

Emlékkönyv Violának

TANULMÁNYOK T. DOBOSI VIOLA TISZTELETÉRE

PAPERS IN HONOUR OF VIOLA T. DOBOSI



Tanulmányok T. Dobosi Viola tiszteletére
Papers in honour of Viola T. Dobosi

Szerkesztők: T. Biró Katalin & Markó András

Edited by Katalin T. Biró & András Markó

Gergely Katalin és Gyuriss Dániel közreműködésével

with the contribution by Katalin Gergely and Dániel Gyuriss

CD-változat elektronikus szerkesztés: Telcs Gábor

CD version by Gábor Telcs

Megjelent 2011-ben 1 db személyes nyomtatott példányban és CD kiadványként

Kiadó: Magyar Nemzeti Múzeum, H-1088 Budapest, Múzeum krt. 14-16

Felelős kiadó Dr. Csorba László főigazgató

© Copyrights with the authors

© Editors K.T. Biró, A. Markó

© Hungarian National Museum

Címlap: Katalin Nagy

ISBN 978-963-7061-84-4

TARTALOMJEGYZÉK

Kovács Tibor:	Négy és fél évtizede a Magyar Nemzeti Múzeumban, közel és távol egymástól / Four and a half decades close and far in the spell of prehistory	3-4
Paolo Biagi - Elisabetta Starnini:	Neanderthals at the south-easternmost edge: the spread of Levalloisian Mousterian in the Indian Subcontinent	5-14
Mester Zsolt:	A magyarországi középső és felső paleolitikum bifaciális levéleszközeinek technológiája / Technologie des pièces foliacées bifaces du Paléolithique moyen et supérieur de la Hongrie	15-42
Szolyák, Péter - Mester, Zsolt:	Középső paleolitikus kaparó a miskolci Avas-hegyről (Görgey Artúr u. 4.) / Middle Palaeolithic side scraper from the Avas Hill, Miskolc (4 Görgey A. Street)	43-54
Zandler Krisztián - Béres Sándor	Három nyíltzíni paleolit lelőhely revíziója: Bükkmogyorósd, Csokvaomány, Nekézseny / Revision of three open-air palaeolithic sites in the Bükk mountains, NE-Hungary	55-76
Markó András:	Új szempontok a tarcali felső-paleolitikus lelőhely értékeléséhez / Recent studies on the Upper Palaeolithic assemblage of Tarcál – Citrom quarry	77-92
Lengyel György:	The pebble, the block and the tabular. Lithic raw material use at Ságvár Lyukas-domb Upper Palaeolithic site / ...A kavics, a blokk és pad. Kő-nyersanyag felhasználás Ságvár Lyukas-domb felső paleolit telepen	93-102
Béres Sándor:	Néhány adalék Dömös őskökorához: Piroska-dűlő és Pattantyús / New data on the palaeolithic of Dömös environs: Piroska-dűlő and Pattantyús	103-112
Kertész Róbert - Demeter Orsolya:	Adatok a dunántúli kora mezolitikum kőiparának nyersanyagvizsgálatához: Szekszárd-Palánk / Contributions to raw material studies of the Transdanubian Early Mesolithic lithic industry: Szekszárd-Palánk	113-128
Cs. Balogh Éva:	Adatok a középső-rézkori bodrogrkeresztúri kultúra pattintott kőeszközök értékeléséhez / Data on the evaluation of the lithic implements of the Middle Copper Age Bodrogrkeresztúr Culture	129-148
Bácskay Erzsébet:	Mikroszkópikus használati nyomok vizsgálata őskori pattintott kőeszközökön, magyarországi lelőhelyekről: Eddigi eredmények, lehetőségek, feladatok / Study of microwear on Prehistoric chipped stone tools from Hungarian sites. Results, possibilities, perspectives	149-160
Garam Éva:	„...A tűz csiholója” / „... Striker of fire”	161-180

