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## Reconstructing the History of Koch Cemetery

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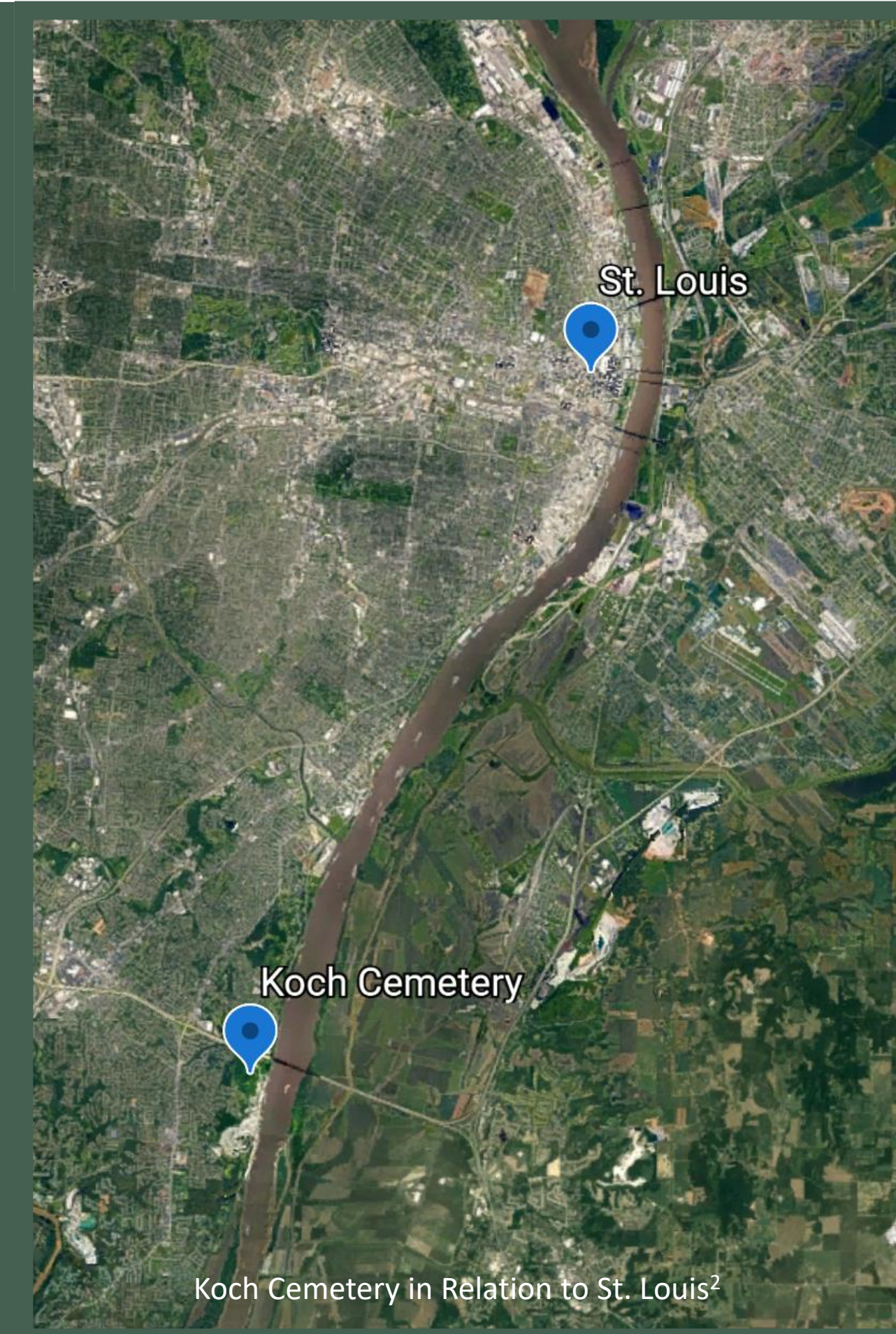
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# 110. Reconstructing the History of Koch Cemetery

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## SITE HISTORY AND PROJECT BACKGROUND

- **1865:** Quarantine Station
  - Typhoid fever, yellow fever, cholera, smallpox, etc.
- **18,000** individuals buried with no records
- **1910 - 1983:** Koch Hospital
  - To fight tuberculosis, the “White Plague”
- **Late 1960s:** excavation of skeletal remains from a sinkhole
- **1984:** National Historical Register Nomination<sup>1</sup>



