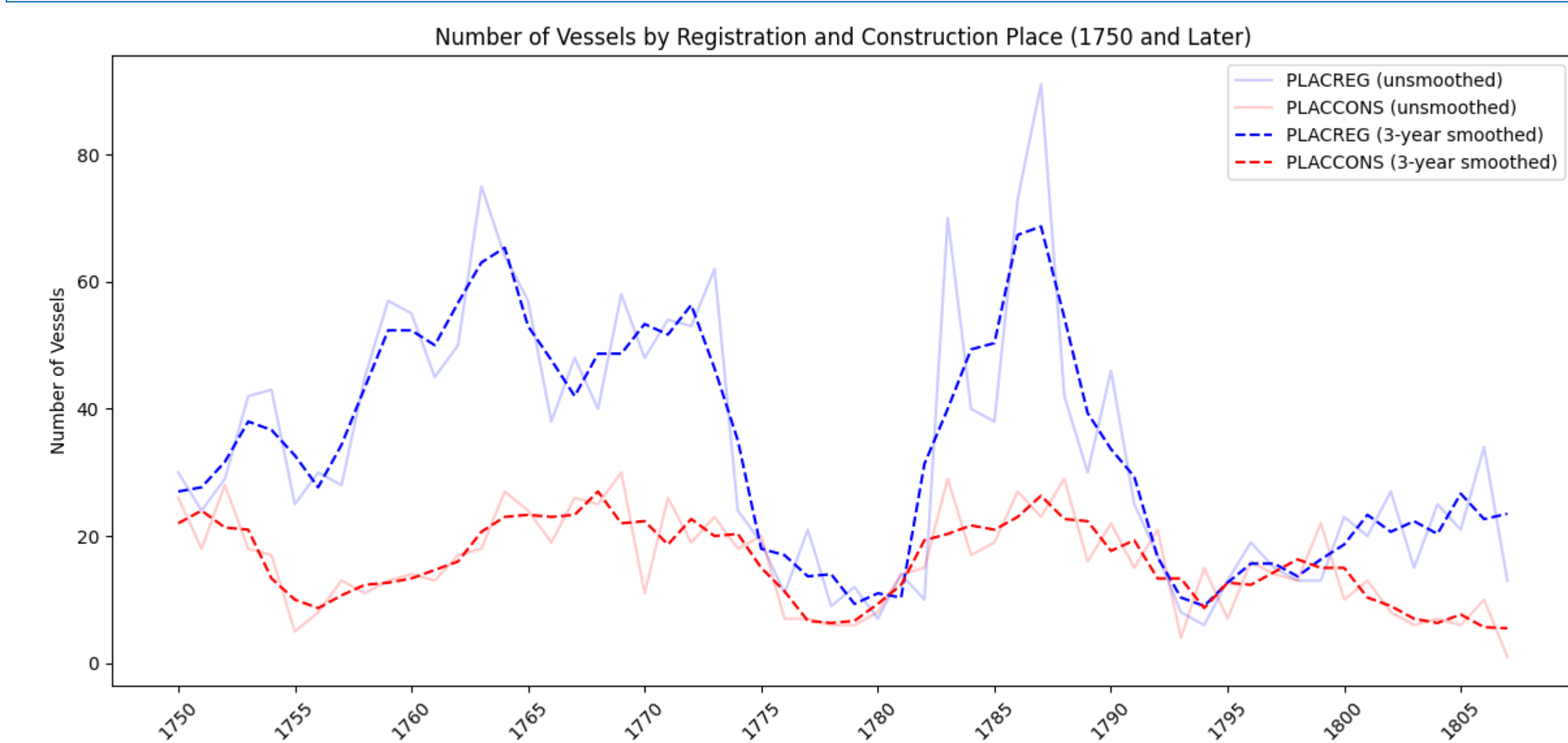


A Geospatial Analysis of Slavery: What data from the SlaveVoyages-database can tell us about the shift to the “second slavery” in the 19th century

