

<b>CONTENTS</b>	<b>page</b>
INTRODUCTION	4
HISTORY OF THE RESEARCH	4
REFERENCES	4

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## INTRODUCTION

The Maastricht-Belvédère loess- and gravel-pit is located NW of the city of Maastricht, on the left bank of the river Maas, on the edge of the plateau of Caberg. (fig. 1) The pit was carved into the steep cliff between the Lower and the Middle Terrace of the river Maas.

In September 1980 W. M. Felder (Geological Survey of the Netherlands, Heerlen) discovered a paleolithic artifact in one of the loess-sections in the Belvédère loess- and gravel pit. This discovery inspired the author and two amateur-archaeologists, Kim Groenendijk and Jean-Pierre de Warrimont, to investigate the quarry sections intensively. We found several artifact- and fauna bearing horizons, most of which can be dated to the 'Saalian' of the Netherlands (Zagwijn 1973).

The Belvédère research, which was, initially started as an archaeological project, sponsored by the Institute of Prehistory of Leiden University, has since these initial discoveries developed into a more comprehensive project in which scientists from several disciplines and different countries are cooperating. In this volume of the Mededelingen Rijks Geologische Dienst a first synthetic review of the Belvédère quaternary research is presented.

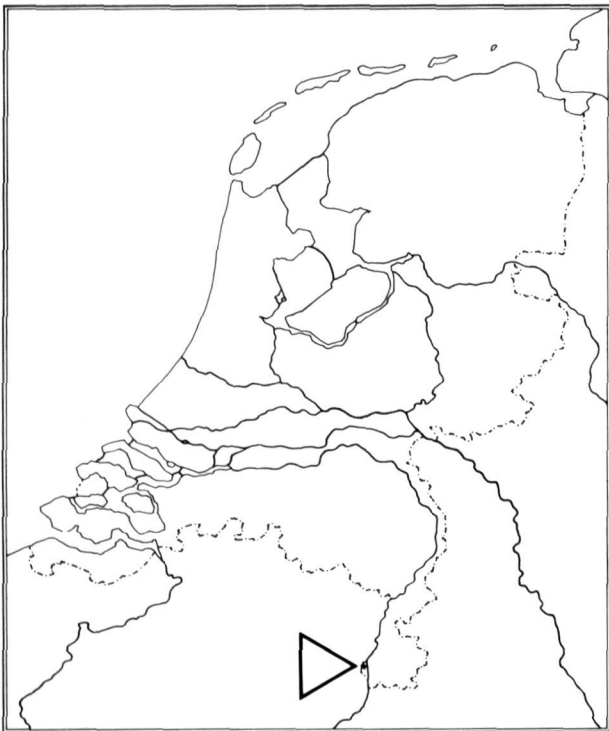


Fig. 1. Location of the Maastricht-Belvédère pit.

## HISTORY OF THE RESEARCH

In the first half of the nineteenth century several loess- and gravelpits existed in the Caberg region. From the 1850s onwards a number of - generally small - brick factories were founded (Archive Municipality

Oud-Vroenhoven, Municipal Archive Maastricht). In the nineteenth century the Caberg plateau became known for the fossils found in its quaternary deposits during the construction of the Zuid-Willemsvaart canal in 1823 and from other exposures (Crahay, 1823/24; van den Ende, 1835; Kerckhoffs, 1884; Martin, 1889; Rutot 1893). A human jaw found in 1823, ca 500 m N of the Belvédère pit - published as found under 6.5 m of loess - became known as 'la mâchoire de Maestricht'; the jaw was the subject of a lively international discussion (Crahay, 1823; Schaaffhausen, 1860; Kerckhoffs, 1884; de Mortillet, 1886; Martin, 1889; de Mortillet & de Mortillet, 1910; van Doormaal, 1945; van der Vlerk, 1955). According to the literature Charles Lyell visited the find-locality of the jaw.

Other important finds - now lost - were made in 1815-1817 during the construction of the fortress 'Willem' at the foot of the Caberg plateau Middle Terrace, ca 1.5 km S of the Belvédère site. According to a report by de Burtin, dating from 1818, (Municipal Archive of the City of Maastricht, Ms. collection no. 184) remains of elephant were found, and Habets (1887) also mentions the presence of hippopotamus. The detailed description of the exposure in the manuscript mentioned that the fossils were found under more than 6 meters of loess.

Large scale quarrying in the Belvédère pit started in the 1890s, when Baeten and Lalieu bought considerable areas of land for their Belvédère company, officially established in 1897. The pit soon became locally well known for its loess sections and for fossils collected from the gravels and the loess (Klein, 1913; Klein, 1914; Reinhold, 1916; Reinhold, 1923; Cremers, 1925). Figure 2 shows pictures of the Belvédère pit taken in the thirties when manual exploitation of the loess and gravel favored recovery of fossils; some of these are now curated by the Museum of Natural History at Maastricht.

In the twenties of this century important Neolithic finds with associated features were discovered and excavated at Belvédère; Iron Age and Roman ware were also collected from the pit area in considerable quantity (Kengen, 1928; Disch, 1969; Disch, 1971/1972).

Van Doormaal (1945) paid considerable attention to the Caberg pits; more recently, exposures in the Belvédère quarry were described by Paulissen (1973) and Bosch (1975).

In 1982 an interim report on the interdisciplinary research at Maastricht-Belvédère was presented at a congress on 'Palaeolithic Archaeology and Quaternary Stratigraphy in Southern Limburg', organized by the Dutch INQUA commission. After this congress some preliminary papers on the site have been published: Roebroeks et al., 1983; Roebroeks, 1984.

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A



B



Fig. 2 A, B. The Maastricht-Belvédère pit; pictures taken in the thirties of this century (Municipal Archive of the city of Maastricht).

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