NEW DISCOVERIES OF LATE PALAEOLITHIC SITES ON THE ROHRI HILLS (SINDH - PAKISTAN)

PAOLO BIAGI, MUHAMMAD MUKHTIAR KAZI, ANDREA PESSINA

Preface

The archaeological surveys carried out in January and February 1994 in the neighbourhoods of the Shrine of Shadee Shaheed (Khairpur, Sindh) led to the discovery of many Late Palaeolithic sites, mainly distributed on the top of the mesas south and east-south-east of the shrine itself (fig. 1). This area was already well known for its abundance of prehistoric sites, more precisely for the remains of hundreds of flint quarries and workshops attributed to the Harappan civilization (Biagi and Cremaschi, 1990; Biagi and Pessina, 1994).

Most of the sites were discovered during a programme of archaeological investigations, carried out by the Department of Archaeology of the Shah Abdul Latif University, Khairpur (PK)

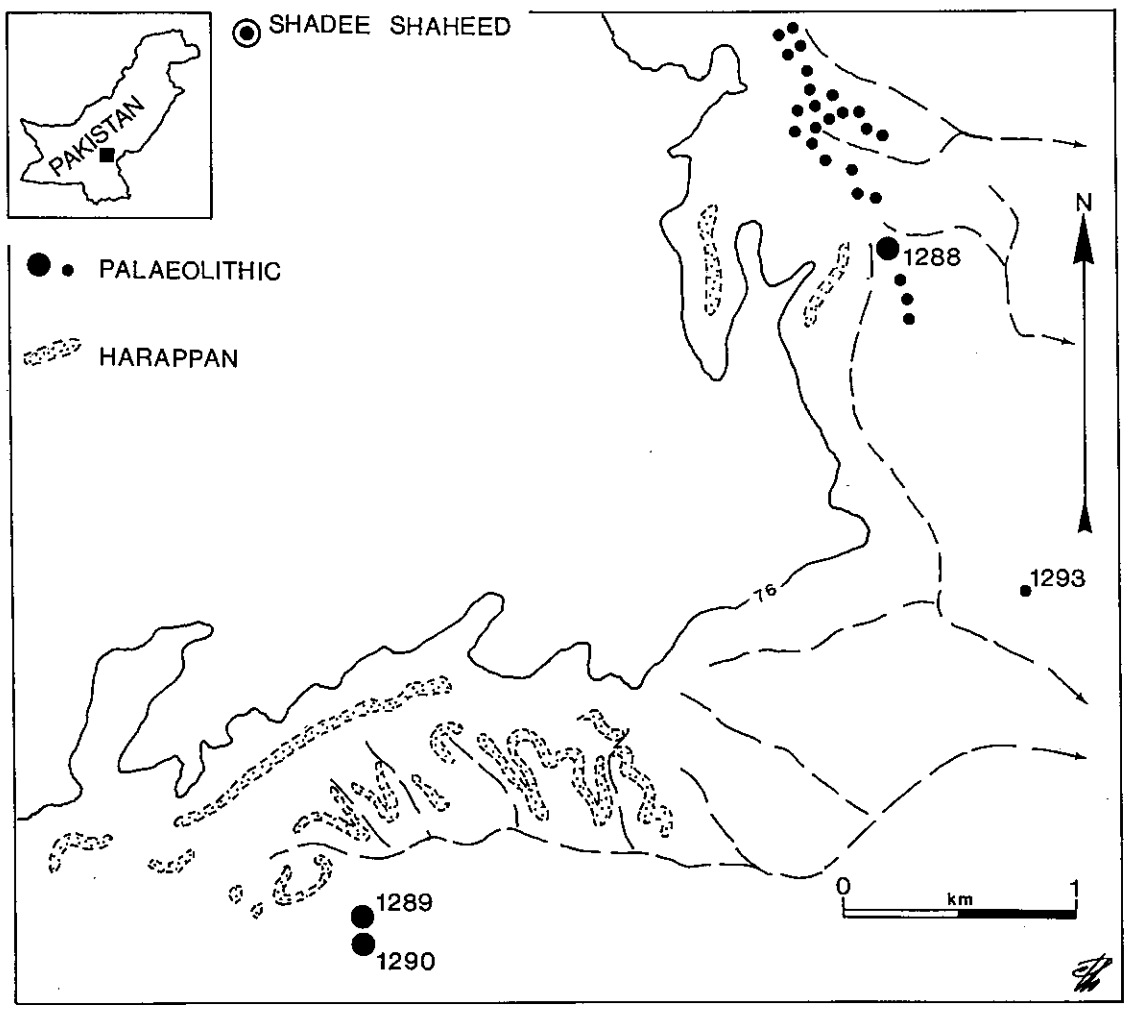

Fig. 1 - Distribution map of the archaeological sites discovered in 1993 and 1994 around the Shrine of Shadee Shaheed, with the indication of the Late Palaeolithic sites mentioned in the text *(drawing by P. Biagi)*.

and the Department of Historical-Archaeological and Oriental Sciences of the University of Venice (I), in collaboration with the Musei Civici di Como and the Centro Studi e Ricerche Ligabue of Venice. This programme, called the "Joint Rohri Hills Project", directed by Prof. Dr. Nilofer Shaikh, with the collaboration of one of the writers (PB), began in January 1993 and will continue until 1995 (Biagi and Shaikh, 1994). The 1994 campaign has been sponsored by the Serre Ratti Ltd. (Como), the Maffei Ltd. (Milan), the Geosondaggi Ltd. (Este) and the Prehistoric Society (London).

