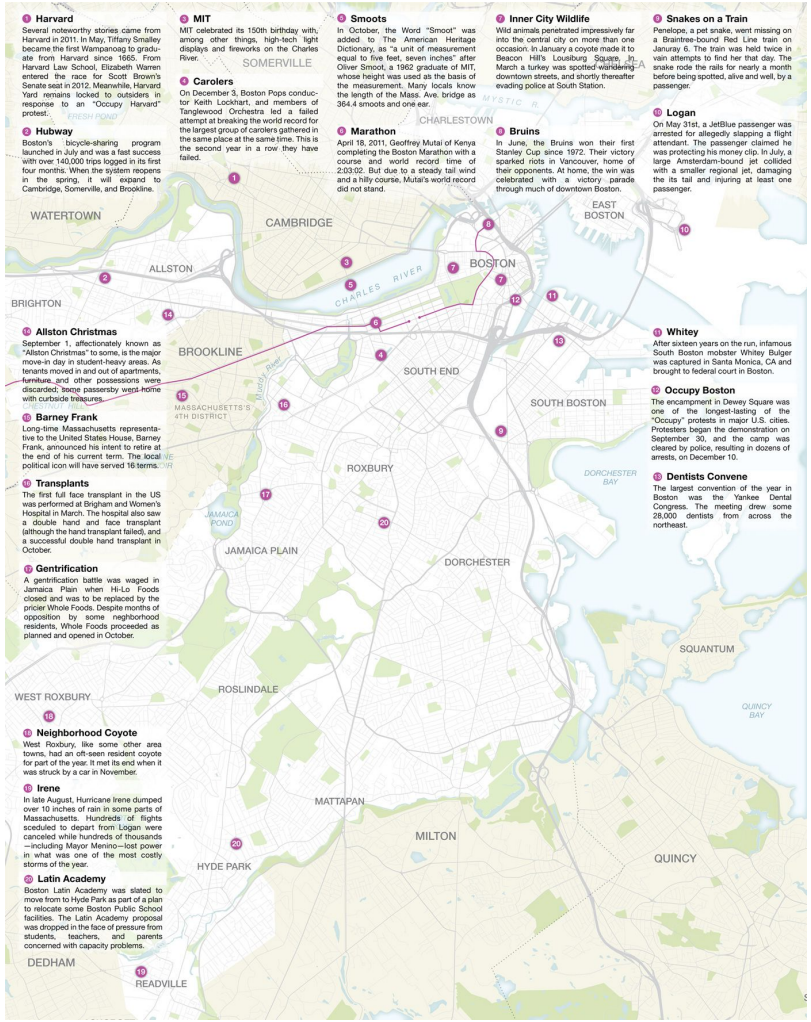
6 Marathon
April 18, 2011, Geoffrey Mutai of Kenya completing the Boston Marathon with a course and world record time of 2:03:02. But due to a steady tail wind and a hilly course, Mutai's world record did not stand.

7 Inner City Wildlife
Wild animals penetrated impressively far into the central city on more than one occasion. In January a coyote made it to Beacon Hill's Lousiburg Square. In March a turkey was spotted wandering downtown streets, and shortly thereafter evading police at South Station.

8 Bruins
In June, the Bruins won their first Stanley Cup since 1972. Their victory sparked riots in Vancouver, home of their opponents. At home, the win was celebrated with a victory parade through much of downtown Boston.

9 Snakes on a Train
Penelope, a pet snake, went missing on a Braintree-bound Red Line train on Januray 6. The train was held twice in vain attempts to find her that day. The snake rode the rails for nearly a month before being spotted, alive and well, by a passenger.

10 Logan
On May 31st, a JetBlue passenger was arrested for allegedly slapping a flight attendant. The passenger claimed he was protecting his money clip. In July, a large Amsterdam-bound jet collided with a smaller regional jet, damaging the its tail and injuring at least one passenger.



11 Whitey
After sixteen years on the run, infamous South Boston mobster Whitey Bulger was captured in Santa Monica, CA and brought to federal court in Boston.

12 Occupy Boston
The encampment in Dewey Square was one of the longest-lasting of the "Occupy" protests in major U.S. cities. Protesters began the demonstration on September 30, and the camp was cleared by police, resulting in dozens of arrests, on December 10.

13 Dentists Convene
The largest convention of the year in Boston was the Yankee Dental Congress. The meeting drew some 28,000 dentists from across the northeast.