Sümegei Pál:	Modeling the relationship of the Upper Paleolithic communities and the environment of the Carpathian Basin during the Upper Würmian / A felső paleolit közösségek és környezetük modellezése a Kárpát-medencében a felső Würm idején	181-204
Hiroyuki Sato:	Did the Japanese obsidian reach the Continental Russian Far East in the Upper Paleolithic? / Elérte-e a japán obszidián az orosz távolkeleti területeket a felső-paleolitikumban?	205-224
T. Biró Katalin:	Comparative raw material collections in support of petroarchaeological studies: an overview / Összehasonlító nyersanyaggyűjtemények a petroarcheológiai vizsgálatok szolgálatában: áttekintés	225-244
Johanna Trbska:	Provenancing of red ferruginous artefacts and raw materials in Palaeolithic societies / Vastartarmú vörös ásványok és kőzetek eredetmeghatározása a paleolit közösségekben	245-256
Bartosiewicz László:	„Ide nekem az oroszánt is” Előzetes jelentés az Ikrény – Szilágyi tanya (Győr-Moson-Sopron megye) közelében talált pleisztocén oroszánleletről / "Let me play the lion too". Preliminary report on the Pleistocene lion skull found near Ikrény–Szilágyi tanya (Győr-Sopron-Moson County, Hungary)	257-270
Bárány Annamária:	Őskori csonteszközök Vörs, Máriaasszony-szigetről / Prehistoric bone tools from Vörs, Máriaasszony-sziget	271-276
Homola István:	Ásóval az őskőkori szerszámkészítők nyomában	277-284
Horváth Krisztina:	Mogyorósbányától Acsáig	285-286
<i>Last minute:</i>		
Gerhard Trnka	The neolithic radiolarite mining site of Wien - Mauer-Antonshöhe (Austria) / Újkőkori radiolarit kitermelőhely Wien - Mauer-Antonshöhe (Ausztria)	287-296

NEANDERTHALS AT THE SOUTH-EASTERNMOST EDGE: THE SPREAD OF LEVALLOISIAN MOUSTERIAN IN THE INDIAN SUBCONTINENT

PAOLO BIAGI AND ELISABETTA STARNINI

Keywords: *Levalloisian, Mousterian, Middle Palaeolithic, Homo neanderthalensis dispersal, Sindh, Indian Subcontinent*

Preface

Several main intriguing questions are of major interest studying the prehistory of the early humans. After the spread of *Homo erectus* from Africa northwards into Europe, and eastwards into Asia, the next challenging enigma regards the dispersion of Neanderthals from Europe to the east. Despite the fact that skeletal remains of *Homo neanderthalensis* are rare in the Middle East, the Levalloisian Mousterian lithic technology that characterises the Neanderthal chipped stone industries is known indeed, starting from the Iberian Peninsula, to Central Asia.

Anatomical distinctiveness and relative early divergence from other *Homo sp.*, supported by mtDNA evidence, suggest that Neanderthal lineage probably began its evolution as far back as 600 ky ago¹, although classical Neanderthals are considered only those living during the last Ice Age in Europe, from roughly 100 ky to 35 ky ago, or more broadly in Eurasia from some 200 ky, “before mysteriously disappearing some 28,000 years ago”².

According to recent climatic reconstruction³, during the Pre-Hengelo cold/dry events of the OIS 3, southern Europe was covered with a grass steppe. This means that two main routes were possibly

utilised by human groups to reach the easternmost Eurasian regions and, from there, the Indian Subcontinent: the land bridge connecting the Balkans to Anatolia, and/or the corridor along the northern Black Sea shore, although also a southern route, across Arabia⁴, should be taken into consideration, given the increasing evidence of Palaeolithic discoveries along the Yemen-Oman coastal belt⁵, which suggest that the Middle Palaeolithic human dispersal was much more complicated than previously expected⁶. However, a question mark constantly recurs on the maps depicting our current knowledge of the Indian Subcontinent⁷ in relationship to the spread of *Homo sp.*

The present paper is an attempt to discuss the current evidence of human occupation in Lower Sindh (Pakistan) during the Middle Pleistocene, which is demonstrated by the recovery of chipped stone assemblages with evident Levallois characteristics.

Middle Pleistocene lithic technology in the Indian Subcontinent

The research carried out during the last decade in the Indian Subcontinent and Arabian Peninsula has greatly contributed to achieving a better

¹ KRINGS et al. 1997.

² ZILHÃO 2010a.

³ DAVIES et al. 2000.

⁴ ROSE 2007; ARMITAGE et al. 2011.

⁵ ROSE 2004; AMIRKHANOV 2006.

⁶ PETRAGLIA 2007.

⁷ HENKE 2006, Abb. 4

knowledge of the Middle Palaeolithic in the study region, and answering a few questions as to the origin, and suggested provenance, of the Middle Palaeolithic assemblages⁸, their chronology⁹, variable structural composition and cultural affiliation¹⁰.

Following a traditional view, in the Indian Subcontinent “*the Acheulian slowly evolved into the Middle Palaeolithic by shedding some of the tool types and by incorporating new forms and new techniques*”¹¹. Given its characteristics, some authors do not include it in the Mousterian complexes¹², while others attribute the Middle Palaeolithic assemblages of peninsular India to the Nevasian¹³. Nevertheless, where long sequences are known, the Middle Palaeolithic layers are stratified between Early Palaeolithic (Acheulian) and Late (Upper) Palaeolithic (so-called microlithic) complexes¹⁴, following a sequential terminology proposed more than 50 years ago¹⁵. They have been recently subdivided into three main developmental phases¹⁶, from most of which the typical Levalloisian reduction technique is almost absent.