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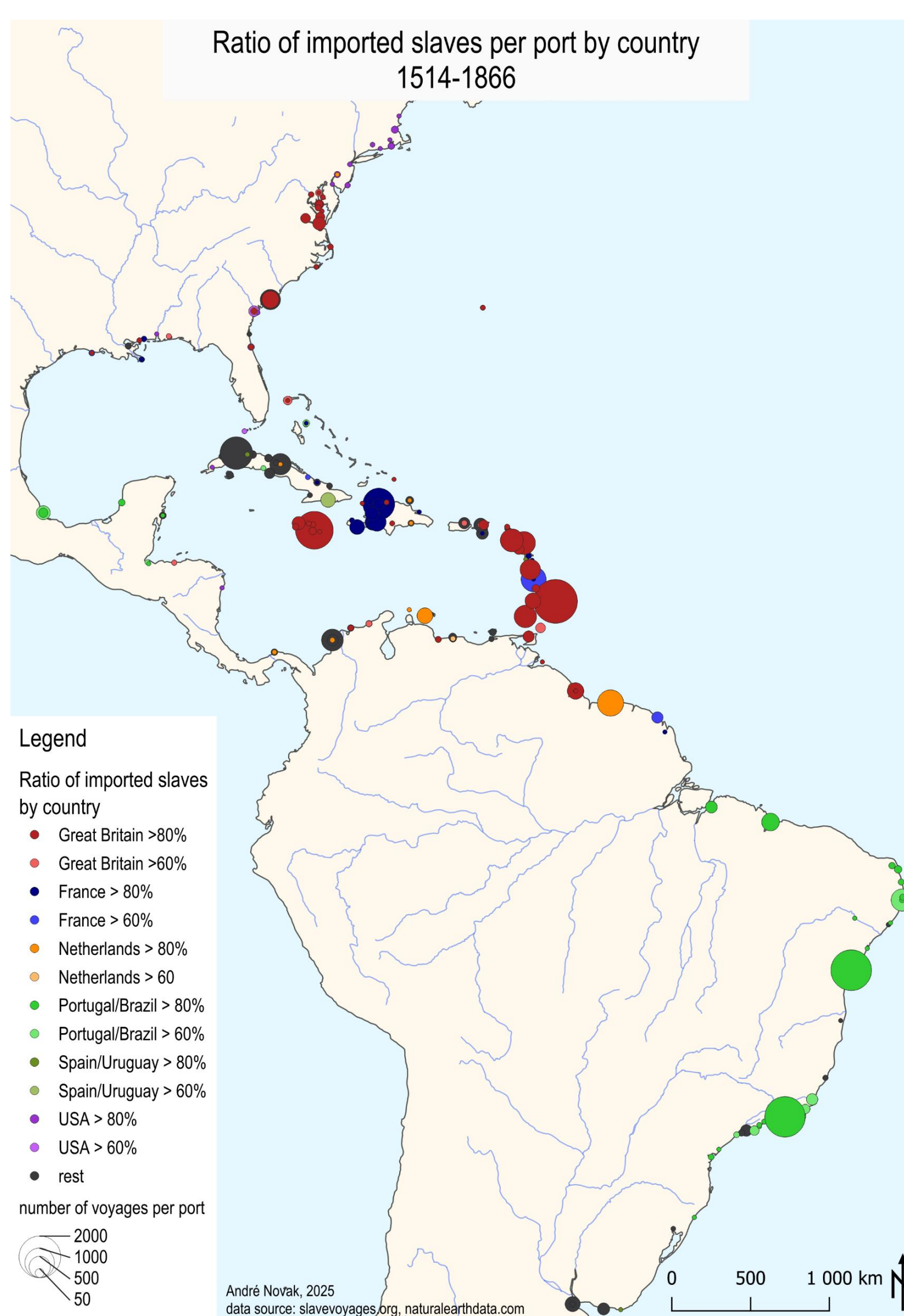
Background

The “Trans-Atlantic Slave Trade Database”¹ documents over 36,000 trans-Atlantic slave voyages (1514-1866). It is a vital tool for understanding how enslaved Africans were transported, where they came from, and where they were taken. The concept of the “second slavery”² refers to the reorganization and intensification of slavery in the Americas, especially in Brazil, Cuba and the US-South, after the formal abolition of the trans-Atlantic trade by some European powers in the early 1800s. This project investigated these patterns using both quantitative and spatial analysis.