14 Allston Christmas
September 1, affectionately known as "Allston Christmas" to some, is the major move-in day in student-heavy areas. As tenants moved in and out of apartments, furniture and other possessions were discarded; some passersby went home with curbside treasures.

15 Barney Frank
Long-time Massachusetts representative to the United States House, Barney Frank, announced his intent to retire at the end of his current term. The local political icon will have served 16 terms.

16 Transplants
The first full face transplant in the US was performed at Brigham and Women's Hospital in March. The hospital also saw a double hand and face transplant (although the hand transplant failed), and a successful double hand transplant in October.

17 Gentrification
A gentrification battle was waged in Jamaica Plain when Hi-Lo Foods closed and was to be replaced by the pricier Whole Foods. Despite months of opposition by some neghborhood residents, Whole Foods proceeded as planned and opened in October.

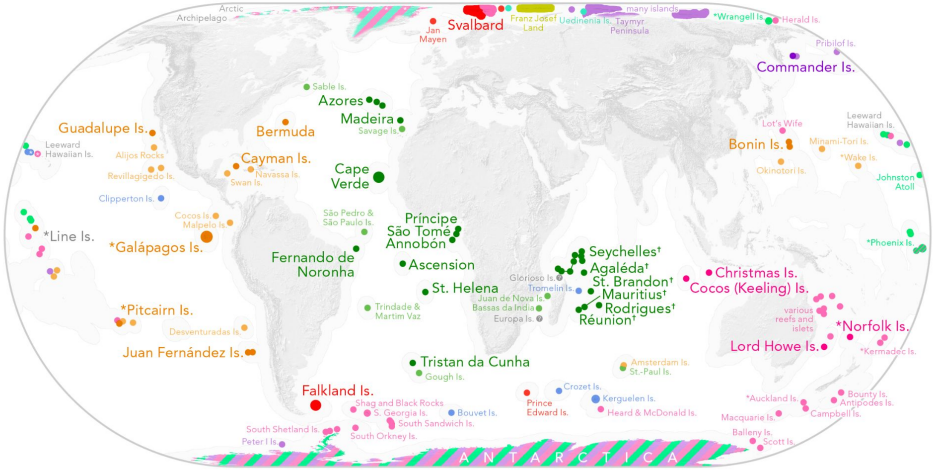
18 Neighborhood Coyote
West Roxbury, like some other area towns, had an oft-seen resident coyote for part of the year. It met its end when it was struck by a car in November.

19 Irene
In late August, Hurricane Irene dumped over 10 inches of rain in some parts of Massachusetts. Hundreds of flights sceduled to depart from Logan were canceled while hundreds of thousands—including Mayor Menino—lost power in what was one of the most costly storms of the year.

20 Latin Academy
Boston Latin Academy was slated to move from to Hyde Park as part of a plan to relocate some Boston Public School facilities. The Latin Academy proposal was dropped in the face of pressure from students, teachers, and parents concerned with capacity problems.

Actual European Discoveries

land unknown by humans* before the Age of Exploration



NOTES

Large Dark Names = currently inhabited
Small Light Names = currently uninhabited (or only military / scientific personnel)

Stripes indicate ambiguous or shared discovery.

* Islands marked with an asterisk show evidence of prior human inhabitation but were unoccupied at the time of European discovery. (The north coast of Greenland was also previously occupied. The South Shetland Islands may have been as well.)

† Islands in the Indian Ocean marked with a dagger were known to Arab traders but never occupied.

All islands labeled with present-day names, which are often different from the names given at discovery. Equal-area projection (Eckert IV). Map by Bill Rankin, 2013; www.radicalcartography.net