According to the few absolute dates so far available, Middle Palaeolithic complexes are represented in the region since roughly 150 ky, while the Late (Upper) Palaeolithic ones make their appearance at least just after 40 ky from the present¹⁷, although the dispersal of modern individuals, following a coastal route, is suggested to have taken place some 10 ky before¹⁸. The problem related to the makers of the Middle Palaeolithic tools is still debated¹⁹, mainly because of the absence of fossil human remains of this period in the entire Subcontinent²⁰.

One of the most important issues consists of the south-easternmost spread of the Neanderthal Levalloisian assemblages that is so far badly defined. Although typical Levalloisian Mousterian

industries are known from south-eastern Arabia²¹, Iran²², Afghanistan²³, and former Soviet Central Asia²⁴, characteristic Levalloisian assemblages are almost unknown in the Indian Subcontinent, except for a few surface sites in Lower Sindh and the Indus Valley, which have been discussed in a recent paper²⁵. Furthermore the more recent studies seem to support the impression that “*the early Middle Palaeolithic (or Middle Stone Age) of India and Nepal probably developed indigenously*”²⁶, which suggests the existence of a distinctive boundary between the west and the east marked by the axis of Indus river valley.

The Levalloisian finds from Lower Sindh

Levalloisian assemblages are known from a few localities of Lower Sindh (*Fig. 1.*), the most important of which is Ongar (otherwise known in the literature as Milestone 101²⁷), discovered by W.A. Fairservis Jr.²⁸, and later published by B. Allchin.

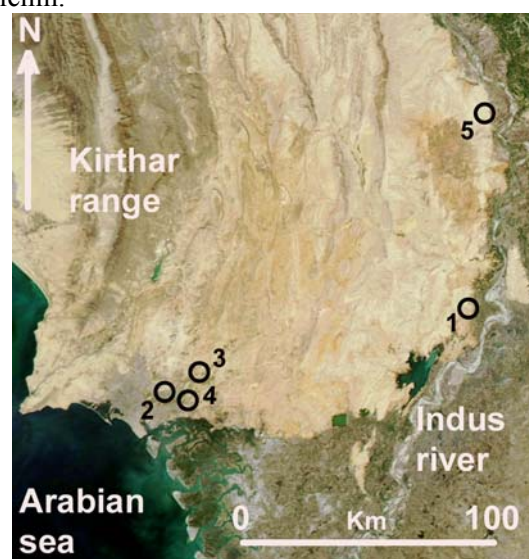


Fig. 1.: Distribution map of the Levalloisian sites, or single tools, so far discovered in Lower Sindh. Ongar (1), Mulri Hills, Karachi (2), Deh Konkar (3), Landhi (4), Arzi Got (5).

⁸ PETRAGLIA–ALSHAREKH 2003; ROSE 2010.

⁹ MISRA 1989.

¹⁰ PETRAGLIA et al. 2007.

¹¹ MISRA 2001, 495.

¹² ALLCHIN et al. 1978, 314.

¹³ KHATRI 1962; ALLCHIN–ALLCHIN 1997, 55-60.

¹⁴ HANNAH–PETRAGLIA 2005; PETRAGLIA et al. 2009.

¹⁵ SUBBARAO 1956; ALLCHIN 1959.

¹⁶ PAL 2002, 79.

¹⁷ MISHRA 1995.

¹⁸ FIELD et al. 2007.

¹⁹ HASLAM et al. 2010.

²⁰ STOCK et al. 2007.

²¹ CREMASCHI–NEGRINO 2002.

²² PIPERNO 1972.

²³ DUPREE et al. 1970; DAVIS 1978.

²⁴ RANOV–GUPTA 1979.

²⁵ BIAGI 2006.

²⁶ DENNELL 2009, 144.

²⁷ ALLCHIN 1976, 486.

²⁸ FAIRSERVIS 1975,77.

