

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

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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.

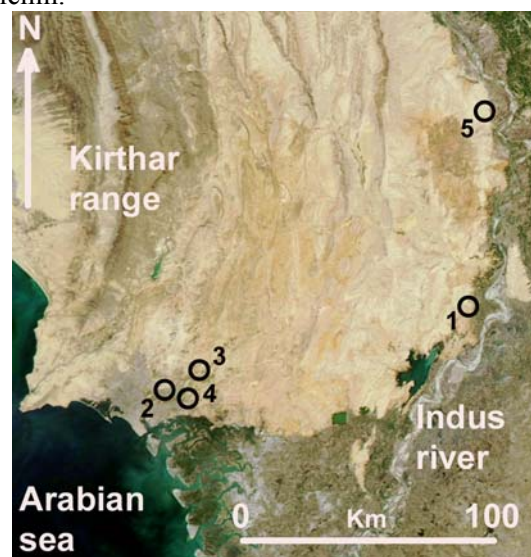


Fig. 1.: Distribution map of the Levalloisian sites, or single tools, so far discovered in Lower Sindh. Ongar (1), Mulri Hills, Karachi (2), Deh Konkar (3), Landhi (4), Arzi Got (5).

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 FAIRSERSVIS 1975, 77.

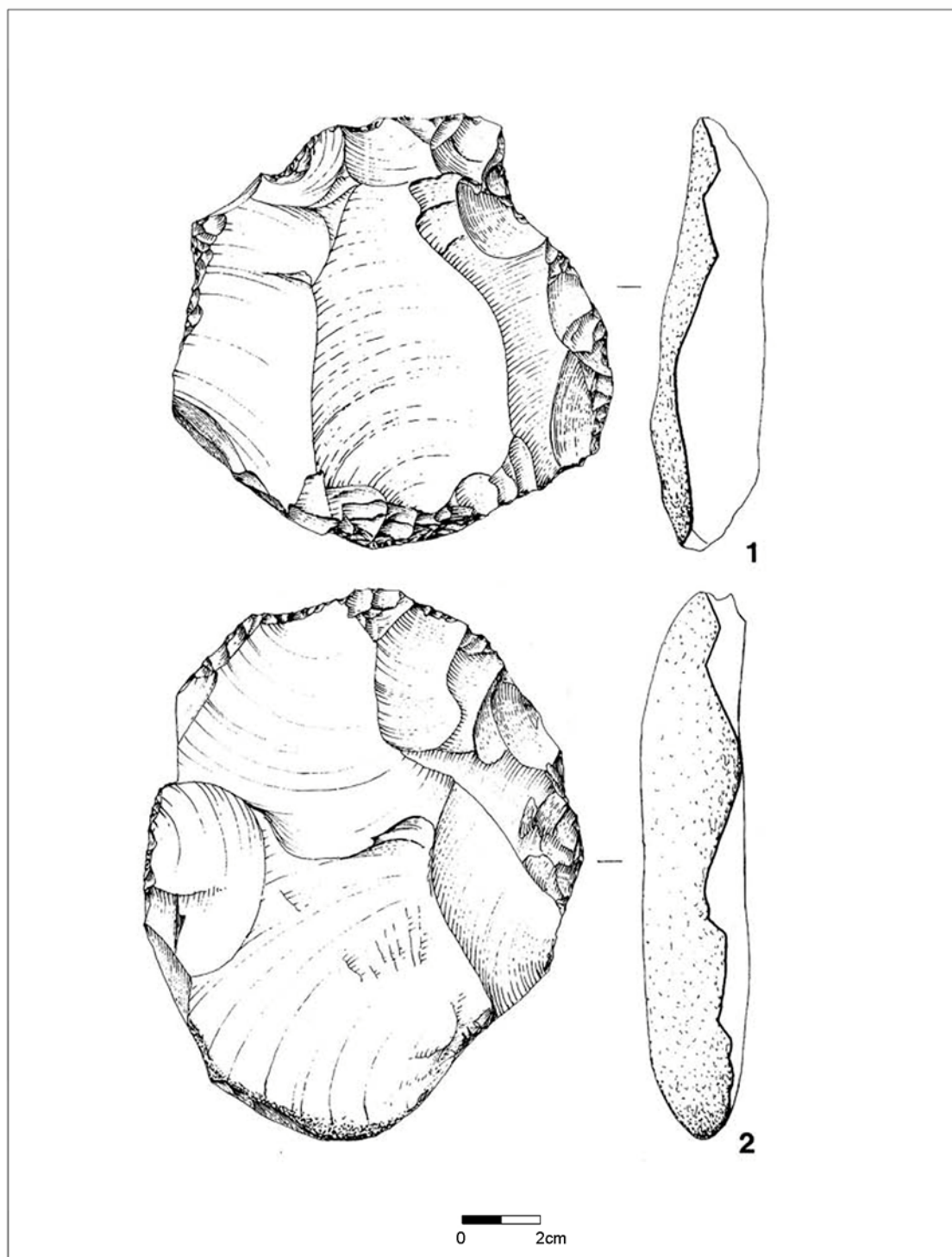


Fig. 2.: Ongar: Levallois cores from R. Khan's collection (from BIAGI 2006, fig. 2).