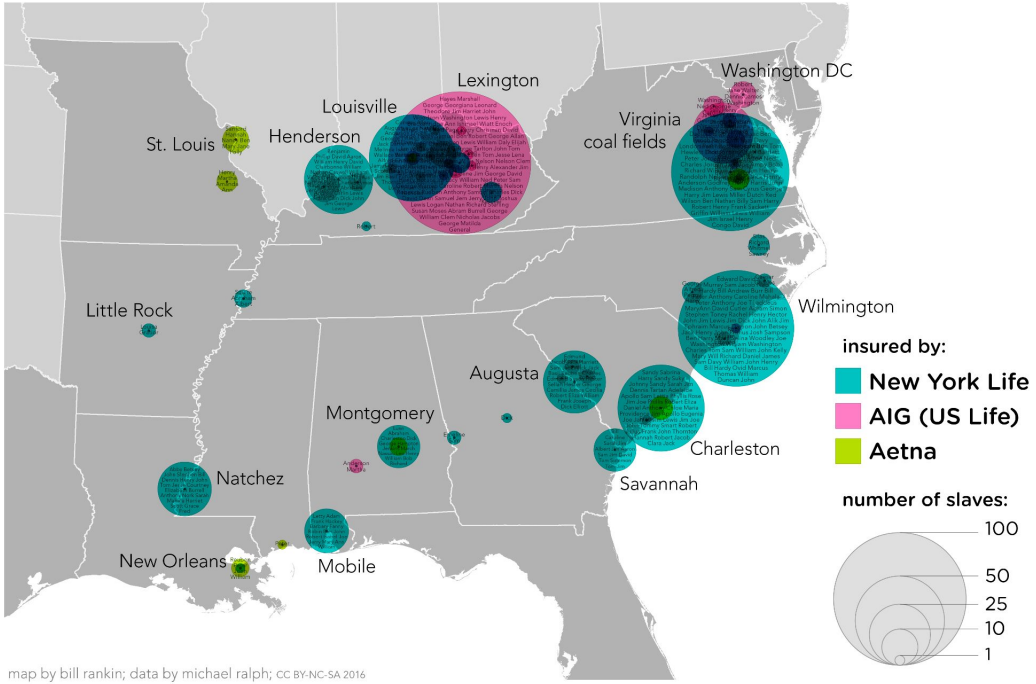
country sponsoring original exploration	date of first discovery	total area discovered (non-continental; km²)	current population of discovered land
Portugal	1418	13,776	3,424,609
Spain	1493	8,938	149,732
Netherlands	1596	73,903	5,642
United Kingdom	1609	10,597	11,436
France	1711	7,627	70
Russia	1712	74,634	613
United States	1796	7,699	3,754
Austria-Hungary	1873	16,134	0
Norway	1878	34	0
		213,342 (roughly the area of Great Britain; 0.14% of all land) (adding continental land at the poles, ~11% of all land)	3,595,856 (0.05% of all humans)

AMERICAN SLAVE INSURANCE

THIS MAP SHOWS 676 KNOWN POLICIES FROM BEFORE THE CIVIL WAR

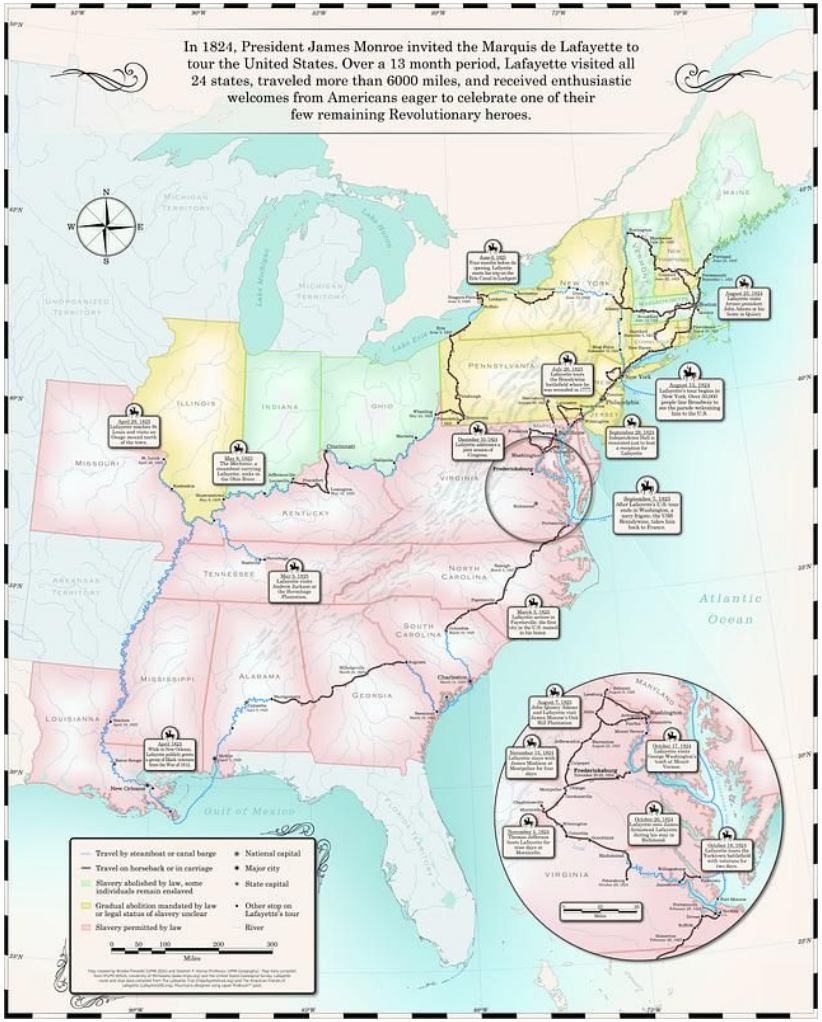
Slave insurance and life insurance were developed at the same time, often by the same companies.
Insured slaves were usually highly skilled and rented to others, especially in cities.
They worked on Ohio River steamboats, in Virginia coal fields, in skilled trades on the Atlantic coast.
Most were men, but many were women (nurses, domestics, seamstresses).

