



Chrono- and archaeostratigraphy and development of the River Amstel: results of the North/South underground line excavations, Amsterdam, the Netherlands

Peter Kranendonk (1), Sjoerd J. Kluiving (2,3,4), Simon R. Troelstra (5), and Jerzy Gawronski (1)

(1) Office for Monuments & Archaeology, Amsterdam, the Netherlands, Vijzelstraat 32, 1017HL, Amsterdam, The Netherlands, (2) GEO-LOGICAL, Earth Scientific Research & Consultancy, Delft, P.O. Box 1039, 2600 BA Delft, the Netherlands, (3) Faculty of Humanities, Department of Archaeology, Ancient History of Mediterranean Studies and Near Eastern Studies, VU University Amsterdam, De Boelelaan 1105, 1081 HV Amsterdam, The Netherlands, (4) VU University, Faculty of Earth & Life Sciences, De Boelelaan 1085, 1081 HV Amsterdam, The Netherlands, (5) VU University, Faculty of Earth & Life Sciences, Earth & Climate Cluster, De Boelelaan 1085, 1081 HV Amsterdam, The Netherlands

Since 2003 extensive archaeological research has been conducted in Amsterdam, the Netherlands, connected with the initial phase of the new underground system (Noord/Zuidlijn). Research has mainly focused on two locations, Damrak and Rokin, in the centre of Medieval Amsterdam. Both sites are situated around the (former) River Amstel, which is of vital importance for the origin and development of the city of Amsterdam. Information on the Holocene evolution of the river, however, is relatively sparse. This project has provided new evidence combining archaeological and geological data, and allowed the reconstruction of six consecutive landscape phases associated with the development of the River Amstel. The course of the present-day Amstel is the result of a complex interaction of processes that started with an early prehistoric tidal gully within the Wormer Member of the Naaldwijk Formation, including Late Neolithic (2400–2000 BC) occupation debris in its fill that was subsequently eroded. Next, this system developed into a later prehistoric Amstel river course that was part of the Angstel–Vecht–Oer-IJ system (1020–350 BC), meandering through a peat-dominated landscape. Later on the processes included intensive reclamation of land, drainage and canalisation, although the Amstel was also strongly influenced by natural storm tides. After intense land reclamation, starting around 1200 AD, the meandering Amstel from Nes to Kalverstraat, which was originally 150 m wide, became the rather straight 20–50 m wide tamed, canalised river of today.