

#### SUMMARY

Braided river sediments of Late Weichselian age occur at the surface in the Eastern part of the Netherlands and adjoining parts of West-Germany. The undulating topography of former gullies with fine textured sediments and slightly elevated ridges with sandy sediments is illustrated by means of a detailed soil map and a cross section. It is possible to recognize a toposequence of well-drained sandy loam soils, imperfectly drained clay loam soils and poorly drained clay soils.

Weathering, resulting in very acid soils, has been illustrated by means of clay mineralogical and micromorphological evidence. Biogenic phenomena decrease from the sandy loam to the clay soil, although large earthworm channels remain present in rather high amounts. The presence of an argillic horizon has been established in the sandy loam and the clay loam soil, presumably formed under conditions of better drainage. No clay illuviation has been found in the clay soil, which shows very clear gley phenomena. In the clay loam soil pseudo-gley and gley occurs with clay decomposition in the bleached areas, whilst in the sandy loam soil (pseudo) gley phenomena are only found in the deep subsoil. This soil has a plaggen epipedon of about 70 cm. Gley and pseudo-gley phenomena are more recent than the clay illuviation. In all three soils relatively recent groundmass illuviation has been found presumably due to agricultural use.

Based on data, the soils are classified as Plaggept Ochraqualf and Haplaquept respectively.