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.

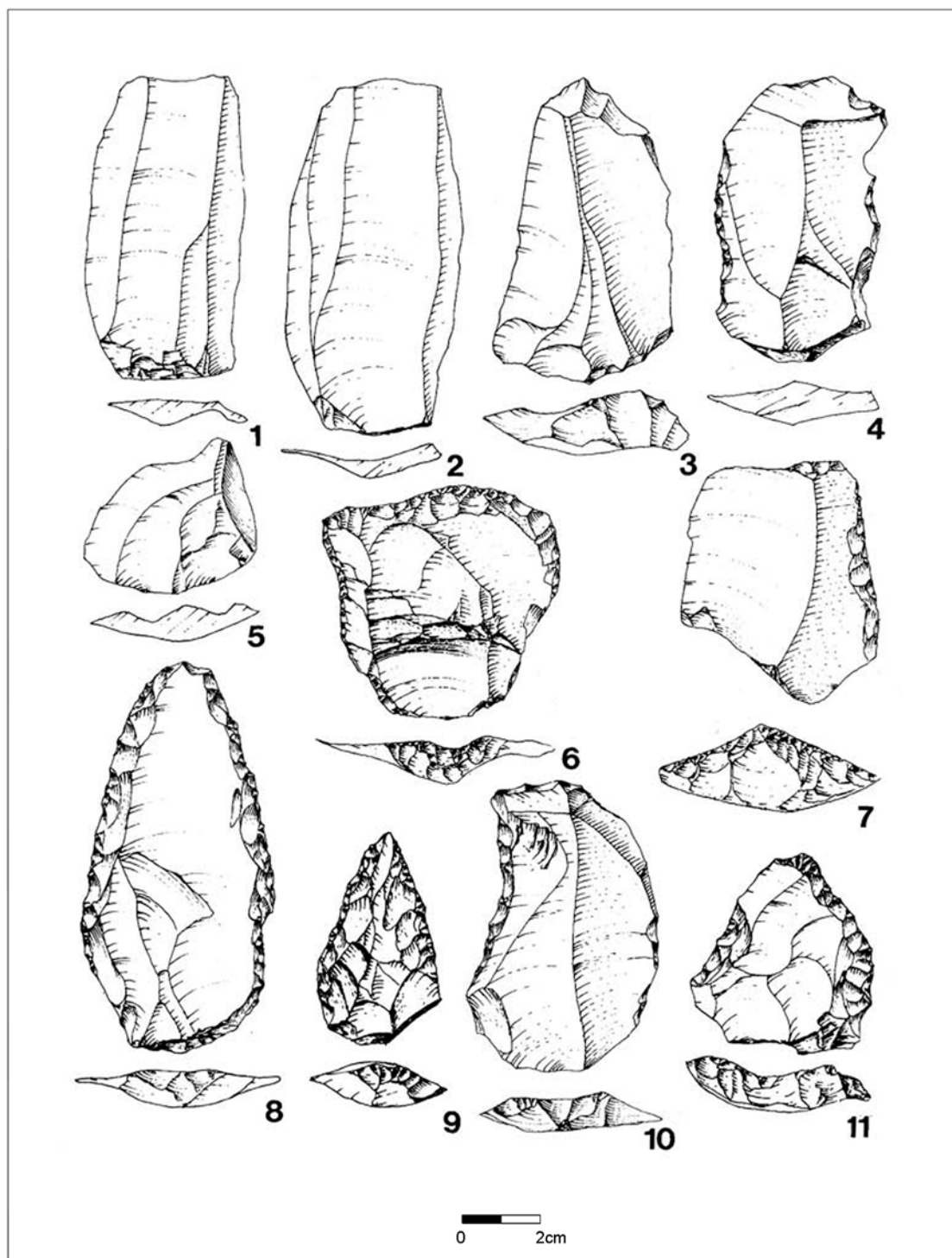


Fig. 3.: Ongar: Levallois artefacts from R. Khan's collection (from BIAGI, 2006, fig. 4).

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.

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³⁸ PETRAGLIA-ALSHAREKH 2003.

³⁹ STOCK et al. 2007, figure 1.

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