The Late Palaeolithic sites

A few Late Palaeolithic flint artefacts collected from the northern region of the Hills were firstly illustrated by de Terra and Paterson (1939). More recently, B. Allchin has reported the discovery of Late Palaeolithic tools and workshops from the above-mentioned zone as well as the presence of some blade cores and blades from Chancha Baluch, not far from Kot Diji, along the south-western fringe of the Hills (Allchin, 1976; Allchin *et al.*, 1978).

The discovery of the first Late Palaeolithic site

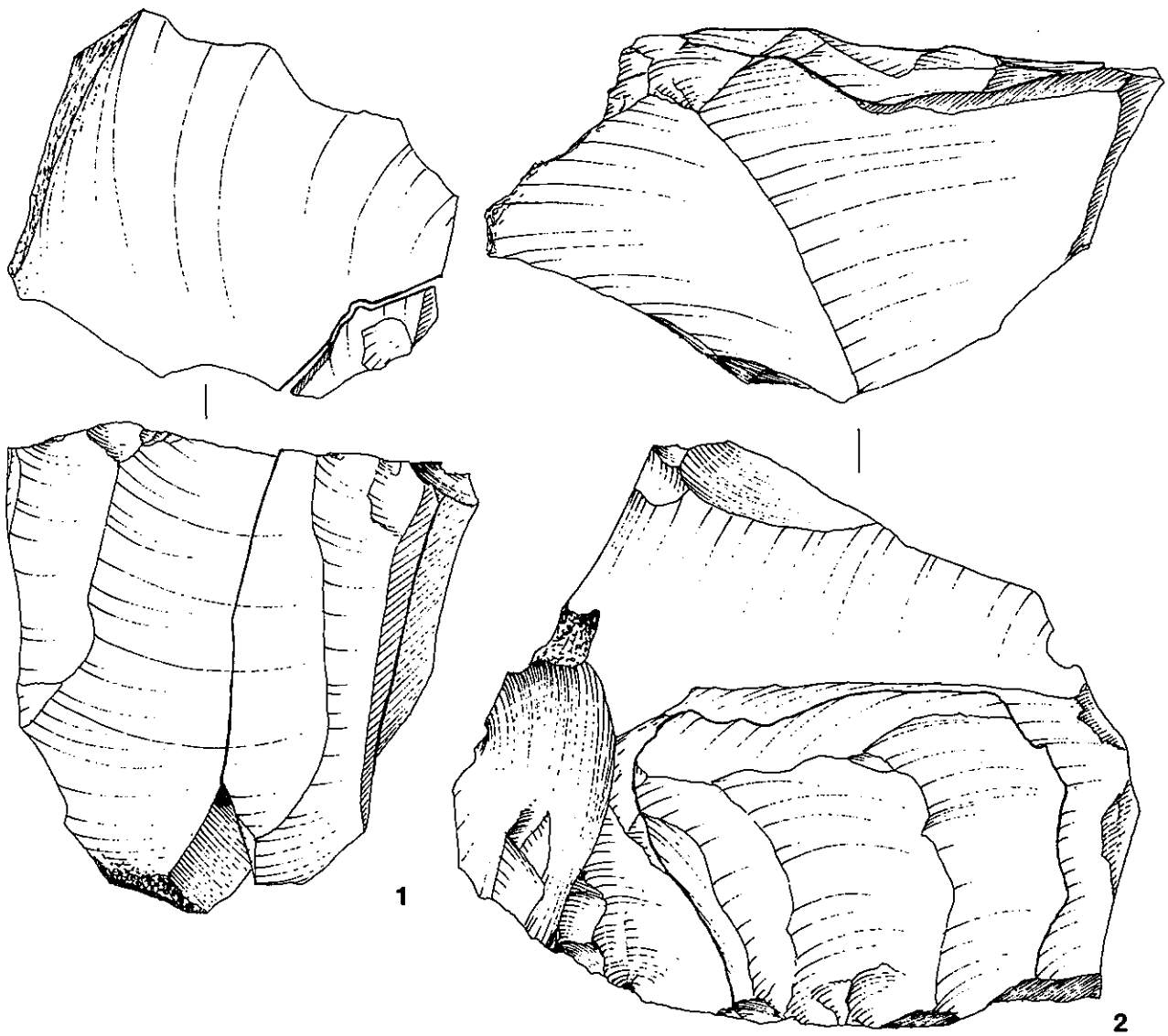

Fig. 2 - Site 1288: cores with refitting artefacts (2:3) *(drawings by F. Negrino and G. Almerigogna).*

of the 1994 campaign was made on January 12, 1994, during a survey on the hills extending east-south-east of the Shrine of Shadee Shaheed. The site was found some 2.8 kilometres from the above-mentioned tomb at the point indicated with number 1288 in the map of fig. 1. Here the flint artefacts were observed on the top of the mesa, the surface of which was covered with natural flint nodules, where two opposite *wadis* notably restrict the width of the terrace (plate 1A). A few concentrations of flint tools indicating the presence of workshops (plate 1C and 1D), were recorded from this site from which a sample of 155 artefacts and 28 cores was collected by two persons in some thirty minutes. It also includes 46 artefacts and 3 cores recovered from a well-defined workshop called structure 1288A (plate 1B).

The materials from site 1288

All the artefacts from site 1288 have a dark yellowish brown patina (10YR 4/4). Some have brighter surfaces caused by eolization. Others are only partially patinated for having been covered with eolic sand. Their cortex is of two different kinds a) thin, with dotted surfaces of light yellowish brown colour (10YR 6/4); b) thicker, with rough surfaces, of very dark grey colour (2.5Y 3/1). The site seems perfectly *in situ* as confirmed by the presence of blades and flakes refitting to their cores (fig. 2/1 and 2). This should indicate that the environmental situation in Late Palaeolithic times was very similar to the present one (Biagi and Cremaschi, 1988: 431).

The tools from this site come from a surface of some 300 square metres around workshop 1288A, namely 109 unretouched artefacts and 25 pre-cores and cores (fig. 3 and 4/1-8).