Research questions

- How did the structure of the trans-Atlantic slave trade transform in response to 19th-century abolition efforts?
- What spatial shifts in trade routes and destinations characterise the rise of the “second slavery”?
- How does the evolving geography of the slave trade reflect emerging patterns in the global division of labour during the 19th century?



Method

Data Preparation (Tools: Python)

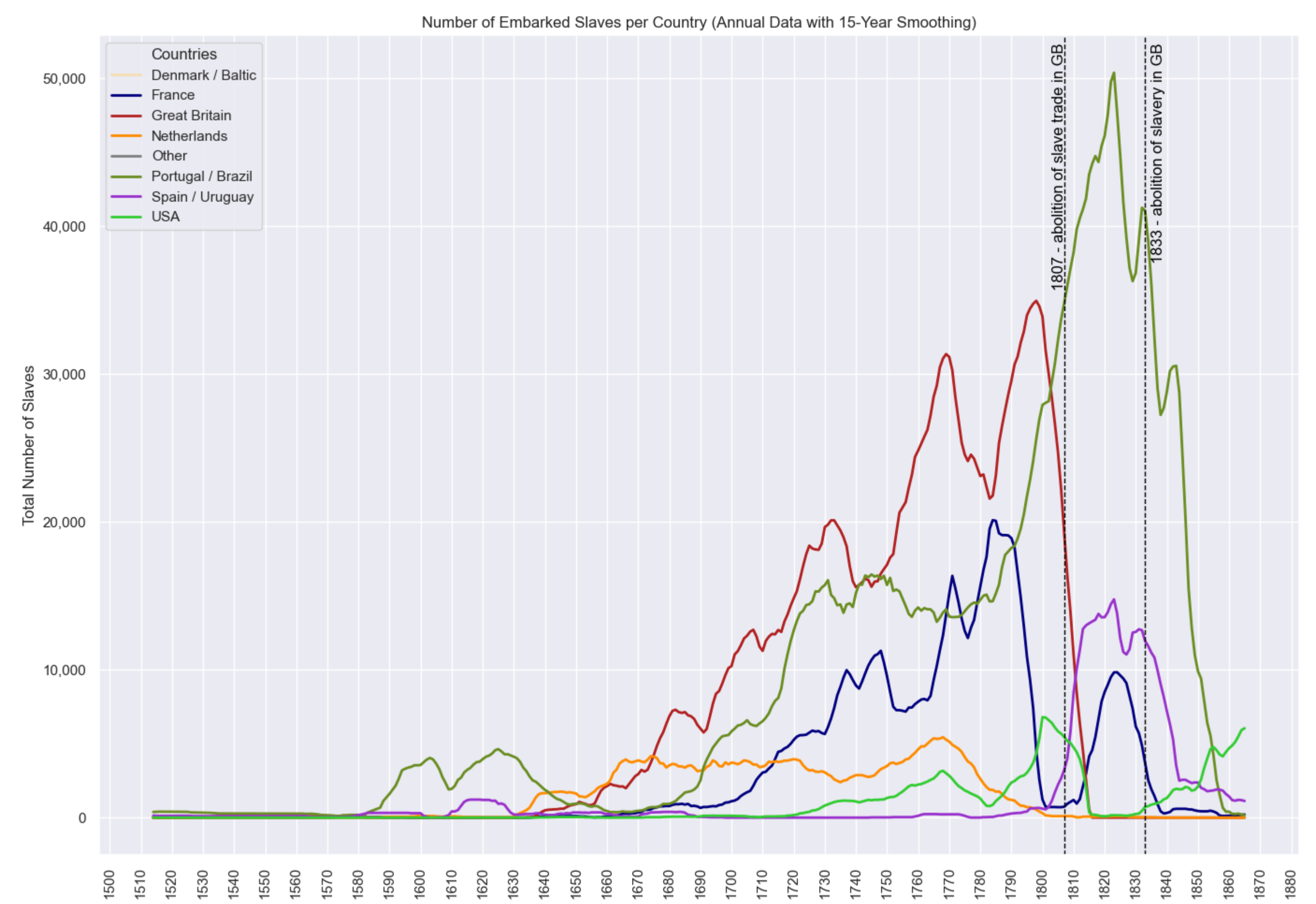
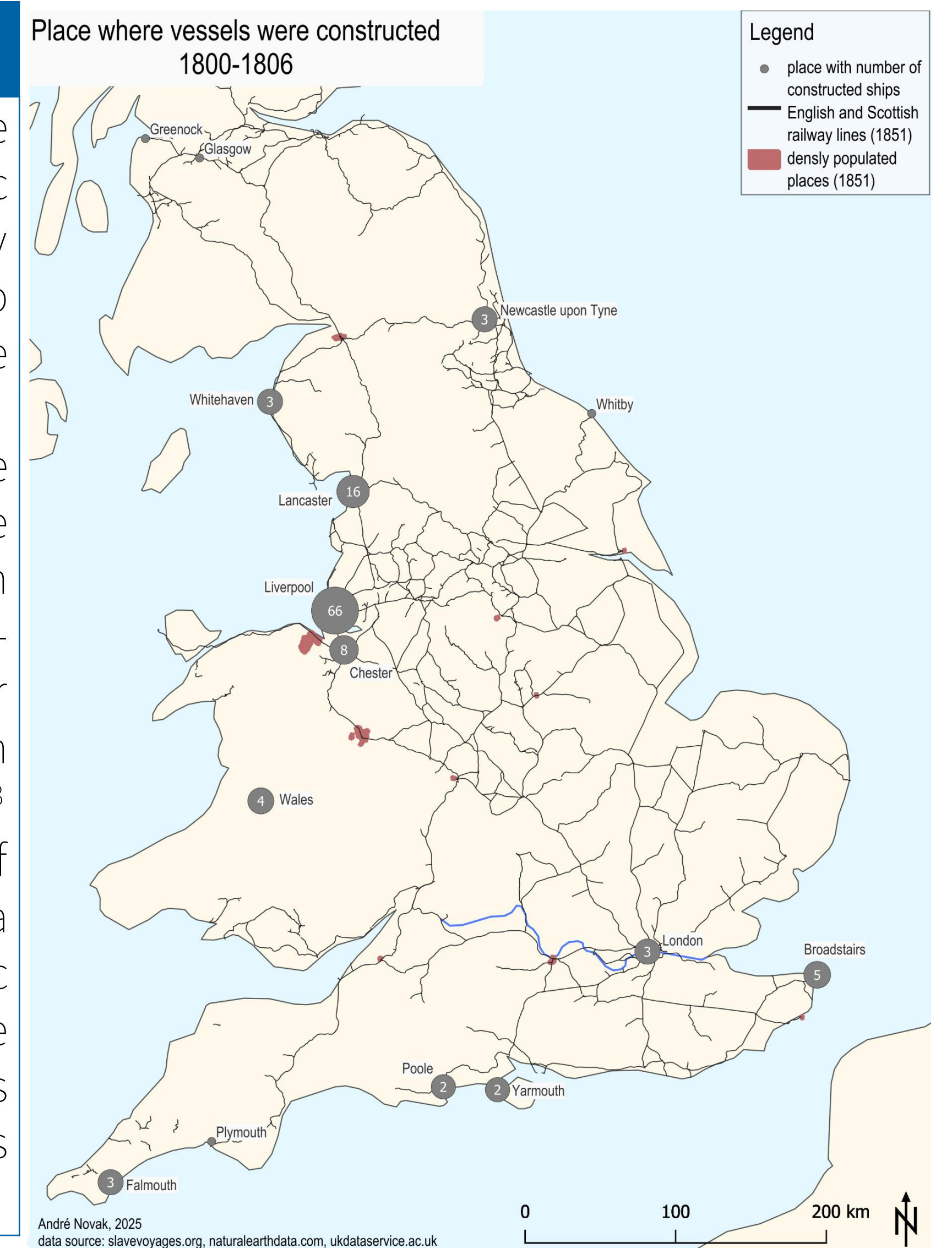
- Converting data types and calculating aggregate variables
- Resolving toponyms and matching geographic locations
- Exporting GeoPackage files for GIS analysis
- Creating static visualisations and animated maps

