Rank and Risk: Mortality, Hierarchy, and Inequality in the Eighteenth-Century Dutch East India Company

Group 1: Lisanne Koek, Samantha Mooij, Sierra Scott

Background & Context

❖ **Dutch East India Company (VOC):** one of the first multinational corporations, employing thousands of people across ranks such as Military, Shipmen, and Trade.

❖ **Research gap:** Labor conditions studied qualitatively and/or case-specific, leaving large-scale patterns underexplored.

❖ **Our project:** uses the Enriched VOC Workforce Dataset (Petram et al., 2024) to analyze rank and mortality on a large scale.

Research Question & Thesis Statement

Is there a relationship between an individual's initial rank category within the Eighteenth century Dutch East India Company (VOC) and their recorded risk of mortality, and what might this relationship reveal about the organization of work, hierarchy, and inequality within the VOC during this period?

Mortality patterns across initial rank categories in the eighteenth–century Dutch East India Company (VOC) can highlight how differences in working conditions and occupational status shaped vulnerability among employees, revealing broader systems of inequality and control within the VOC's labor organization.

Team & Task Overview

	Sierra	Samantha	Lisanne
Major	Psychology & Data Science	Sociology	Media, Art, Design, and Architecture
Tasks	- Literature review - Data collection & pre–processing (R) - Data analysis and visualisation (R) - Presentation	- Literature review - Data analysis (R) - Linking data to historical context - Presentation	- Literature review - Framing RQ - Linking data to historical context - Presentation

Dataset: Description

❖ Based on 3.020 pay ledgers documenting <u>European</u> personnel that traveled from <u>the Netherlands</u> to Asia

❖ Originally digitised by Ton van Velzen between 2000 – 2012

❖ Datasets were created and enriched by Petram et al. between 2017 – 2024
   ➢ Contains name, place of origin, rank, wage, voyage details, and reason for contract termination
   ➢ Making it possible to <u>trace full careers</u> of VOC personnel, which makes it possible to study **economic and social mobility**
   ➢ <u>Integration of wages</u> makes it possible to study **inequality** and **class hierarchies**

❖ We have analysed the mortality risks and how they are associated with rank– and class–based hierarchies on land and onboard.

Project Workflow

✦

01
Literature Review

- Conducted a literature review on our topic, and initially chose to examine mortality within the Dutch VOC.

- Decided to assess most vulnerable groups in Dutch VOC by examining mortality and wage distribution between rank groups