## GOALS

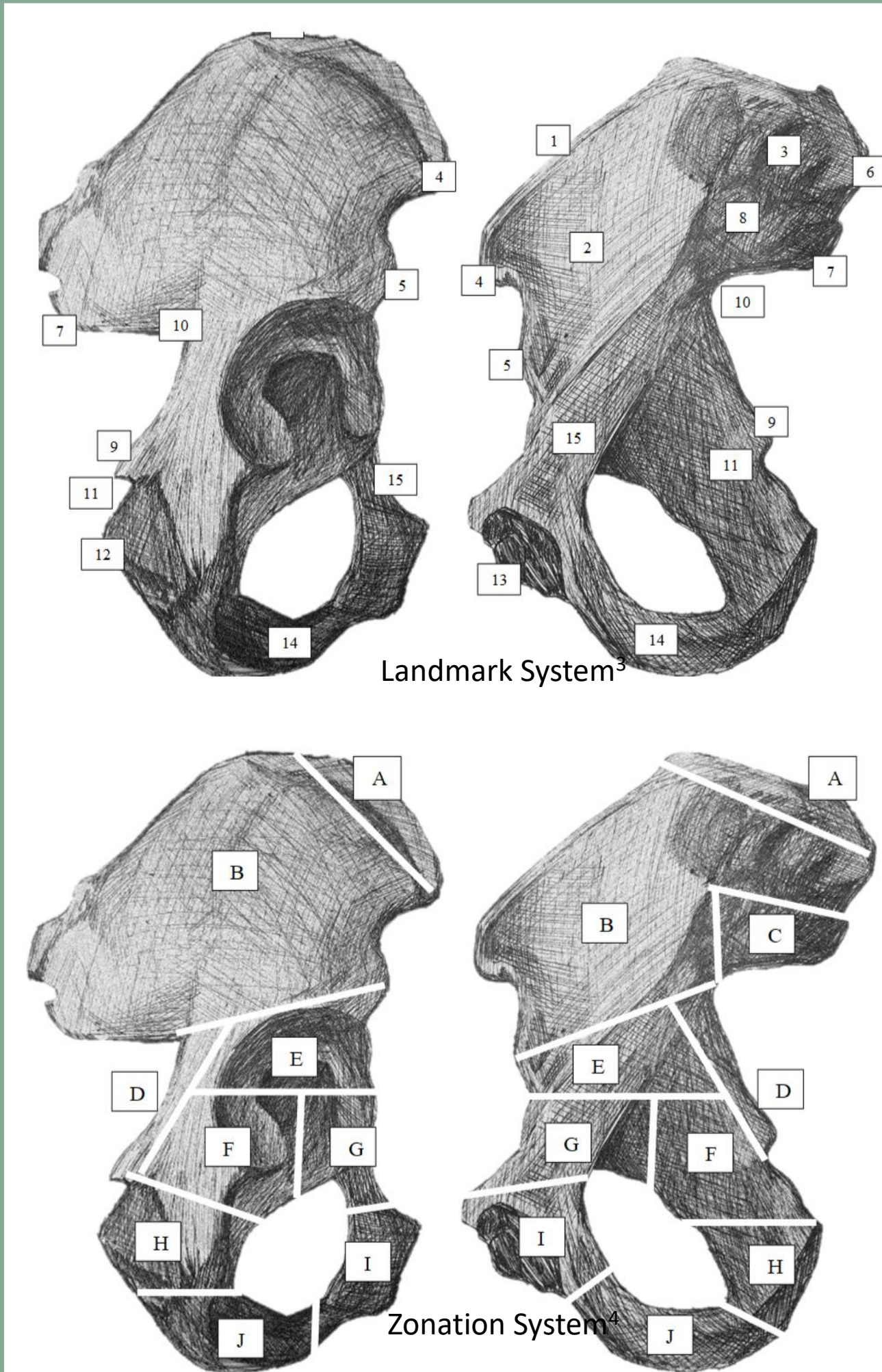
- **Decommingle and estimate the number of individuals present in the collection**
- **Use archival records to reconstruct site history and understand patient demographics**
  - Treatments and conditions
  - Racial/ethnic and socioeconomic disparities in healthcare