WE KNOW THEIR NAMES (zoom in)



map by bill rankin; data by michael ralph; CC BY-NC-SA 2016

CURRENT RESERVATIONS AND TRIBAL LANDS
LAKE SUPERIOR
MICHIGAN
MINNESOTA
IOWA
ILLINOIS
LAKE MICHIGAN
Red Cliff Ojibwe Reservation
Bad River Ojibwe Reservation
Lac Courte Oreilles Ojibwe Reservation
Lac du Flambeau Ojibwe Reservation
St. Croix Ojibwe Reservations
Mole Lake Ojibwe Reservation
Forest County Potawatomi Trust Lands
Menominee Reservation
Stockbridge-Munsee Reservation
Oneida Reservation
Ho-Chunk Trust Lands
Lake Winnebago
Superior
Red Cliff
Washburn
Odanah
Ashland
Hurley
Hayward
Webster
Siren
Shell Lake
Phillips
Rhinelander
Crandon
Stone Lake
Mole Lake
Ladysmith
Balsam Lake
Barron
Medford
Merrill
Antigo
Marinette
Hudson
Menomonie
Chippewa Falls
Wausau
Bowler
Keshena
Oconto
Sturgeon Bay
Eau Claire
Ellsworth
Neillsville
Stevens Point
Green Bay
Kewaunee
Black River Falls
Whitehall
Alma
Wisconsin Rapids
Waupaca
Appleton
Manitowoc
Wautoma
Oshkosh
Chilton
La Crosse
Sparta
Tomah
Friendship
Mauston
Montello
Green Lake
Fond du Lac
Sheboygan
Viroqua
Portage
Baraboo
Juneau
West Bend
Port Washington
Richland Center
Prairie du Chien
Madison
Waukesha
Milwaukee
Jefferson
Lancaster
Dodgeville
Darlington
Monroe
Janesville
Elkhorn
Racine
Kenosha
BAYFIELD
DOUGLAS
ASHLAND
IRON
VILAS
FOREST
FLORENCE
WASHBURN
BURNETT
SAWYER
ONEIDA
PRICE
RUSK
POLK
BARRON
TAYLOR
LINCOLN
LANGLADE
MARINETTE
SAINT CROIX
DUNN
CHIPPEWA
MENOMINEE
MARATHON
OCONTO
PIERCE
EAU CLAIRE
SHAWANO
DOOR
PEPIN
CLARK
PORTAGE
KEWAUNEE
BUFFALO
WOOD
OUTAGAMIE
WAUPACA
BROWN
TREMPEALEAU
JACKSON
ADAMS
WAUSHARA
WINNEBAGO
MANITOWOC
CALUMET
LA CROSSE
MONROE
MARQUETTE
GREEN LAKE
FOND DU LAC
SHEBOYGAN
JUNEAU
VERNON
DODGE
OZAUKEE
RICHLAND
SAUK
COLUMBIA
WASHINGTON
CRAWFORD
DANE
JEFFERSON
GRANT
IOWA
WAUKESHA
MILWAUKEE
RACINE
GREEN
LAFAYETTE
ROCK
WALWORTH
KENOSHA
LEGEND
Tribal Lands and Communities
Tribal Seat of Government
State Capital
City Name
COUNTY
0
40
Miles
N
W
E
S
Created in partnership with the University of Wisconsin Cartography Lab, 2018.
find this and other resources at
WISCONSINFIRSTNATIONS.ORG