✦

02
Data Collection

- Datasets collected from Zenodo

- Data read into R coding language

- Conducted initial missingness check

✦

03
Data Pre-Processing

- 2 new variables added to dataset containing info on workers' contracts: "rank_group" and "died" – referred to dataset containing info on rank and wages to create variables
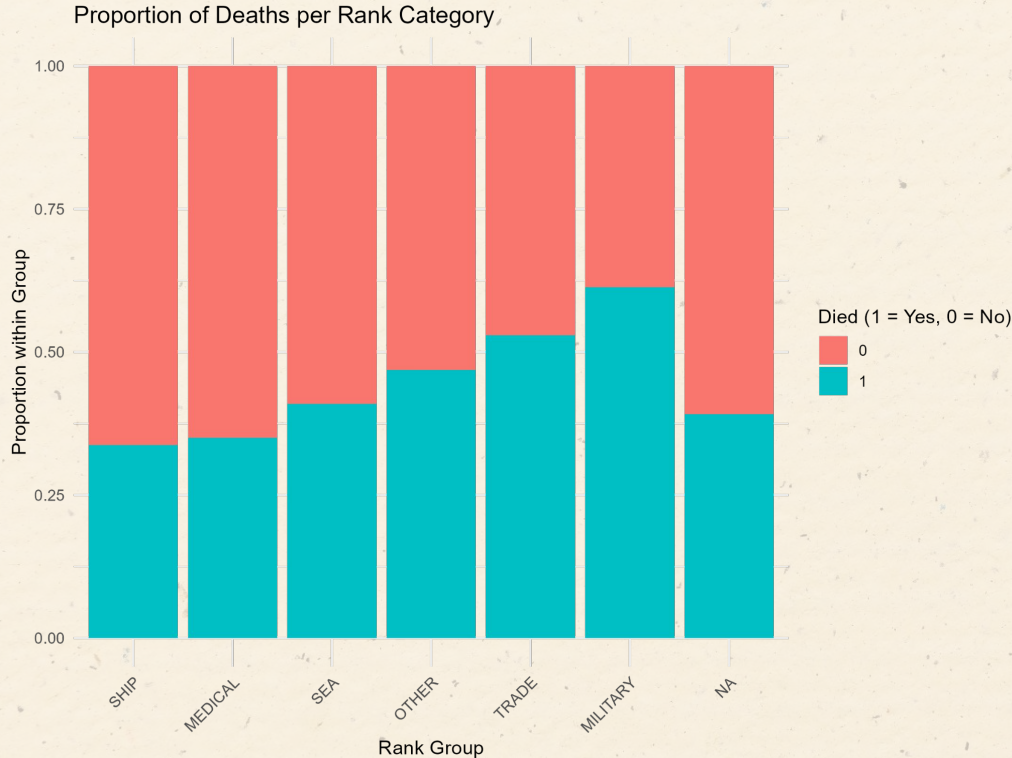
✦

04
Data Analysis

- Created graphics in R to visualize mortality proportions and wage distribution across rank groups

Analysis & Interpretation

Proportion of Deaths per Rank Category

❖ Deaths most frequent in "Military", "Trade" and "Other" rank categories

  ➢ "Other" category consisted of specialized jobs in which workers weren't exclusively labelled "merchants"

❖ Lowest mortality proportions for officials who worked on ships, and medical professionals
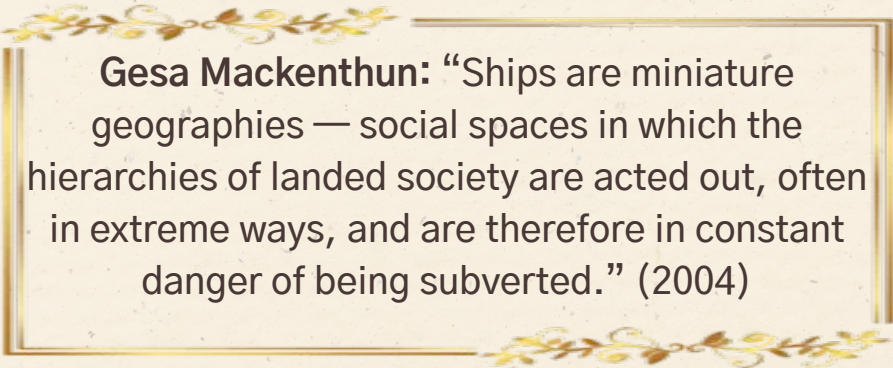
Analysis & Interpretation

❖ Workers belonging to the Military rank, on average, were paid the least
➢ Aligns with literature explaining that most vulnerable workers were also paid significantly less than other workers

❖ Workers belonging to the "Other" and "Trade" rank categories had largest standard deviations in wage range

❖ Wages of medical professionals and workers on ships (Sea and Ship ranks) showed smaller standard deviations compared to other rank groups

