

# Lesson 1: SankofaPOWER - Spatial is Special

## Lab Instructions

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In this lab we will further explore some history of Minneapolis and grow familiar with web Geographic Information Systems ([GIS](#)).

It will be good to take notes throughout this exercise as it will help us envision and create the SankofaPOWER Project in the coming weeks.

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### **Know Where You Are**

In this section we will further explore the Dakota people's connection to this land.

1) Visit the virtual Bdote Memory Map (<https://bdotememorymap.org>)

a) Now that we have some context, let's finally go to the Memory Map. Click "Memory Map" to the North

b) Click on About This Site and read through the text. Think about these questions:

i) How was this map created?

ii) Why is this tool important?

iii) What does the text say about developing a sense of place?

b) Go back to the Memory Map and explore a few of the sites:

i) Recommendations – Bdote, Haha Wakpa (Mississippi River), & Owamni

ii) Take note of how information and stories are shared, we'll be doing this ourselves soon!

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### **Hidden Histories of Race and Privilege**

In this section we will learn about another powerful local mapping project, Mapping Prejudice!

1) Visit the Mapping Prejudice website (<https://mappingprejudice.umn.edu/>)

a) Click on About the Project. This details how this community mapping project got started.

i) In 4<sup>th</sup> paragraph of The work ahead section, take note of how they talk about place (local context) and relationships

b) Next, on the top of the webpage, click on [Racial Covenants | What is a Covenant?](#)

Read through to understand what a Racial Covenant is and how they played a role in home ownership and the racial wealth gap in the United States.

**CONTENT NOTICE:** The language of racially restrictive deeds of the early 20<sup>th</sup> century contain religious, racial, and ethnic slurs.

c) Now let's navigate to the top of the webpage and click [Racial Covenants | Maps & Data](#)

i) Watch the [Timelapse](#) animation. This is a [Heat Map](#) representation of the [density](#) of racial covenants over time. We'll learn about other visualization and analytic techniques in future lessons. Do you see any patterns?

ii) Notice at the bottom of the page that the data is made [available to the public](#).

iii) Leave this page open for future reference.

d) There are a number of stories inspired by this dataset. Let's explore one!

i) Head to <https://mappingprejudice.umn.edu/greenspace-white-space> This is an ESRI StoryMap.

Note: [ESRI](#) offers some really powerful tools for working with spatial information! Unfortunately, their subscriptions are quite pricey. If you have a job with a government agency, university, or other institution it is likely that they will have an ESRI Enterprise.

Fret not! There are other options we will use in class.

ii) Highly recommend bookmarking this story! It is a lot of information so don't be afraid to save it for later, but scroll through quickly and take note of how it pairs text with specific zooms & locations.

Is this a data presentation that would work well for your project?

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## **A City Divided?**

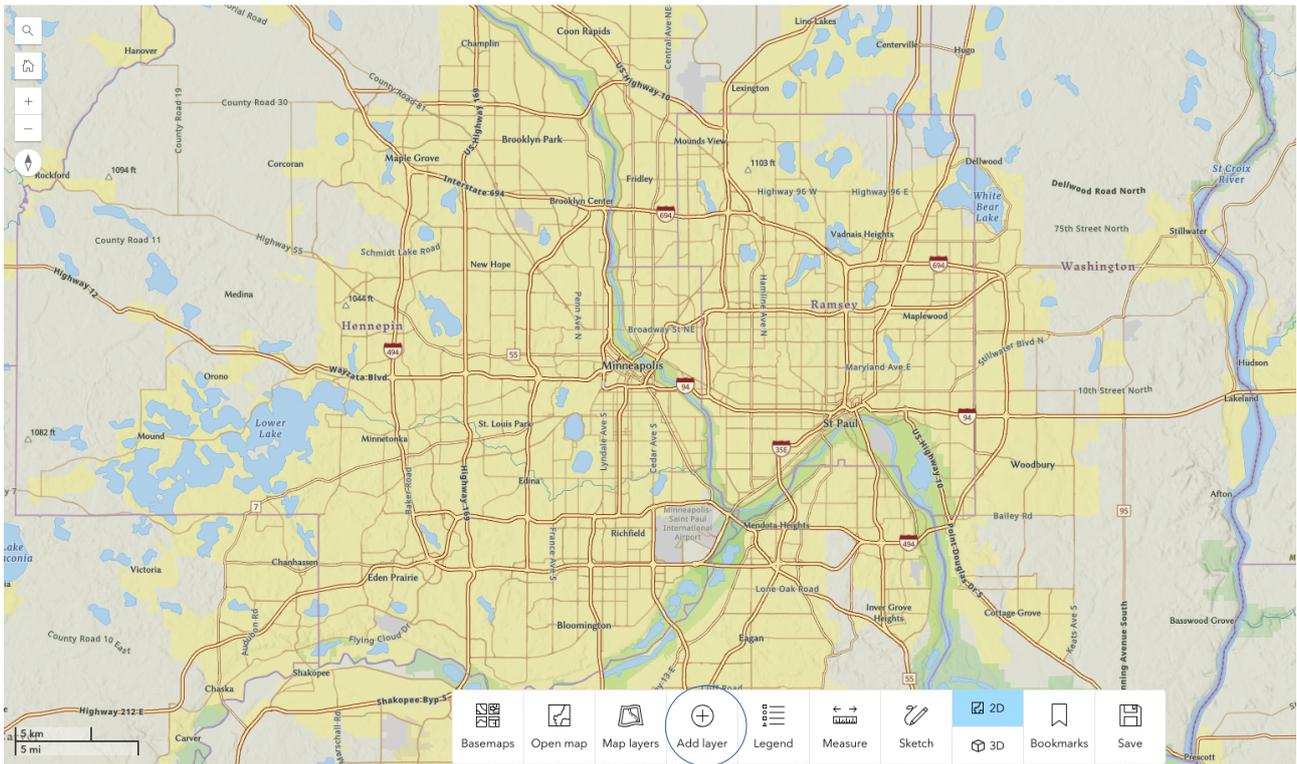
In this section we will utilize a couple more ESRI webmaps to explore more history and modern demographics.

