ening linked to the quality of the raw material). Bifacial retouches are less numerous, except in Tata. Sometimes, flat retouches are located at the bottom of a point or on the inferior face of the flake, often on fine grained stone artefacts or long distance stones like porcelanite stone in Kulna (precious stones, curiosity, tool collecting?).

## The isotopic stage 5 microlithic assemblages

The technological analysis of the three collections shows a lot of common points. The exploitation of raw material is always conducted to gather local and different rock types. The geological studies and the presence of some large pebbles prove that the great number of small pebbles was a human choice and not imposed by the environment. The various stones could be employed like complementary raw materials, each one having its proper function (hardness, ability, pebble shape).<sup>42</sup> The flaking system is dominant, mainly using cores with two debitage surfaces and the pebble shape. The flake types are diverse. In contrary, the tools are in small number and the tool types are limited to side-scrapers and points. The bifacial retouch is rare, except in Tata for small points. Shaping and flaking were certainly successively practiced on some cores to obtain more blanks. We are in a voluntary microlithic world and a specific technological world, really different from the Micoquian behaviour observed in the upper levels in Kůlna (OIS 4).

## How to explain the microlithic patterns?: activities, kind of sites, traditions?

The environmental conditions could involve with the most frequent production of small artefacts. The forest context, the temperate climate, good places for living near water springs, (archeological layers in travertins), river beaches, or caves (Kůlna) could explain an original behaviour adapted to the special climatic conditions. Wood work, easy in a forest context, could also be an aspect of the main activities of these people (small stone tools used to work numerous wooden tool). Wood pieces remains are indeed present in travertine German sites. In most of these sites, mammals are great size species. Sometimes there are only two species, Rhinoceros, Elephants, Bison stags, Mammoth (Tata), Deers, Horses.<sup>43</sup> A specialized activity in butchery is consequently possible to explain the technical patterns. But, a specialized butchery activity cannot be the only explanation to the small size of the lithic industry. Small flakes could be, of course, as good as other kinds of pieces for all kinds of activities. In Germany, microwear studies on small flakes give evidence of a use on vegetal products.<sup>44</sup> Wooden tools could be also well adapted to a diversified exploitation of what

<sup>&</sup>lt;sup>42</sup> Svoboda 1994.; Moncel–Svoboda 1999.

<sup>&</sup>lt;sup>43</sup> Gábori-Csánk 1968.; Patou-Mathis 1993.

<sup>44</sup> Richter 2001.