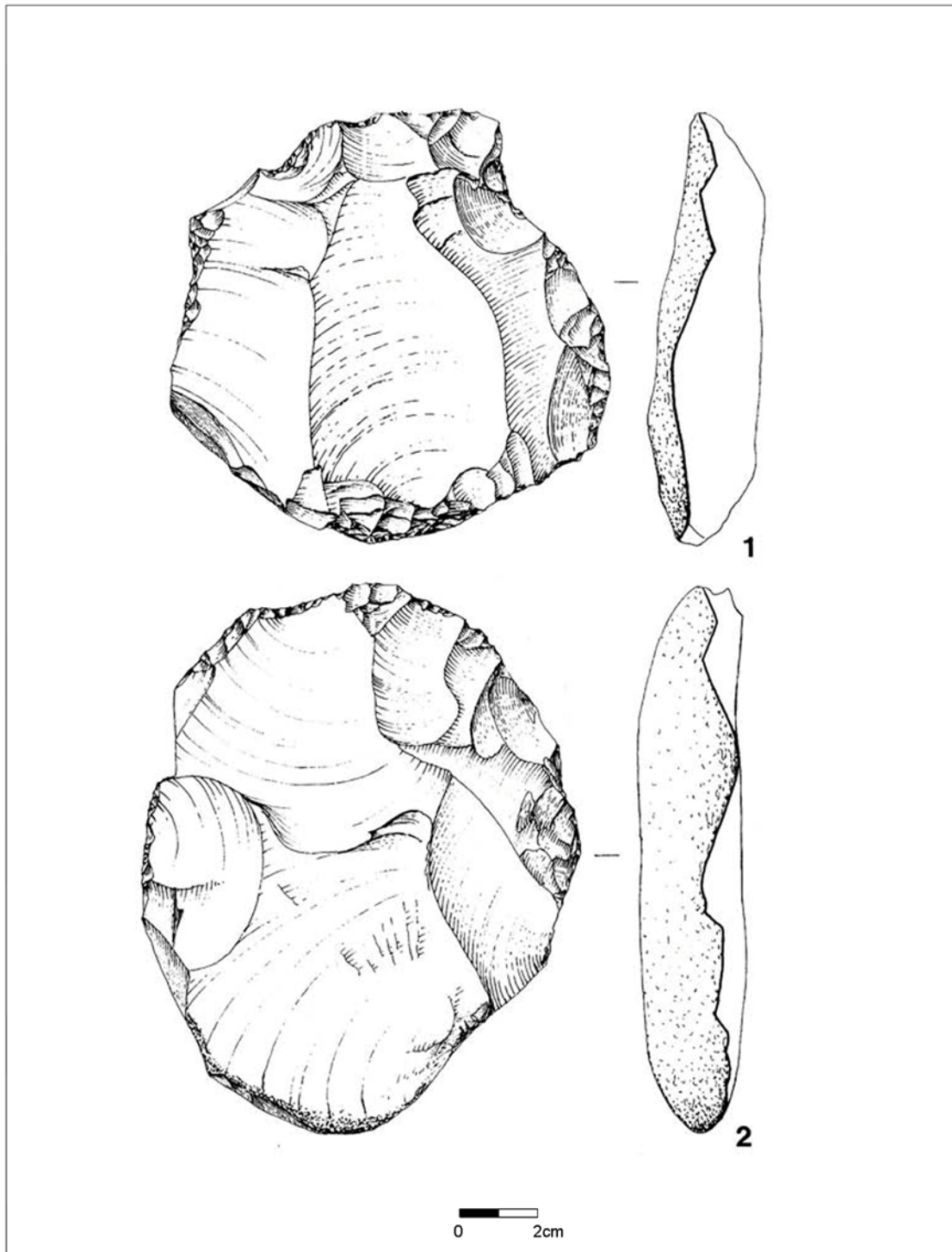


Fig. 2.: Ongar: Levallois cores from R. Khan's collection (from BIAGI 2006, fig. 2).

On its limestone terraces she discovered Palaeolithic assemblages and workshops of different periods, among which are Middle

Palaeolithic ones²⁹. The area was revisited by A.R. Khan in the early 1970s, when the sites were being destroyed due to the opening of limestone quarries

²⁹ ALLCHIN 1976.

