

PALEOLITHIC SITES WITHIN THE
RAS EN NAQB BASIN, SOUTHERN
JORDAN

by

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In September, 1977 a brief archaeological reconnaissance was conducted near the village of Ras en Naqb, southern Jordan in order to determine the feasibility of initiating a multi-disciplinary investigation of the Ras en Naqb basin. The proposed study would focus on the reconstruction of paleoenvironments and on the definition of prehistoric adaptive strategies which spanned much of the upper Pleistocene. The study area of Ras en Naqb appears to provide an ideal setting for addressing these problems due to the heavy erosional activity which has revealed large numbers of prehistoric sites in southern Jordan and the marked elevational/environmental diversity which should have made the area sensitive to both long - and short-term climatic fluctuations. A question remained, however, as to whether prehistoric sites were to be found in high enough densities and in proper contexts to warrant further investigation.

Site Description

During a two day reconnaissance of portions of the Ras en Naqb basin four prehistoric sites were discovered (Figure 1). The sites represented an Epipaleolithic, an Upper Paleolithic, and two Mousterian occurrences. Due to the nature of the reconnaissance, only a few artifacts were collected from each of the sites in order to gain a general impression of the assemblages and to assist in the chronologic placement of the sites.

Epipaleolithic

An Epipaleolithic site was found deflating

from a dune which runs along the west side of the main stream of Wadi Ras en Naqb about 4 km, upstream from the basin's opening into the Wadi Hisma. Microlithic artifacts were distributed over the surface of an area approximately 150 m. long and 20 m. wide and were confined to those areas of the dune in which reddish, compact sand was exposed. The zones of reddish sand are viewed as belonging to a fossil dune surface resting under the recent dunes in the area.

The artifacts recovered from the site represent a single lithic industry which was based upon the production of rather broad bladelets and micro-bladelets from opposed platform cores (Figure 2 : a-e). While geometric microliths are associated with the assemblage, microburins were not found. The apparent absence of microburins, however may have resulted from the cursory examination of the site. A highly translucent gray chalcedony, exhibiting a gravel cortex, furnished the raw material for the assemblage.

Upper Paleolithic

A site tentatively identified as containing Upper Paleolithic artifacts was discovered approximately 1 km. upstream from the Epipaleolithic site. The site is located in deposit of sandy silt which is exposed along the west bank of the Wadi Ras en Naqb about 6 m. above the channel. Artifacts were found eroding along the crest of the high ground running parallel to the wadi in areas where the silt was exposed through the surface

