

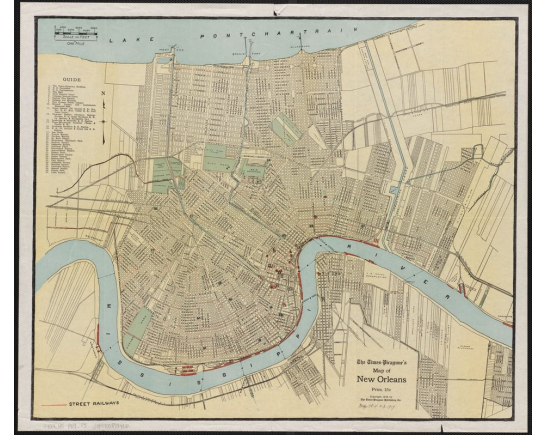
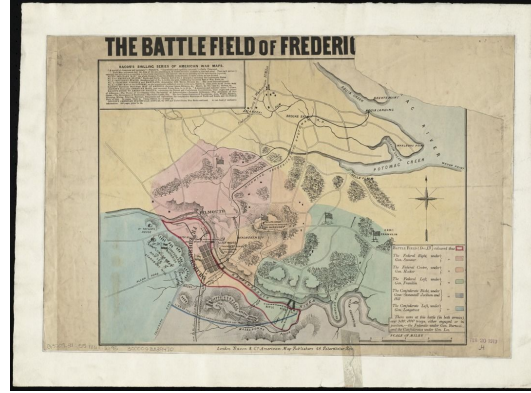
week 1: welcome!

foundations of geospatial analysis

2026.08.24

who am i??











who are you???



**draw a map of a place
that is important to
you**

maybe 5-7 mins

in groups of 2-4, introduce yourself

name/pronouns if u want?

major/year?

where's home for you?

and tell us about your map!

where's this place, why'd you draw it, memories, etc.,

**now, how would you turn
this map into something
*a computer can read?***

**that's basically our
goal this semester**

first, make
observations about
geographic phenomena

**second, encode
them as standard**
geospatial data formats

third, derive
meaning through
geospatial analysis

fourth, make some
nice looking maps!

okay BUT: what is a “map?”

Oxford English Dictionary, I.1.a

A drawing or other representation of the earth's surface or a part of it made on a flat surface, showing the distribution of physical or geographical features (and often also including socio-economic, political, agricultural, meteorological, etc., information), with each point in the representation corresponding to an actual geographical position according to a fixed scale or projection; a similar representation of the positions of stars in the sky, the surface of a planet, or the like. Also: a plan of the form or layout of something, as a route, a building, etc.

Oxford English Dictionary, I.3.a

A diagram or collection of data showing the spatial distribution of something or the relative positions of its components.

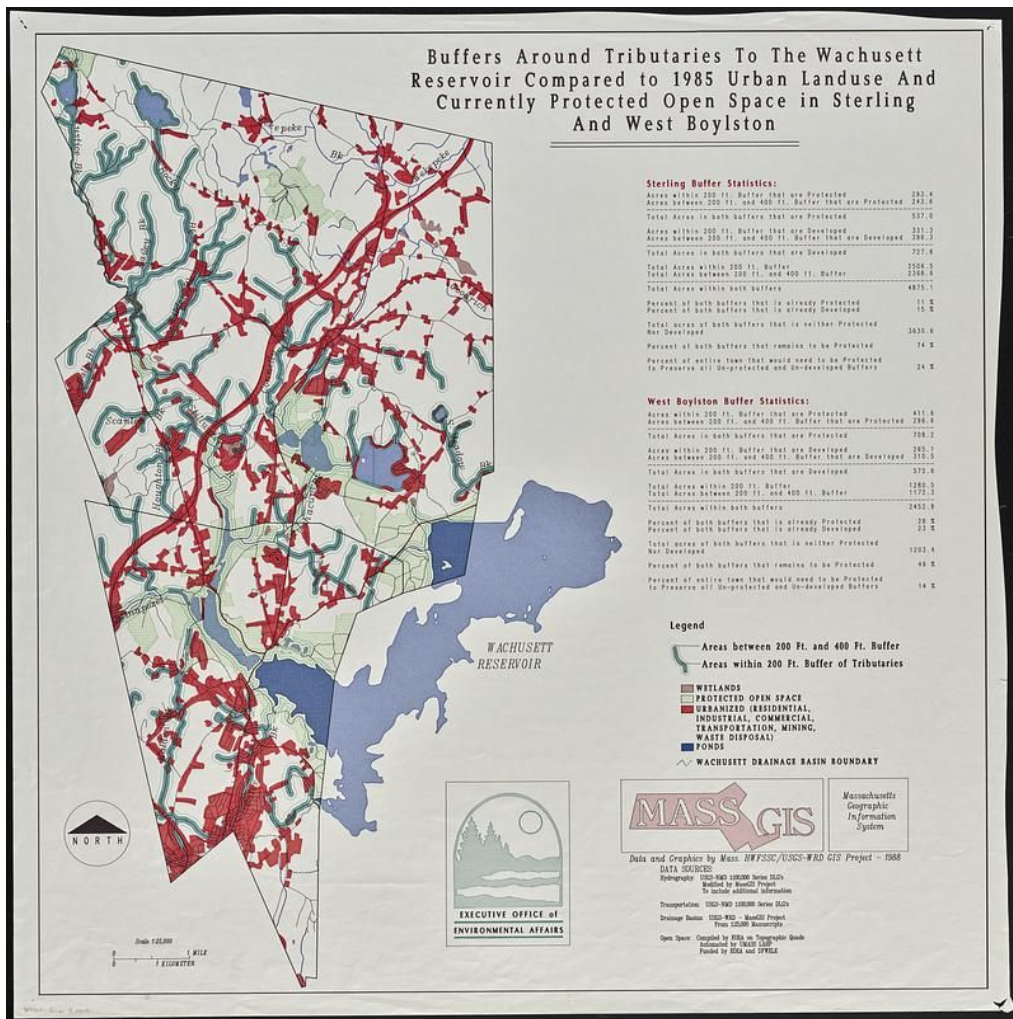
1

is this a map?

