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The Middle Palaeolithic of the Netherlands – Contexts and perspectives

A. Verpoorte [a, *], D. De Loecker [a], M.J.L.Th. Niekus [b], E. Rensink [c]

[a] Faculty of Archaeology, Leiden University, Van Steenis Building, Einsteinweg 2, 2333 CC Leiden, The Netherlands
[b] Stichting STONE / Foundation for Stone Age Research in the Netherlands, c/o, Lopendediep 28, 9712 NW Groningen, The Netherlands
[c] Cultural Heritage Agency, Smallepad 5, 3811 MG Amersfoort, The Netherlands

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ABSTRACT

We present a concise overview of Middle Palaeolithic research in the Netherlands. The area, which is situated along the northwestern edge of the known Neanderthal world, is very divers in terms of geological development. As a result of glacial cycles, hominin occupation can be characterised as intermittent and probably sparse. Well-preserved sites are primarily known from the loess region in the southern part of the province of Limburg and to a certain extent from the Roer Valley Graben. Further to the north artefacts do occur 'geological *in situ*', i.e. in the ice-pushed ridges in the central Netherlands and on the Drenthe–Frisian till plateau in the northernmost part of the country, but primary archaeological *in situ* situations have yet to be discovered. The oldest traces of occupation date to MIS 9 or MIS 7 (Belvédère quarry and the 'Rhenen Industry'), the youngest (stray finds) can be attributed to the *Blattspitzengruppen* and the Lincombian-Ranisian-Jerzmanowician (MIS 3). The (Upper) Acheulian, several Mousterian variants and the *Keilmessergruppen* are also attested. This paper serves as a starting point for future research.

1. Introduction

Neanderthals were distributed across western Eurasia up to the Middle East and the Altai. This vast space was not occupied continuously. Regions such as southwestern France and Iberia have more or less continuous records covering the evolutionary history of the Neanderthal lineage (Gamble, 1999; Jaubert et al., 2011). Occupation of more northern and eastern regions was more discontinuous with lengthy periods devoid of hominin activities (Depaepe, 2009; Ashton et al., 2011; Toussaint et al., 2011; Pettitt and White, 2012). Whatever the process behind these patterns (e.g. group migrations or local extinctions: Hublin and Roebroeks, 2009), such changes in Neanderthal range over time are a spatial expression of their ecological tolerances and preferences. The area currently known as the Netherlands has always been located at the northern limits of the Neanderthal range. The Dutch record can contribute to the question of how Neanderthals dealt with changing climatic and environmental conditions.

In this paper we present the current state of knowledge of Middle Palaeolithic sites and Neanderthals in the Netherlands. In contrast to other countries of northwestern Europe, the collected artefacts exclusively derive from open-air sites. Generally the multidisciplinary research at the Maastricht-Belvédère quarry between 1980 and 1990 remains the flagship of Middle Palaeolithic investigations in the Netherlands (Roebroeks, 1988; De Loecker, 2006). Many well-preserved findspots have been excavated at the quarry, recording activities dating to the intra-Saalian Belvédère interglacial as well as the Early Weichselian. In the past twenty-five years, no locale of similar significance has been investigated and field research at Middle Palaeolithic sites can be considered as limited.

For a good understanding of the available data, we start with a brief outline of the geology and research history of the Netherlands. Next, a general overview of the archaeological record is presented. This forms the basis for a characterization of the Dutch data in a wider northwest-European context and the implications for future research.

2. Geological setting

Three main factors control the geological contexts in which the occupational history of the Netherlands is registered and preserved.

* Corresponding author.
E-mail addresses: a.verpoorte@arch.leidenuniv.nl (A. Verpoorte), dimitri.loecker@pandora.be (D. De Loecker), marcelniekus@gmail.com (M.J.L.Th. Niekus), e.rensink@cultureelerfgoed.nl (E. Rensink).

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They consist of the depocenters of the North Sea Basin, the Saalian and Weichselian glaciations, and the Rhine–Meuse fluvial system (De Mulder et al., 2003).

Structurally, the Netherlands is situated on the southeastern edge of the North Sea Basin. The Roer Valley rift system in the southern Netherlands links the Central Graben of the North Sea Basin to the Rhine Rift system. The subsiding blocks of these tectonic systems form the main depocenters in which Pleistocene sedimentary records are preserved (Fig. 1).

An important part of the sedimentary record consists of fluvial sequences of the Rhine and Meuse. The Middle and Late Pleistocene sediments are dominated by coarse-grained sediments, mainly gravels and sands derived from the Rhenish Shield (Ardennes and Eifel uplands). In the central Netherlands and the southern North Sea, valleys and basins were filled with stacks of fluvial sequences, whereas the uplift of the Rhenish Shield led to increased incision of the Meuse, preserving a sequence of terraces in southern Limburg. The Saalian and Weichselian loess sheets covering the terraces form an important sedimentary envelop for the Middle Palaeolithic findspots.

During the Pleistocene, the northern Netherlands, as part of the *Norddeutsches Tiefland*, was repeatedly modified and bulldozed by glaciers. The most prominent features, the Drenthe–Frisian (glacial) till plateau and the ice-pushed ridges in the central and eastern part of the country, were mainly formed between c. 170 and 140 ka during the Drente glaciation (MIS 6). The ice-advance blocked the southeast–northwest orientation of the Rhine–Meuse drainage system. The Rhine and Meuse were diverted to the west draining in a proglacial lake in the southern North Sea. In the beginning of the Eemian, meltwaters from the disintegrating ice sheet eroded deep valleys that were subsequently flooded with the rising sea level. These valleys shaped the drainage system of Rhine and Meuse during the Weichselian (Busschers et al., 2008).