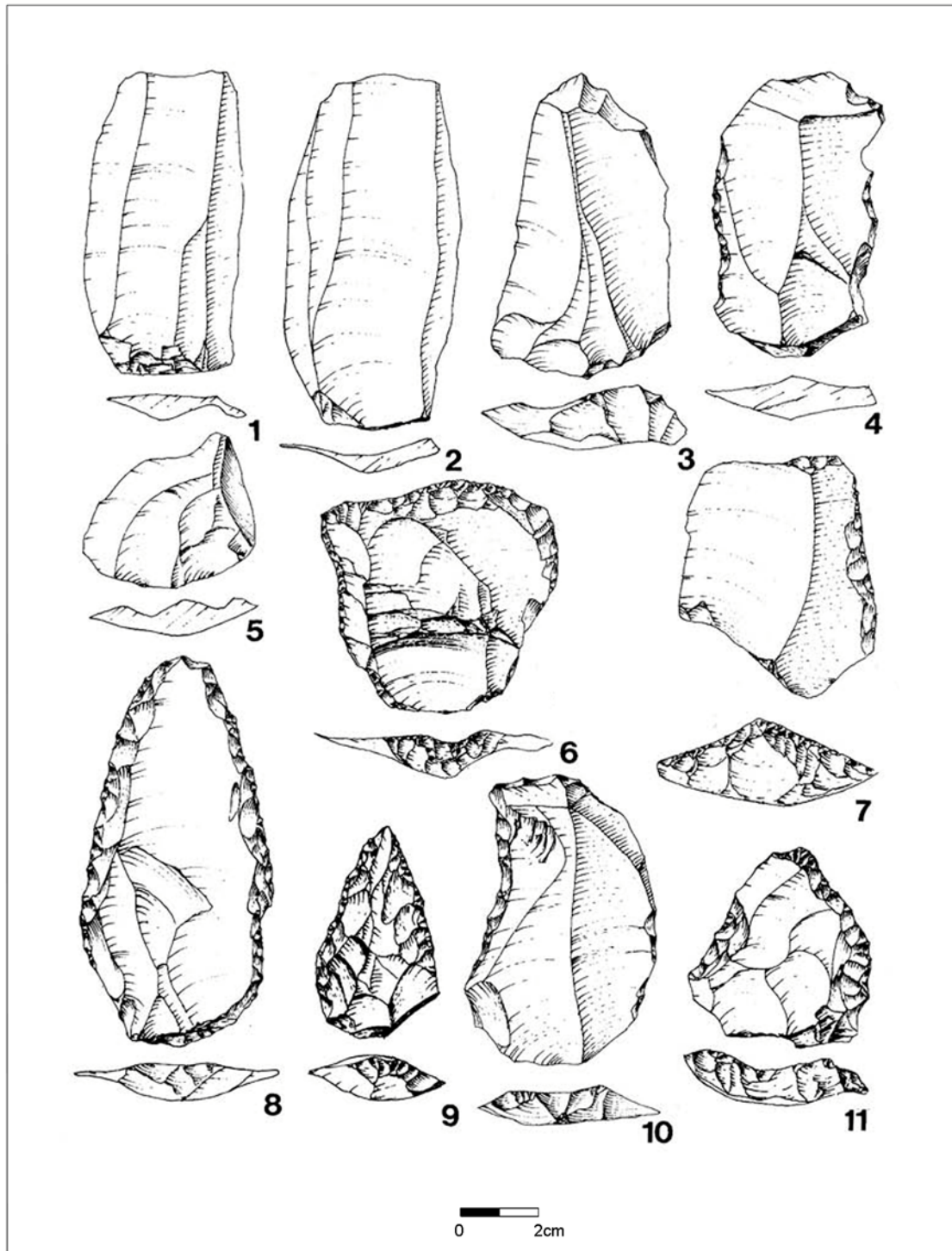


Fig. 3.: Ongar: Levallois artefacts from R. Khan's collection (from BIAGI, 2006, fig. 4).

for industrial exploitation. During his rescue visits Professor A.R. Khan collected an impressive quantity of Palaeolithic tools, among which are typical Levalloisian cores, (retouched) points, blades, flakes and different types of scrapers (Figs.

2. and 3.). The above author was the first to signal "the presence of the Levalloisian industry in the area beyond any doubt"³⁰ in Sindh.

³⁰ KHAN 1979b, 80.



Fig. 4.: Ongar: the area that yielded Levallois artefacts (re)discovered in 2006 (photograph by P. Biagi).



Fig. 5.: Ongar: Levallois flakes and blades from the 2006 (re)discovered area (photograph by P. Biagi).

After studying some of the finds collected by A.R. Khan in the Museum of Prehistory and Palaeogeography, Karachi University, one of the authors (PB) systematically surveyed the Ongar region between 2005 and 2008³¹. Although it was impossible to define the precise locations from which A.R. Khan collected Levalloisian implements, identical assemblages, characterised by a thick, white patina, were recovered from the upper profile of the terraces of a seasonal stream that flows eastwards, from the limestone mesas down to the village and the national road (Fig. 4).

These latter finds, which are represented exclusively by Levallois flakes and blades, are also covered with a thick white patina, although they show a few concassage detachments due to a certain shifting from their original deposition (Fig. 5).

Other typical, small Levalloisian assemblages, or isolated finds, come from the region immediately to the east of Karachi: among them are the Mulri Hills, Landhi, Deh Konkar³² and the Laki Range³³. One more characteristic Levallois flake was found on the surface of a limestone terrace, close to the Baloch village of Arzi along the national road, north of Hyderabad³⁴.

All the Levallois assemblages so far recovered from Lower Sindh come from the region west of the

course of the Indus. Although other Palaeolithic sites are known from this province, the richest of which are the Rohri Hills³⁵, it is important to point out that none of the Palaeolithic industries from these latter sites ever yield any typical Levallois tool.