## MATERIALS AND METHODS

### Osteological

- 6 boxes containing 832 fragments – Inventoried and sorted
- Zonation and Landmark Inventory
- Visual and Osteometric Pair-Matching
- Estimating MNI, LI, and MLNI
- Joint and Element Reassociations



### Archival

- Ancestry LE
- Name, Date of Birth, Date of Death, Country of Birth, Ancestry
- *St. Louis Post-Dispatch*, *St. Louis Globe-Democrat*, and *St. Louis Star and Times*

## RESULTS

### Osteological

- MNI: 17 individuals
- LI: 45.3 individuals
- **MLNI: 40 ± 18 individuals (95% confidence interval)**
- Osteometric pair-matching, joint articulations, and element reassociations were severely limited by fragmentation

### Archival

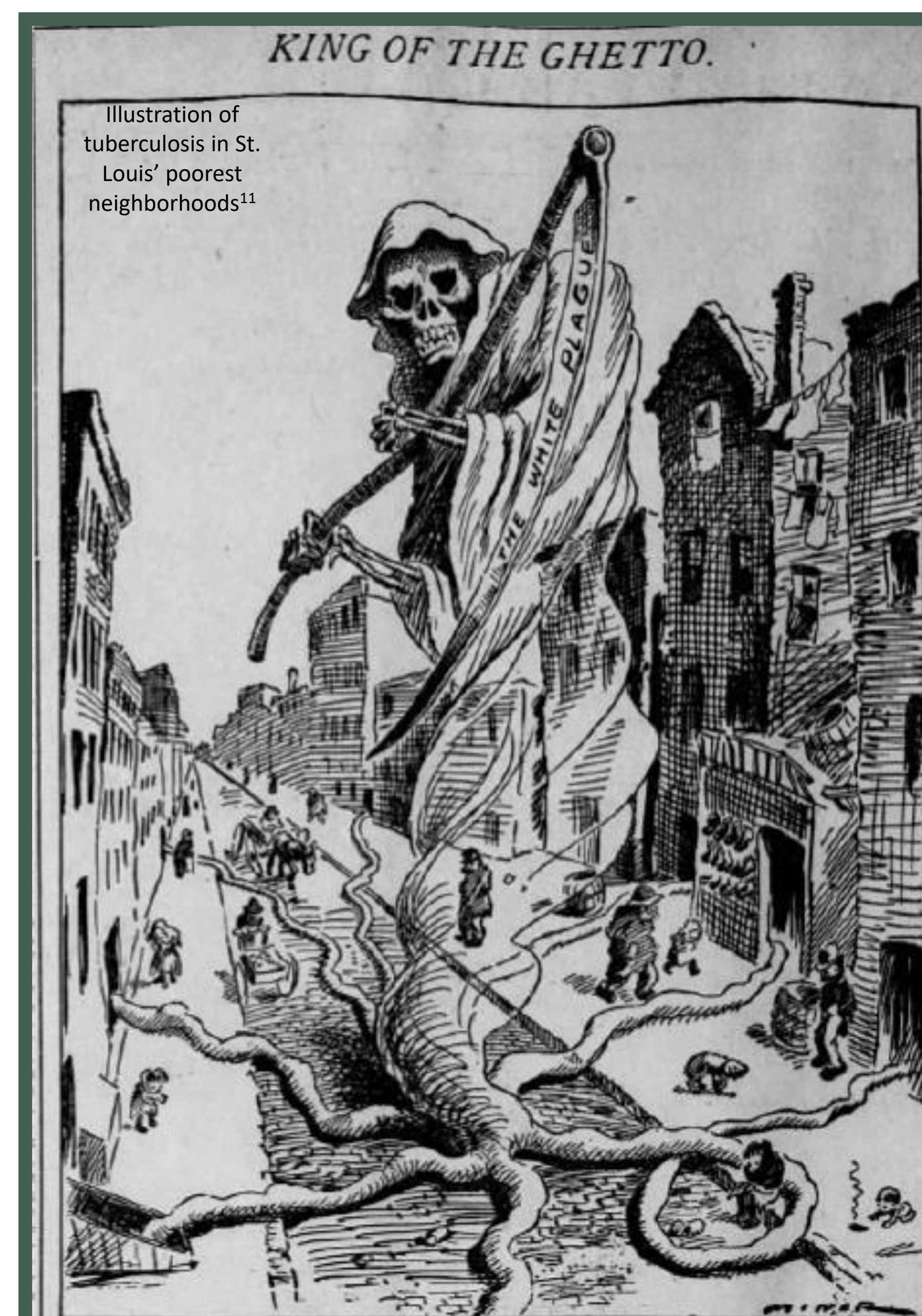
- The conditions at Koch were terrible – understaffed, undersupplied, and overcrowded
- Horse blood-serum, carbolic acid, and occupational therapy<sup>5,6,7</sup>
- 550 individuals from Ancestry LE and newspapers
- **Sex:** 71.5% male, 21.6% female, 6.9% unknown
- **Ancestry:** 59% white, 29% unknown, 12% black
- **Country/Region of Origin Known for 291 individuals:** 22% Northern European, 15% North American, 15% Western European, 1% Southern European
- **Age at Time of Death Analyses:**
  - **By sex:** Females died 7.4 years younger than males ( $p = 0.05$ )
  - **By racial/ethnic group:** Black individuals died 10.9 years younger than whites ( $p = 0.0005$ )
- Newspapers reported higher death rates from tuberculosis amongst black individuals and in low socioeconomic status neighborhoods<sup>6,8,9,10f</sup>



