

## The technological behaviour of the Neanderthals and the microlithic assemblages over time

Very small artefacts (less than 30 mm long) are usually associated in mind with the Mesolithic. Nevertheless, these kinds of products are already described from Oldowan assemblages, and every assemblage yields a part of voluntary small blanks.<sup>1</sup> Consequently, small flakes belong to the human tool kit regardless of the period.<sup>2</sup> What is more striking is when all the artefacts of an assemblage measure less than 30 mm, including the cores and the pebble tools.

In several assemblages in Europe and the Near East, there are more or less small flakes. But these flakes are never retouched. At some sites, especially in Central and Eastern Europe, the small size characterize all the assemblage, both flakes and pebble tools.<sup>3</sup>

Because of the small size of the artefacts, and consequently, of this "extra-ordinary" status, the analysis of microlithic assemblages is a way to examine which parts are traditions, activities and raw material influences in the aspects of an assemblage. Are they explained by a lack of large rock blocks in the environment? Do they record a specific tradition in regard to the raw material types and the technical behaviour? Is there a relation to the activities which took place in the site?

Several sites in Central Europe yielded microlithic assemblages (fig. 1.). Most of them are dated to the OIS 5e (Eemian) or to the beginning of the last glacial period, frequently associated with travertine deposits. These microlithic assemblages, located in the same geographical area (small plains and basins within Central Europe), are present, for example in Taubach, Weimar and Stuttgart-Bad Cannstatt in Germany; Předmostí II and Kůlna (level 11) in Czech Republic, Hallena Street in Poland, and in the Carpathian basin, Gánovce, Bojnice III and Hôrka in Slovakia, Tata in Hungary.<sup>4</sup>

The scarce human remains, brain cast in Gánovce and teeth in Taubach, show that these industries were made by Neanderthals.<sup>5</sup>

Actually, this phenomenon is frequent in both time and space (table I.). Microlithic industries exist in old periods, even if they remain rare, in Central Europe (Vértesszőlős, Bilzingsleben, Trzebnica)<sup>6</sup> the easternmost part of Eastern Europe, Central Asia and the Near East.<sup>7</sup> Some of these sites, for example in Bilzingsleben (Germany) and Vértesszőlős (Hungary), are also located in travertine.

<sup>1</sup> CARBONELL et al. 1995.; TEXIER 1995.; BERTHELET 2001.

<sup>2</sup> GOREN-INBAR 1988.; CARBONELL et al. 1995.

<sup>3</sup> TASCHINI 1979.; GOREN-INBAR 1988.; PAPAConstantinou 1989.; BIETTI-GRIMALDI 1996.; GOLOVANOVA et al. 1998.

<sup>4</sup> VÉRTES et al. 1964.; GÁBORI-CsÁNK 1968.; SIBRAVA et al. 1969.; VALOCH 1967., 1977., 1984., 1996a-b.; WAGNER 1982.; BANESZ 1990., 1991.; WAGNER 1992.; KAMINSKA et al. 1993.; KOVANDA et al. 1995.; DOBOSI 2000.; WISNIEWSKI 2001.

<sup>5</sup> LOZEK 1954.; PROZEK 1958.; VALOCH 1996a.