Discussion

Recent research carried out on the skeletal fossil remains of Europe strongly supports the designation of Neanderthals as a separate species, i.e. *Homo neanderthalensis*, which gave no contribution to the evolution of modern Europeans³⁶. Also from the point of view of the lithic techno-typology and the use of raw materials, an abrupt change can be noticed in Eurasia at the onset of the Aurignacian, which has no connections with the Levalloisian-Mousterian techno-typology, supporting the theory of the replacement of Neanderthals with anatomically modern humans. Although the situation is still far from being clear and is rather controversial³⁷, if we move to the east, the picture is even more complicated, due to the absence of human fossil remains and limited fieldwork. The archaeological evidence gathered in the last years by the Italian expedition in Sindh has contributed to fill the gap, and shed some light on

³¹ BIAGI 2005; BIAGI-FRANCO 2008.

³² KHAN 1979a, 13.

³³ BIAGI 2008.

³⁴ BIAGI 2010.

³⁵ ALLCHIN 1976; NEGRINO-KAZI 1996.

³⁶ HARVATI et al. 2006.

³⁷ ZILHÃO 2010b.

the south-easternmost spread of the Neanderthal Levalloisian.

The Levalloisian assemblages discovered in Sindh, which display very characteristic features, among which are faceted and “*chapeau de gendarme*” butts, can be attributed to Middle Palaeolithic human activity in the area, most probably related with the south-easternmost spread of *Homo neanderthalensis*. This species might have reached the Indian Subcontinent either from the Anatolia-Caucasus-Mesopotamia corridor, or across the southern regions of the Arabia Peninsula, where Levalloisian, Middle Palaeolithic sites are known to date³⁸. The reason why their spread most probably did not go beyond the Indus delta might derive from a geographical barrier, as it has already been suggested for the dispersal of modern humans along the western coastline of the Indian Subcontinent³⁹.

Acknowledgements

The authors are very grateful to Mir Atta Mohammad Talpur, Mir Ghulam Rasool Talpur, Mir Ahmed Farooq Talpur, Mir Abdul Rehman Talpur and Mir Akhtar Talpur, for their patronage and all their efforts to make the Ongar surveys possible.

Many thanks are also due to the former Vice-chancellor of Sindh University, Prof. Mazharul Haq Siddiqui, and the former Director of the Institute of Sindhology, Mr. Shoukat Shoro, who provided accommodation and every sort of facilities at Sindh University Campus, Jamshoro. Thanks are also due to Dr. C. Franco (Ca' Foscari University, Venice - I), who took part in the 2007 fieldwork season, and Prof. A.R. Khan and B. Talat (Department of Geography, Karachi University - PK), who allowed the study of the Palaeolithic assemblages stored in the collections of the Museum of Prehistory and Palaeogeography of the same University, and provided accommodation at Karachi University Campus in 2000-2002. Special thanks to the Prehistoric Society (London - UK), Prof. G. Traversari and the CeVeSCO (Venice - I), and the Ligabue Foundation (Venice - I) that sponsored and financed the archaeological fieldwork seasons at Ongar.

Last but not least we are grateful to our friend Barbara A. Voytek who kindly improved the English version of the text.

³⁸ PETRAGLIA-ALSHAREKH 2003.

³⁹ STOCK et al. 2007, figure 1.

References

ALLCHIN, B.

- 1959 The Indian Middle Stone Age: Some New Sites in Central and Southern India, and their Implications. *University of London Bulletin of the Institute of Archaeology* 2, 1-36.
 1976 Palaeolithic Sites in the Plains of Sind and their Geographical Implications. *The Geographical Journal* 142 (3), 471-489.

ALLCHIN, B.–GOUDIE, A.–HEDGE, K.

- 1978 *The Prehistory and Palaeogeography of the Great Indian Desert*. Academic Press, London-New York-San Francisco.

ALLCHIN, R.–ALLCHIN, B.

- 1997 Origins of a Civilization. *The Prehistory and Early Archaeology of South Asia*. Viking, New Delhi.

AMIRKHANOV, H.A.

- 2006 *Stone Age of South Arabia*. Nauka, Moscow (in Russian).

ARMITAGE, S.J.–JASMIN, S.A.–MARKS, A.E.–PARKER, A.G.–USIK, V.I.–UERPMANN, H.P.

- 2011 The Southern Route "Out of Africa": Evidence for an Early Expansion of Modern Humans into Arabia. *Science* 331, 453-456.

BIAGI, P.

- 2005 Ongar revisited. *Sindhological Studies* 21 (1-2), 1-21.
 2006 The Levalloisian assemblages of Sindh (Pakistan) and their importance in the Middle Palaeolithic of the Indian subcontinent. In: KROEPER, K.–CHŁODNICKI, M.–KOBUSIEWICZ, M., eds., *Archaeology of Early Northeastern Africa In Memory of Lech Krzyżaniak*. Studies in African Archaeology 9, Poznań Archaeological Museum, 1005-1017.
 2008 The Palaeolithic Settlement of Sindh: A Review. *Archäologische Mitteilungen aus Iran and Turan* 40, 1-26.
 2010 Archaeological Surveys in Lower Sindh: Preliminary Results of the 2009 Season. *Journal of Asian Civilizations* XXXIII (1) (in press). Islamabad.

