

Mapping the Historical Landscapes of the Underground Railroad

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A Geographer's Perspective

Mural in
Cambridge,
Dorchester
County, Maryland



(photo by author)

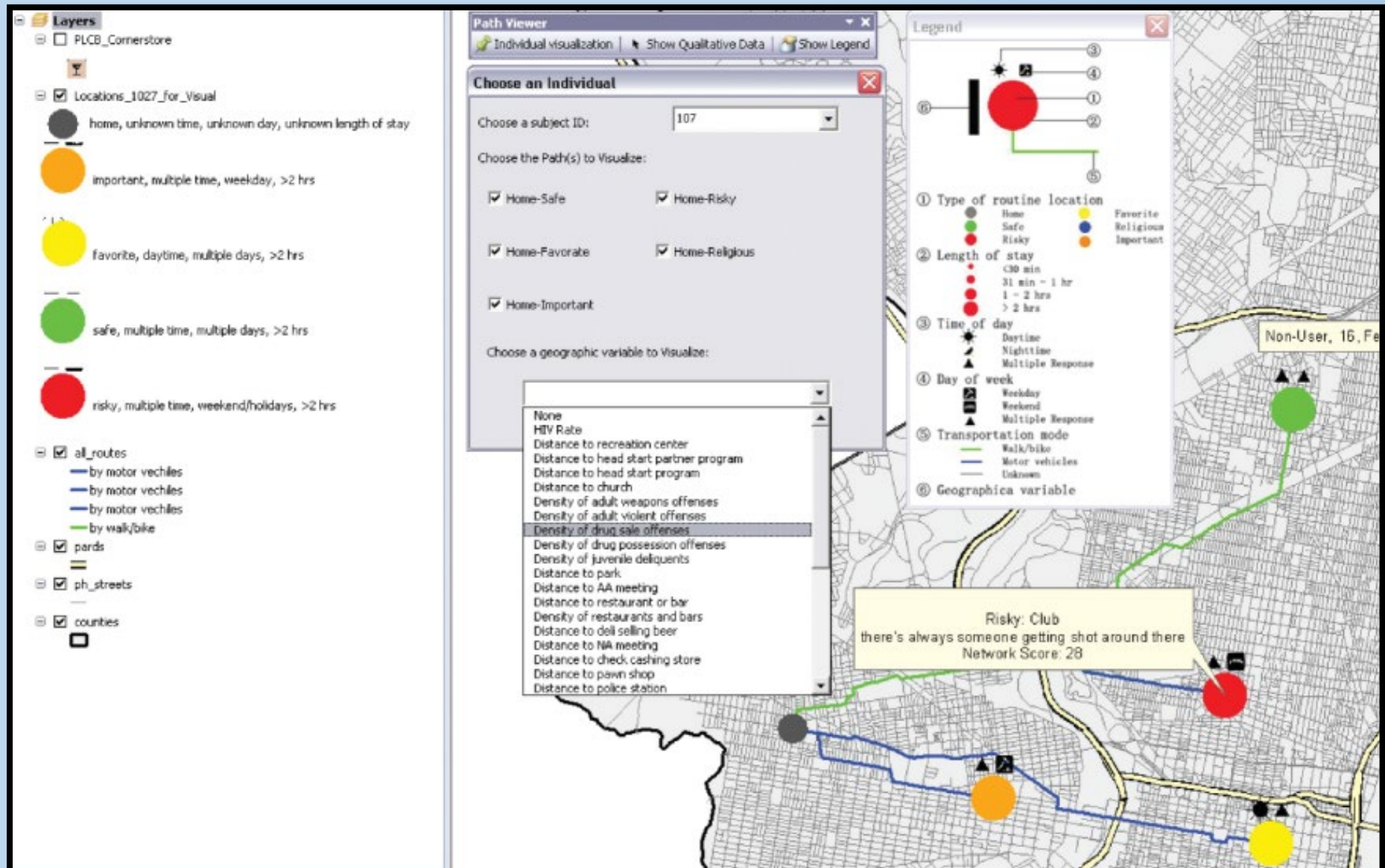
Research Questions

- What was the role of the **social, built, and natural environments** in the development and function of the Underground Railroad in Maryland's Eastern Shore?
- How did these environments interact with the **agency of individuals** escaping from slavery and those assisting in escape from slavery?

Research Objectives

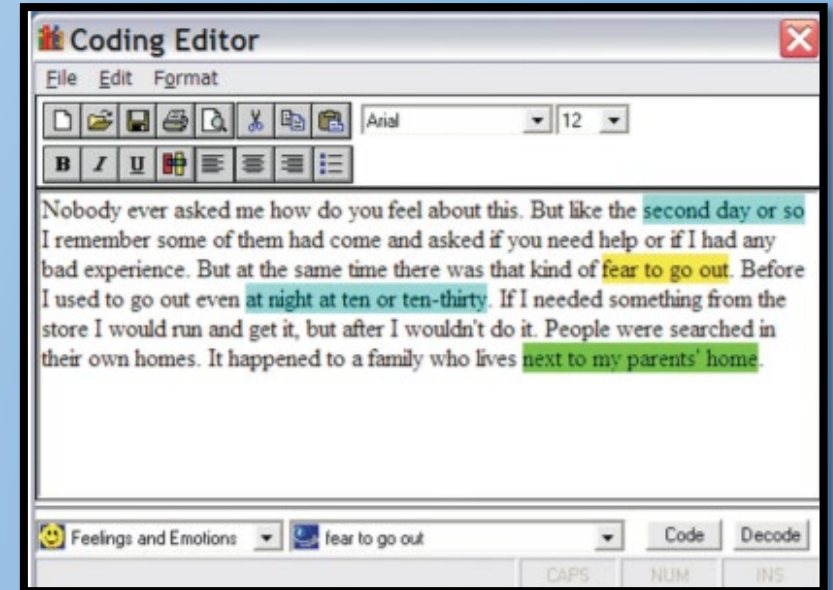
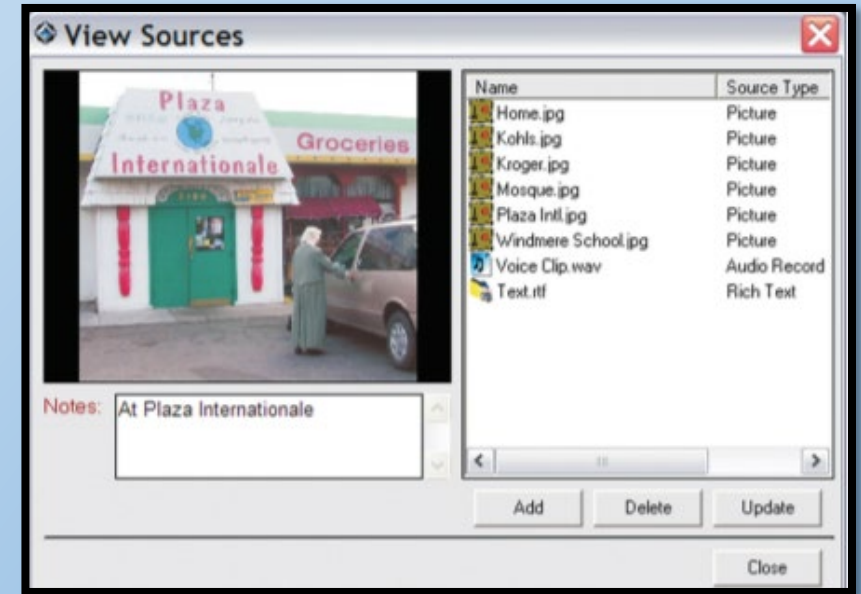
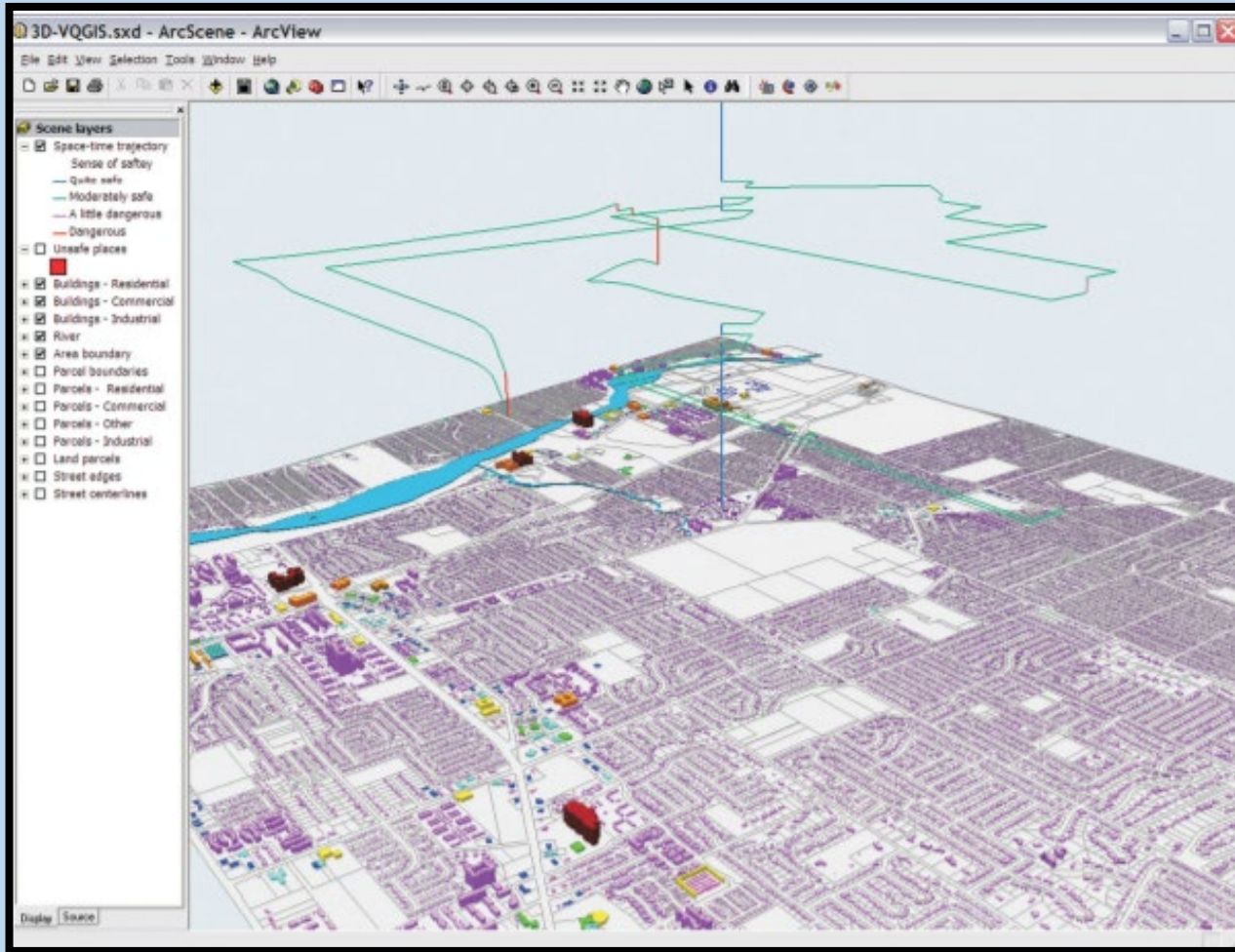
- Represent and analyze how features of the landscape may have conferred elements of **risk and protection** to those escaping from slavery
- **Place the narratives** of escape from slavery within the historical geographic context of the landscapes
- Contribute to **public history** and the popular understanding of the Underground Railroad

