Panel 03: Epigraphy and Artificial Intelligence

Chairs: John Bodel, Thea Sommerschield

Over the past decade, research at the intersection of epigraphy and Artificial Intelligence (AI) has expanded at an unprecedented pace. Advances in OCR and Handwritten Text Recognition (HTR) have enabled large-scale, multi-modal recognition of characters in Greek papyri and inscriptions, supporting new forms of palaeographic analysis. Transformer-based machine learning models developed across successive generations have demonstrated the potential of AI for epigraphic parallel retrieval, text restoration, geographical attribution, and dating of Greek and Latin inscriptions. Meanwhile, topic modeling and other NLP techniques have contributed to genre attribution and document classification in large epigraphic corpora, while generative AI has been used to create synthetic characters in Greek papyri and Cuneiform tablets as a way of addressing the problem of unbalanced and scarce training data.

This parallel session at CIEGL 2027 invites contributions that critically examine how machine learning and statistical methods can advance the study of inscriptions in Greek, Latin, and other languages of the ancient Mediterranean world. We are interested both in technical developments and in their implications for epigraphic scholarship, interpretation, and pedagogy, including how generative AI and linked data infrastructures are reshaping research, teaching, and publication practices.

We welcome submissions on topics related to, but not limited to:

- **Digitisation:** bringing textual sources to a high-quality machine-readable format (e.g., through HTR), including image-to-text pipelines and multimodal approaches.
- **Decipherment and translation:** computational approaches aiming to make an inscription's language comprehensible and interpretable to modern-day researchers.
- **Restoration:** recovering missing text and reassembling fragmented written artefacts.
- **Attribution and Retrieval:** situating inscriptions within their original geographical, chronological, cultural and authorial contexts.
- **Linguistic analysis:** including segmentation, POS-tagging, parsing, embeddings, representation learning, semantics, and sentiment analysis.
- **Data, standards, and evaluation:** position papers on dataset quality and quantity, human-in-the-loop experimental protocols, reproducibility, linked data for downstream machine learning tasks, and sustainable infrastructures.
- **Bias, generalisation, and trust:** critical reflection on imbalanced datasets, data circularity, ground-truth construction, uncertainty modelling, mitigation strategies, gold standards, and the interpretability and explainability of AI systems.

- **Interdisciplinary practice:** studies of collaboration between epigraphists, computer scientists, and cultural heritage institutions, including reflections on the funding landscape and pedagogical approaches to GenAI for epigraphy in schools and universities.

Submissions should present substantive, empirically grounded work. We invite proof-of-concept papers only if they include statistically meaningful and verifiable results and new datasets only when accompanied by significant methodological discussion or critical analysis. Where applicable, papers should clearly state datasets used, evaluation metrics, baselines, and limitations.

We welcome submissions that integrate epigraphic and historical expertise with computational methods, and that reflect critically on how AI can be used responsibly, transparently, and productively in epigraphy. We particularly encourage papers that show how interdisciplinary collaboration can improve both the reliability of AI tools and their interpretive value for the study of the ancient world.