2) First, let's check out a tool created by National Geographic called, [Mapmaker](#)

<https://www.arcgis.com/apps/instant/atlas/index.html?appid=0cd1cdee853c413a84bfe4b9a6931f0d>

This is a mapping tool complete with some great layers (datasets are called Layers in [GIS](#)).

a) Navigate to Minneapolis by double-clicking on it, scrolling, or pinch zooming. Your screen should look something like this:



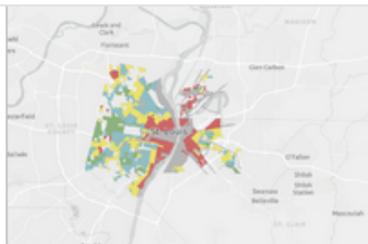
b) It's a nice map for navigation, but let's make it more informative and add a layer! Click on the Add layer button at the bottom of the screen.

c) Search for Redlining. This was a practice that devalued homes in racially diverse neighborhoods from the 1930's-1968. Click on the + to the left of the layer to add it to your map.

## Add layer



Select a layer to add to the map view. Search for layers or click the "i" icon to view the layer's description



### Redlining i

Redlining is a racially discriminatory and, now, illegal practice of devaluing homes in racially mixed neighborhoods or neighborhoods with few or no white residents. It impacted homeownership, and its impacts can...

d) Your map may look a little cluttered now. Let's simplify things by changing the underlying map. Click on the Basemaps button at the bottom of the screen. Select Human Geography

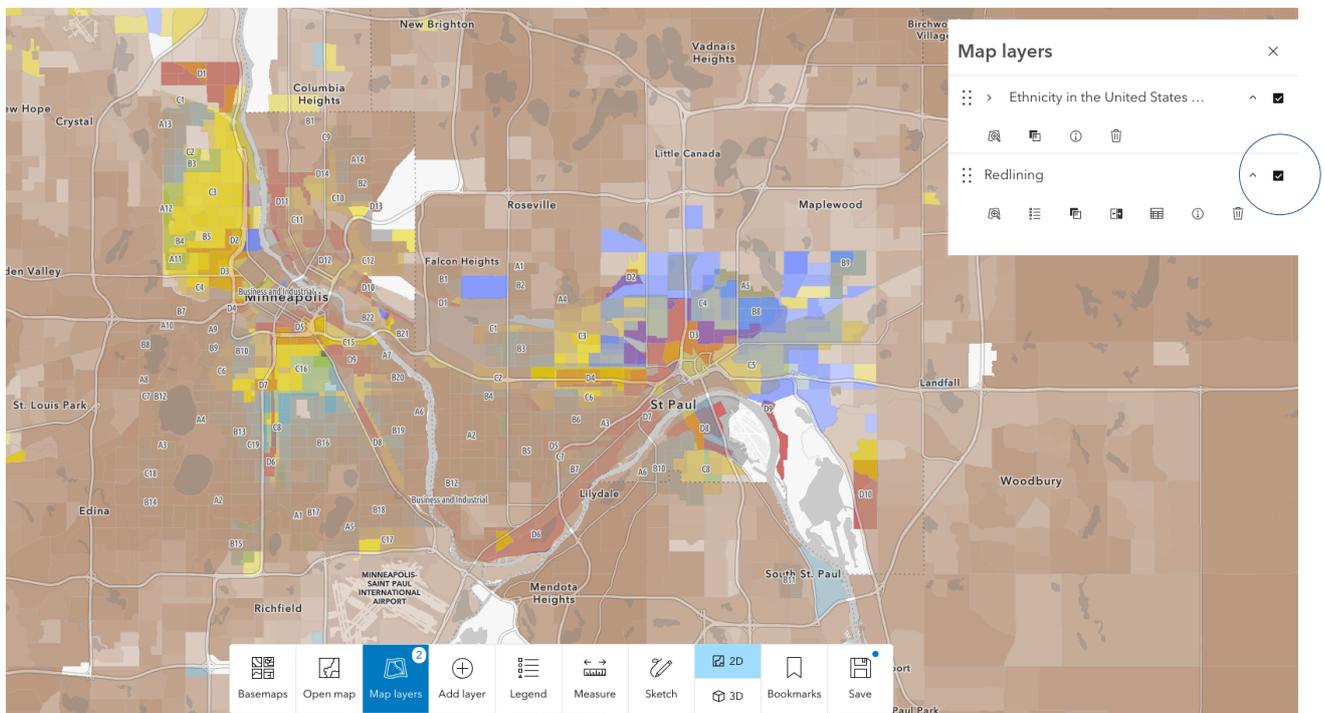
e) That's better. Click on some locations to learn more about what the colors mean.