[source](#)

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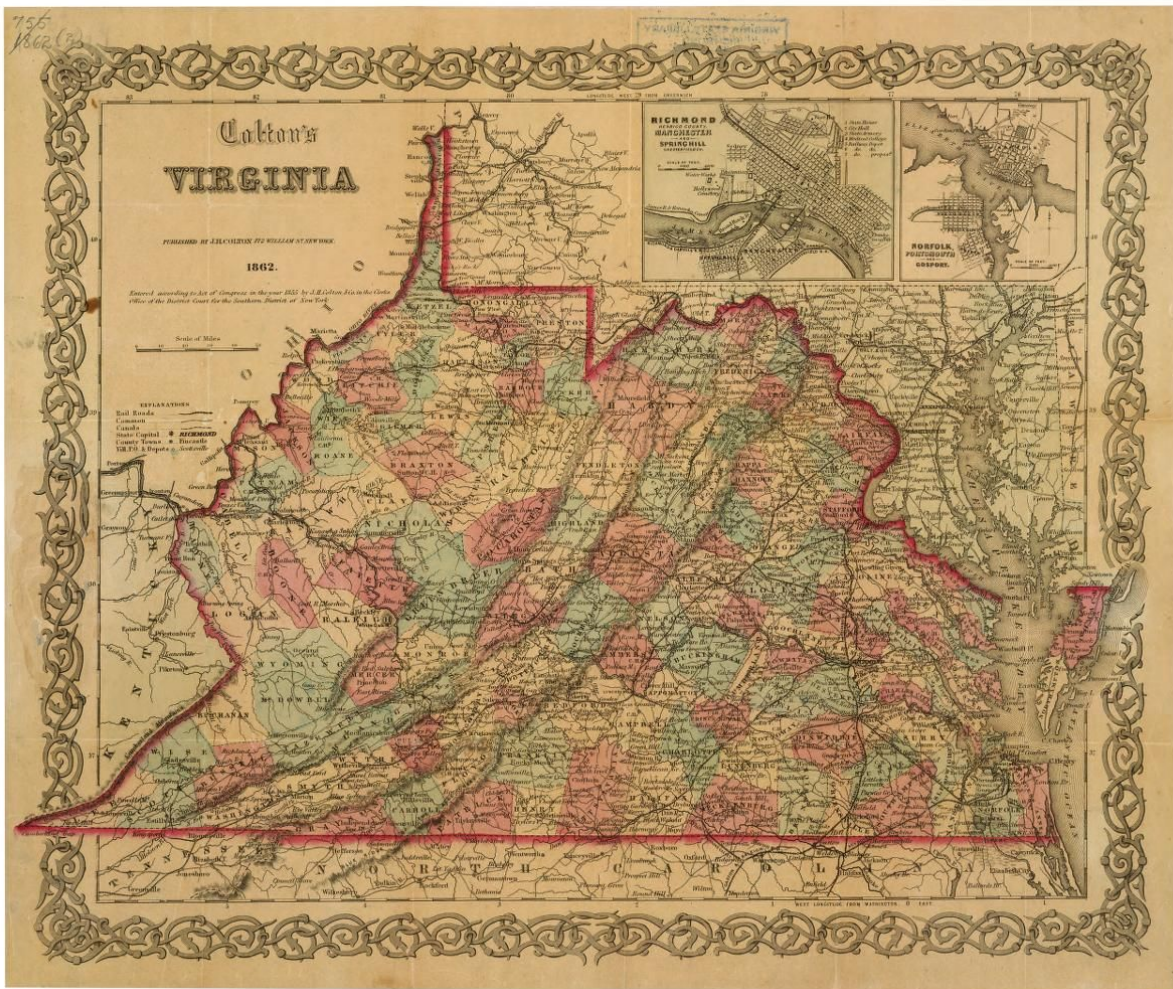
2

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3

is this a
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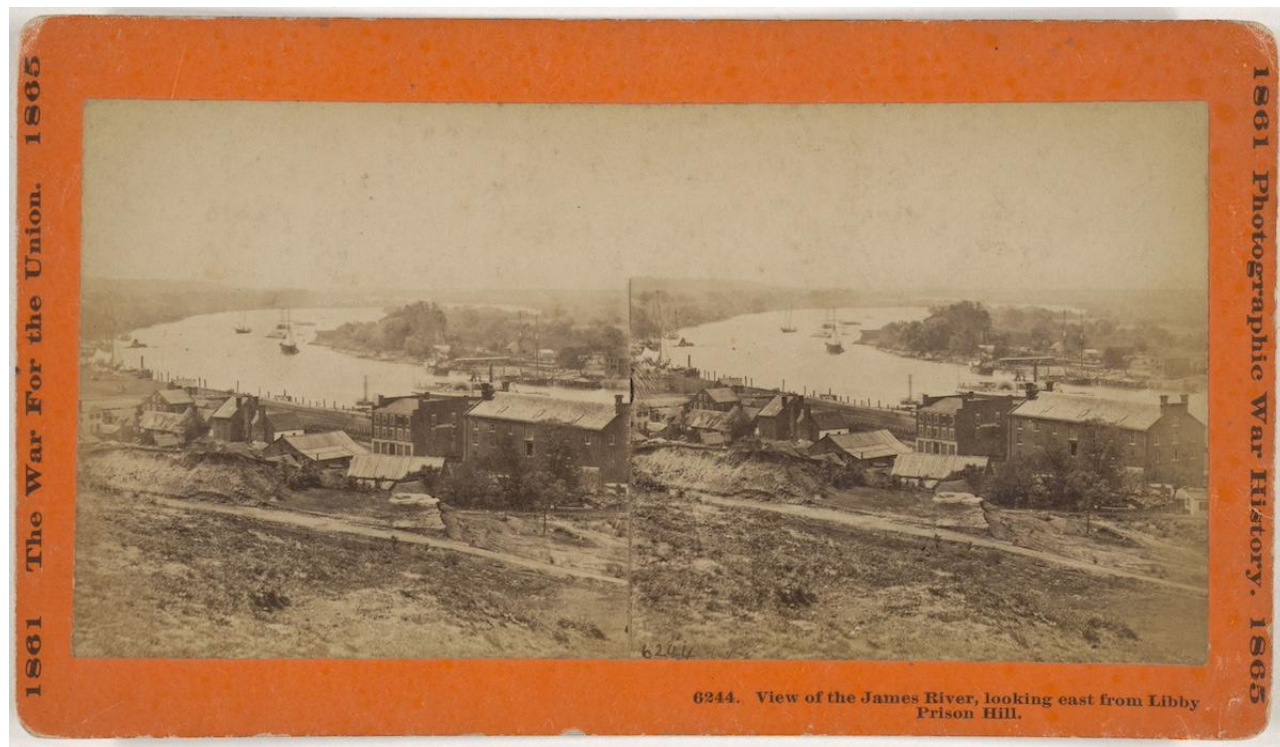
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[source](#)