Landscapes of Risk and Protection among African American Youth in Philadelphia



(Mennis et al.,
2013)

Mei-Po Kwan and colleagues work on Geo-narratives



(Kwan and Ding, 2008)

Alberto Giordano and colleagues' work on Space, Place, and the Geography of the Holocaust

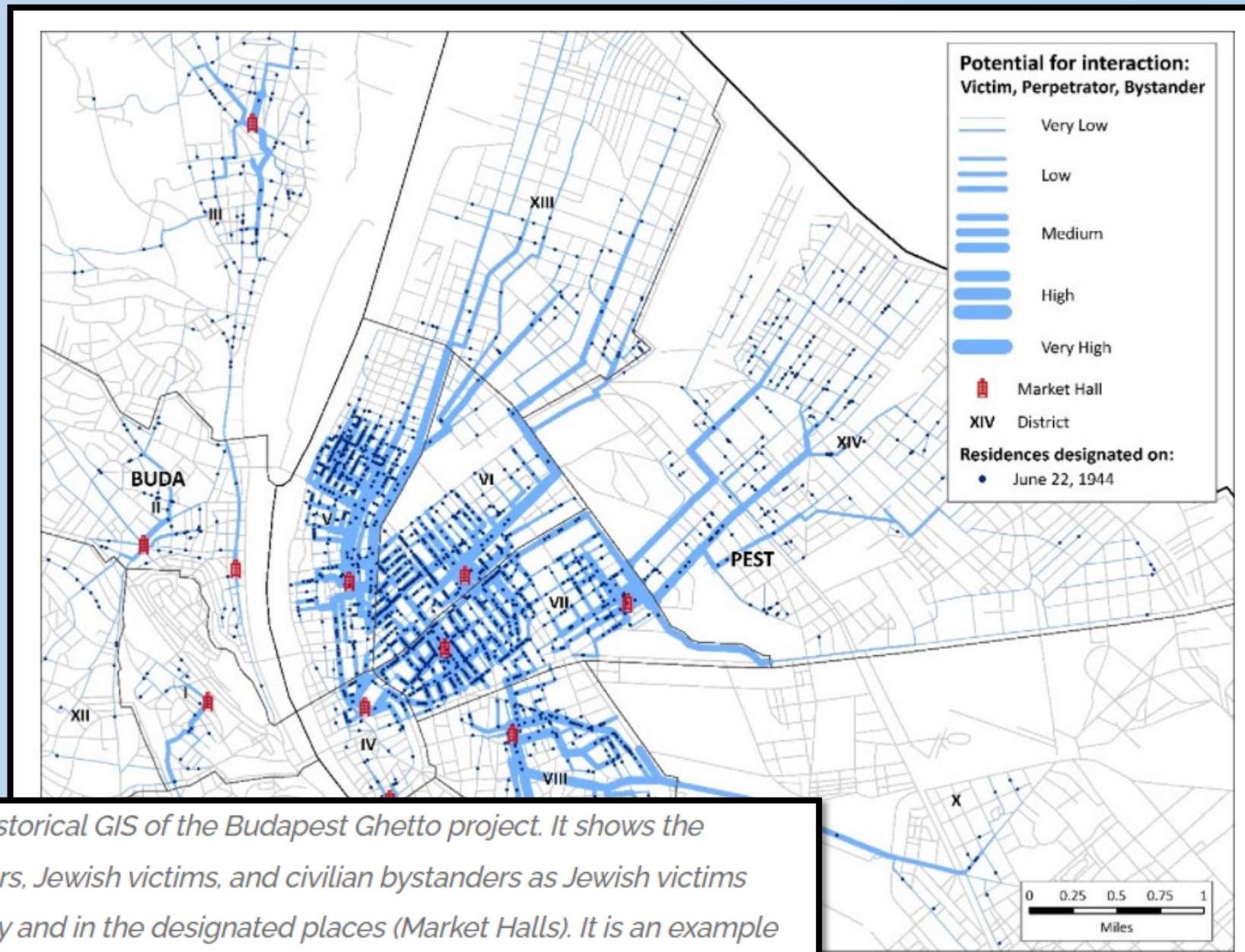
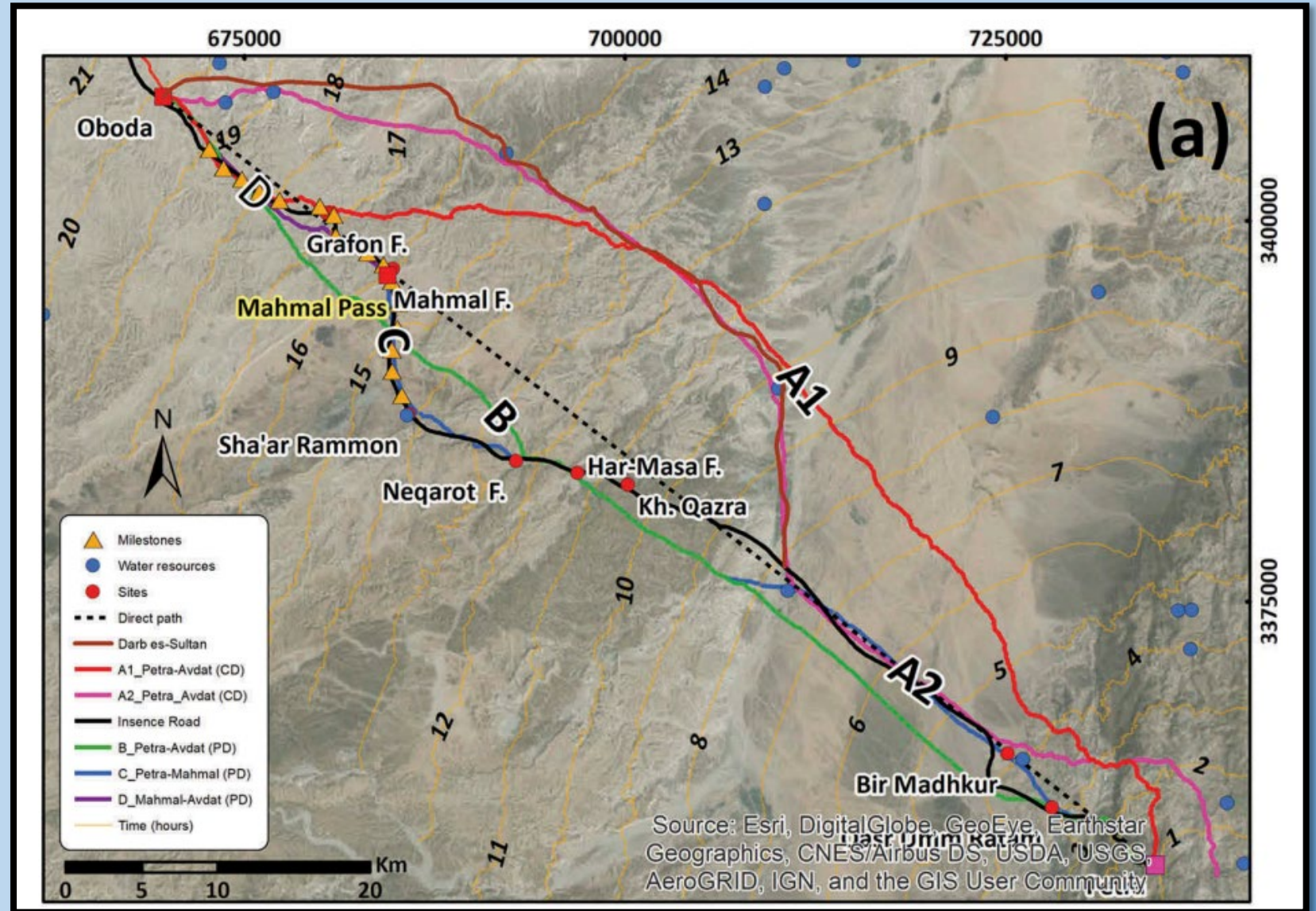


Figure 1: The image above was created for the Historical GIS of the Budapest Ghetto project. It shows the potential for interaction between Nazi perpetrators, Jewish victims, and civilian bystanders as Jewish victims rushed to buy food at designated times of the day and in the designated places (Market Halls). It is an example of use of GIS&T and GIScience to study history, in this case the Holocaust. I am the author of the map and own the copyright. Source: author.