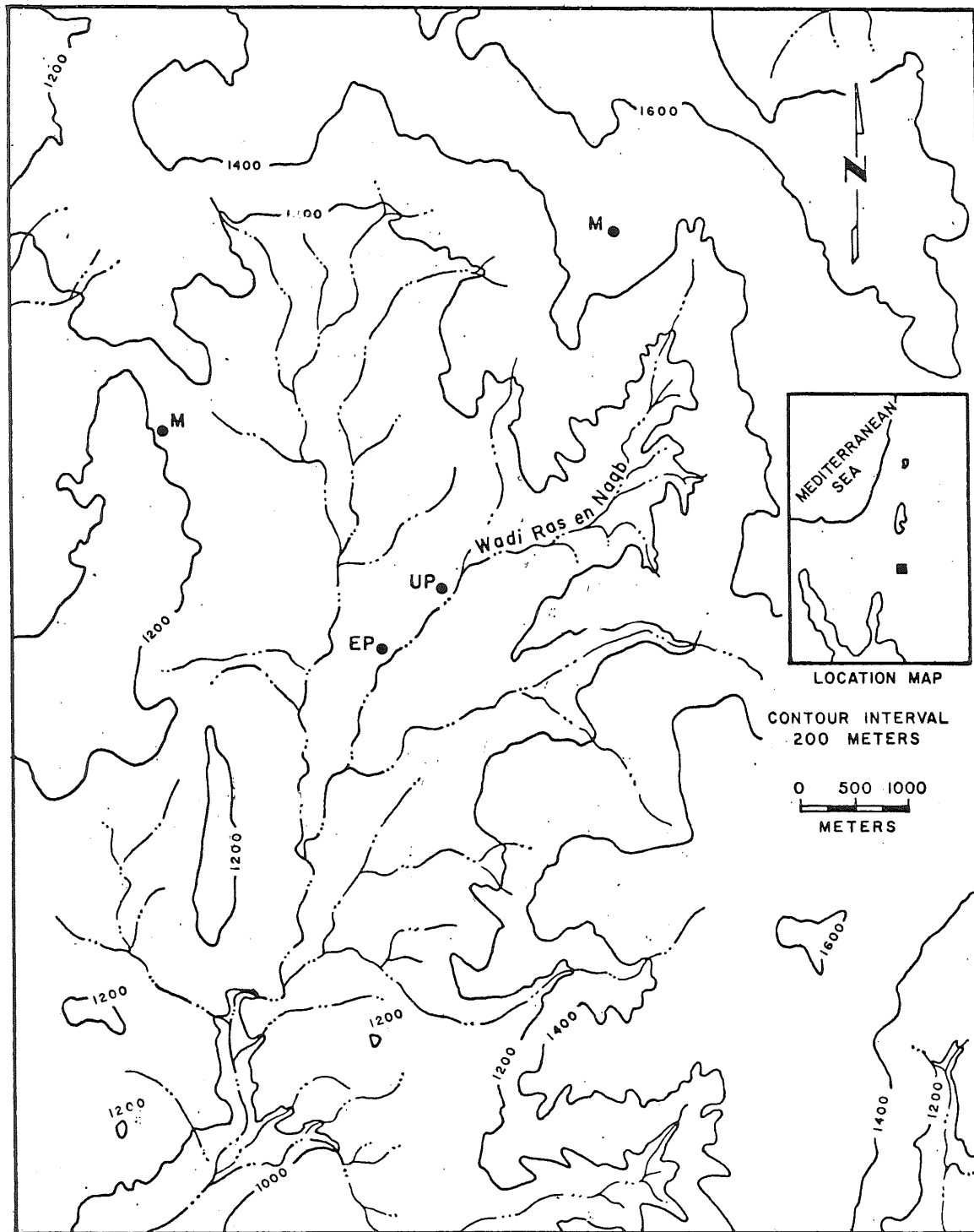


Fig. 1 Map of the Ras en Naqb basin, southern Jordan, indicating locations of Epipaleolithic (EP), Upper Paleolithic (UP), and Mousterian (M) sites.

sand.

Although artifacts which are diagnostic of an Upper Paleolithic industry were not recovered, the presence of backed blades, backed flakes, and blade cores are suggestive of an Upper Paleolithic occurrence (Figure 2 : f.g). Furthermore, the absence of a microlithic element in the assemblage, in conjunction with the site's stratigraphic position which appears to underly the sands containing the nearby Epipaleolithic site, supports the assemblage's proposed Upper Paleolithic affiliation.

Mousterian

Two Mousterian sites were discovered in quite different topographic settings. One site is situated on a bench about 100 m. beneath the rim of the Edom Plateau at an elevation of over 1,400 m. Artifacts are distributed over the surface of an area covering some 1,000m² in extremely high densities. Although the site has obviously been deflated, there is a possibility that it contains cultural horizons which are *in situ*.

A striking aspect of the assemblage is the large size of tools, debitage and debris (Figure 3 : c, d, f). Large Levallois cores and flakes characterize the assemblage which has been fabricated from a gray translucent chalcedony. Although many of the artifacts exhibit a light gray to cream patination, they display fresh non-abraded edges.

The second Mousterian site was found in a dune area which fronts the sandstone outlier that forms the western edge of the basin. The site, resting at about 1,200 m elevation, displayed a low density of artifacts scattered over approximately 300 m². A small Levallois core, a side scraper on a Levallois point, and a burin were collected from the surface (Figure 3 : a, b, e). Although fresh in

appearance, the artifacts exhibit a white patination and carbonate encrustations.