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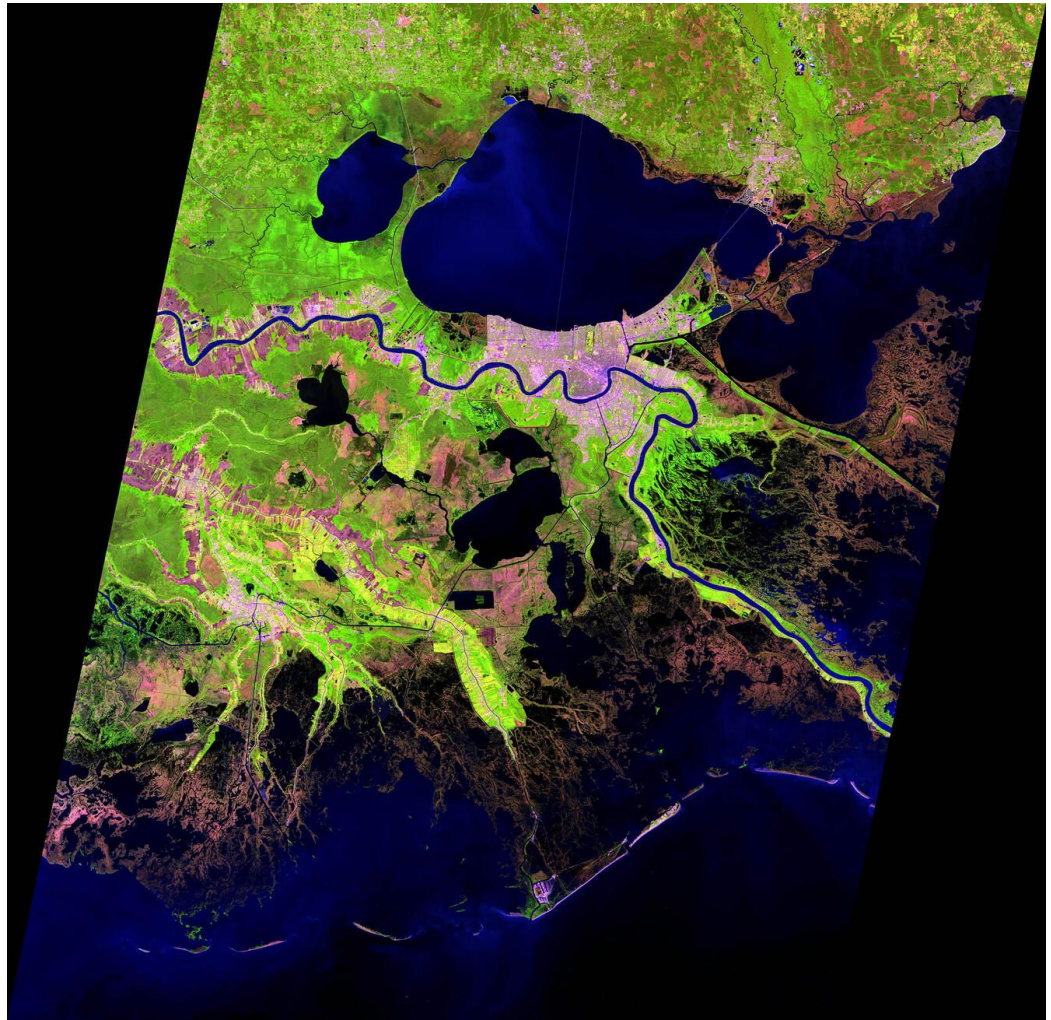
5

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[source](#)

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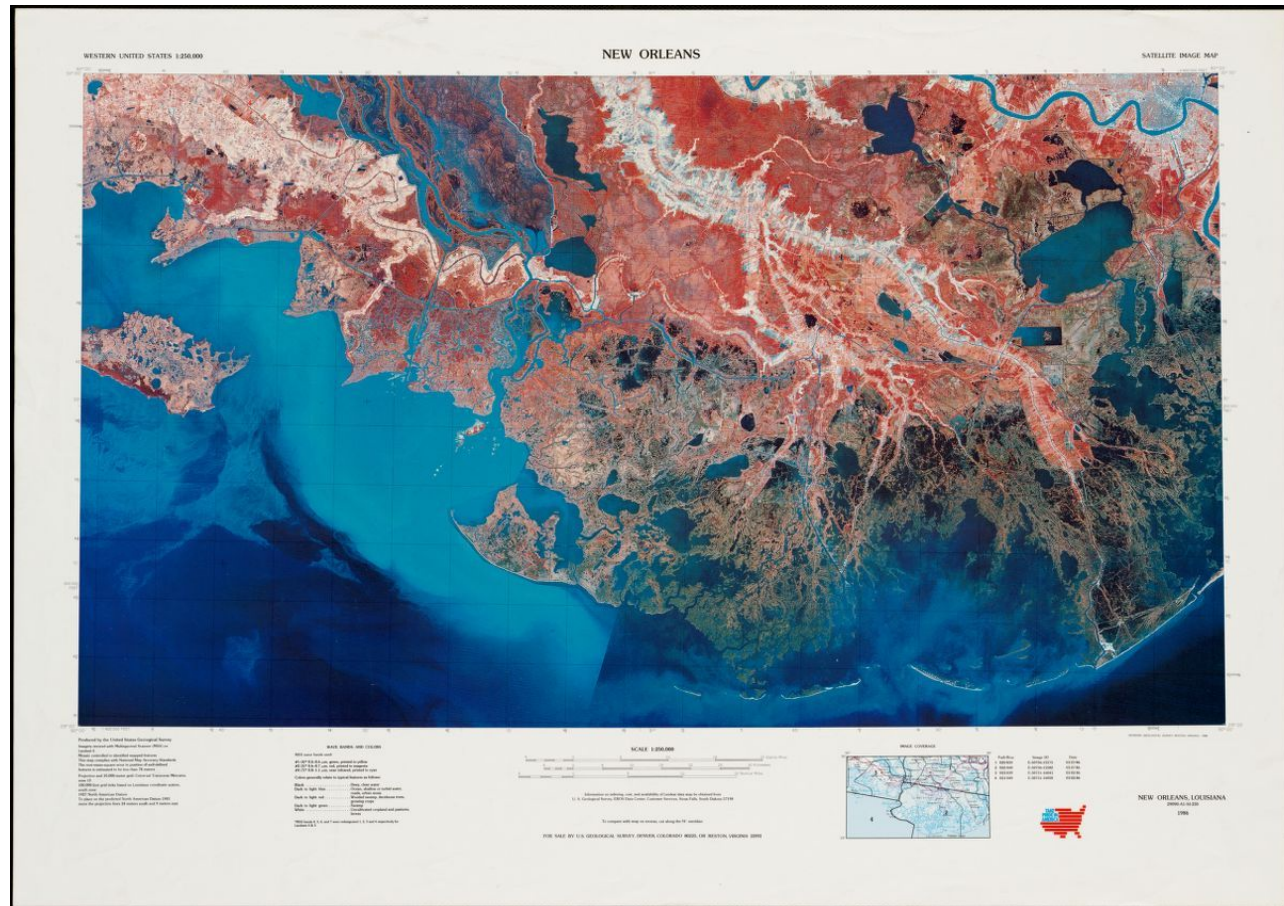
6

is this a map?