GIS Analysis (Software: QGIS)

- Heatmaps of embarkation and disembarkation densities
- Time-series clustering of disembarkation trends
- Spatial clustering of ship construction and registration sites
- Identification of major ports in the 19th-century trade
- Choropleth mapping of slave volumes by region

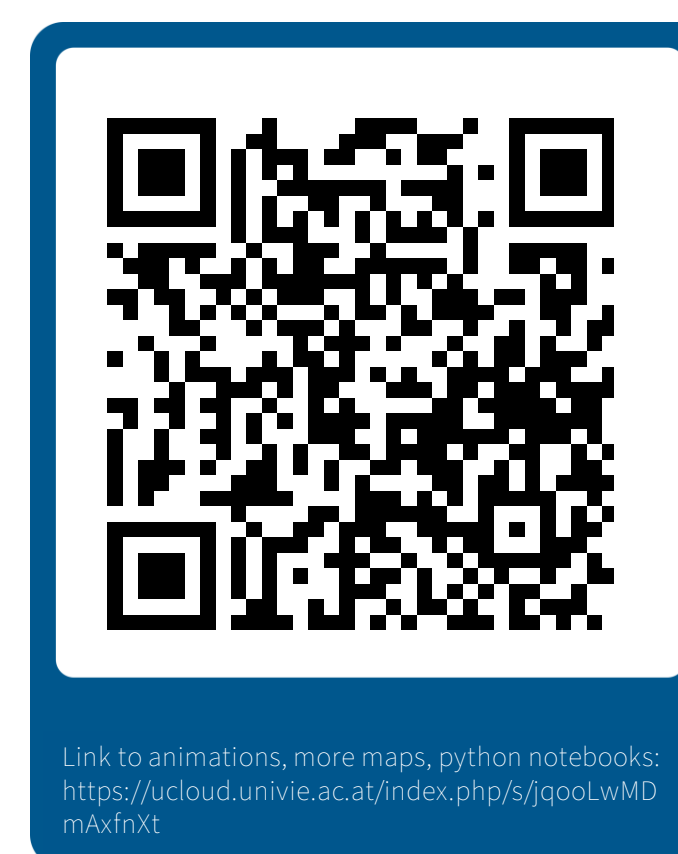
Results

- The British Empire dominated the trans-Atlantic slave trade until the early 19th century, with a sharp decline corresponding to the abolition of the trade.
- This decline shifted the trade to other empires, with the “second slavery” emerging in Brazil, Cuba and the US-South, replacing former British colonies as the main destination of slave voyages.³
- The evolving geography of the slave trade reflects a broader global economic transformation, where slave labour in these new regions now supplied raw materials for European industries.⁴



Conclusion

Combining quantitative, spatial and temporal analysis provides a powerful approach to study the 19th-century trans-Atlantic slave trade. This method reveals key structural and geographic shifts, including the rise of the “second slavery”, and makes complex patterns visible through maps and animations. It provides insight into the decolonisation of slavery as part of a newly forming global division of labour in the 19th century.⁵



References:

- 1 The Trans-Atlantic Slave Trade Database (2020), online at <www.slavevoyages.org> (03.05.2025).
- 2 Dale Tomich, The Second Slavery and World Capitalism: A Perspective for Historical Inquiry, International Review of Social History 63, no. 3 (2018) 477–501, here 482.
- 3 Dale Tomich, The “Second Slavery”: Bonded Labor and the Transformation of the Nineteenth-Century World Economy. In: Pargas, Damian Alan/Roşu, Felicia (Ed.): Critical Readings on Global Slavery (Boston 2017), 1326–1349, here 1333.
- 4 Robin Blackburn, Why the Second Slavery?, In: Tomich, Dale (Ed.): Slavery and Historical Capitalism during the Nineteenth Century (Lanham 2017), 1–36, here 2.
- 5 Tâmis Parron, The Great Transformation: World Capitalism and the Crisis of Slavery in the Americas. In: Tomich, Dale/Lovejoy, Paul (Ed.): The Atlantic and Africa. The Second Slavery and Beyond (Albany 2022), 19–46, here 25.