3. Research history

The recovery and study of Middle Palaeolithic artefacts have a long tradition in the Netherlands. From the end of the 19th century until today, thousands of Middle Palaeolithic stone, predominantly flint, artefacts were recovered, especially in the central and southernmost part of the country where Pleistocene deposits surface (Niekus and Stapert, 2005; Rensink, 2005). Though the first Middle Palaeolithic artefacts were recognised by Belgian prehistoric archaeologists in southern Limburg, for a very long time (until 1980) Middle Palaeolithic archaeology in the Netherlands was almost exclusively the domain of amateur-archaeologists. Over the years they collected many flint tools, cores and flakes from ploughed fields or from sand and gravel heaps becoming available for archaeological inspection as a result of aggregate extraction. Publications of these, often single or isolated finds appear from the 1950s onwards and mainly focus on typological and technological classification of the finds (e.g. Van Haaren, 1968; Stapert, 1976a). For instance, the first Middle Palaeolithic artefact in the northern

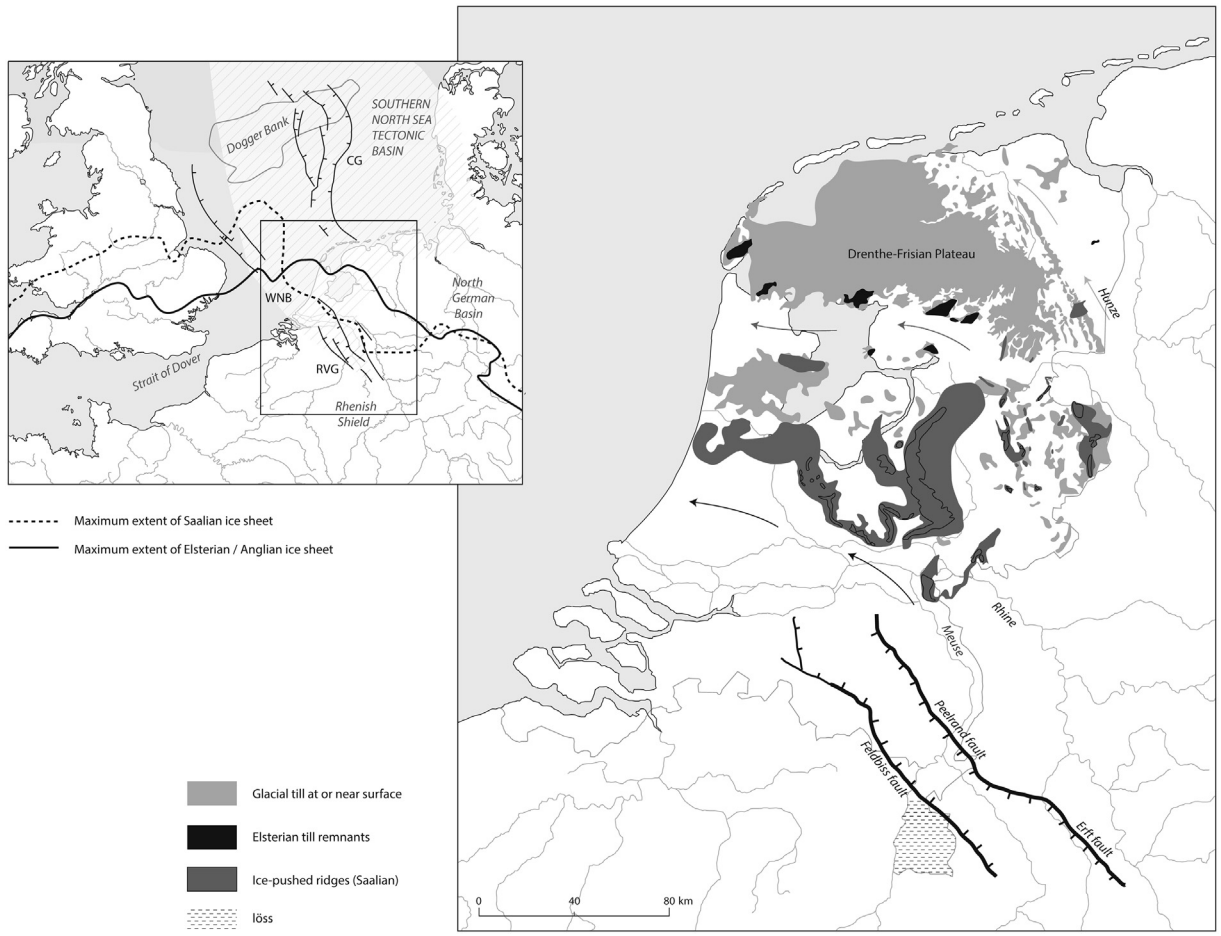

Fig. 1. The study area with main glacial features and tectonic setting, based on Hijma et al. (2012) and Zijerveld et al. (1992). RVG = Roer Valley Graben; WNB = West Netherlands Basin; CG = Central Graben.

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