[source](#)

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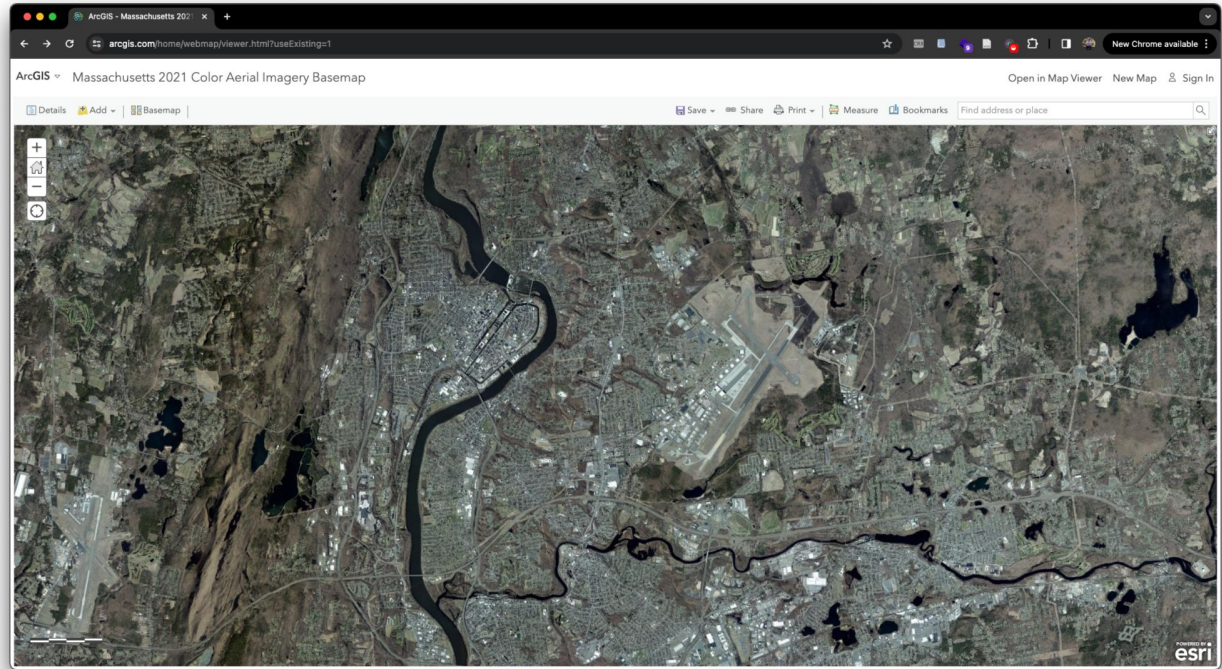
7

is this a map?

[source](#)

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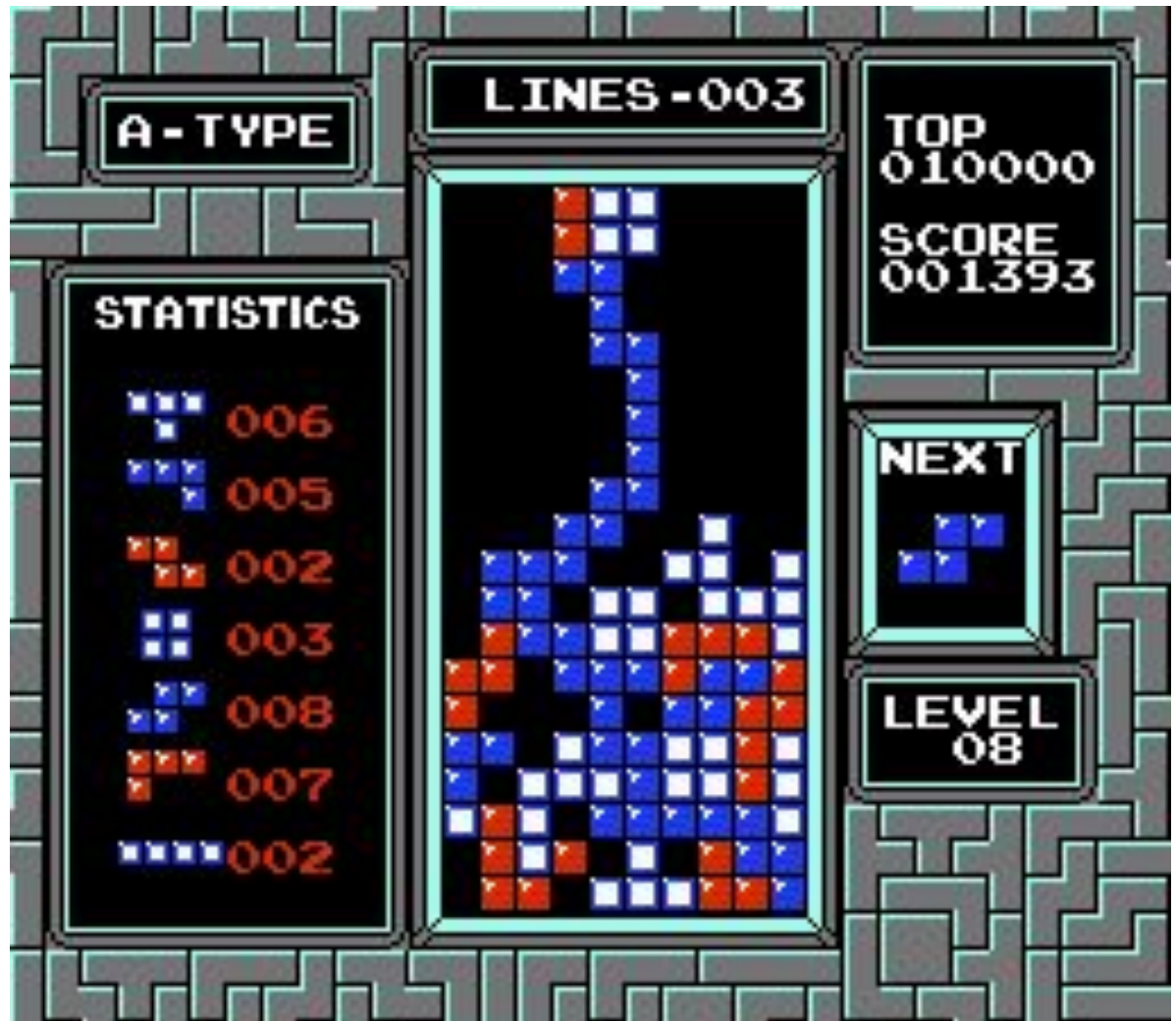
8

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[source](#)

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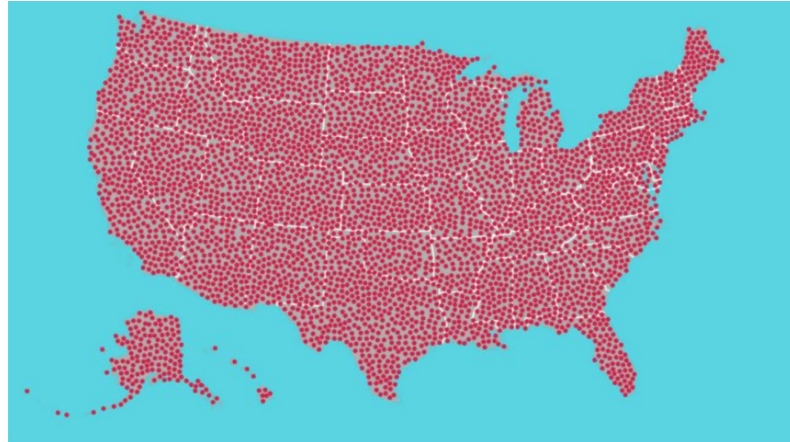
9

is this a map?