The pre-cores have been subdivided into four main typological groups. The turtle-shaped pre-cores (7) are elongated, 7.5-9 cms long. They are obtained with centripetal flake strokes on the ventral surface and, in some cases, have two transverse blows at the opposite edges (fig. 3/11). 4 are polyhedric flake pre-cores; 1 is carenoid, with a flat ventral surface (fig. 3/10); 1 has centripetal strokes and a flat ventral surface.

Most of the cores are subconical. They include some varieties among which: a) regular, often short, with an ovaloid, plain striking platform (fig. 4/1, 5 and 6); b) similar to the above-mentioned type but of larger size (fig. 2/1 and 4/2); c) blade-like flake types with a prepared or plain striking platform (fig. 4/8); d) polyhedric, of great dimension (fig. 2/2).

The unretouched artefacts include one decortication flake with facetted platform (fig. 3/1). The natural platforms prevail over the other artefacts (43=51.2%), followed by the flat ones (34=40.5%). The facetted platforms are 5 (6.0%) and the dihedral 2 (2.3%).

The length/width diagram of the complete unretouched artefacts has been developed according to Bagolini's method (Bagolini, 1968). It shows a predominance of flakes (34.1%) and of blade-like flakes (29.7%). The blade index is 17.5. The hypermicroliths and the microliths are absent. The assemblage consists of normoliths (1=1.1%), macroliths (12=13.2%) and hypermacroliths (78=85.7%) (fig. 5). The carination index is characterized by the high percentage of flat (45.0%) and very flat (39.6%) tools.

The workshop 1288A (plate 1B), of circular shape, was some 1 metre in diameter. It yielded 43 unretouched artefacts, 3 marginal side scrapers and 3 cores (fig. 4/9-12).

Two of the cores are of short, subconical type with blade-like flake detachments and a slightly concave striking platform obtained with one transversal blow (fig. 4/9 and 10). A third core is polyhedric, irregular, with flake scars. The side scrapers have been obtained with a simple, marginal retouch on the left side (fig. 4/11 and 12). One shows a facetted platform (fig. 4/11).

Most of the unretouched artefacts have flat striking platforms (21=58.3%), followed by natural (12=33.3%) and facetted types (3=8.3%).

The length/width diagram of the complete unretouched artefacts (fig. 6), shows a high percentage of flakes (75.0%) dominated by blade-like flakes (33.3%) and flakes (25.0%). The blades represent 25.0% of the total assemblage. Most of the artefacts (26=72.2%) are of hypermacrolithic dimension (>8 cm), followed by macroliths (6-8 cm: 9=25.0%) and normoliths (4-6 cm: 1=2.8%). The carination diagram

