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Eemian palaeoenvironmental evolution in the northern plains of France from the alluvial sequence of Waziers

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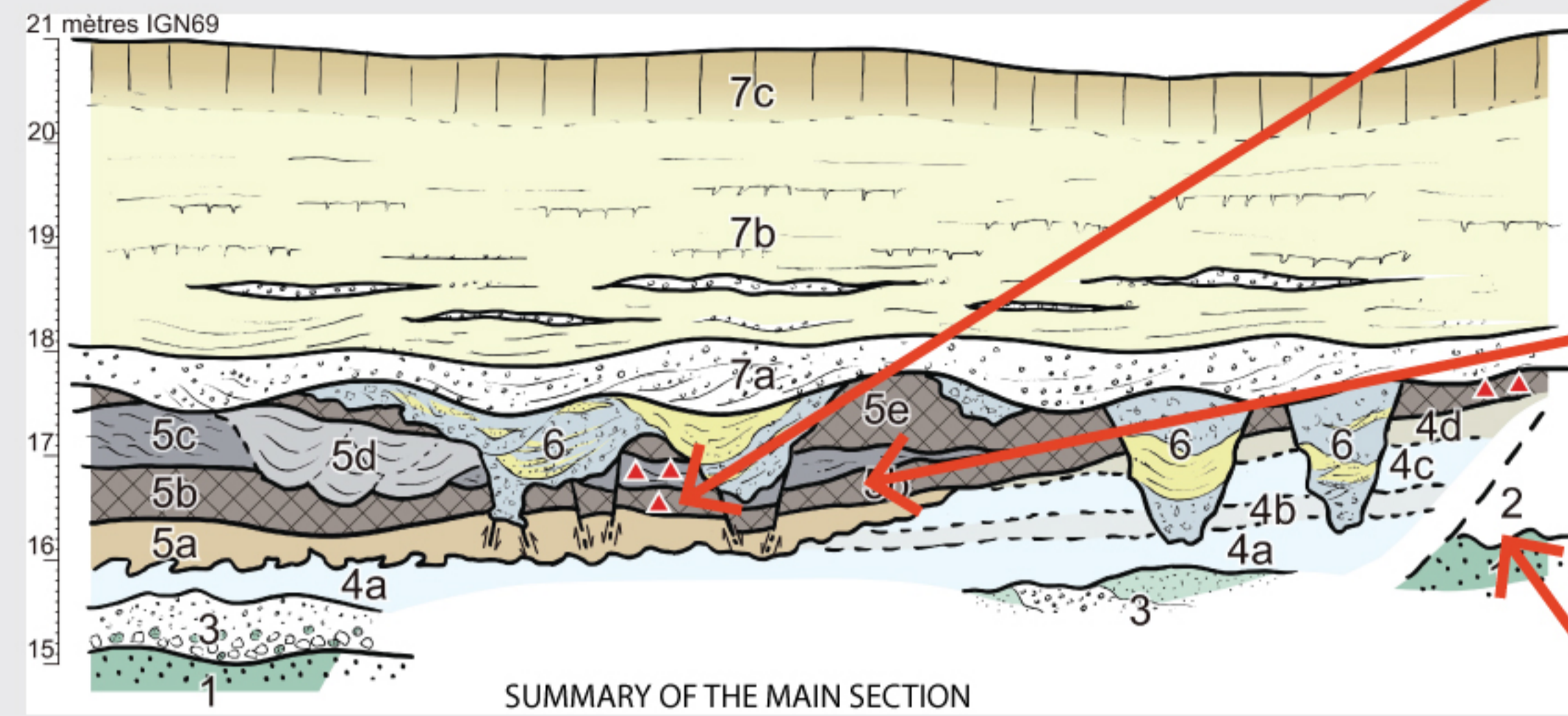
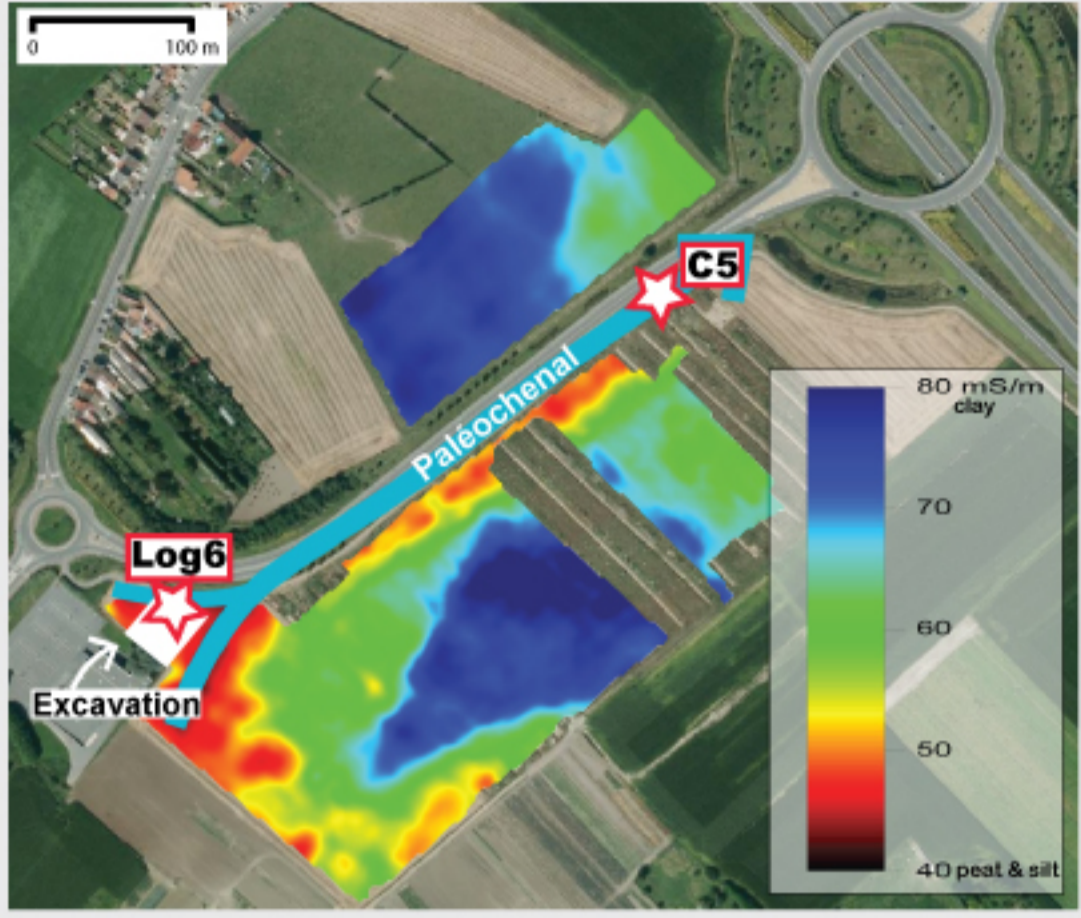