## DISCUSSION AND CONCLUSIONS

**Koch Cemetery demonstrates the disproportionate affects of infectious disease on St. Louis' most vulnerable populations and the consequences of unequal access to quality healthcare.**

- When populations are confronted with high death rates, their burial practices change to accommodate the number of the dead – such as burials in sink holes
- Even today, minorities are less likely to have access to high quality healthcare and more likely to have negative health outcomes
  - Women are also more likely to have negative health outcomes, and are not taken as seriously by healthcare providers
  - White males are prioritized during the allocation of healthcare related resources
    - At Koch, this included hospital beds, facilities, treatments, etc.
- Infectious disease outbreaks are often blamed on minority groups



## References

## Acknowledgements

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<sup>1</sup>Bass VI and Eberle I. 1984. Robert Koch Hospital National Register of Historic Places Inventory – Nomination Form. United States Department of the Interior. National Parks Service. Form 10-900. // <sup>2</sup>Koch Cemetery and St. Louis. Google Earth. <https://earth.google.com/web/@38.55089287,-90.23449643,148.90389451a,72705.33897948d,35y,Oh,0r,data=MICKQzQzCjE4UG15ZmMwMycTIPic1ZGTkpfRHRhdF80SFVODHtBtc/> // <sup>3</sup>Modified from: Mack JE, Waterman AJ, Racila AM, Artz JA, Lillios KT. 2016. Applying Zooarchaeology Methods to Interpret Mortuary Behavior and Taphonomy in Commingled Burials: The Case Study of the Late Neolithic Site of Bolores, Portugal. *International Journal of Osteoarchaeology* 26: 534-536. // <sup>4</sup>Modified from: Krusel CI and Outram AK. 2004. Fragmentation: The Zonation Method Applied to Fragmented Human Remains from Archaeological and Forensic Contexts. *The Journal of Human Paleontology* 9(1): 85-98. // <sup>5</sup>He Has Discovered Consumption's Cure. 1895, January 27. *The St. Louis Post-Dispatch*, 18. // <sup>6</sup>Quarantine. 1876, September 9. *The St. Louis Globe-Democrat*, 4. // <sup>7</sup>Medical and Social Science Team Up Against TB at Koch Hospital. 1955, August 11. *The St. Louis Globe-Democrat*, 31. // <sup>8</sup>More Hospitals Urged for Tubercular Cases. 1930, March 19. *The St. Louis Post-Dispatch*, 19. // <sup>9</sup>City Health Division Active in Efforts to Curb Tuberculosis. 1930, December 7. *The St. Louis Globe-Democrat*, 4. // <sup>10</sup>Cuniff N. 1921, August 22. How St. Louis is Waging Fight on Tuberculosis by Treatment and Education. *The St. Louis Post-Dispatch*, 12. // <sup>11</sup>"King of the Ghetto." 1910, January 12. Editorial Cartoon. *The St. Louis Post-Dispatch*. // <sup>12</sup>At Quarantine. 1894, May 8. *The St. Louis Post-Dispatch*, 31.