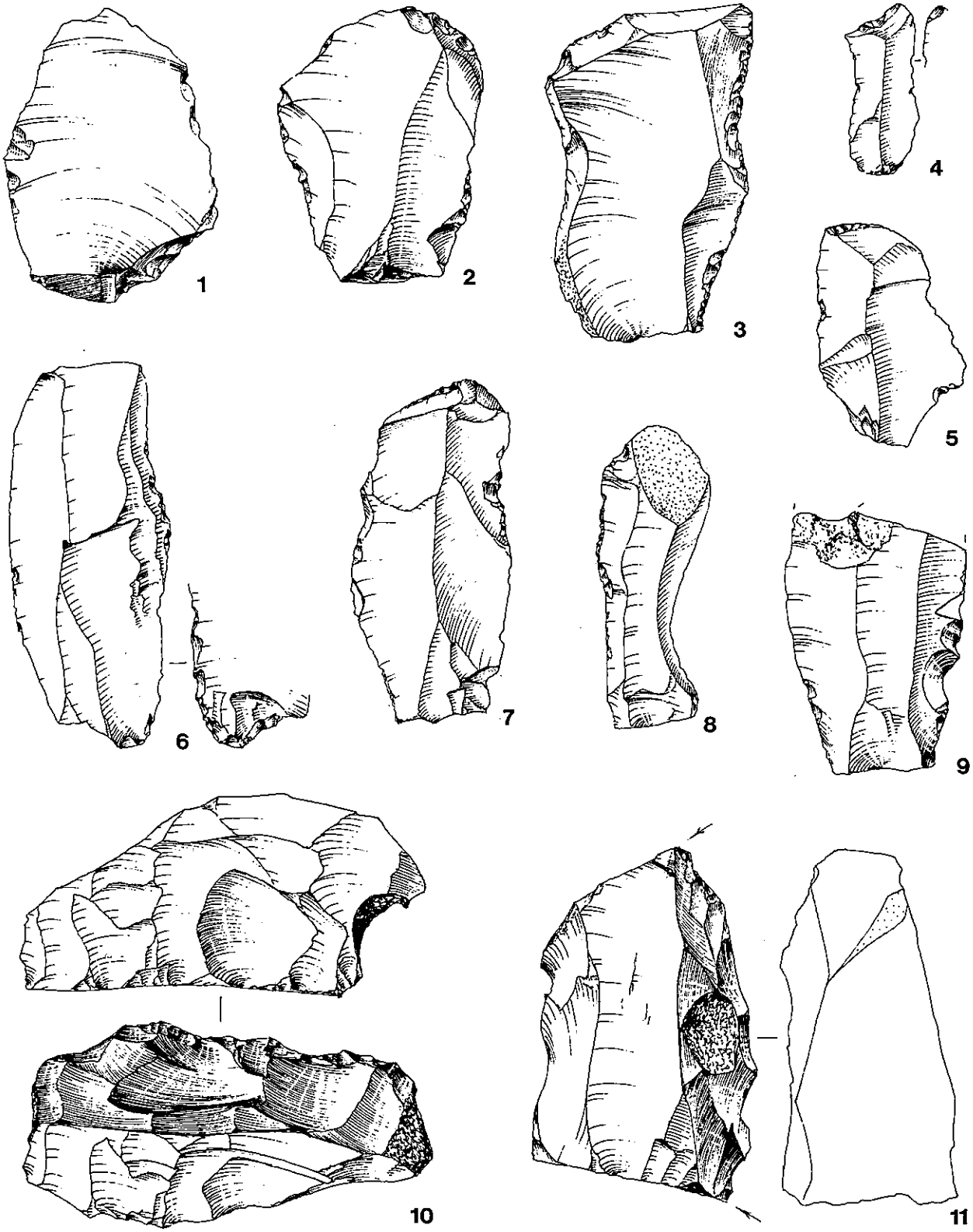

Fig. 3 - Site 1288: flakes (1-3), blades (4-9) and pre-cores (10 and 11) (2:3) *(drawings by G. Almerigogna).*

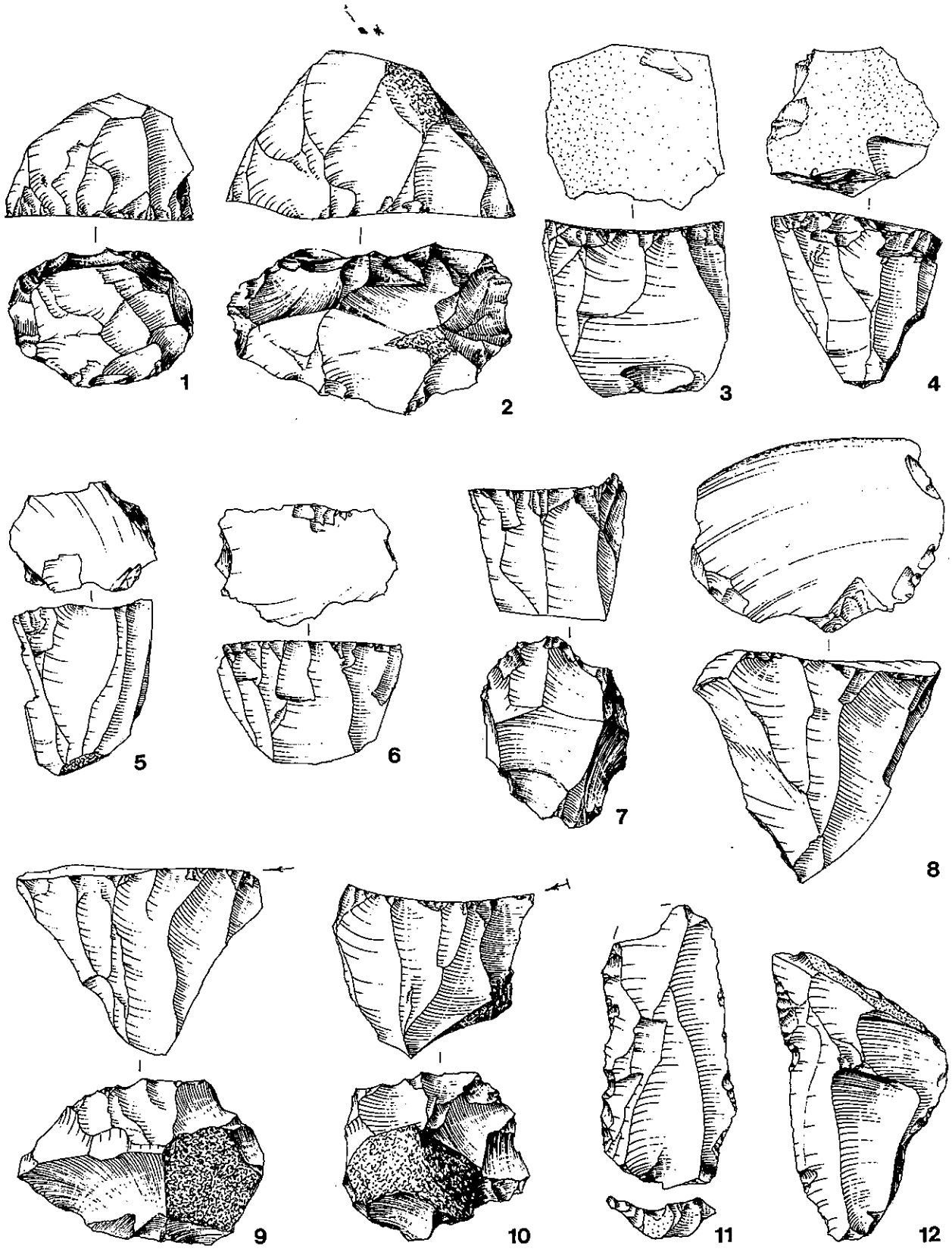

Fig. 4 - Site 1288: subconical blade cores (1-8); workshop 1288A: subconical cores (9 and 10) and side scrapers (11 and 12) (2:3) *(drawings by G. Almerigogna).*

indicates a higher percentage of flat artefacts (47.2%), followed by thinck ones (30.5%).

Other sites

After the discovery of site 1288, the mesa just to the north was surveyed in February 1994. It revealed a great number of large-dimension Late Palaeolithic workshops scattered in an area of at least 1.5 square kilometres. Another site, located on the top of a hill some 4.0 km south-east of the Shrine of Shadee Shaheed, was also discovered and called site 1293 (fig. 1).

During the survey carried out along the terrace south of the shrine, two more Late Palaeolithic sites were detected slightly in the interior and called 1289 and 1290 (plate 2A).