Zohar and Erickson-Gini's (2020) work on GIS-based route analysis reconstruction of the ancient Incense Road from environmental characteristics.



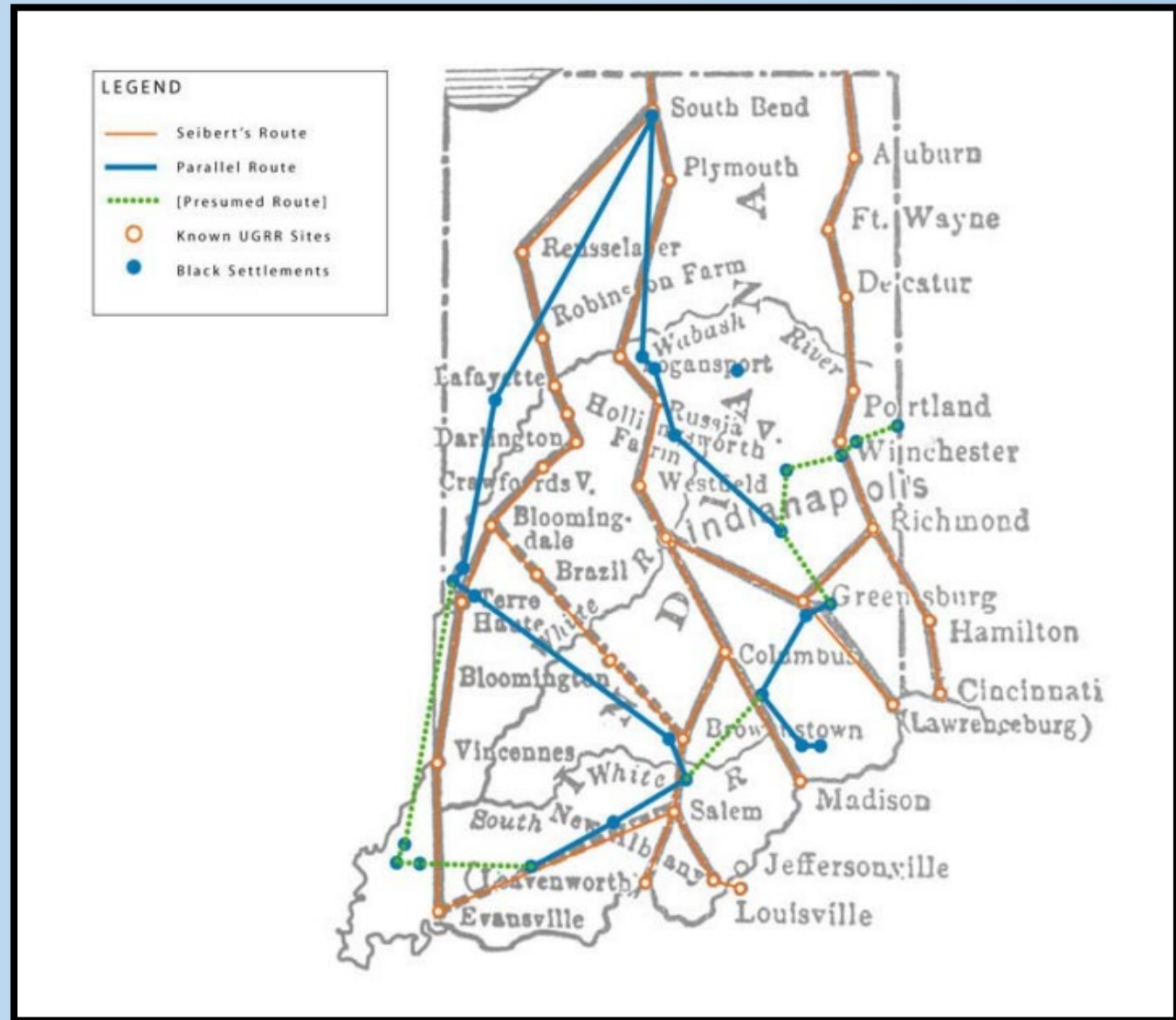
Zohar and Erickson-Gini (2020)

Integrating Historical Routes and Landscape Features of the Underground Railroad

Cheryl LaRoche's work on the Geography of the Underground Railroad:

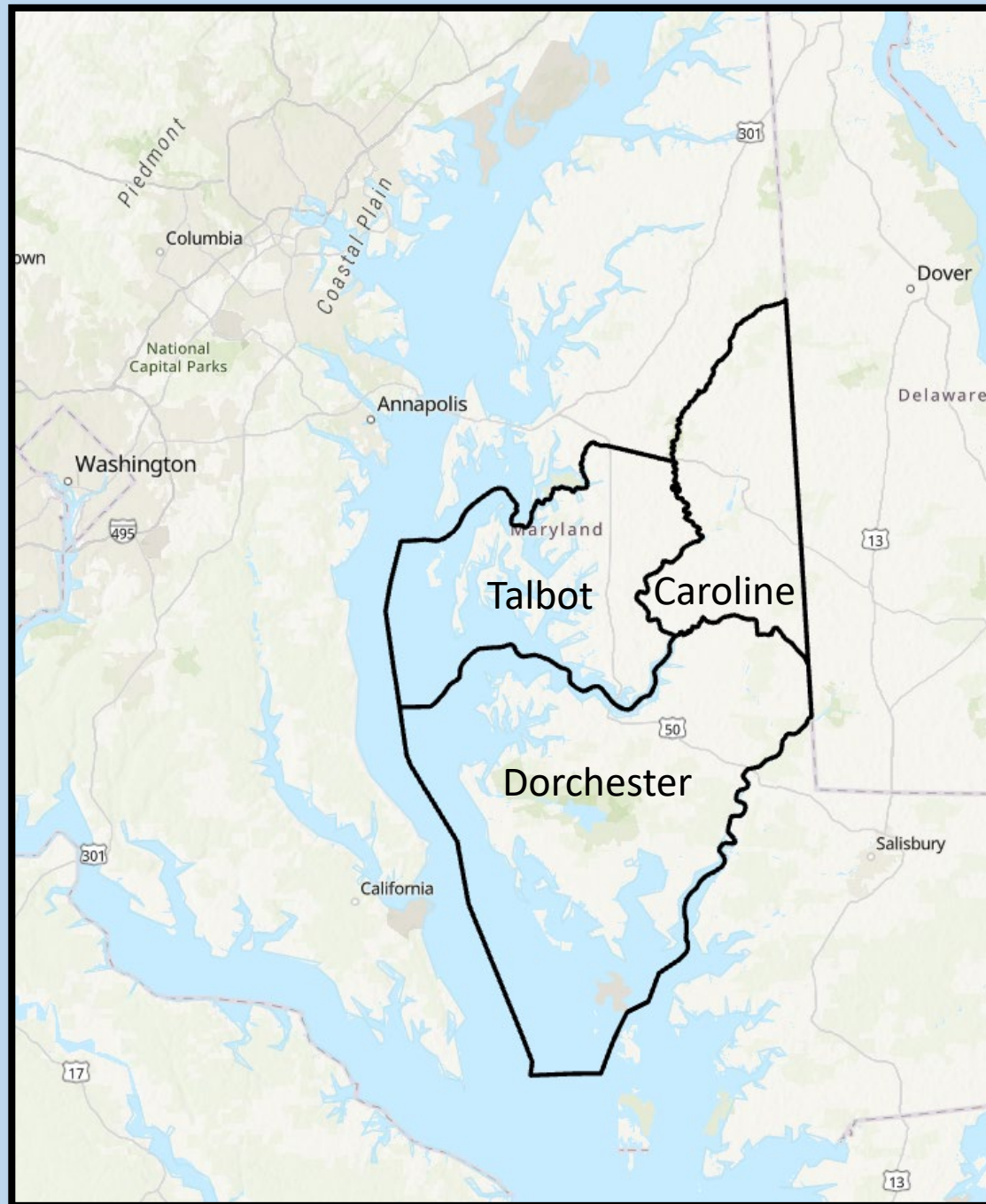
Integrating historical spatial data from Xenia Cord's "Black Rural Settlements in Indiana before 1860" and Wilbur Siebert's "The Underground Railroad"