BIAGI, P.–FRANCO, C.

- 2008 Ricerche Archeologiche in Balochistan e nel Sindh Meridionale (Pakistan). In: GELICHI, S., ed., *Missioni archeologiche e progetti di ricerca e scavo dell'Università Ca' Foscari - Venezia*. Bretschneider, Roma, 9-18.

CREMASCHI, M.–NEGRINO, F.

- 2002 The Frankincense Road of Sumhuram: Palaeoenvironmental and Prehistorical background. In: AVANZINI, A., ed., *Khor Rohri Report 1*. Arabia Antica 1, Edizioni Plus, Università di Pisa, 325-363.

DAVIES, W.–STEWART, J.–VAN ANDEL, T.H.

- 2000 Neanderthal Landscapes - A Preview. In: STRINGER, C.B.–BARTON, R.N.E.–FINLAYSON, J.C., eds., *Neanderthals on the Edge*. Oxbow Books, Oxford, 1-8.

DAVIS, R.S.

- 1978 The Palaeolithic. In: ALLCHIN, F.R.–HAMMOND, N., eds., *The Archaeology of Afghanistan*. Academic Press, London, 37-70.

DENNELL, R.

- 2009 *The Palaeolithic Settlement of Asia*. Cambridge World Archaeology, Cambridge.

DUPREE, L.–LATTMAN, L.–DAVIS, R.

- 1970 Ghar-I-Mordeh Gusfand (“Cave of the Dead Sheep”). A new Mousterian locality in north Afghanistan. *Science* 167 (3925), 1610-1612.

FAIRSERVIS, W.A. JR.

- 1975 *The Roots of Ancient India. The Archaeology of Early Indian Civilization* (2nd Edition). The University of Chicago Press, Chicago and London.

FIELD, J.S.–PETRAGLIA, M.D.–MIRAZÓN LAHR, M.

- 2007 The southern dispersal hypothesis and the South Asian archaeological record: Examination of dispersal routes through GIS analysis. *Journal of Anthropological Archaeology* 26, 88-108.

HANNAH, V.A.J.–PETRAGLIA, M.D.

- 2005 Modern Human Origins and the Evolution of Behaviour in the Later Pleistocene Record of South Asia. *Current Anthropology* 46, supplement, S3-S27.

HARVATI, K.–FROST S.R.–MCNULTY K.P.

- 2006 Neandertaler: Vorfahren oder entfernte Verwandte? In: UELSBERG, G., ed., *Roots. Wurzeln der Menschheit. Rheinisches LandesMuseum Bonn, Katalog zur Ausstellung*. Verlag Philipp Von Zabern, Mainz, 133-139.

HASLAM, M.–CLARKSON, C.–PETRAGLIA, M.–KORISSETAR, R.–JONES, S.–SHIPTON, C.–DITCHFIELD, P.–AMBROSE, S.H.

- 2010 The 74 ka Toba super-eruption and southern Indian hominins: archaeology, lithic technology and environments at Jwalapuram Locality 3. *Journal of Archaeological Science* 37 (12), 3370-3384.

HENKE, W.

- 2006 Ursprung und Verbreitung des Genus *Homo*- paläobiologische Anmerkungen zum evolutiven Erfolg unserer Gattung. In: UELSBERG, G., ed., *Roots. Wurzeln der Menschheit. Rheinisches LandesMuseum Bonn, Katalog zur Ausstellung*. Verlag Philipp Von Zabern, Mainz, 33-52.

KHAN, A.R.

- 1979a Ancient Settlements in Karachi Region. In KHAN, A.R. ed., *Studies in the Geomorphology and Prehistory of Sind. Grassroots III* (2), Special Issue, 1-24. Pakistan Studies Centre. University of Sind, Jamshoro.
- 1979b Palaeolithic Sites Discovered in the Lower Sindh and their Significance in the Prehistory of the Country. In KHAN, A.R. ed., *Studies in the Geomorphology and Prehistory of Sind. Grassroots III* (2), Special Issue: 81-86. Pakistan Studies Centre. University of Sind, Jamshoro.

KHATRI, A. P.

1962 A Century of Prehistoric Research in India. *Asian Perspectives* 6, 169-185.

KRINGS, M.–STONE, A.C.–SCHMITZ, R.W.–KRAINITZKI, H.–STONEKING, M.–PÄÄBO, S.