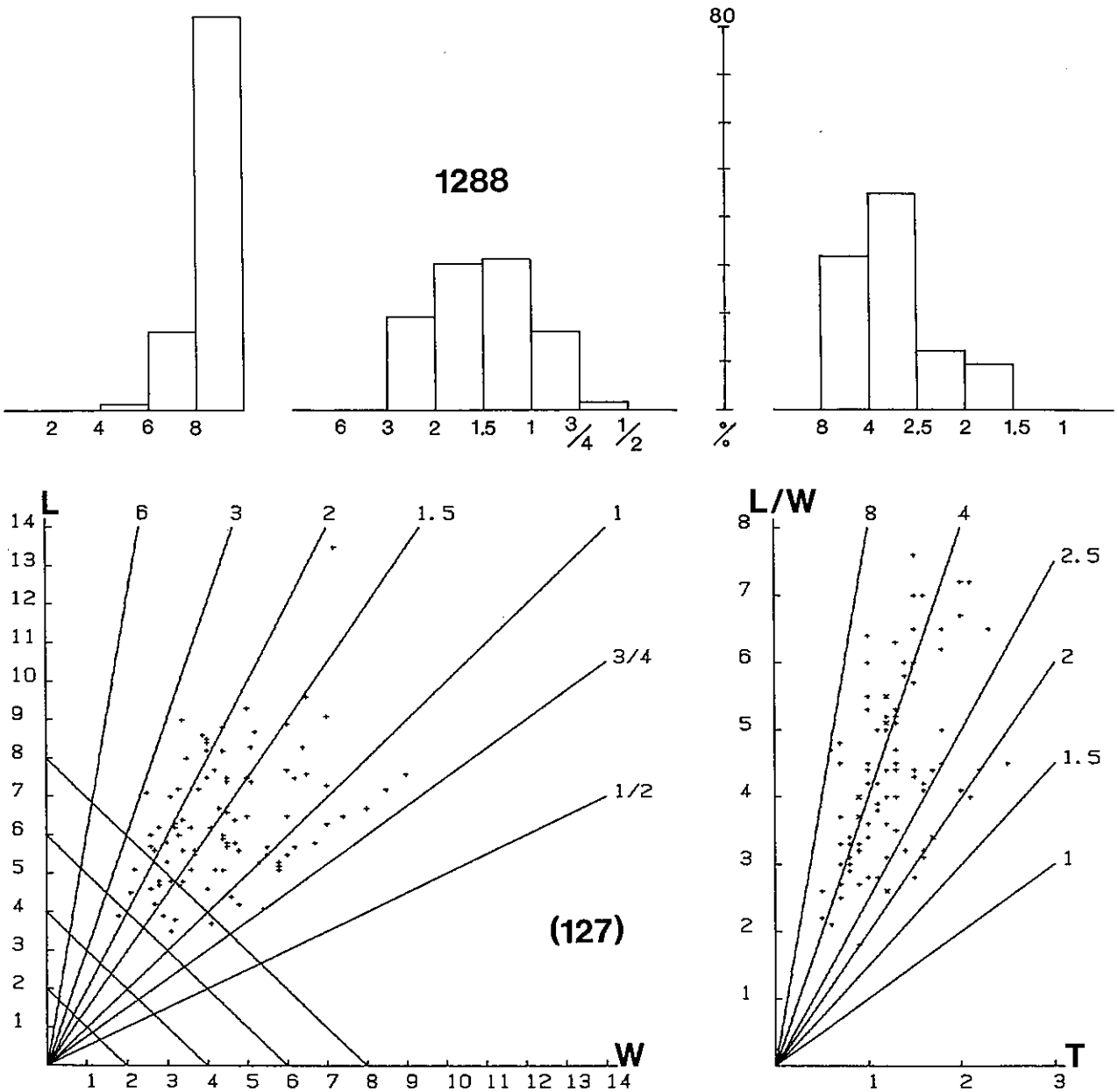

Fig. 5 - Site 1288: length/width and length-width/thickness diagrams and histograms of the unretouched artefacts *(drawing by P. Biagi).*

The first had already been partly destroyed by the Baluchi quarriers, while the second (1290) lay still intact on the top of a low hill. This latter was accurately mapped. It was composed of twenty-four small flint workshops (plate 2B-D) distributed towards the edges of the terrace (plate 3B). They all were characterised by flint assemblages including subconical blade cores and unretouched blades and flakes almost identical to those from site 1288. No artefacts were collected from the surface of these structures in order to preserve the site intact for future investigations. The presence of small, circular, cleared zones, mainly distributed on the topmost points of the hill (plate 3A) are to be related to recent works, such as the excavation of water containers, undertaken by the Baluchi nomads and not to activities carried out by the prehistoric knappers.