LaRoche, 2004



Study Area

3 Counties of the Eastern Shore



(photos by author)

The Landscape We See Now Is Not the Historical Landscape

2020



(photo by author)

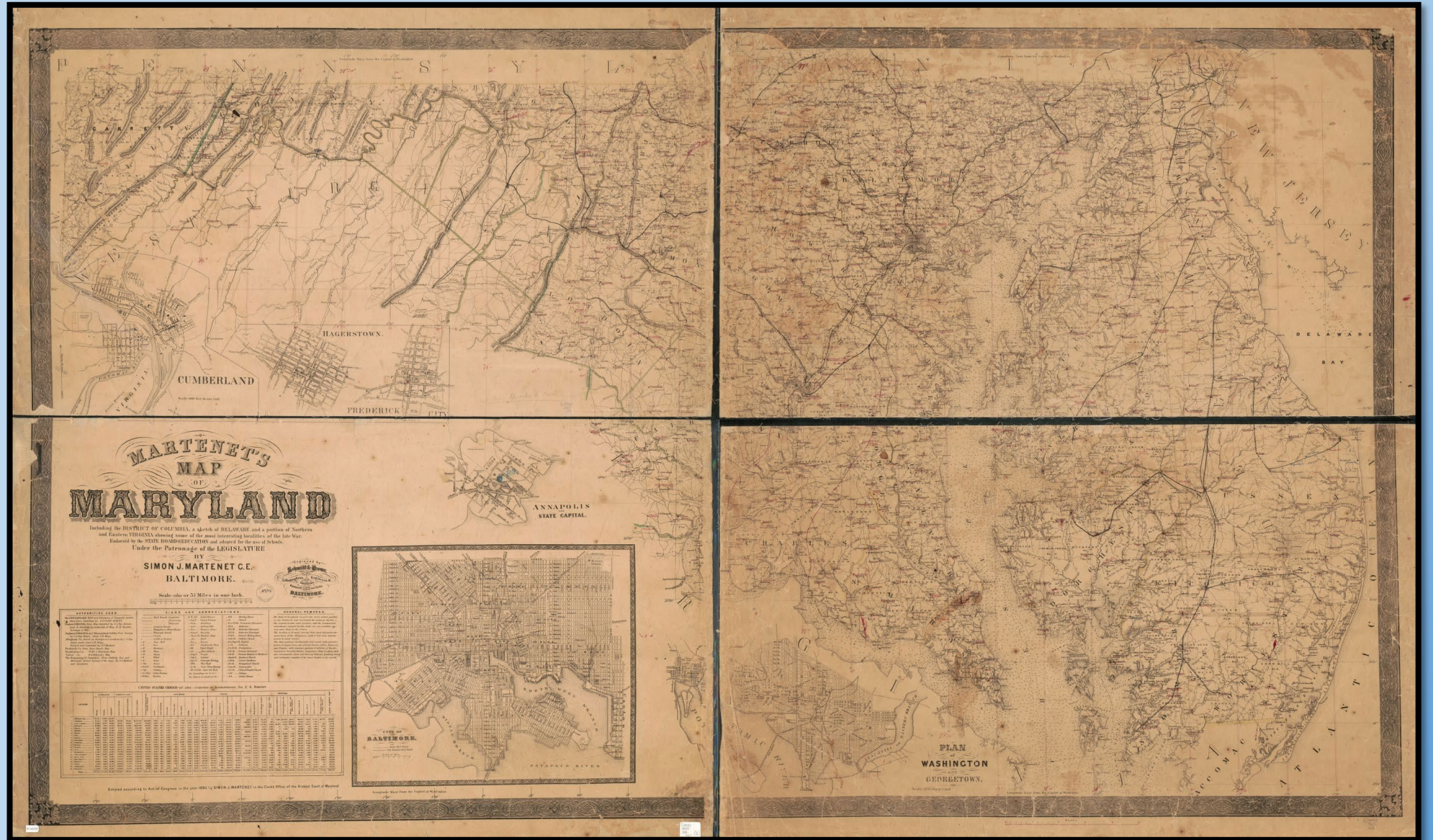
1985



(Google Earth imagery)

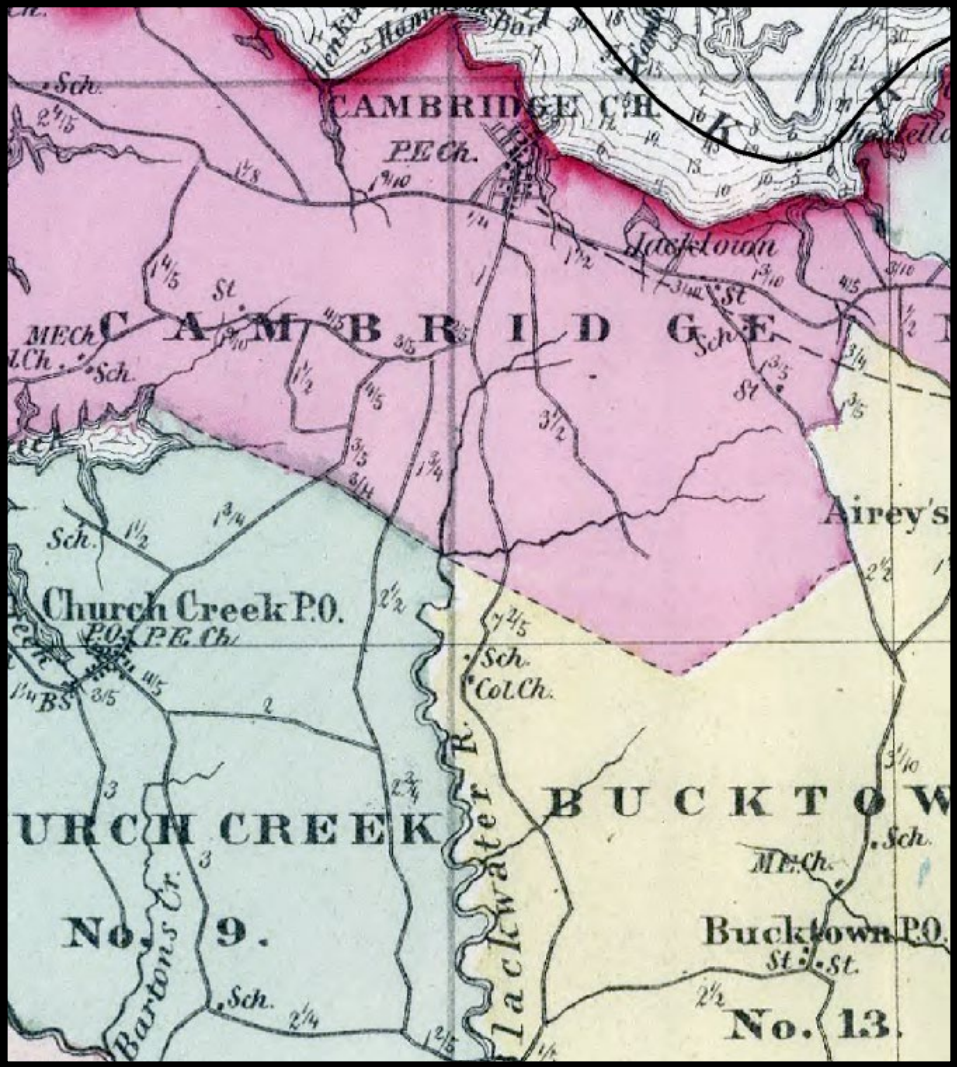
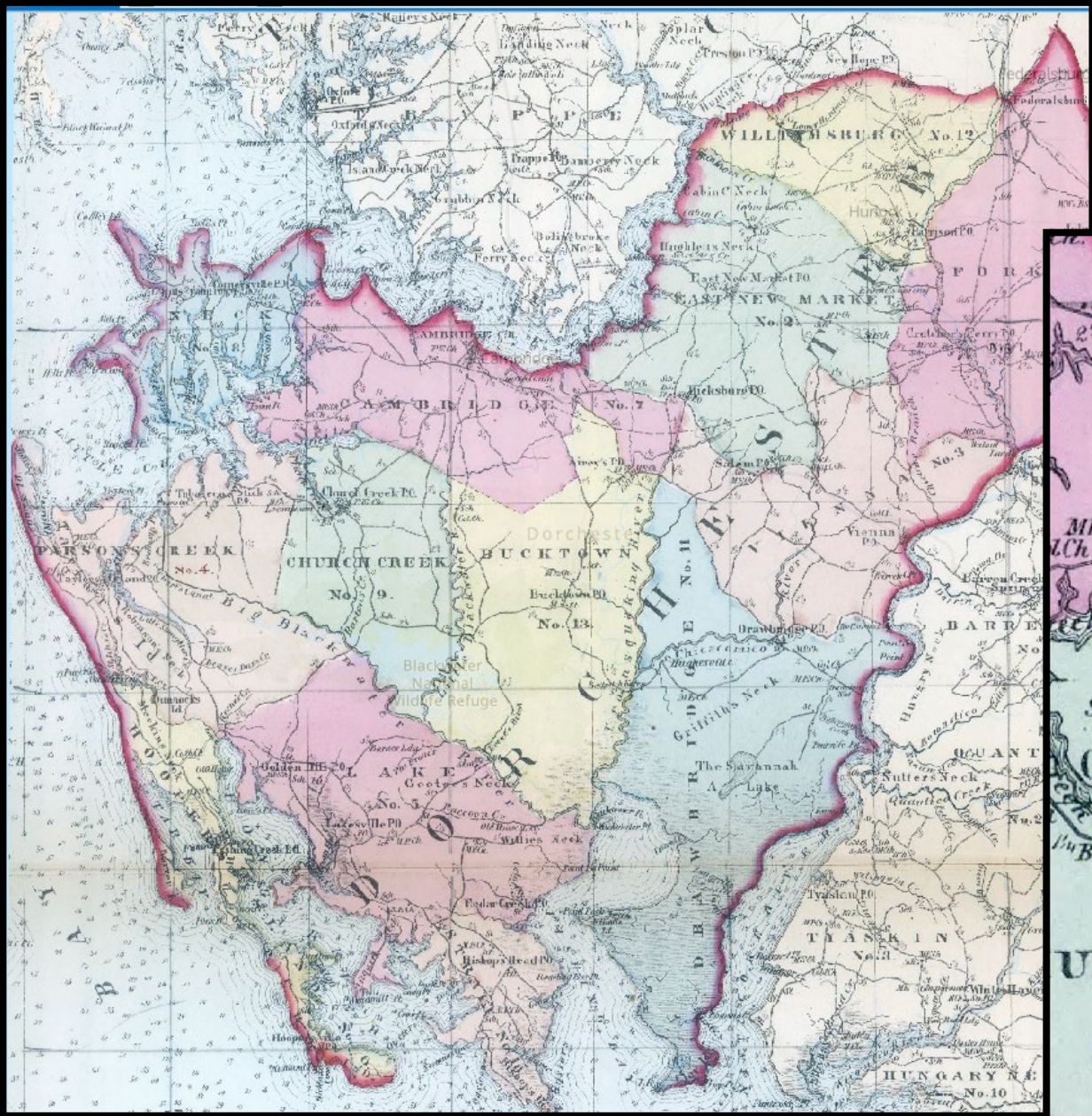


