# PŘEHLED VÝZKUMŮ 42

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### PŘEHLED VÝZKUMŮ 42 (2000)

Vydává: Archeologický ústav AV ČR Brno Královopolská 147, 612 00 Brno E-mail: infor@iabrno.cz http://www.iabrno.cz Odpovědný redaktor: Doc. PhDr. Jaroslav Tejral, DrSc. Redakce a příprava pro tisk: Mgr. Balázs Komoróczy, Ing. Petr Škrdla, Ph.D., PhDr. Lubomír Šebela, CSc., Mgr. Richard Zatloukal, Miroslav Lukáš, Alice Del Maschio Na titulním listě: 1. Výřez jihovýchodní části historického jádra města Brna z plánu z roku 1754 (Archiv města Brna, Sbírka map a plánů K11). Uloženi Portos//D:/scanner/PV 2000/PV/Pvtif.tif 2. Dvě středověká aguamanile ve tvaru beránka a koníčka, pocházející z odpadních jímek, odkrytých roku 2000 při výzkumu severozápadní části tzv. "Velkého Špalíčku" v Brně (Dominikánská 3, 5, 7). Foto Karel Šabata, Museum města Brna.

Tisk:

**BEKROS** 

Náklad:

350 ks

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katalog. Archeologický ústav AV ČR v Brně byl rovněž jedním ze spolupořadatelů velké výstavy "Střed Evropy kolem roku 1000", instalované v Národním museu v Budapešti a v následujících letech postupně přesunuté do Berlína, Mannheimu, Prahy a Krakova. Z popularizujících publikací připomeňme ústavem vydaný 1. svazek průvodce po hradišti v Mikulčicích "Terénní výzkum v Mikulčicích" (44 str., četné obr. a plány), připravený L. Poláčkem. Spolupracováno bylo v neposlední řadě i s hromadnými sdělovacími prostředky (rozhlas, televize – cykly věnované lokalitám Dolní Věstonice a Mikulčice aj.).

Jiří Doležel, AÚ AV ČR Brno

## Comparison of Near Eastern and Moravian Early Upper Paleolithic Knapping Technologies

On the basis of current nuclear and molecular biological studies, the emergence of anatomically modern humans occurred some 100,000-200,000 years ago, probably in Sub-Saharan Africa. According to the Stringer's "Out of Africa" or "replacement model" hypothesis (Stringer - Gamble 1993), these populations have migrated through the Sinai Peninsula, the Levant, the Balkans, and some 35,000-45,000 years ago reached the Central Europe.

In the terminal Middle Paleolithic, i.e. some 50,000 years ago, both Neanderthals and anatomically modern humans have been documented at sites in the Levant, where they shared the same material culture – the Mousterian (e.g. Bar-Yosef 1998).

The Early Upper Paleolithic represents a period when archaic populations (Neanderthals) were replaced by anatomically modern ones (Homo sapiens sapiens). In the archaeological record, the Upper Paleolithic replaces the Middle Paleolithic. Because of a lack of fossil finds, it is only possible to study this shift on the basis of material culture, specifically using stone tool typologies and knapping technology. In 1975, Anthony Marks discovered the site of Boker Tachtit in the central Negev. In their pioneering work, Marks and Phillip Volkman, have applied refitting - reconstruction using the final core elements back toward the original unmodified block of raw material. They documented that Boker Tachtit sequence represents a technological shift from the Middle to Upper Paleolithic (Marks - Volkman 1983).

During the last five years, the author has refitted and studied Bohunician knapping technology using a very large collection of artifacts from the site of Stránská skála, Moravia. This work has allowed an understanding of Bohunician techno-

logy in greater depth. In general, the Bohunician reduction strategy (or technology) can be described and defined as a mixture of Levallois and Upper Paleolithic (UP) reduction principles. The cores were shaped as in the classic UP method (with a frontal crest), two opposed reduction platforms were prepared, and in the first step of the core reduction, a crested blade followed by a series of blades reduced from both opposed platforms were produced in order to achieve a triangular shape for the front face of the core. In the second step, a series of Levallois points with fine preparation (faceting) of the striking platform was produced (from the same direction). The resulting wide frontal face of the core was narrowed by several blade removals and another series of Levallois points was produced. The process defined by these two steps continued until the raw material was exhausted.