In 1824, President James Monroe invited the Marquis de Lafayette to tour the United States. Over a 13 month period, Lafayette visited all 24 states, traveled more than 6000 miles, and received enthusiastic welcomes from Americans eager to celebrate one of their few remaining Revolutionary heroes.
N
W
E
S
Michigan Territory
Unorganized Territory
Lake Michigan
Lake Huron
Lake Erie
Maine
New York
Pennsylvania
Ohio
Indiana
Illinois
Missouri
Kentucky
Virginia
Tennessee
North Carolina
South Carolina
Georgia
Alabama
Mississippi
Louisiana
Arkansas Territory
Florida Territory
Atlantic Ocean
Gulf of Mexico
June 6, 1824
Four months before its opening, Lafayette visits the Erie Canal in Lockport
August 25, 1824
Lafayette visits former president John Adams at his home in Quincy
July 26, 1824
Lafayette tours the Brooklyn Navy Yard and is serenaded at City Hall
August 15, 1824
Lafayette arrives in New York. Over 50,000 people line Broadway to see the parade welcoming him to the U.S.
September 20, 1824
Lafayette is serenaded and is feted a reception for Lafayette
December 10, 1824
Lafayette addresses a joint session of Congress
September 7, 1824
After Lafayette's U.S. tour ends, he boards the navy frigate, the USS Brandywine, taken him back to France
April 29, 1825
Lafayette arrives in Louisville and visits the Osage mound north of the town.
May 8, 1825
The Mechanic, a steamboat carrying Lafayette, sinks in the Ohio River
May 3, 1825
Lafayette visits Andrew Jackson's Hermitage in the Hermitage Plantation.
March 5, 1825
Lafayette arrives in Washington, D.C. by ship to the U.S. capital to his home
April 1825
Lafayette publicly pays a group of Black veterans from the War of 1812.
August 7, 1824
Lafayette visits Mount Vernon and Lafayette visits James Monroe's Oak Hill Plantation
December 14, 1824
Lafayette stays with James Madison at Montpelier for four days
October 17, 1824
Lafayette visits George Washington's Tomb at Mount Vernon
November 5, 1824
Thomas Jefferson hosts Lafayette for nine days at Monticello
October 20, 1824
Another dinner and serenade honoring Lafayette during his stop in Richmond
October 19, 1824
Lafayette tours the Yorktown battlefield with instructions for Jim Bowie
Maryland
Virginia
Fredericksburg
Richmond
Petersburg
Williamsburg
Yorktown
Fort Monroe
Norfolk
Portsmouth
Suffolk
Blackwater River
Nansemond River
Elizabeth River
Chesapeake Bay
Miles
Travel by steamboat or canal barge
Travel on horseback or in carriage
Slavery abolished by law, some individuals remain enslaved
Gradual abolition mandated by law or legal status of slavery unclear
Slavery permitted by law
National capital
Major city
State capital
Other stop on Lafayette's tour
River
0 50 100 200 300
Miles

Collectively Mapping Borders
Meghan Kelly

PENNSYLVANIA
Philadelphia
Camp Berry
Portland, ME
350 miles
Susquehanna R.
Gettysburg
Littlestown
Taneytown
Williamsport
MARYLAND
WEST VIRGINIA
Frederick
Harper's Ferry
Sandy Hook
Monocacy R.
Blue Ridge Mountains
Baltimore
DELAWARE
Dover
Delaware Bay
Shenandoah R.
Edwards Ferry
Patuxent R.
Goose Cr.
Potomac R.
D.C.
Manassas Gap
Centreville
Washington
Thoroughfare Gap
Longstreet Station
VIRGINIA
Chesapeake Bay
Bealeton Station
Dumfries
White Plains
Stevensburg
Rapidan R.
Wilderness
Falmouth
Fredericksburg
Rappahannock R.
Potomac R.
Spotsylvania Courthouse
50 miles
Petersburg
Ft. Sedgwick
10 miles