[source](#)

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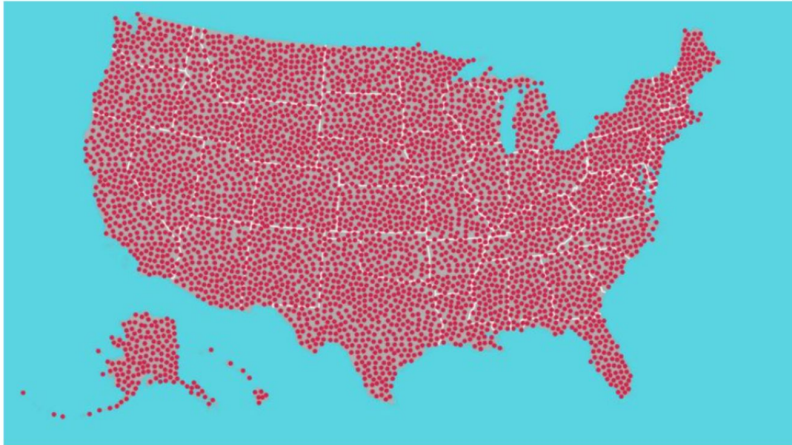
CLICKHOLE

LATEST NEWS POP CULTURE LIFESTYLE QUIZZES CLICKVENTURES VIDEO KIDHOLE EMAIL CLUB

STORE

We Put 700 Red Dots On A Map

OCTOBER 22, 2014



Some statistics can be so unbelievable, or deal with concepts so vast, that it's impossible to wrap our heads around them. The human mind can only do so much to visualize an abstract idea, and often misses much of its impact in the translation. Sometimes you just need to step back and take a good, long look for yourself.

That's why we just put 700 red dots on a map.

TRENDING NEWS

The Winning Streak Continues: Ayo Edebiri Has Been Awarded A 5-Star Vehicle Safety Rating By The National Highway Traffic Safety Administration
2.9k views | posted on January 18, 2024

4 Things I Wish I Understood Before I Went All Out Tailgating My Kid's Dentist Appointment
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What Is a Map? Why We Can't Define It and Why It Doesn't Matter

If cartography is not what cartographers tell us maps are supposed to be, then just what is a map? A typical official definition of the map is that “it is a graphic representation of space” (International Cartographic Association, ICA). That definition is fine as far as it goes, but it tells us little about the way maps are used.

If critique examines the assumptions of a field of knowledge, as we saw in the previous chapter, then it would seem that a fundamental critique of mapping is to carefully examine this definition.

For instance, is the concept of the map one which is invariant across cultures, age, sex, etc.? In a simple experiment that Roger Downs performed in his introductory human geography class, he was able to show some very interesting things about maps. Downs showed a number of images to his class (say 40 different pictures), composed of images taken from geography textbooks, aerial photographs, historic maps, and so on. For each image, you had to respond “yes it is a map,” “no it is not a map,” or “? Don't know.”

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Each person viewing the image made a personal assessment as to whether it was a map or not. The results showed the following:

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Each person viewing the image made a personal assessment as to whether it was a map or not. ~~The results showed the following:~~

1. in a given group, some images were almost always seen as maps, some were almost always not seen as maps, and some images were sometimes seen as maps;
2. the degree to which people agreed that an image was a map increased with age.

**all of the maps we
examined depict**
spatial data

755
1862 (2)

Colton's VIRGINIA

PUBLISHED BY J. COLTON 112 WILLIAM ST. N.Y.

1862.

Entered, according to Act of Congress, in the year 1862, by J. M. Colton, in the Clerk's Office of the District Court for the Southern District of New York.

Scale of Miles
0 10 20

EXPLANATION
Rail Roads
Canals
State Capital & Incorporated
County Towns & District
Villages & Populated Places