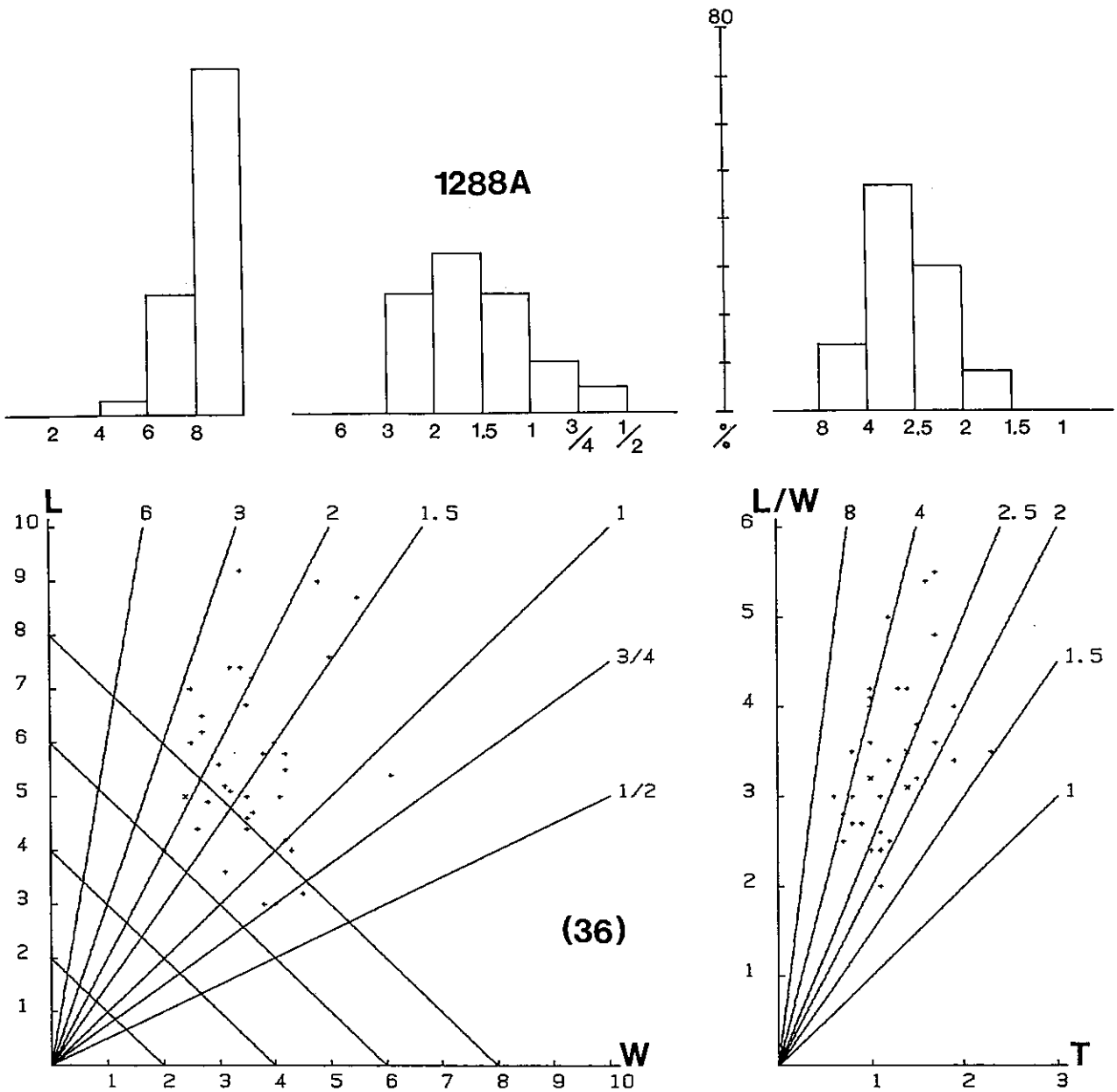

Fig. 6 - Workshop 1288A: length/width and length-width/thickness diagrams and histograms of the unretouched artefacts *(drawing by P. Biagi)*.

Considerations

The Late Palaeolithic sites discovered in 1994 on the Rohri Hills are of particular importance for the Late Pleistocene archaeology of the Subcontinent and the neighbouring regions, from which the assemblages of this age are extremely rare (Agrawal, 1985; Davis, 1978; Derevyanko and Lü Zun-E, 1992; Salim, 1986).

The distribution of the Late Palaeolithic sites on the Rohri Hills seems very distinct from that of the Harappan ones. In fact the Harappan quarries and workshops are mainly scattered along the edges of the westernmost mesas facing the Indus Valley; on the contrary, the Late Palaeolithic sites lie somewhat in the interior, on slightly higher rows of terraces, sometimes parallel to the previous ones (fig. 1).

Site 1288 yielded an assemblage characterized by subconical blade cores of various types, unretouched blades and flakes extremely similar to those from sites Rohri E and Chancha Baluch described by Allchin *et al.* (1978). Also these latter sites gave flint assemblages with a high percentage of blades attributed by the abovementioned authors to the Late Palaeolithic. The assemblages also include subconical blade cores with slightly concave striking platform, obtained with one single trasversal blow. The description, given by Allchin *et al.* (1978: 287), for the patina of the instruments from Rohri E and Chancha Baluch, also coincides as well as the observations on the characteristics of these industries that highly differ from those of the Harappan Culture.

Strong similarities can also be pointed out with the assemblage from the station of Budha Pushkar in Central Rajastan, in the occurrence of a high number of subconical blade cores and blades (Allchin and Goudie, 1974: 362); while no acceptable comparisons can be made with that of Didwana in the Indian Thar desert (Misra and Rajaguru, 1986), some 700 kilometres east of the Rohri Hills.

The general impression is that around the beginning of the Late Palaeolithic some territories of the Rohri Hills were, at least in certain periods, densely, settled. Most probably the Late Palaeolithic hunters selected those particularly rich in natural flint nodules lying on the surface. The abundant flint débitage of some the workshops discovered in 1994 indicates that a noticeable chipping activity was carried out at these sites, many of which seem to be strictly connected with the manufacture of blade tools.

AKNOWLEDGEMENTS

The Authors are very grateful to Dr. Rafique Mughal, Director General of Archaeology and Museums, Government of Pakistan, for permitting the continuation of the "Joint Rohri Hills Project". Particular thanks are also due to the Vice-Chancellor of the Shah Abdul Latif University, Dr. Abdul Hameed Memon and to Dr. Nilofer Shaikh, Chairperson of the Department of Archaeology of the same University and Project Director, for all their help during the stay of the Italian team at the Shah Abdul Latif University campus.

Many thanks are also due to all the other participants in the 1994 campaign, namely H. Laghari, A. Quayoom Mahar. Q. Mallah and M. Veesari (PK) as well as to L. Castelletti, M. Madella, A. Maifreni, F. Negrino, C. Ottomano, A. Ratti and E. Starnini (I).