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Eemian palaeoenvironmental evolution in the northern plains of France from the alluvial sequence of Waziers

Gauthier A., Antoine P., Auguste P., Deschodt L., Ghaleb B., Hérisson D., Limondin-Lozouet N., Loch J.-L., Virmoux

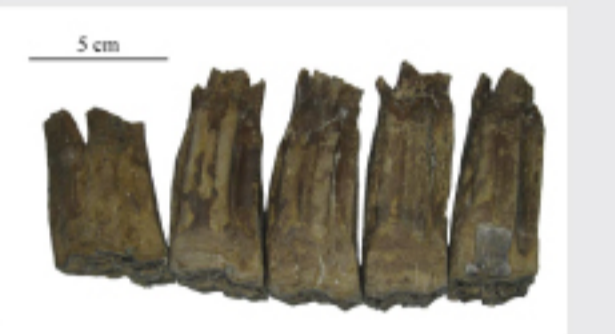
WAZIERS : exceptional site in northern France a new Eemian sequence and a new middle Paleolithic site



lithic artefacts (unit 5b)



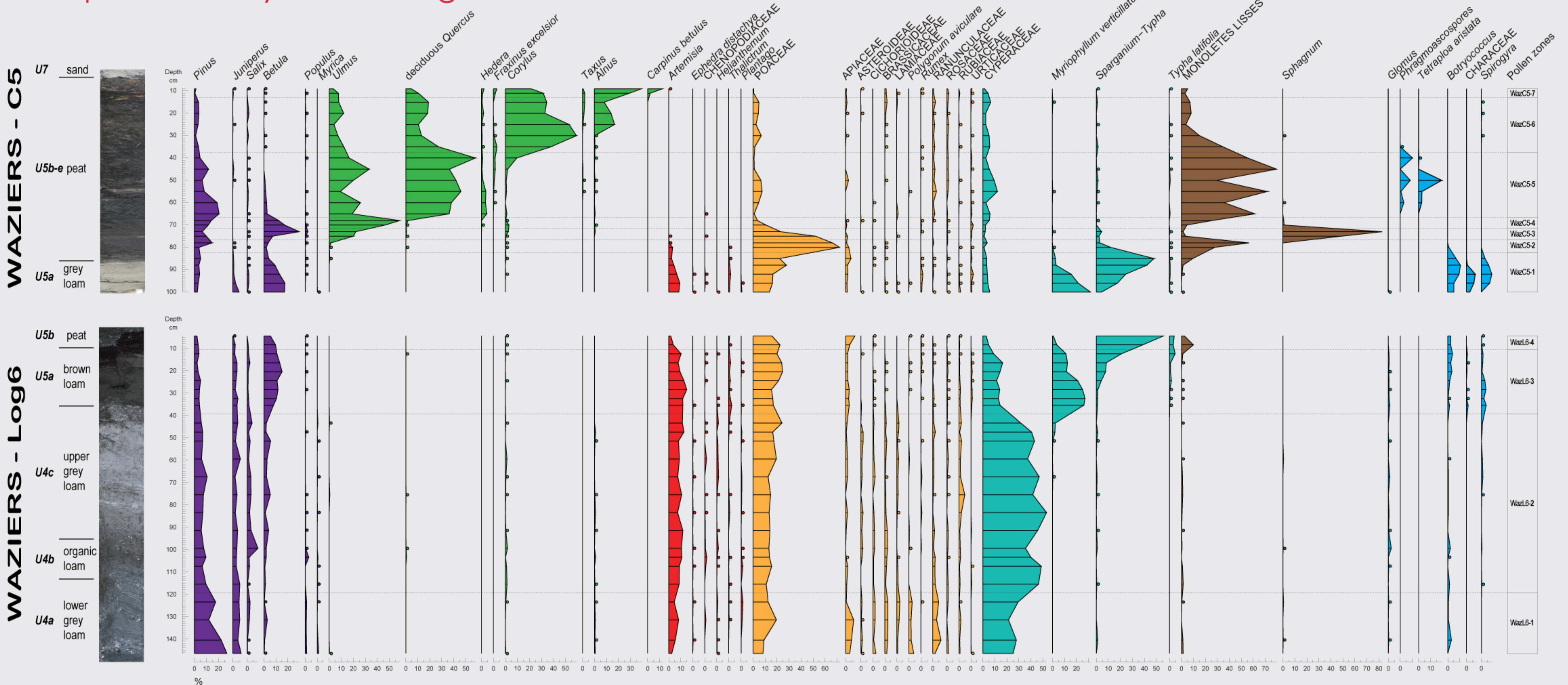
rhinoceros (unit 5b)