Median Wages per Rank Category
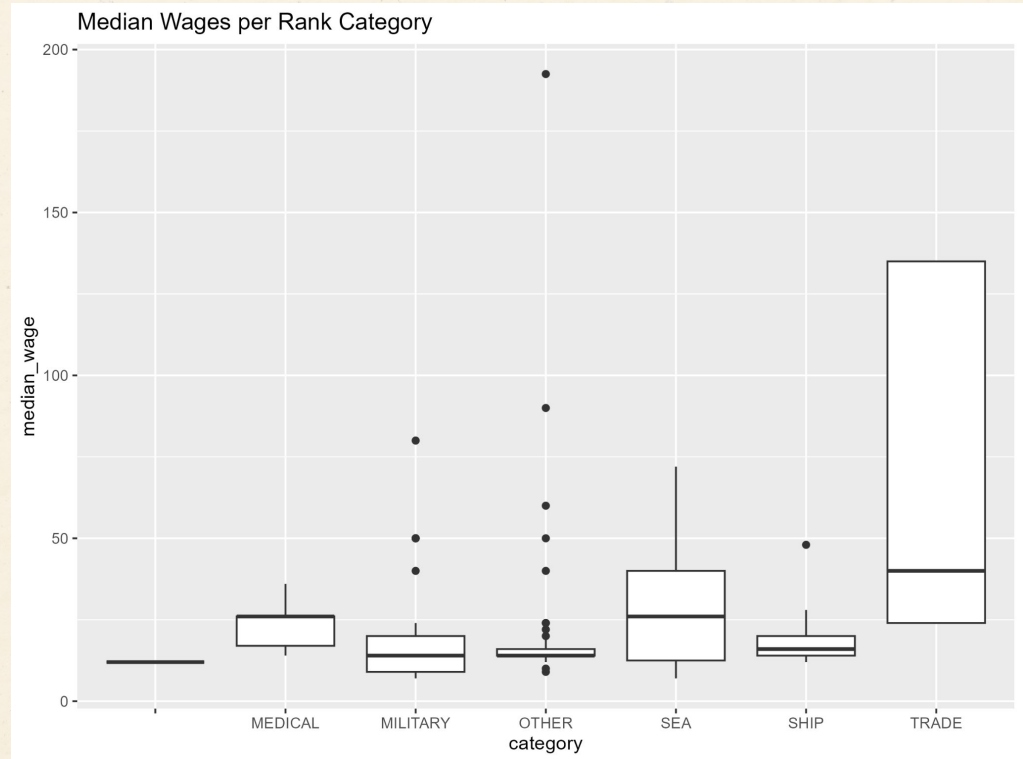
Relevance of Findings

❖ Proof of **systemic inequality** that reinforced on–land class hierarchies, resulting in bodily harm and death

❖ The Company's early capitalist & bureaucratic nature was dependent on poverty, dependence and discipline, building on **structural inequality**

❖ **Quantitative data** to complement qualitative cases

> **Gesa Mackenthun:** "Ships are miniature geographies — social spaces in which the hierarchies of landed society are acted out, often in extreme ways, and are therefore in constant danger of being subverted." (2004)

Dataset: Limitations

❖ **Dutch bias:** VOC clerks favoured Dutch spelling, leading to overrepresentation of Dutch origins
  ➤ Mediation of the archive was done by Dutch transcriptors, leading to fewer errors and spelling variation for Dutch places
  ➤ The standardisation process by Petram et al. used resources that focus on the Netherlands and involved Dutch researchers, that might again have favoured Dutch places

❖ **Occupational categories unclear:** "Trade" = merchants only; "Other" mixes a very high volume of high– and low–status jobs

❖ **Conservative record linking** decreases false positives, which can make careers seem shorter than they were and make death rates appear higher than they were

❖ **Place standardisation** favoured larger towns, which can incorrectly link individuals with common names (Middelburgh vs. Middelburg)

❖ **Missing data:** not everything has been digitised + incomplete wage information

Future Work

❖ **Examine racial and ethnic makeup of each rank group.**
  ➢ Can provide insight on social hierarchies and inclusion within the VOC workforce.

❖ **Compare the VOC workforce conditions to those of merchant companies from other countries at that time, e.g., the Chinese or British.**
  ➢ Can reveal how organizational structures, labor hierarchies, and risk management differed across cultural and national contexts.
    ■ Can highlight how broader economic, political, and social factors shaped labor practices.