

## Sociolinguistics, statistics, and epigraphy.

### Vowel mergers in Latin inscriptions from Rome (120 BCE – 600 CE)

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This paper summarises the findings of PAPINI 2024 and illustrates how historical sociolinguistics, non-parametric statistics, and traditional Latin epigraphy can be brought together to shed new light on one of the most widely discussed changes that occurred during the transition from Latin to Romance: the reshaping of the Classical Latin vowel system (which was based on contrastive vowel length) into the vowel system of the Romance languages, which is based on oppositions of vowel quality and different degrees of opening (LOPORCARO 2015). The discussion begins with a qualitative analysis of the instances of <E> vs. <I> and <O> vs. <U> in a corpus of 6,599 Latin inscriptions from Rome dating from around 120 BCE to around 600 CE. The analysis isolates all vowel confusions that could have alternative explanations, linguistic or non-linguistic, and therefore cannot be used to argue for developments in the vowel system (ADAMS 2013). Next, the classification of the inscriptions into five chronological periods (Late Republic, Early Empire, Mid-Empire, Late Empire, and Post-Imperial Period) and three sociolinguistic groups (Formal, Informal, and Diaphasically Low) is discussed. This aims to define the sociolinguistic and chronological framework for the statistical analysis (MANCINI 2014). Finally, the paper demonstrates how non-parametric statistical models, such as *Conditional Inference Trees*, and the combined application of the quantitative methods proposed by J. HERMAN (2000) and J. N. ADAMS (2007), can improve our understanding of the chronology and sociolinguistic dynamics that characterised the harbingers of the Romance vowel system (PAPINI 2025). In this case, special reference is made to the notion of “change from below”, as recently (re-)defined by CERRUTI 2017.

### Bibliography

- ADAMS, J. N. (2007). *The regional diversification of Latin (200 BC-AD 600)*. Cambridge.
- ADAMS, J. N. (2013). *Social Variation and the Latin Language*. Cambridge.
- CERRUTI, M. (2017). Changes from below, changes from above. Relative constructions in contemporary Italian. In, CERRUTI, M. *et al.* (eds.), *Towards a new standard. Theoretical and empirical studies on the restandardization of Italian*. Berlin and Boston, pp. 61-88.
- LOPORCARO, M. (2015). *Vowel length from Latin to Romance*. Oxford.
- MANCINI, M. (2014). Testi epigrafici e sociolinguistica storica. Le “defixiones” sannite. In, GIACOMELLI, R. *et al.* (eds.), *Le lingue dell'Italia antica oltre il latino*. Lasciamo parlare i testi. Milan, pp. 29-61.
- PAPINI, A. (2024). *Latin epigraphy and the “Vulgar” Latin vowel system (ca. 250 BCE - ca. 600 CE). A qualitative, quantitative (and statistical) study based on the inscriptional sources of the city of Rome*. Ghent [PhD thesis].
- PAPINI, A. (2025). Some (statistical) considerations on the use of inscriptions for the study of “sociolinguistic” variation in Latin. The problem of “frequency”. *Acta Linguistica Academica*. Online [DOI: [10.1556/2062.2025.01003](https://doi.org/10.1556/2062.2025.01003)].