The New York Times

IN PARTNERSHIP WITH NOLA.COM | THE TIMES-PICAYUNE

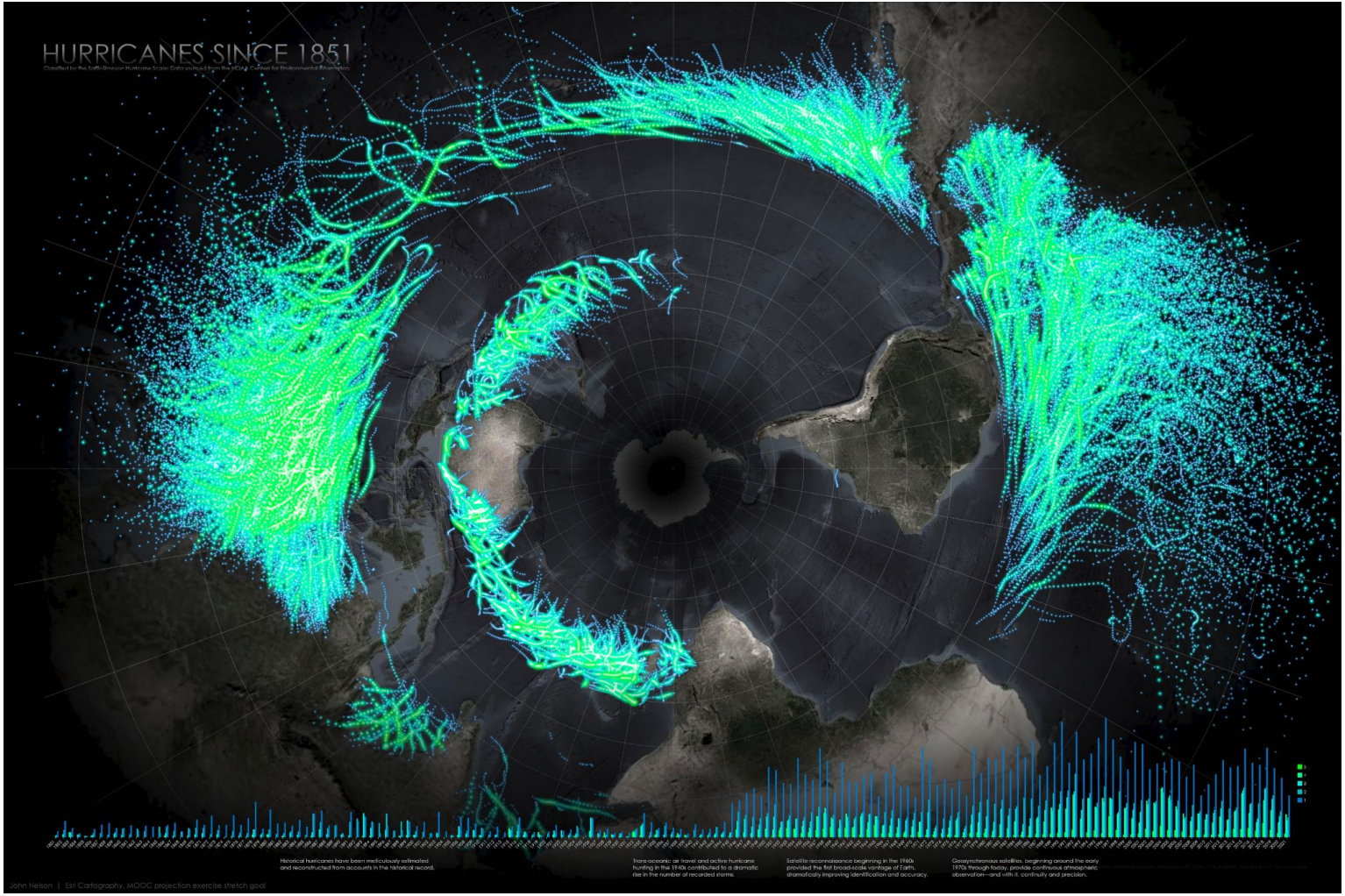
'I hope people will see that, hey, not only are we fighting hard to exist, but, you know, maybe this place is worth saving.'

TIMOTHY P. KERNER, MAYOR OF JEAN LAFITTE, LA.