Discussion

While intensive systematic surveys of Paleolithic sites have not been conducted in southern Jordan, several reconnaissances have furnished information on the varieties and densities of Paleolithic occupations in the region (Kirkbride and Harding, 1947; Zeuner et al., 1957; Kirkbride, 1960; Field, 1960; Huckreide and Wiesemann, 1968; Copeland and Hours, 1971; Price and Garrad, 1975). In excess of forty sites representing Lower Paleolithic, Middle Paleolithic, Upper Paleolithic, Epipaleolithic and Neolithic industries have been recorded in southern Jordan (Stockton, 1969). Detailed studies and excavations, however, have only been initiated on late Pleistocene and early Holocene occupations attributed to Epipaleolithic and Neolithic industries at the sites of Beidha (Kirkbride, 1966; Mortensen, 1970), Wadi Madamagh (Kirkbride, 1958), and Wadi Dhobai (Wachter and Seton-Williams, 1938). From these preliminary studies, it is evident that the region exhibits a high density of Paleolithic occupations which span most of the upper Pleistocene.

As documented by the four sites described in this report, the the Ras en Naqb basin apparently displays a density and time-span of Paleolithic sites similar to that recognized for the region as a whole. Subsequent to the reconnaissance it was learned that a Neolithic site is also situated in the basin (Crystal-M. Bennett, personal communication).

If an estimate of site density within the basin is made upon the basis of the number of sites recorded in the reconnaissance of less than 5% of the total basin area (approximately 73 sq. km.), then some 80 sites would be

