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Session Proposal: Bedrock and Alluvial: Primary and Secondary Raw Material Sources

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Rocks of alluvial origin have been popular raw materials since the beginning of the stone tool production. There is a number of advantages of the pebble working compared to the rocks from primary raw material sources: during the fluvial transport or the marine abrasion the poor quality, inhomogenous part of the pieces were partly removed and the better quality raw material could have been collected from the sometimes loose matrix and not from solid mother rock. On the other hand, it is easy to select the pebbles of optimal size and morphology which made possible to start and proceed the knapping with a minimal amount of waste material.

During the analysis of the archaeological assemblages with an elevated ratio of pebble raw materials there is a number of crucial points. First, in the absence of the characteristic cortical surfaces or fossil remains it can be difficult to determine if a given artefact or a group of artefacts were made on a pebble or a nodule raw material. Secondly, in the fluvial formations of large geographical distribution a number of very different knappable raw material types can be found together. Finally, the same pebble types could have been collected from various formations lying at various distances in different directions from the archaeological sites, which makes problematic to determine the raw material transport or the territory of a human group.

What are the possibilities or the limits of the provenance studies in the case of the "pebble industries"? Is it possible to decide if the presence or the high ratio of the pebble raw material in a given assemblage is an intentional choice of the human group or is it determined by the accessibility of the different source regions? More specifically, is the microlithic character of several Lower and Middle Palaeolithic industries in Central Europe determined by technological or environmental/ecological factors?