The author, together with Jiří Svoboda, have shown in their preliminary work that there is a high degree of similarity between the Bohunician technology and the previously reconstructed EUP knapping technology from the site of Boker Tachtit, Israel carried out by Marks and Volkman.

Refitted cores from Stránská skála and Boker Tachtit were analyzed using the same method – the *Chaîne opératoire* approach. The core reduction was separated into several phases, including the preparation stage, production stage, and residual core abandonment. These phases were studied step by step and each artifact removed was documented in core cross-section. This allows an understanding the core reduction strategy and the place of Levallois points in the reduction process.

Now, the above-mentioned detailed comparison of knapping technologies from Stránská skála and Boker Tachtit (stored in Jerusalem, Israeli Antiquities Authority, Romema) has confirmed the similarity between these collections. The highest degree of similarity was documented between Layer 2 from Boker Tachtit and Stránská skála, while Layer 4 from Boker Tachtit represents a local development without any influence on European assemblages.

Generally, it is possible to conclude that the transfer of technology from the Levant to Moravia is documented from some 40-45,000 years ago, during a period most probably connected with the first migrations of early anatomically modern humans into Europe in this same direction. There is no other similarity documented in archaeological material between the Near East and Central Europe at around 40,000 B.P. In other words, if the "Out of Africa" hypothesis is accepted, the Emiran-Bohunician technology transfer is a leading candidate to provide support for this thesis using material culture.

### Acknowledgements

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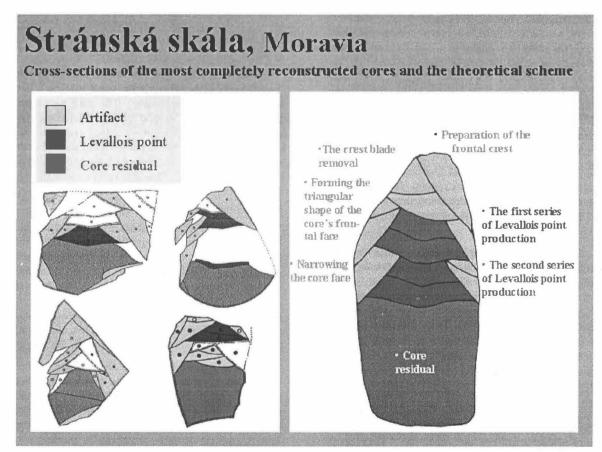


Fig. 1. Stránská skála. A cross-section of the refitted cores. The Levallois artifacts are marked with darker raster. Various scales.

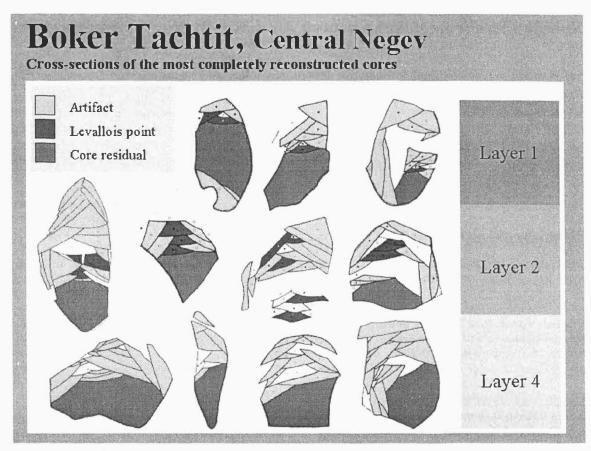


Fig. 2. Boker Tachtit. A cross-section of the refitted cores. The Levallois artifacts are marked with darker raster. Various scales.