From Serif to Scene Text Detection: using machine learning to analyse lettercutting practices across the Roman world

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Inscriptions in the Roman world covered a vast number of subjects, monument types, geographical areas and periods, forming a fundamental part of our evidence for ancient societies. There were several stages in the planning of an inscribed text: negotiation of the content between customer and workshop, preparation of the surface, drafting of the layout of the text, sometimes the filling in of letters with brush strokes, and finally the cutting itself. Some of these processes are better understood than others. Were Roman letter-cutters working to specific layout 'modules' that could be scaled up or down? To what extent could a design be influenced after drafting? Is there evidence that certain types of information were prioritised in the way inscribed texts were laid out? Can we observe patterns by time period or location that would enable us to identify the work of specific workshops?

This talk covers a collaboration between ancient historians and computer scientists to analyse the planning processes involved in creating Latin inscriptions. It presents the results and implications of a pilot project, funded by an Institute for Data Science and Artificial Intelligence Research Award, in which we take the first steps in using machine learning to analyse 4,000 images of inscribed texts. We investigate whether we can train the model to recognise areas of text within images of very variable quality, and present plans for a large-scale study to combine machine learning with traditional methods to further our knowledge of inscribing practices throughout, and beyond, the Roman world.

Wednesday 20 October 4.30pm
Location: Digital Humanities Lab Seminar Room 1
OPEN TO ALL STAFF AND STUDENTS