Representing Historical Landscapes of Risk and Protection in the Eastern Shore



Martenet, 1865

Dorchester County



Martenet, 1866

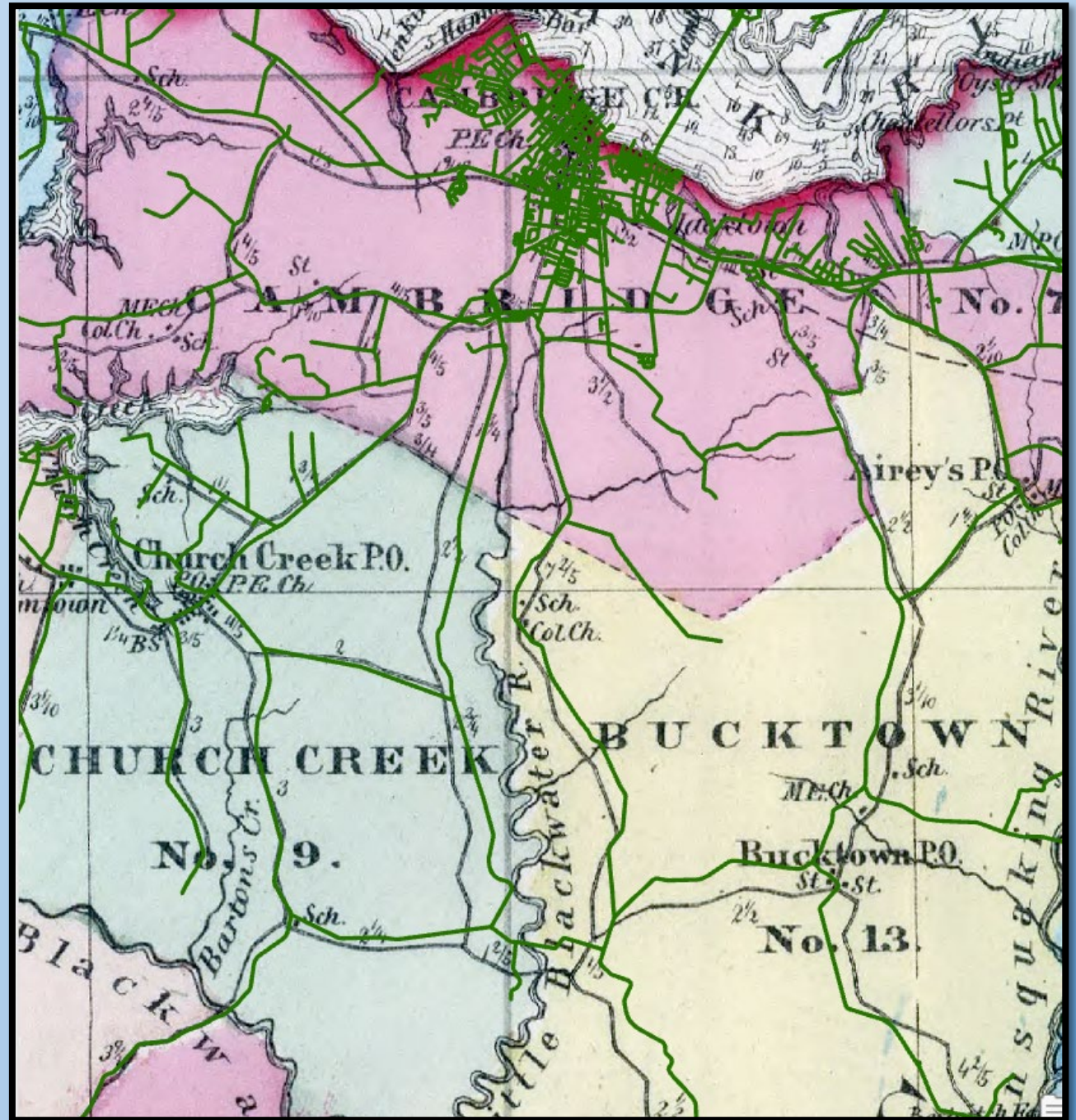
The Legend with Schools, Churches, Shops, Mills, and other Features

S I G N S A N D A B B R E V I A T I O N S .		
-----	Rail Roads Completed	* $\frac{L.H.}{\Sigma}$ Light Houses
-----	" " Progressing	* Carp. F. Carpet Factory
-----	" " Proposed	* Disty. Distillery
-----	Common Roads	* Roll. Rolling Mill
-----	Turnpikes or Plank Roads	* Furn. Furnace (Iron)
-----	Telegraph Roads	* Found. Foundry
-----	Canals	* Mach. Sh. Machine Shop
* -----	A Mill or Factory	* Hot. Hotel
* S. -----	Saw Mill	* Tin. Tavern
* G. -----	Grist	* B.S. Blacksmith Shop
* M. -----	Merchant	* W.W. Wheel Wright
* F.L. -----	Flour	* S.S. Shoe Store or
* St. -----	Steam	* Coop. S. Cooper
* W. -----	Wind	* Cab. S. Cabinet
* B. -----	Bone	* Carr. F. Carriage Factory
* Pap. -----	Paper	* T.Yd. Tan Yard
* Patch. -----	Postoffice	* L.S.Q. Lime Stone Quarry
* Fyld. -----	Fulling	* I.O. or Ir.O. Iron Ore Beds
* Cot. Fact. -----	Cotton Factory	The Soundings are in feet
* W. Fact. -----	Woolen	The Figures on roads are Miles
		* M.H. Meeting House
		* Ch. Church
		* E. or P.E. Ch. Protestant Episcopal
		* M. Ch. Methodist
		* M.E. (Ch) Methodist Episcopal
		* M.P. Ch. Methodist Protestant
		* F.M.H. Friend's Meeting House
		* Cath. Ch. Catholic Church
		* B. or Bapt. Ch. Baptist
		* L. Ch. Lutheran
		* P. or Pr. Ch. Presbyterian
		* G.R. Ch. German Reformed
		* G.B. Ch. German Baptist or Dunkard
		* Dunk. Ch. Dunkard Church
		* U.B. Ch. United Brethren
		* Ev. Ch. Evangelical Church
		* Univ. Ch. Universalist
		* Col. Ch. Colored People's Church
		* Coll. Colleges
		* Sch. School Houses