The Authors are very grateful to Dr. B.A. Voytek of the Department of Slavic and East European Studies of the University of Berkeley (USA) who revised the english text of this article.

Dipartimento di Scienze
Storico-Archeologiche e Orientalistiche
Università di Venezia

Department of Archaeology
Shah Abdul Latif University, Khairpur (PK)

Dipartimento di Scienze Archeologiche
Università di Pisa

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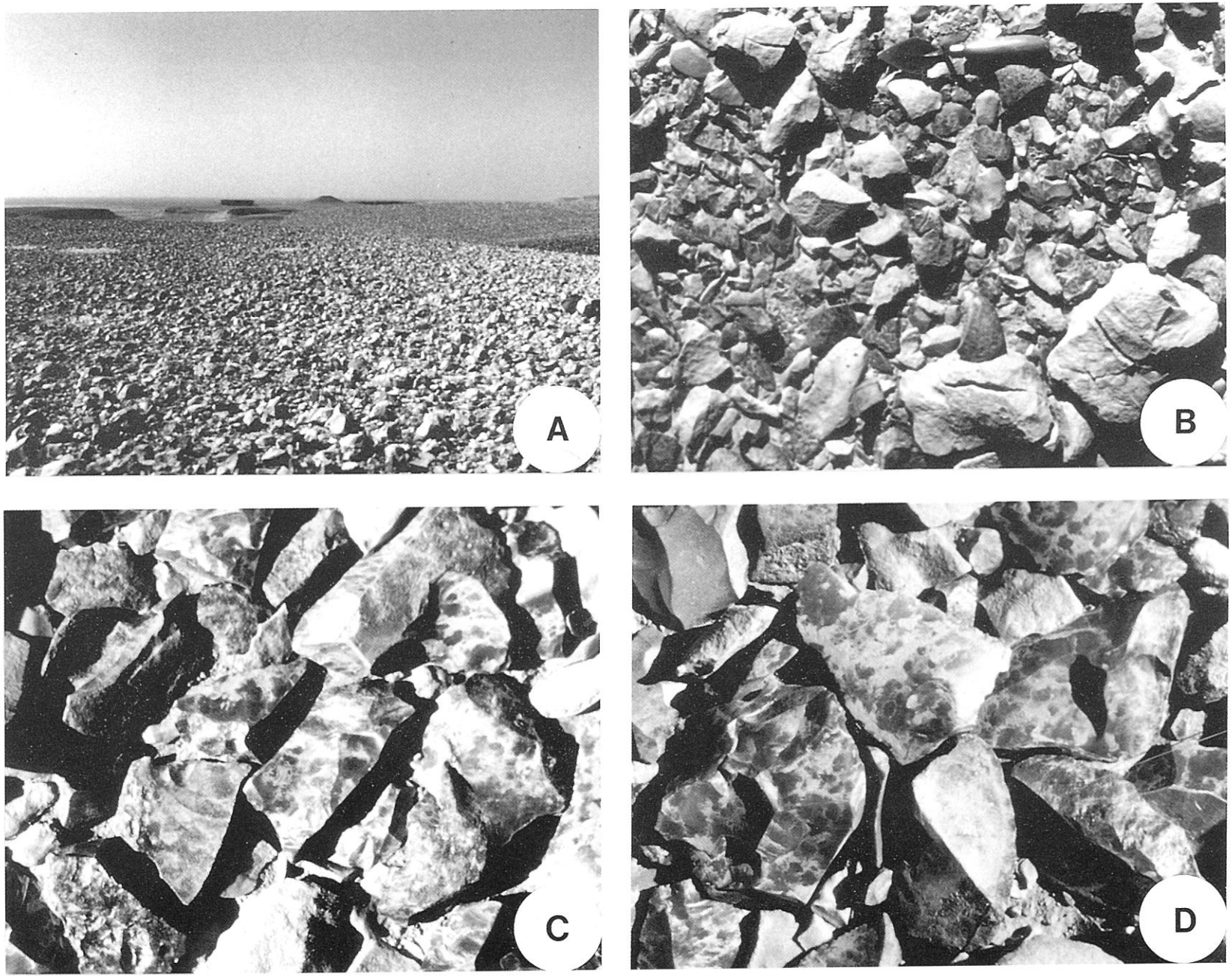

Plate 1 - Site 1288: location (A), workshop 1288A (B) and flint blades on the site surface (C and D) *(photos by P. Biagi).*

