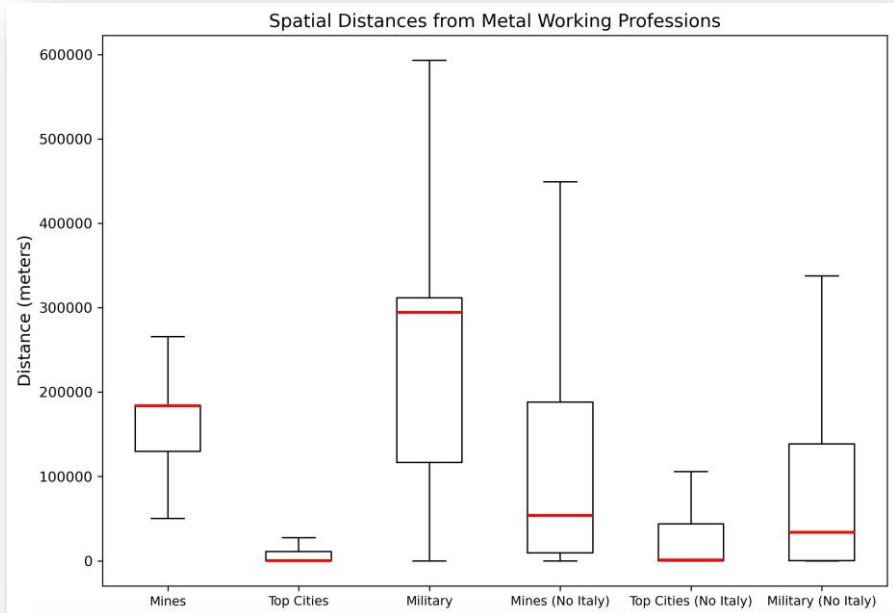


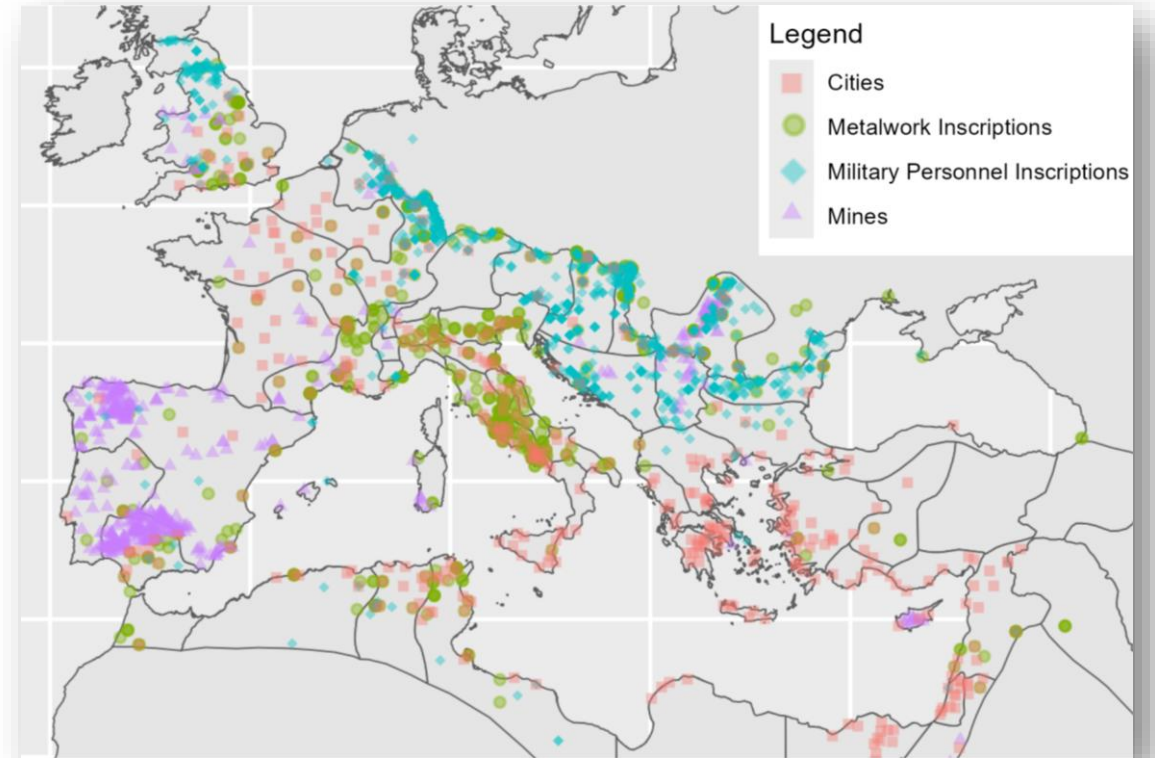
METALS AND METHODS

Spatial Proximity and Textual Analysis of Roman Metalworking Inscriptions

This analysis measures spatial distances between Roman inscriptions referencing metalworking professions and 3 related phenomena: Roman mines, the top 30 % most populated Roman cities, and military-related inscriptions.



To account for regional bias, two versions of each dataset were used: one covering the entire Roman Empire and another excluding mainland Italy, which dominated economically and culturally, potentially skewing the data. Results show a strong spatial association between metalworking and urban centers (median distance: 189 m), while links to military sites are far weaker (median: 294 433 m).

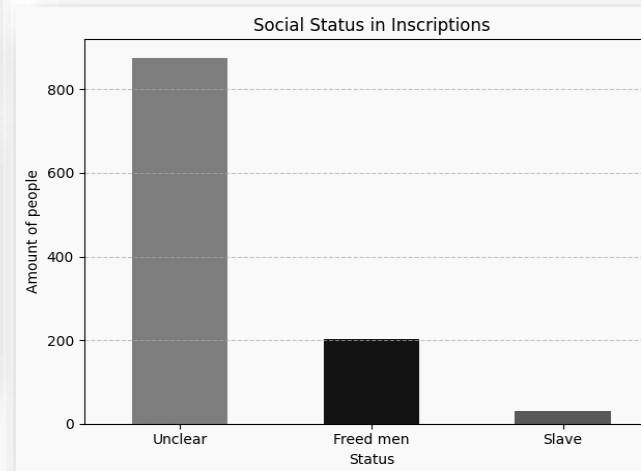


The map visualises the mines of the Roman Empire, 30 % of the most populated cities of the Roman Empire, Latin inscriptions containing references to occupations related to metallurgy and Latin inscriptions containing references to occupations related to military personnel.

Authors:

Georgoudi Vasilia
Gomes Sera Ria
Jeong Jihye
Kheml Sebastian
Goubeková Tereza
Jakoubek Jiří

The graph shows the status of people in the metal industry based on the naming conventions in the inscriptions. This includes names and statuses such as "servus/-a" and "libertus/-a".



Sample size (unique locations): Metal-working professions = 759/258 | Mines = 550/549 | Top cities = 405/331 | Military = 1209/1209.

HACKATHON 2025