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# Upper Palaeolithic environments in the loess plain of Central and East Europe. Contribution of charcoal and pollen records

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## Résumé

From Austria to Central Russia, several long loess sequences provided detailed paleoclimatic records for the period covering the middle and upper Pleniglacial. The high frequency of well-identified charcoal helped establish a precise and reliable chronology of the climate events for these periods in the continental area.

The reconstruction of paleo-environment of the Upper Palaeolithics in the loess area are based on pedostratigraphy and paleobiologic studies (pollen, charcoal, wood, bones, shells). When pollen records provide a regional picture of the landscapes, the presence of charcoal testifies to local and regional origin of the taxa and plays a main role in the physical identification of refuge areas for arboreal species during the Last Glacial.

In the loess of Central and Eastern Europe, paleobiologic data lead to recognize the predominance of steppe and steppe meadow environments and to detect the persistence of eurythermic and boreal trees in connection with the wet biotopes and streams. The extension of these populations fluctuated following the changes in the climate. Several hundred analyses of charcoal in this area have highlight no malacophyllous tree species of tempered character for the periods under consideration. On the contrary, the few fragments of these proved to be intrusive from Holocene material.

**Mots-Clés:** Upper Palaeolithic, charcoal, pollen, 14C dates, refuges

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