RICHMOND

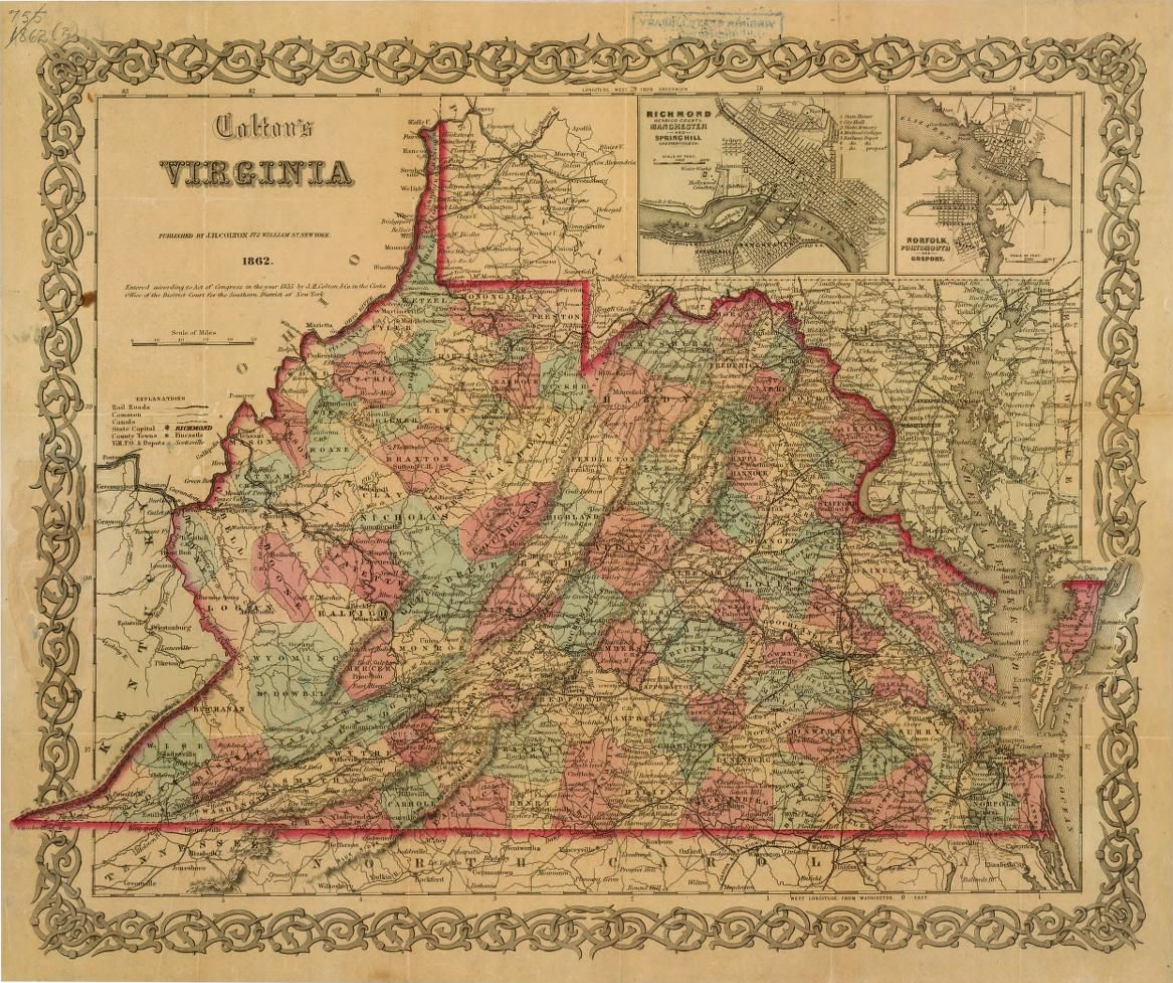




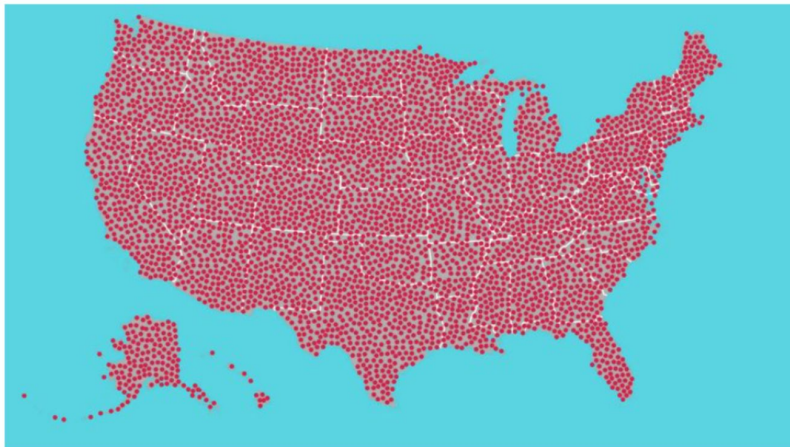
Illustration from Scribner and Lath by John R. Sullivan

BIRDS EYE VIEW
OF THE
SEAT OF WAR AROUND RICHMOND

Map
No. 1770
Library of Congress

We Put 700 Red Dots On A Map

OCTOBER 22, 2014



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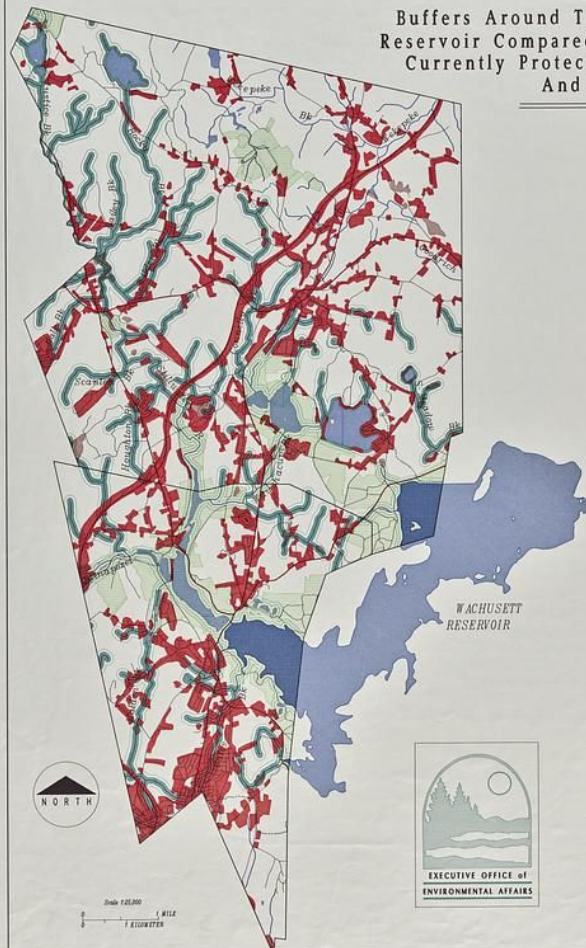
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some of them conduct
geospatial analysis

Buffers Around Tributaries To The Wachusett Reservoir Compared to 1985 Urban Landuse And Currently Protected Open Space in Sterling And West Boylston



Sterling Buffer Statistics:

Acres within 200 ft. Buffer that are Protected	282.4
Acres between 200 ft. and 400 ft. Buffer that are Protected	242.6
Total Acres in both buffers that are Protected	525.0
Acres within 200 ft. Buffer that are Developed	331.3
Acres between 200 ft. and 400 ft. Buffer that are Developed	386.3
Total Acres in both buffers that are Developed	717.6
Total Acres within 200 ft. Buffer	2504.5
Total Acres between 200 ft. and 400 ft. Buffer	2168.4
Total Acres within both buffers	4672.9
Percent of both buffers that is already Protected	11 %
Percent of both buffers that is already Developed	15 %
Total acres of both buffers that is neither Protected Nor Developed	1630.6
Percent of both buffers that remains to be Protected	74 %
Percent of entire town that would need to be Protected to Preserve all Un-protected and Un-developed Buffers	24 %

West Boylston Buffer Statistics:

Acres within 200 ft. Buffer that are Protected	411.6
Acres between 200 ft. and 400 ft. Buffer that are Protected	296.4
Total Acres in both buffers that are Protected	708.2
Acres within 200 ft. Buffer that are Developed	265.1
Acres between 200 ft. and 400 ft. Buffer that are Developed	310.5
Total Acres in both buffers that are Developed	575.6
Total Acres within 200 ft. Buffer	1280.5
Total Acres between 200 ft. and 400 ft. Buffer	1172.3
Total Acres within both buffers	2452.8
Percent of both buffers that is already Protected	28 %
Percent of both buffers that is already Developed	23 %
Total acres of both buffers that is neither Protected Nor Developed	1203.4
Percent of both buffers that remains to be Protected	49 %
Percent of entire town that would need to be Protected to Preserve all Un-protected and Un-developed Buffers	14 %

Legend

- Areas between 200 Ft. and 400 Ft. Buffer
- Areas within 200 Ft. Buffer of Tributaries