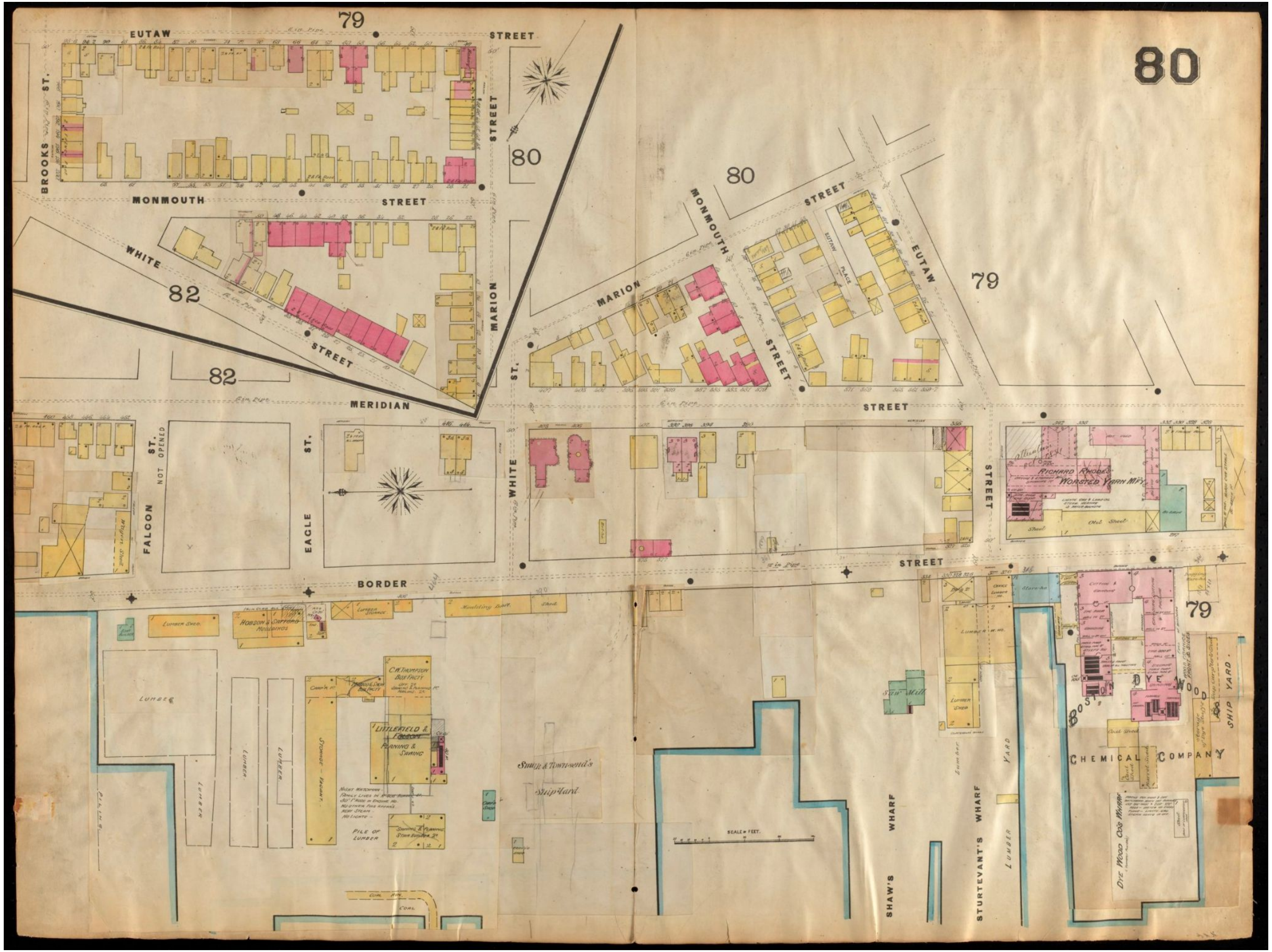
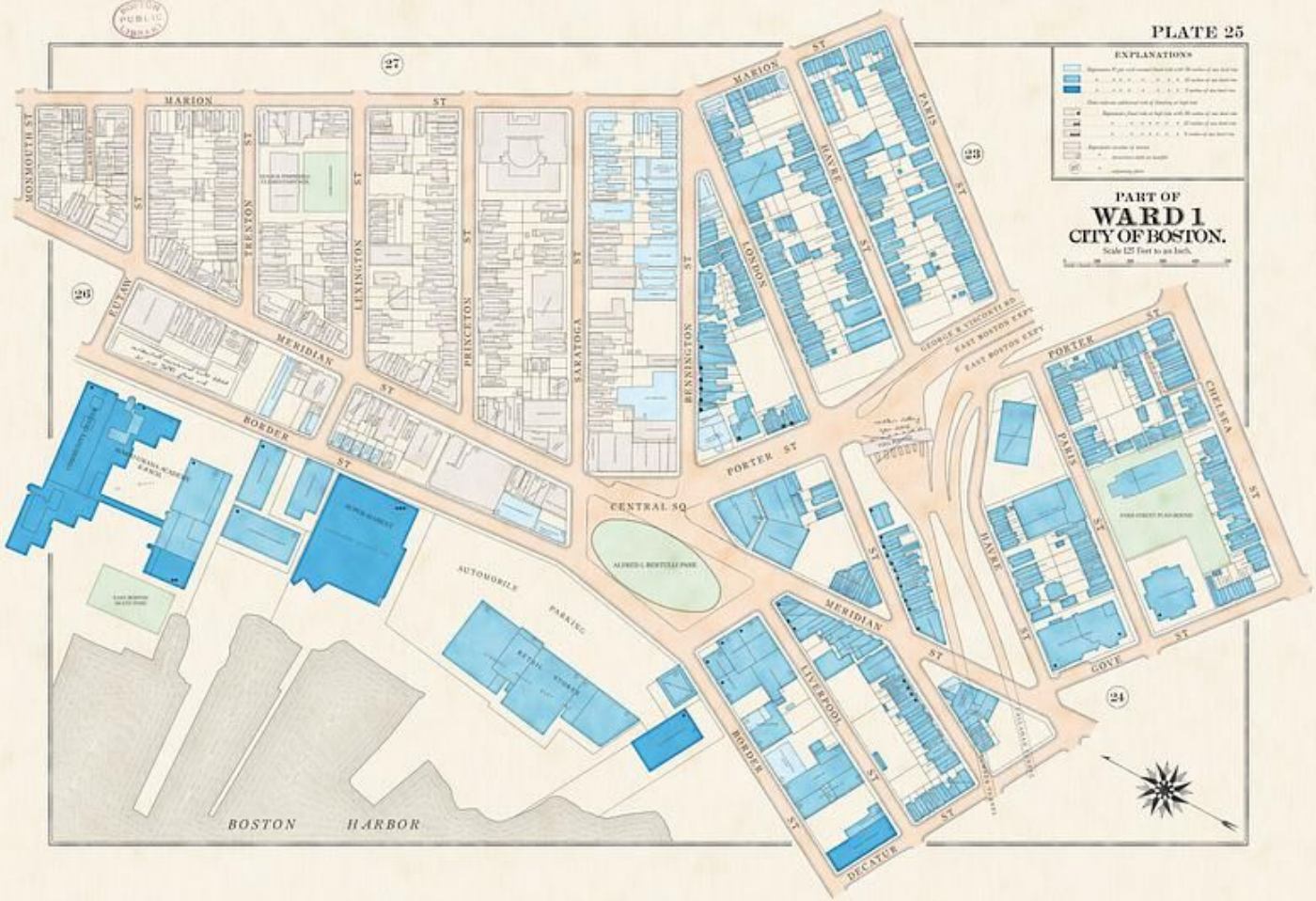
THE DROWNING COAST