f) Do you see any relationships between the Redlining layer the Mapping Prejudice map?

g) Now let's check out modern demographics. Click the Add layer button again.

h) Search for Ethnicity in the United States and add it to the map with the +

i) What happened to the other layer? It's actually hiding behind the new layer! Click on the Map layers button at the bottom of the screen. Your screen should look like this:



j) We can toggle layers on and off by selecting the check marks. Turn off the Redlining layer for now as it is impacting the visualization too much.

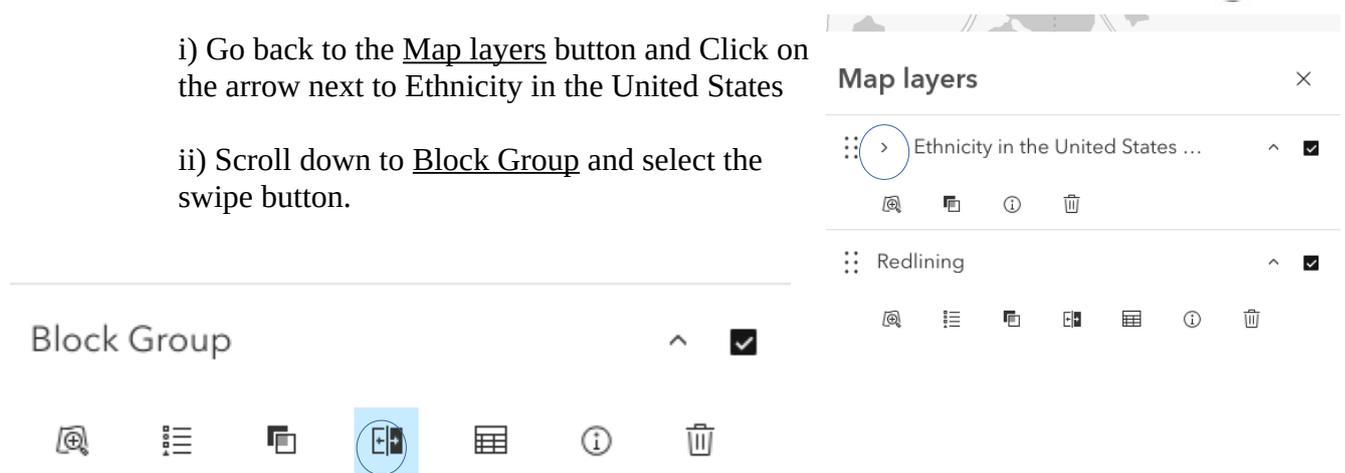
k) A map's legend tells us what the colors mean. We can view the legend by clicking the Legend button at the bottom of the screen.

Feel free to explore the Ethnicity layer and click around to learn even more about different Census Block Groups in this place.

l) Perhaps want to see two layers at once? There are many ways to accomplish this, one is the "Swipe" option.

i) Go back to the Map layers button and Click on the arrow next to Ethnicity in the United States

ii) Scroll down to Block Group and select the swipe button.



iii) Kind of neat! Unfortunately, the layers are still not playing well together. One option is to lower transparency of the Redlining layer.

If we had more control over the symbology and underlying datasets, we could use even more advanced techniques such as a bivariate map!

We'll save these for another day.

2) Lastly, let's explore food access in Minneapolis using the USDA website (<https://www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas>)

a) On the map, Zoom to Minneapolis and toggle the layer called, LI and LA at ½ and 10 miles.

b) Click around and explore this information. Consider how a healthy and resilient local food system will change this map.

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## **Review**

We've seen a few different ways to display spatial information - each giving us more knowledge about our place on the planet. Perhaps we will use some of these ideas for our projects!

We've also grown familiar with a few terms in Geographic Information Systems (GIS). Next session, we'll develop these skills further and start creating our own maps with a Geographic Information System called, QGIS!