- WETLANDS
- PROTECTED OPEN SPACE
- URBANIZED (RESIDENTIAL, INDUSTRIAL, COMMERCIAL, TRANSPORTATION, MINING, WASTE DISPOSAL)
- PONDS
- WACHUSETT DRAINAGE BASIN BOUNDARY



Data and Graphics by Mass. HWSSC/USC-WRD GIS Project - 1988

DATA SOURCES:

Topography: USGS 1:50,000 Series SLDS

Qualified by WorldGIS Project

To include additional information

Topography: USGS 1:50,000 Series SLDS

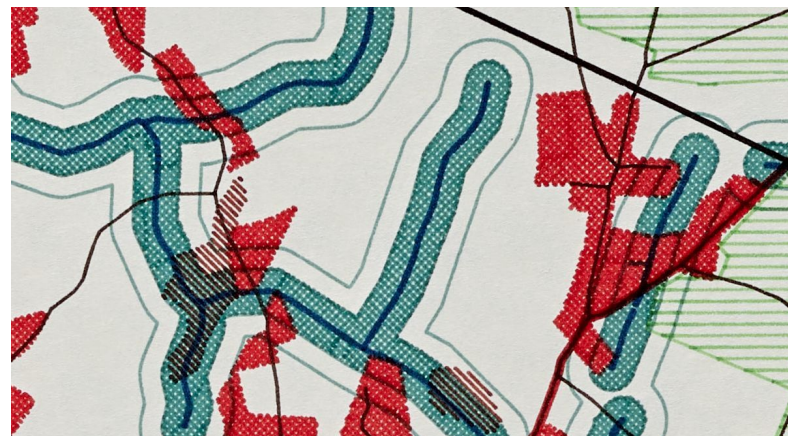
Drainage Basins: USGS 1:50,000 Series SLDS