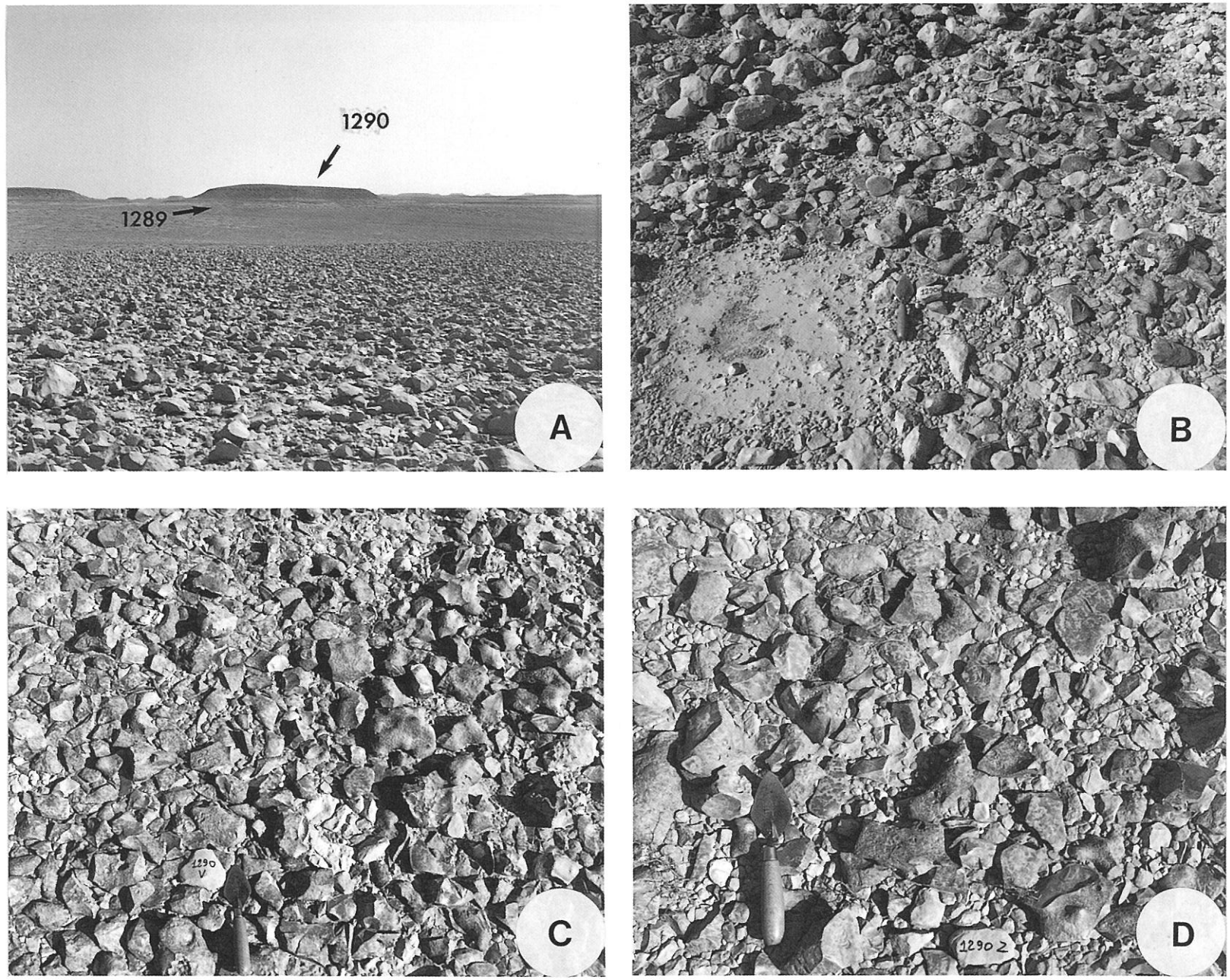

Plate 2 - A view of sites 1289 and 1290 from the north (A). Site 1290: workshop A (B), V (C) and Z (D) *(photos by P. Biagi).*

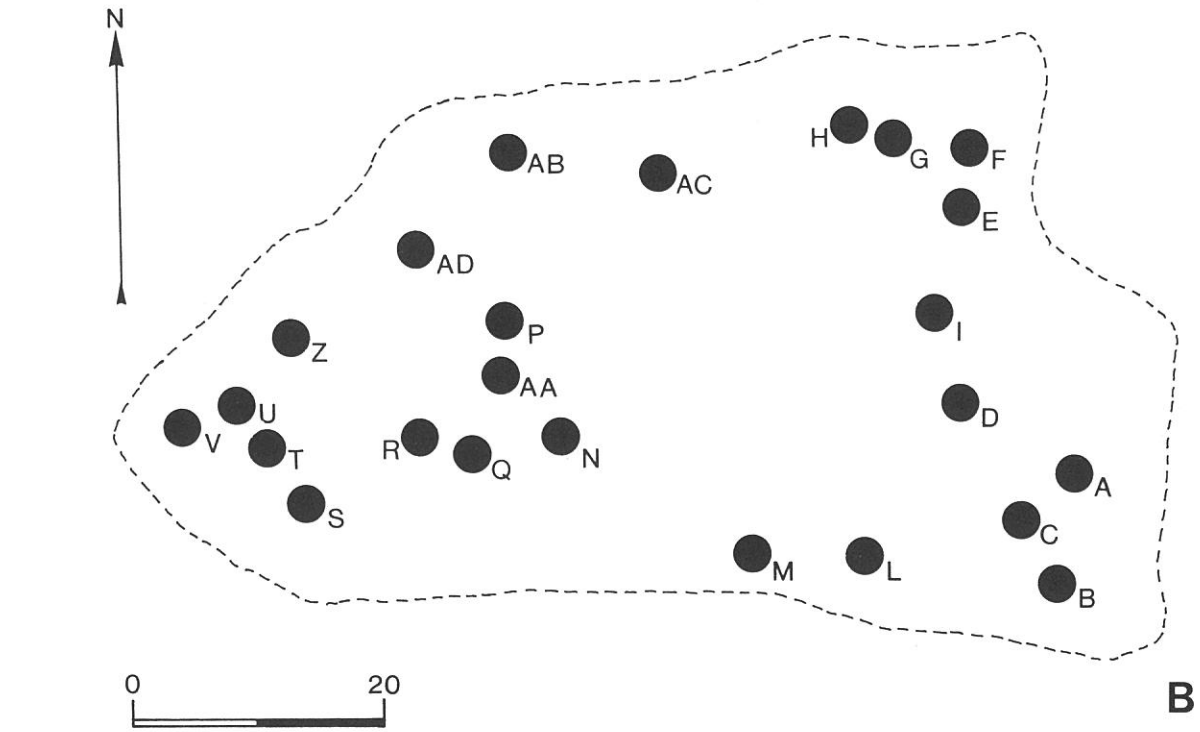

Plate 3 - Site 1290: balloon photograph from an altitude of 123 metres (A) and distribution map of the Late Palaeolithic workshops (B) *(photo and drawing by A. Maifreni).*