1997 Neanderthal DNA sequences and the origins of modern humans. *Cell* 90, 19-30.

MISHRA, S.

1995 Chronology of the Indian Stone Age: The Impact of Recent Absolute and Relative Dating Attempts. *Man and Environment* XX (2), 11-16.

MISRA, V.N.

1989 Stone Age India: An Ecological Perspective. *Man and Environment* 14 (1), 17-64.

2001 Prehistoric human colonization of India. *Journal of Biosciences* 26 (4), 491-531.

NEGRINO, F.–KAZI, M.M.

1996 The Palaeolithic industries of the Rohri Hills (Sindh, Pakistan). *Ancient Sindh* 3, 3-78.

PAL, J.N.

2002 The Middle Palaeolithic Culture of South Asia. In: SETTAR, S.–KORISSETAR R. eds., *Indian Archaeology in Retrospect. Volume I: Prehistory*. Archaeology of South Asia, ICHR, Manohar, Delhi, 67-83.

PETRAGLIA, M.D.

2007 Mind the Gap: Factoring the Arabian Peninsula and the Indian Subcontinent into Out of Africa Models. In: MELLARS, P.–BOYLE, K.–BAR-YOSEF, O.–STRINGER, C., eds., *The Human Revolution Revisited*. McDonald Institute Archaeological Publications, Cambridge, 383-394.

PETRAGLIA, M.D.–ALSHAREKH, A.

2003 The Middle Palaeolithic of Arabia: Implications for modern human origins, behaviour and dispersal. *Antiquity* 77 (298), 671-684.

PETRAGLIA, M.–CLARKSON, C.–BOIVIN, N.–HASLAM, M.–KORISSETAR, R.–CHAUBEY, G.–DITCHFIELD, P.–FULLER, D.–JAMES, H.–JONES, S.–KIVISILD, T.–KOSHY, J.–LAHR, M.M.–METSALU, M.–ROBERTS, R.–ARNOLD, L.

2009 Population increase and environmental deterioration correspond with microlithic innovation in South Asia ca. 35,000 years ago. *Proceedings of the National Academy of Sciences* 106 (30), 12261-12266.

PETRAGLIA, M.D.–HASLAM, M.–FULLER, D.Q.–BOIVIN, N.–CLARSON C.

2010 Out of Africa: new hypotheses and evidence for the dispersal of Homosapiens along the Indian Ocean rim. *Annals of Human Biology*, May-June 2010, 37 (3), 288-311.

PETRAGLIA, M.–KORISSETAR, R.–BOIVIN, N.–CLARKSON, C.–DITCHFIELD, P.–JONES, S.–KOSHY, J.–MIRAZÓN LAHR, M.–OPPENHEIMER, C.–PYLE, D.–ROBERTS, R.–SCHWENNINGER, J-L.–ARNOLD, L.–WHITE, K.

2007 Middle Palaeolithic Assemblages from the Indian Subcontinent Before and After the Toba Super-Eruption. *Science* 317, 114-116.

PIPERNO, M.

- 1972 Jahrom, a Middle Palaeolithic Site in Fars, Iran. *East and West* 22 (3-4), 183-198.

RANOV, V.A.–GUPTA S.P.

- 1979 *Archaeology of Soviet Central Asia, and the Indian Borderland*, Vol. I. B.R. Publishing Corporation, Delhi.

ROSE, J.I.

- 2004 The Role of the Saharo-Arabian Arid Belt in the Modern Humans Expansion. In: *Actas do IV Congresso de Arqueologia peninsular, From the Mediterranean Basin to the Portuguese Atlantic Shore: Papers in Honor of Anthony Marks*. Promontoria Monografica 7, 57-67.
- 2007 The Arabian Corridor Migration Model: archaeological evidence for hominid dispersal into Oman during the Middle and Upper Pleistocene. *Proceedings of the Seminar for Arabian Studies* 37, 1-19.
- 2010 New Light on Human Prehistory in the Arabo-Persian Gulf Oasis. *Current Anthropology* 51 (6), 849-883.

STOCK, J.T.–MIRAZÓN LAHR, M.–KULATILAKE, S.

- 2007 Cranial diversity in South Asia relative to modern human dispersal and global patterns of human variation. In: PETRAGLIA, M.D.–ALLCHIN, B., eds., *The Evolution and History of Human Populations in South Asia*. Springer, Berlin, 245-268.

SUBBARAO, B.

- 1956 *The Personality of India*. Maharaja Sayajirao University of Baroda, University of Archaeology Series 3, 1-76.

ZILHÃO, J.

- 2010a Did Neanderthals think like us? *Scientific American* June 2010, 72-75.
- 2010b Neanderthals are us: genes and cult. *Radical Anthropology* 4, 5-15.