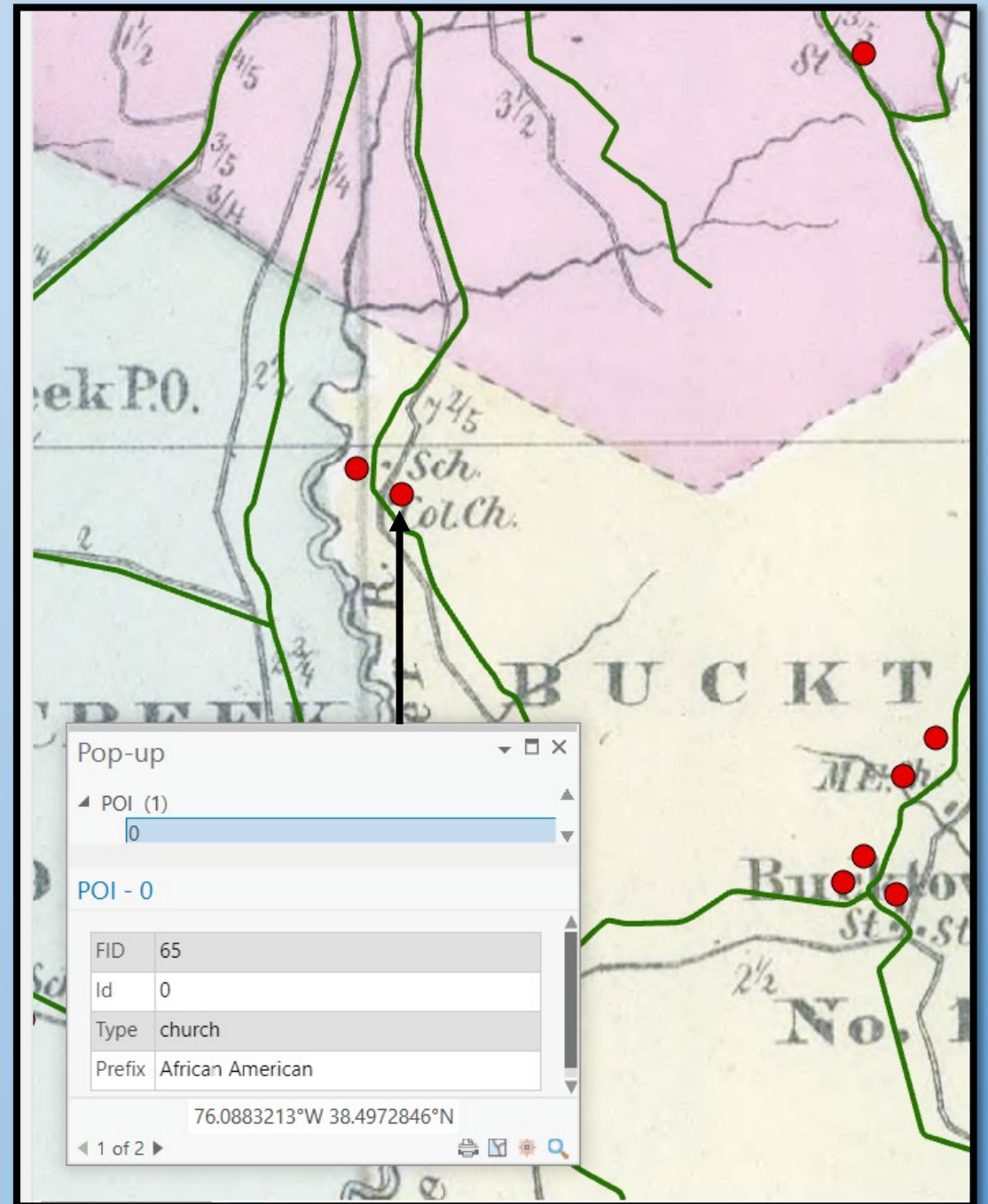
Martenet,
1865

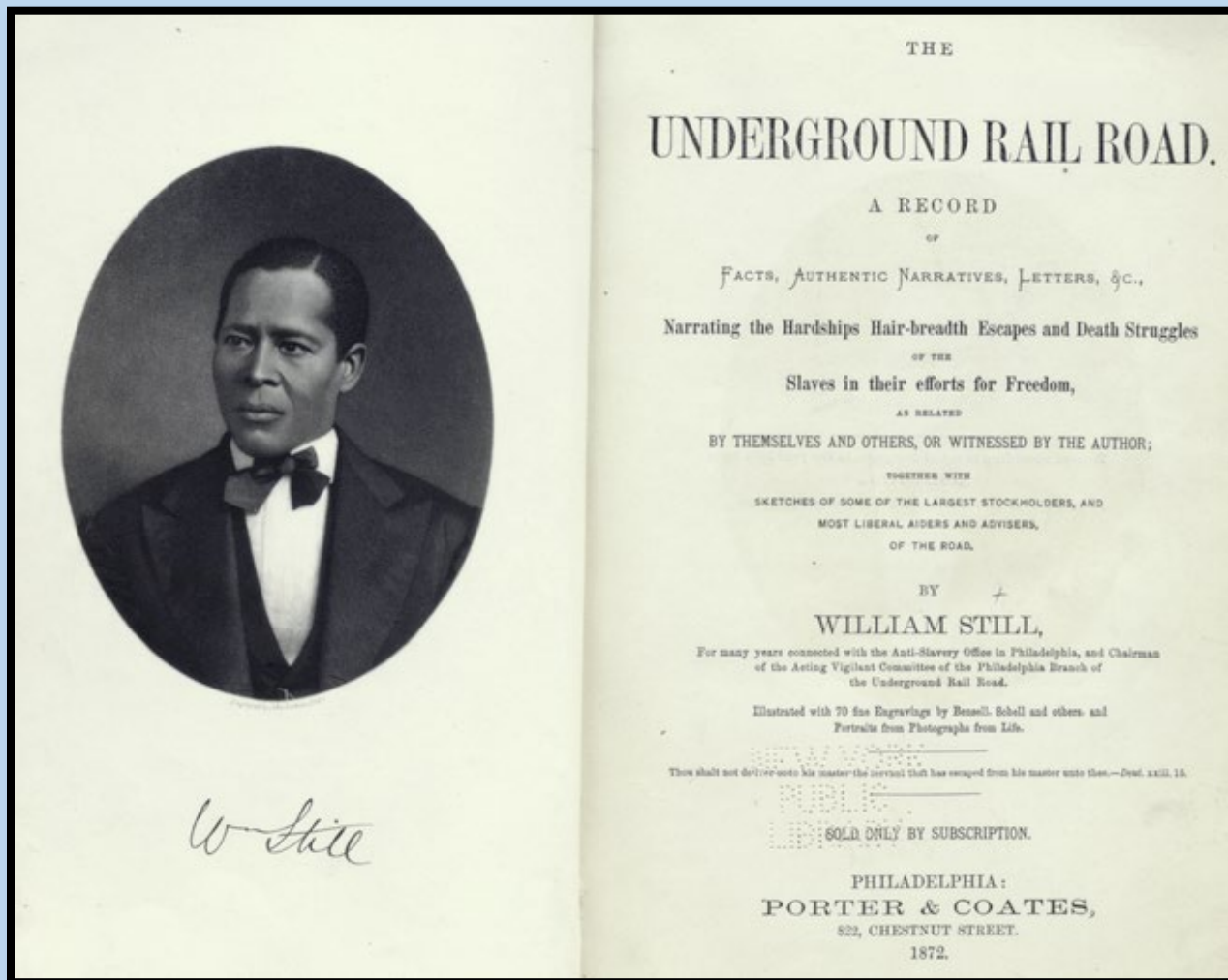
Methods

1. Downloaded as a high resolution geoTIFF from davidrumsey.com
2. Overlaid comprehensive road centerline spatial data acquired from the MD DOT
3. Extracted modern roads matching historic roads



4. Digitized Points of Interest
 - a. Churches and denomination (including Quaker and African American)
 - b. Shops
 - c. Mills
 - d. Schools
 - e. Post offices
 - f. Landings, bridges, ferries
 - g. Minor towns (without a post office)
 - h. Major towns (with court house)
 - i. Road intersections
5. Reprojected to MD State Plane CRS
6. Extensive editing to improve accuracy, remove pseudonodes, and ensure topologic integrity





Environmental features of risk and protection...

Forest, swamps, fields: Places to hide

"Obeying the dictates of his feelings, he went to the woods. For ten months before he was successful in finding the Under-ground Road, this brave-hearted young fugitive abode in the swamps - three months in a cave..." (p. 125)