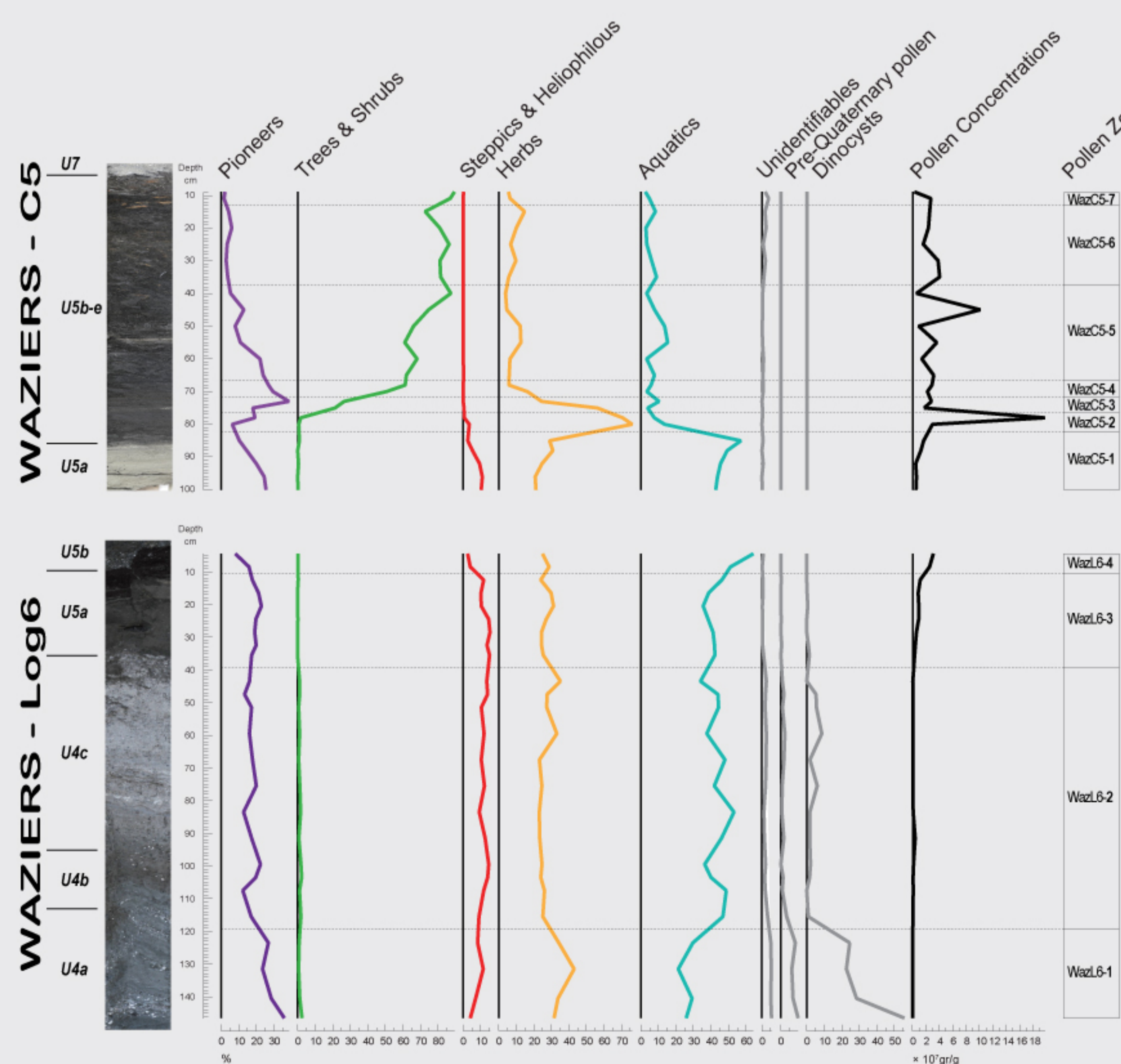
horse (unit 2)

- * located in the Scarpe river valley
 - * thick alluvial sequence deposited in a large palaeo-meander
 - * correlation to the Eemian: minimum age of 103 + 3.5/-3.4 ka for unit 5c (U/Th date on Characeae oogon) occurrence of the typical Weichselian loess sequence overlying fluvial organic deposits.
- unit 4: mineral fluvial deposits (loam)
 - unit 5: organic fluvial deposits (peat)
 - units 6 & 7: reworked fluvial deposits & sand and loess

pollen analysis from Log6 and C5 sections



a classic succession of vegetation from glacial to interglacial conditions
a typical development of forests associated with the Eemian in Northern Europe
→ document Neanderthal landscape



LOCAL ENVIRONMENT

REGIONAL VEGETATION

alder swamp forest
Cyperaceae-dominated alkaline marsh abundant ferns in understorey
anaerobic more acidic Sphagnum peat fen
peat fen development dominated by grasses

mesophytic deciduous woodlands succession: dynamic characterized by
1) pioneers trees *Betula* and *Pinus* then *Ulmus* (WazC5-3 & WazC5-4)
2) *Quercus*, then *Corylus* with *Taxus*, *Acer*, *Ilex* and *Hedera* (WazC5-5&WazC5-6)
3) *Carpinus betulus* with *Picea* and *Abies* (WazC5-7)

slow flow of water and stabilization of banks: development of aquatic herbaceous plants

steppe-like grassland with some stands of pioneer trees (*Betula*, *Juniperus*, *Pinus*)

emergent wet meadow with sedges

tundra-steppe dominated by sedges, grasses, chenopods and *Artemisia* with sparse shrubs *Salix*, *Betula*, *Ephedra*, *Hippophaë* (tundra in wet habitats and steppe in dry habitats)

erosion processes in unstable mineral soil not fully stabilized by a continuous plant cover

open arctic landscape dominated by herbs

eemian

late saalian