Drainage Basins: USGS 1:50,000 Series SLDS

Open Space: Compiled by DEEA on Topographic Quads

Qualified by TACIS GIS

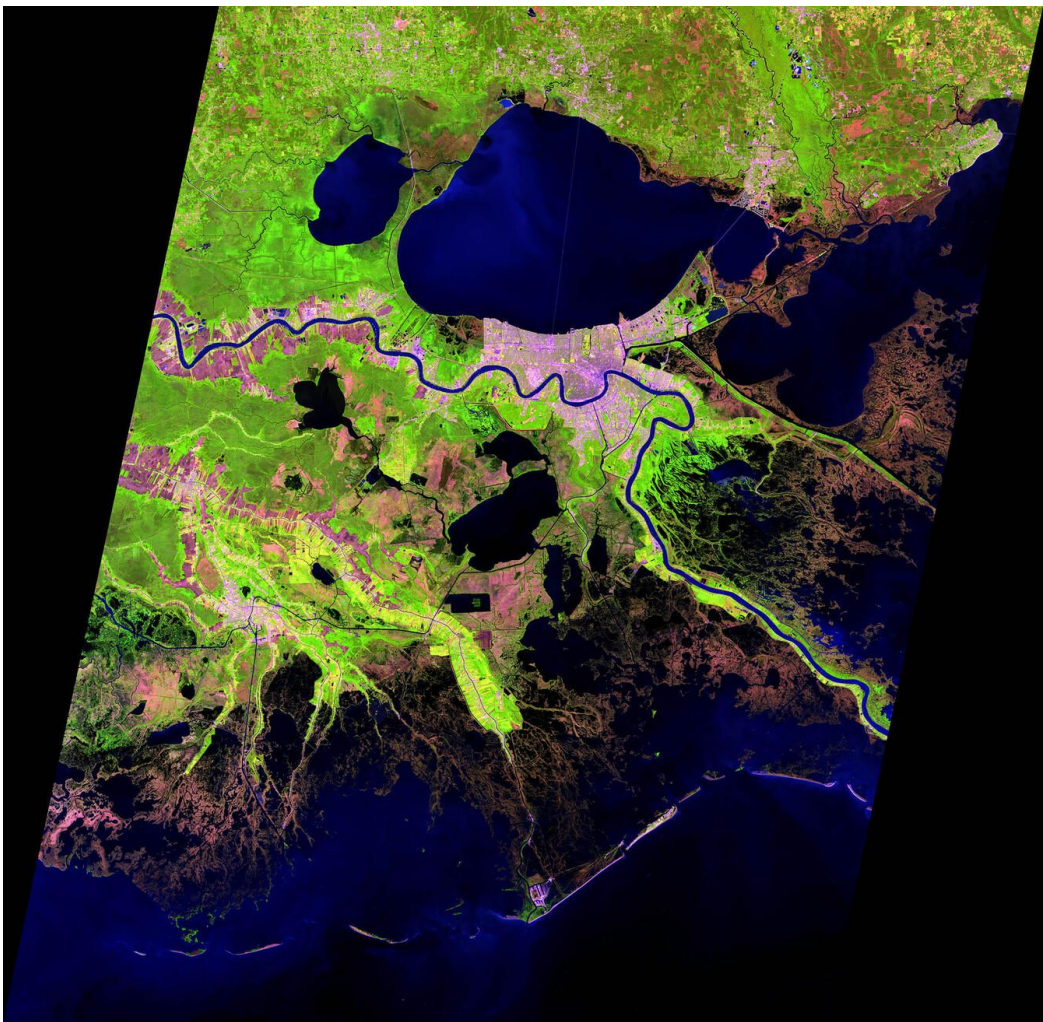
Provided by DEEA and OFFICE

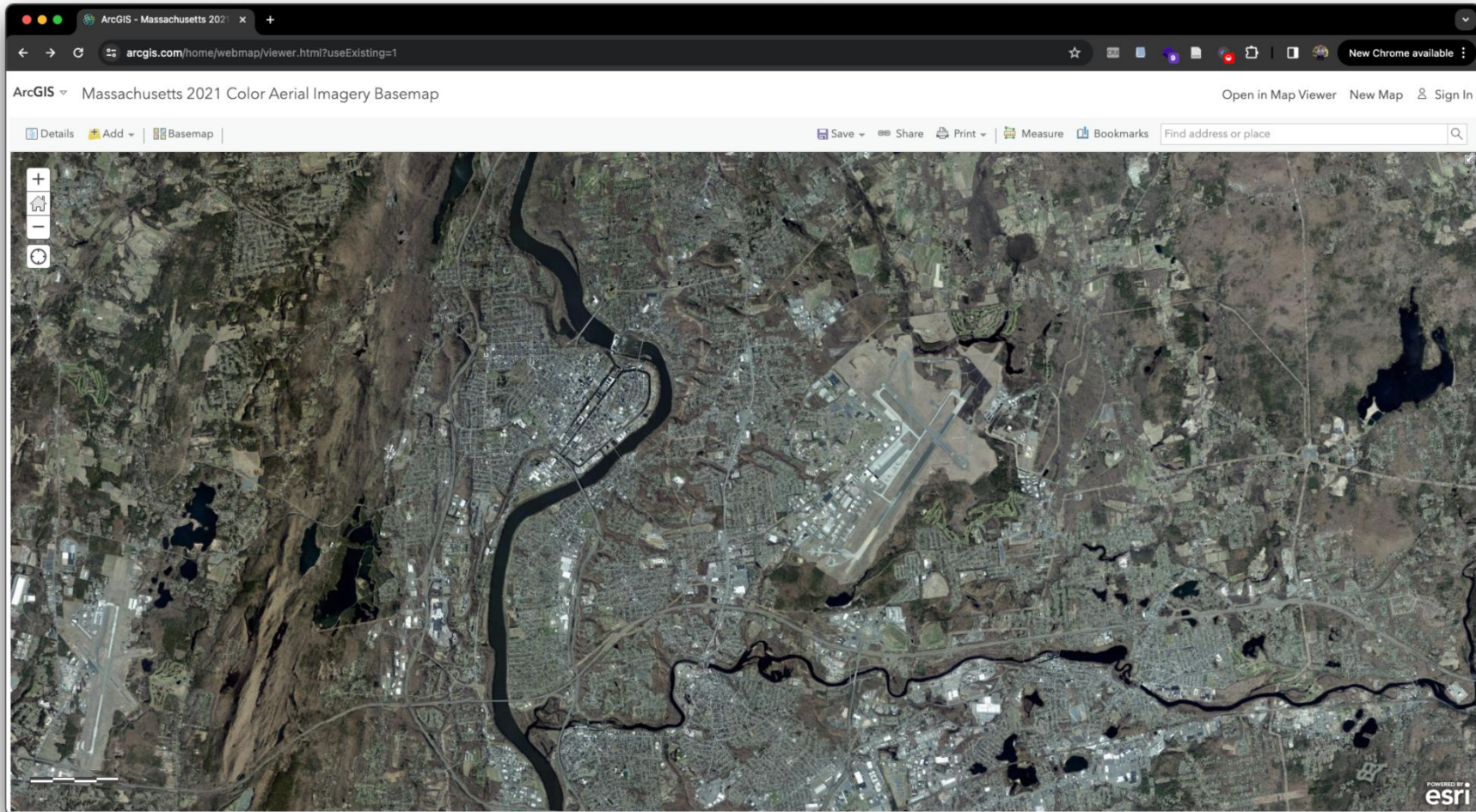


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and some required
geographic information
systems





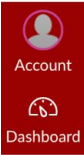
syllabus & course logistics

hi canvas!



≡ 202610_10698

Immersive Reader



Account



Dashboard



Courses



Calendar



Inbox



History



Help

Fall 2026

Home

Syllabus

Modules

Assignments

Grades

Portfolio

Quickly Attendance

Notebook

GEOG 260-02: Foundations of Geospatial Analysis

Welcome to GEOG 260: Foundations of Geospatial Analysis!



This is **Section 01** of GEOG 260. We meet 12-1:15pm on Mondays and Wednesdays in Jepson G08. You'll submit most of your coursework through Canvas, but most of the class content will be hosted at the links below:

- [Course site](#)
- [Syllabus](#)
- [Coursework](#)

View Course Stream

View Course Calendar

View Course Notifications

To Do

- [Lab 01](#) ×
GEOG 260-02:
Foundations of
Geospatial Analysis
10 points |
Aug 31 at 11:59pm
- [Lab 02](#) ×
GEOG 260-02:
Foundations of
Geospatial Analysis
10 points |
Sep 7 at 11:59pm
- [Lab 03](#) ..

hi course site!

GEOG 260

SYLLABUS

SCHEDULE

COURSEWORK

FINAL



FALL 2026: GEOG 260

FOUNDATIONS OF GEOSPATIAL ANALYSIS



This false-color satellite image of the upper Chesapeake Bay region was captured in 1973. Vivid reds correspond with areas of high vegetation. Image courtesy of the [Library of Congress Geography & Map Division](#).

Term	Fall 2026
Day/Time:	MW, 12-1:15pm (GEOG 260-01), MW, 1:30-2:45pm (GEOG 260-02)
Location:	Jepson Hall Room G08

**in this class,
you will use both**

which one to use when?

canvas

- schedule upcoming assignments
- submit your coursework
- miscellany (e.g., extra credit)

The screenshot shows the Canvas LMS interface for the course GEOG 260-02: Foundations of Geospatial Analysis. The left sidebar contains navigation links: Home, Syllabus, Modules, Assignments, Grades, Portfolio, Quickly Attendance, and Notebook. The main content area displays a welcome message and a false-color satellite image of the Chesapeake Bay region. Below the image, it states: "This is Section 01 of GEOG 260. We meet 12-1:15pm on Mondays and Wednesdays in Jepson G08. You'll submit most of your coursework through Canvas, but most of the class content will be hosted at the links below:" followed by links to the Course site, Syllabus, and Coursework. A right sidebar shows options to View Course Stream, View Course Calendar, and View Course Notifications, along with a 'To Do' list of upcoming lab and lecture sessions.

course site

- all content (e.g., schedule, syllabus, etc.)
- assignment descriptions

The screenshot shows the header of the GEOG 260 course site. The header bar is red and contains the text "GEOG 260" on the left and navigation links "SYLLABUS", "SCHEDULE", "COURSEWORK", "FINAL", and a search icon on the right. Below the header, the page title "FALL 2026: GEOG 260" is displayed. The main content area features a large, bold title "FOUNDATIONS OF GEOSPATIAL ANALYSIS" above a false-color satellite image of the Chesapeake Bay region. Below the image, a caption reads: "This false-color satellite image of the upper Chesapeake Bay region was captured in 1973. Vivid reds correspond with areas of high vegetation. Image courtesy of the Library of Congress Geography & Map Division." At the bottom, a table provides course details:

Term	Fall 2026
Day/Time:	MW, 12-1:15pm (GEOG 260-01), MW, 1:30-2:45pm (GEOG 260-02)
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spatial analysis lab (SAL)



The Spatial Analysis Lab at the University of Richmond is housed within the [Department of Geography, Environment, and Sustainability](#). It is located in room 300 of the Weinstein International building on the Richmond side of campus adjacent to the Law School and across from Robins stadium.

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key code for SAL:

25874

upcoming stuff

for Wed 8/26

- there's a reading - it's short, but a bit dense. try your best
- complete the questionnaire! it is on canvas
- GELATO-BASED EXTRA CREDIT
WEDNESDAY NIGHT

upcoming stuff

for Wed 8/26

- there's a reading - it's short, but a bit dense. try your best
- complete the questionnaire! it is on canvas
- GELATO-BASED EXTRA CREDIT
- WEDNESDAY NIGHT
-
-

for Mon 8/31

- your first lab will be due!
- that's it