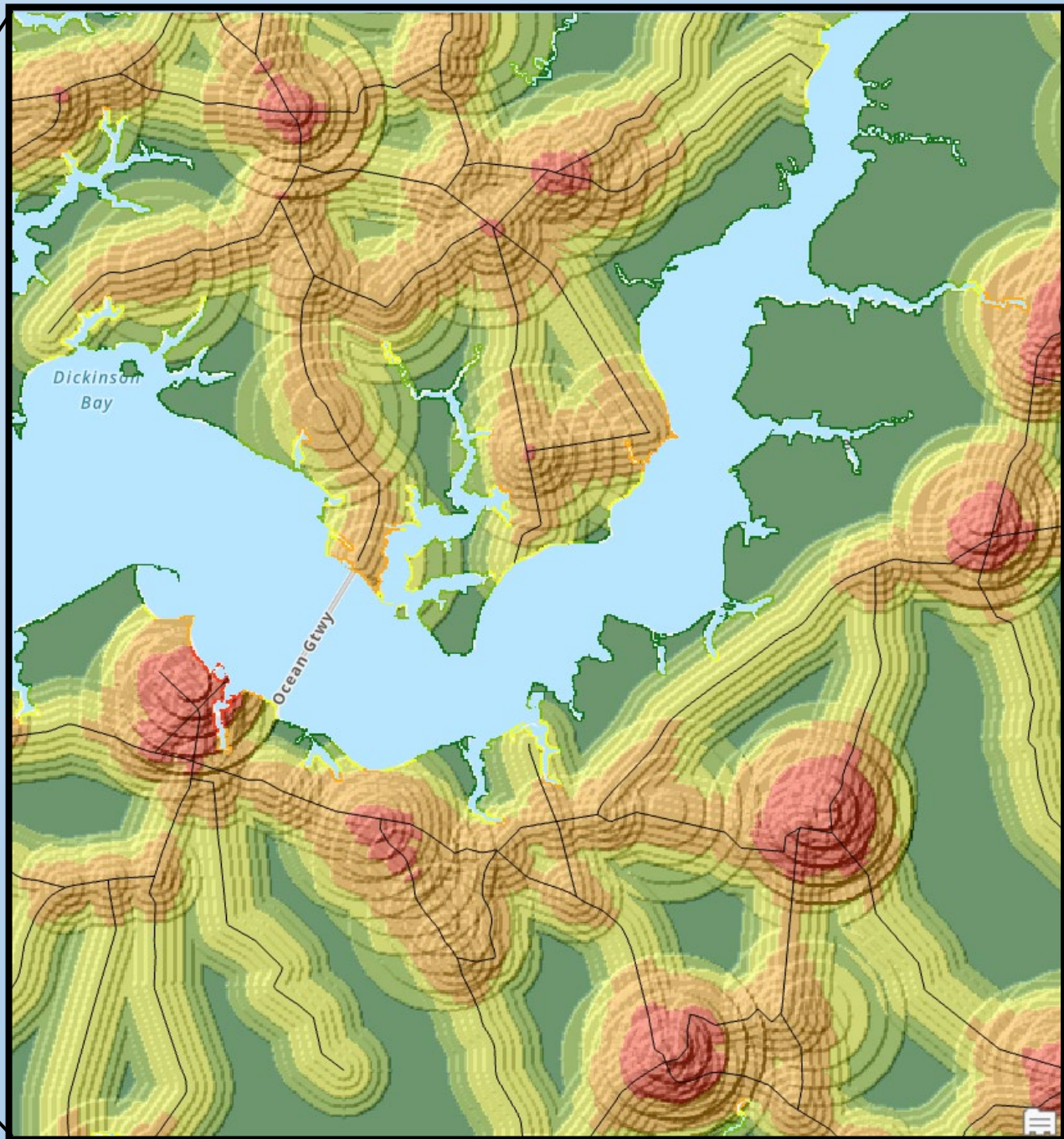
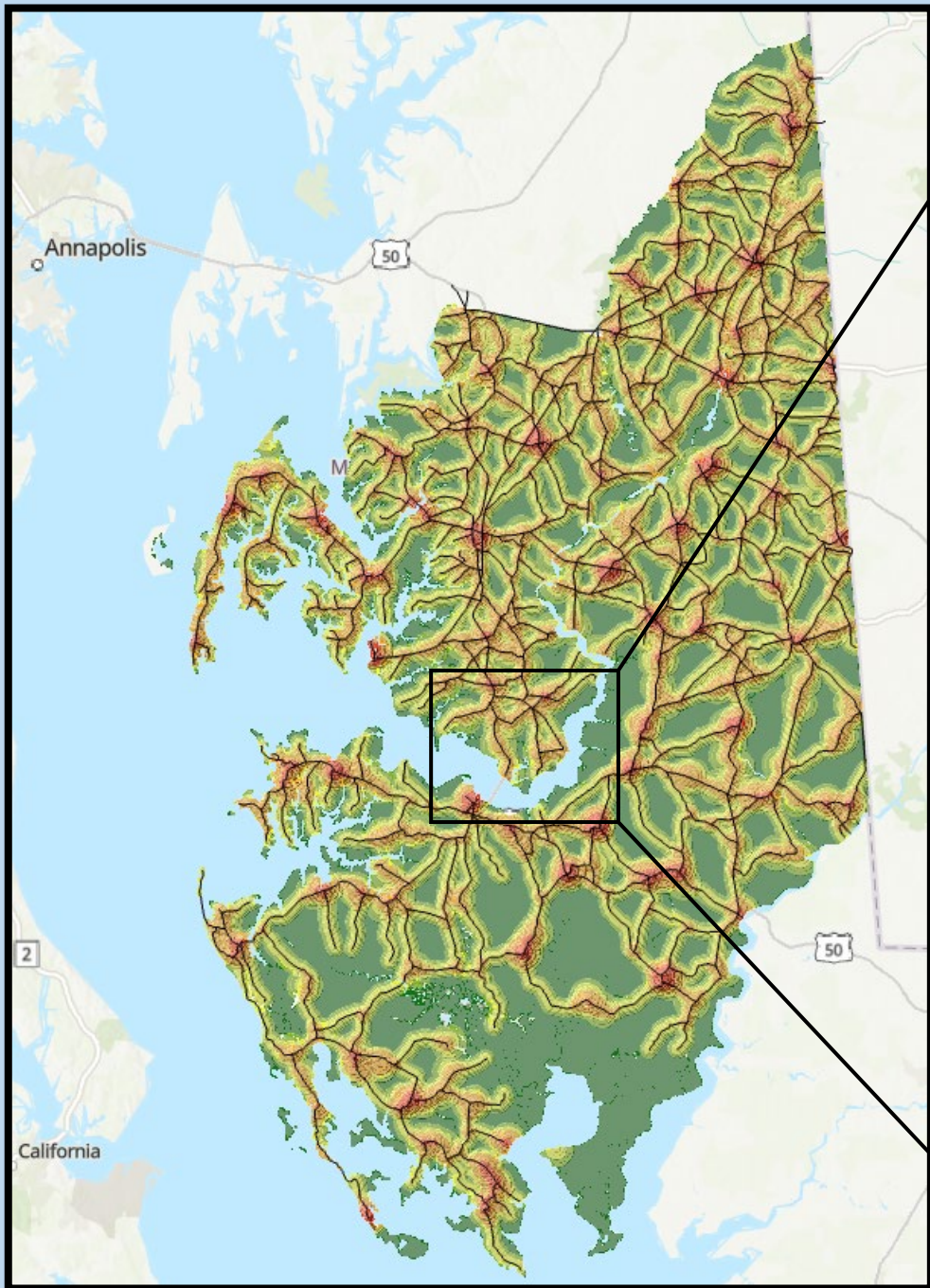
Towns, roads: Danger of discovery

"It was to get on the top of the car, instead of inside of it, and thus ride of nights, till nearly daylight, when, at a stopping-place on the road, he would slip off the car, and conceal himself in the woods until under cover of the next night he could manage to get on the top of another car." (p. 103)



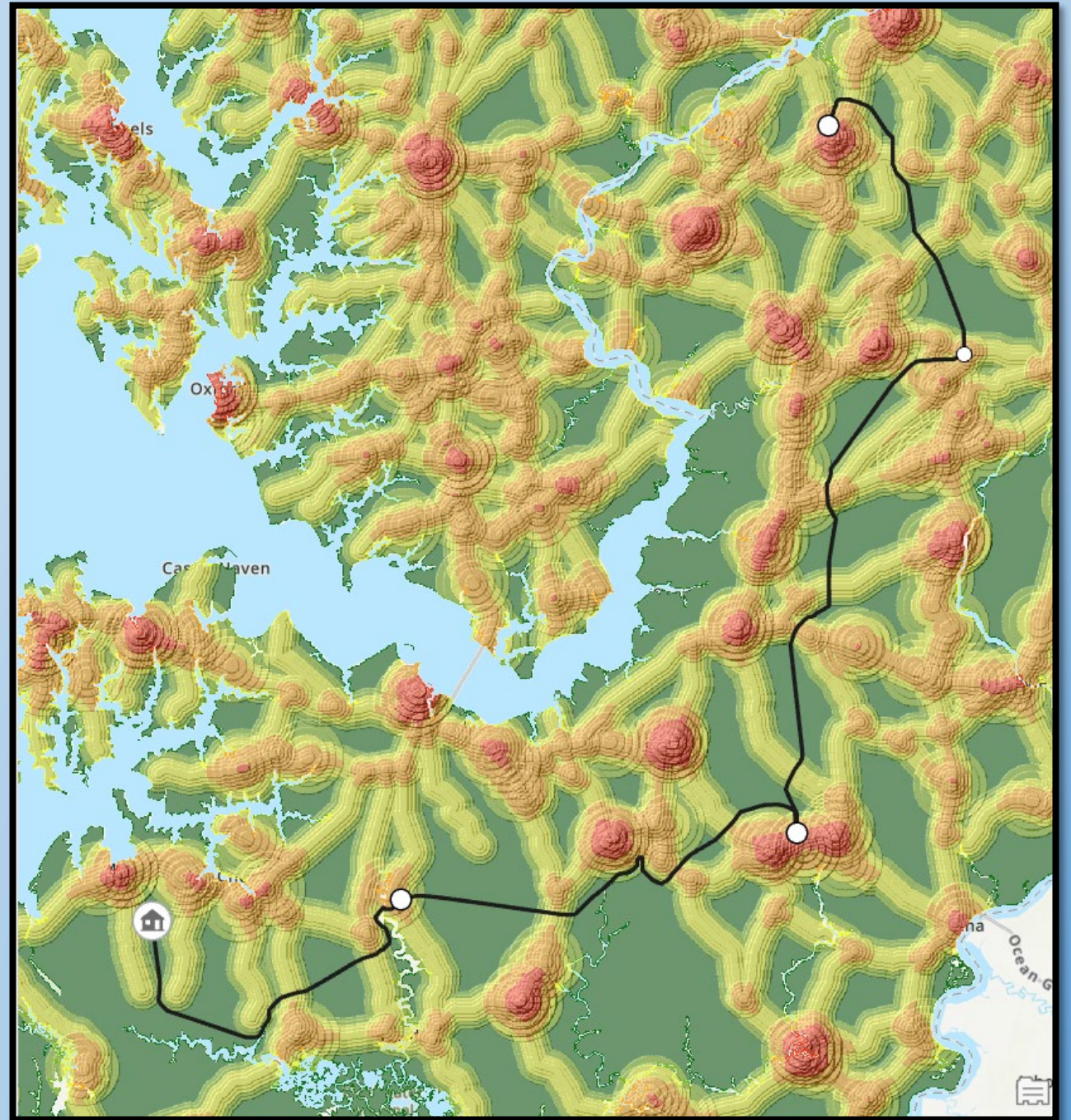
Created a weighted risk 'surface' where places of development represented potential risk