Climate change is pushing the seas ever higher, threatening coastal areas across the globe. But the epicenter may be Louisiana, where in the shadow of New Orleans, an existential question bears down on a little fishing village called Jean Lafitte: Which communities should be protected, and which should be left to their fate?

Louisiana's disappearing coast is laid bare in this January radar satellite image from the European Space Agency.


HURRICANES SINCE 1851
Classified by the Saffir-Simpson Hurricane Scale; Data sourced from the NOAA Center for Environmental Information
5
4
3
2
1
Historical hurricanes have been meticulously estimated and reconstructed from accounts in the historical record.
Trans-oceanic air travel and active hurricane hunting in the 1940s contributed to a dramatic rise in the number of recorded storms.
Satellite reconnaissance beginning in the 1960s provided the first broad-scale vantage of Earth, dramatically improving identification and accuracy.
Geosynchronous satellites, beginning around the early 1970s through today, provide continuous atmospheric observation—and with it, continuity and precision.
John Nelson | Esri Cartography, MOOC projection exercise stretch goal

Coming Home


80
79
EUTAW STREET
BROOKS ST.
MONMOUTH STREET
WHITE STREET
82
MARION ST.
MONMOUTH STREET
MARION STREET
EUTAW STREET
EUTAW PLACE
MERIDIAN STREET
FALCON ST.
NOT OPENED
EAGLE ST.
WHITE ST.
BORDER STREET
RICHARD RHODES' WORSTED YARN MFY.
HOBSON & SAFFORD MOULDINGS
LUMBER SHED
C.W. THOMPSON BOX FACTY
LITTLEFIELD & FOLSOM PLANING & SAWING
LUMBER
PILE OF LUMBER
Smith & Townsend's Ship Yard
SCALE OF FEET
Saw Mill
SHAW'S WHARF
STURTEVANT'S WHARF
LUMBER YARD
BOSTON DYE WOOD & CHEMICAL COMPANY
SHIP YARD
DYE WOOD CO'S WHARF

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