1. Churches (not Quaker and African American), shops, mills, schools, post offices, landings, bridges, ferries, minor towns, major towns were ranked every proximal 1000 ft distance (5000 ft max) using a geometric progression from far (risk=1) to near (16)
2. Roads and road intersections ranked every 500 ft (2500 ft max) using same ranking
3. Major towns weighted 5x, post offices 3x, minor towns 2x
4. Generated a hillshade model for visualization




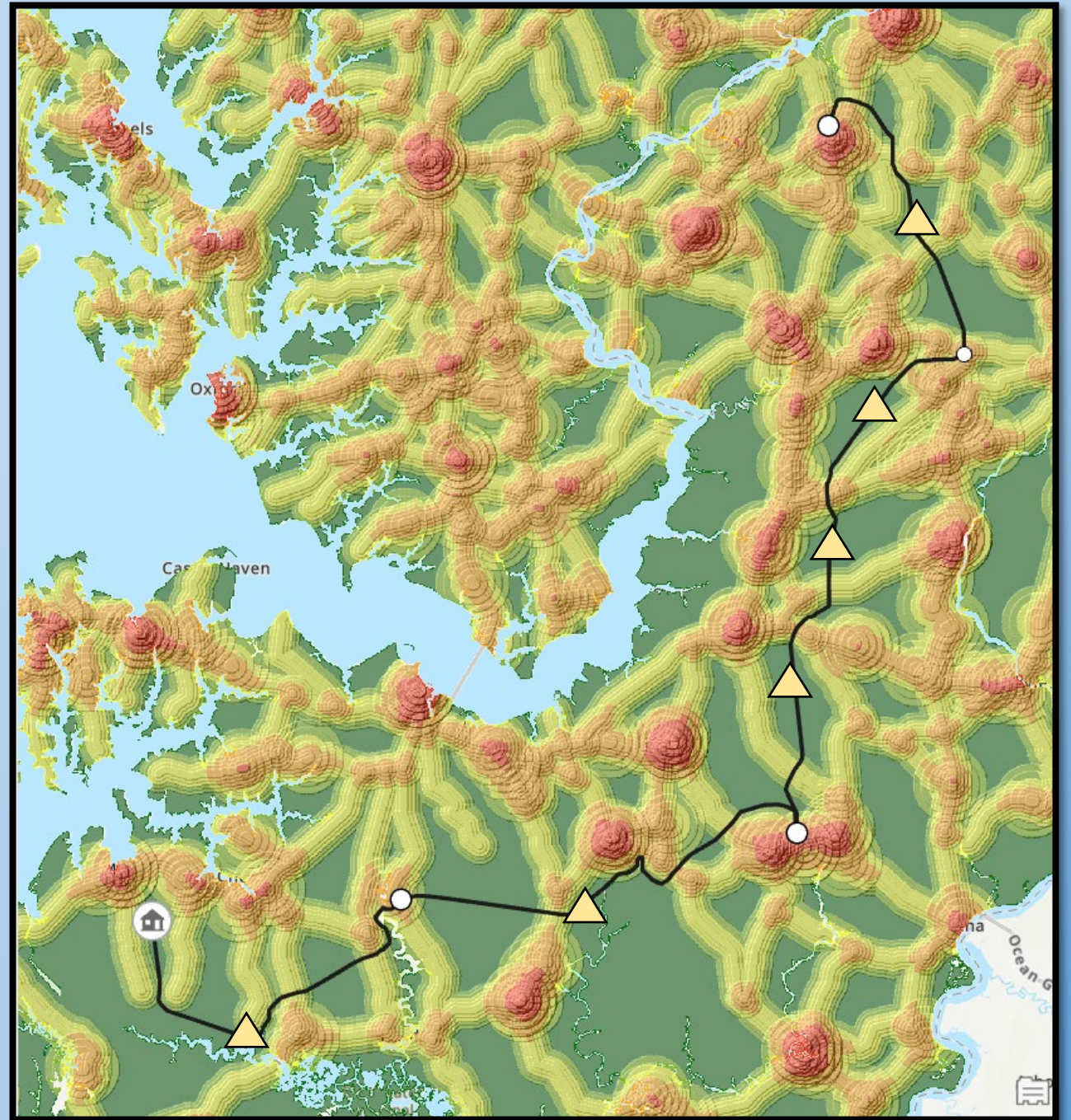
Hypothetical Land-Based, 'Least Cost' Escape Path from an Origin to Multiple Stops at Known African American Churches and Quaker Meeting Houses

1. Begins in northwestern Dorchester County near present-day Church Creek
2. Proceeds east to 2 African American churches
3. Then north to a Quaker meeting house
4. Then further north to arrive at an African American church in central Caroline County near present-day Harmony



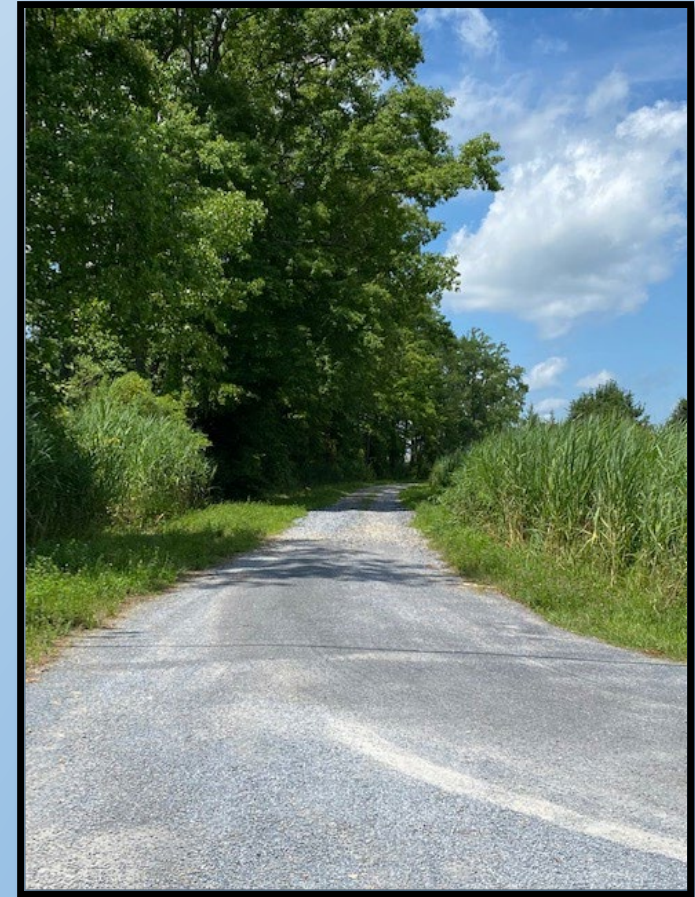
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5. And if limited to traveling approximately 5 miles in a day (due to traveling only at night, across forest, fields, and swamp areas, without roads, then  indicate locations of potential stops.



Some Conclusions

- This work is a prototype that shows how historical maps can be used to infer and represent **landscapes of risk and protection** in the Underground Railroad.
- This work is speculative. How meaningful is it? How can it be used to enhance understanding of the experiences of individuals escaping slavery?
- More data...maps, geographic features, land use, social networks, 'stations', **narratives and descriptions of escapes**, from archival materials, digital databases of advertisements for 'runaways', etc.
- There is a strong potential for connecting with public history...though I'm not really sure what it is yet.



Poplar Neck Road, from present-day Choptank Landing, nearby where Harriet Tubman is thought to have first escaped from slavery in 1849 and where she helped her parents escape slavery in 1857 (photo by author)

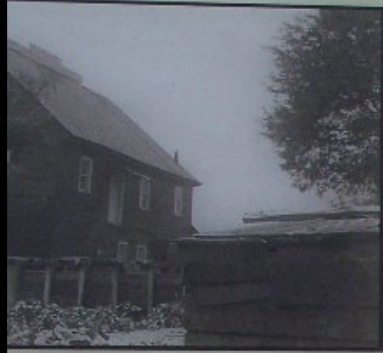
Thank you!

Jeremy Mennis

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Dorchester Star, 2/5/2022



...tle from the period of Harriet Tubman
97.

aves. Maryland slave
aged when these two sta-
57-58, but most of their
man, escaped to North-

, Northern abolitionists
ured "conductor," Sam
r prison sentence. The
laveholders and aboli-
Underground Railroad,
armed conflict in 1861.

Possible Underground
Railroad route between
the Choptank River and
Willow Grove, Delaware
used by Harriet Tubman.