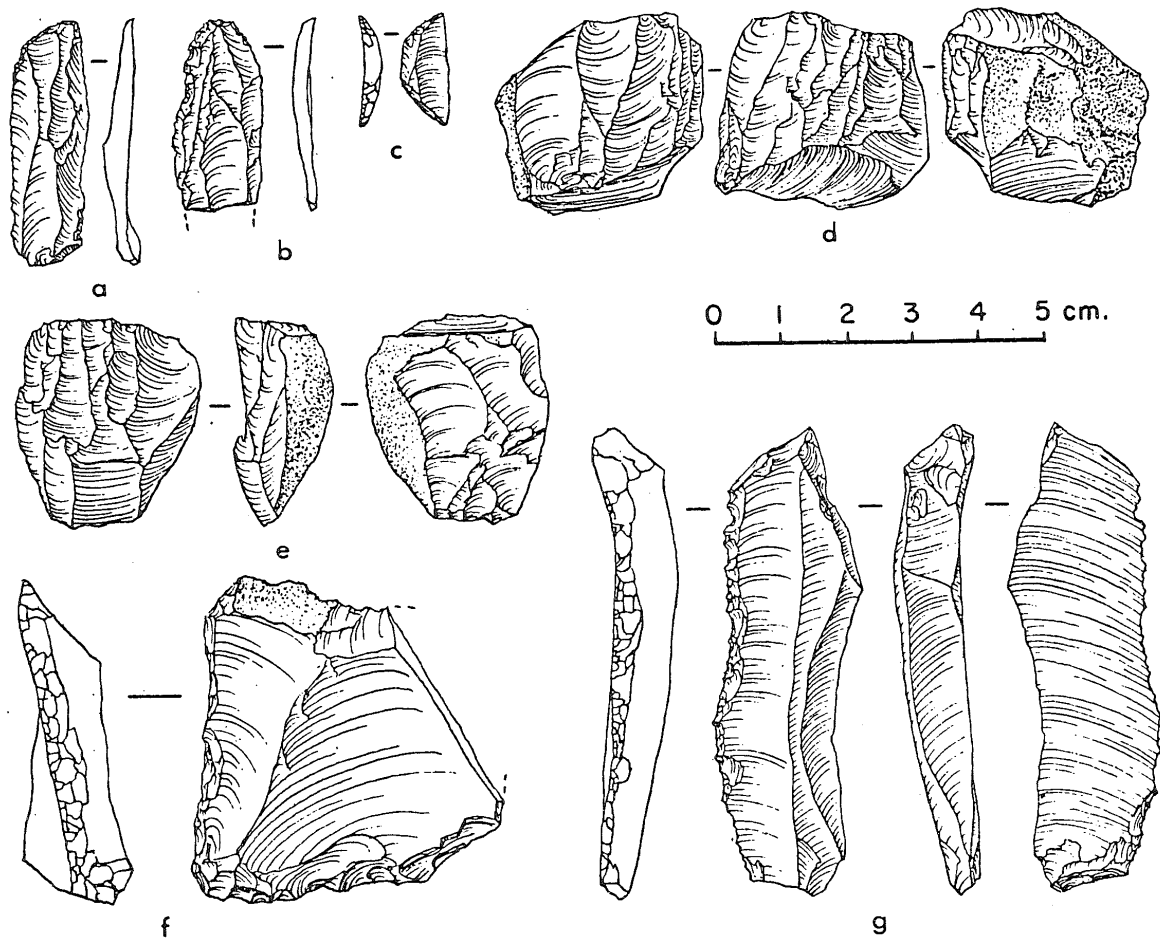


Fig. 2 Illustrations of Epipaleolithic and Upper Paleolithic artifacts:

lightly retouched bladelets (a,b), unfinished (f), backed and denticulated blade (g).
 trapeze (c), bladelet cores (d,e), backed flake

predicted. However, this estimate is probably too high, for those portions of the basin which exhibit surfaces unlikely to contain sites were excluded from the reconnaissance. Judging from the number of prehistoric sites which were recorded in the total surveys of areas in the Negev (Marks, 1976) and the Azraq Marshes (Garrad and Price, 1975), an estimated 40 to 60 sites within the basin would seem more reasonable.

The evidence acquired from the brief examination of the basin provides for a tentative framework on which to compare the cultural and paleoenvironmental sequences of the upper Pleistocene for the area.

The Mousterian site which is located on a bench beneath the rim of the plateau would appear to be the earliest of the recorded occurrences in the basin. The surface on which the site rests extends around the northern and eastern edges of the basin on the flanks of the plateau and is being dissected by tributaries of the Wadi Ras en Naqb. The elevation of the surface at almost 300 m. above the present floor of the basin implies a significant erosional cycle subsequent to the Mousterian occupation. The geomorphic setting of the surface parallels that recognized for an early Mousterian surface defined in the highland Negev (Goldberg, 1976 : 45-46). The other Mousterian site, situated in a fossil dune on the basin floor, apparently post-dates the erosional cycle and may relate to the postulated arid phase of the late Mousterian (Goldberg, 1976:53; Marks, 1977:7) in the Negev.

A precise chronological placement of the Upper Paleolithic site is not practical due to the absence of temporally diagnostic artifacts. The presence of geometric microliths (trapezes) in the Epipaleolithic assemblage suggests that the site is roughly contemporaneous with

Geometric Kebaran occurrences and therefore dates from approximately 11 - 15,000 B.C. (Henry and Servello, 1974:34; Bar-Yosef and Phillips, 1977:257). Furthermore, the position of the site in a fossil dune is in concert with the wide spread arid phase associated with the Geometric Kebaran as recognized in the Negev (Marks, 1977:7), Sinai (Goldberg, 1977:29), and in the northern Levant (Henry and Leroi-Gourhan, 1976:405).

Conclusion

The four sites discovered in the brief reconnaissance of the Ras en Naqb basin suggest that the area has a high density of sites and a prehistoric record which spans most of the upper Pleistocene. Additionally, the geologic settings of the sites have a potential for containing occupations which are in primary archaeological contexts in conjunction with paleoenvironmental evidence.

Although there appear to be broad parallels between the upper Pleistocene prehistory of the basin and the southern Levant, an intensive study is needed to define the relationship between the two regions. Prehistorians have paid considerable attention to circum-Mediterranean interaction between the Levant, northeast Africa, and the Nile Valley. Little is known, however, of the prehistoric relationship of the Levant to inland areas such as the southern Trans-jordanian Plateau.

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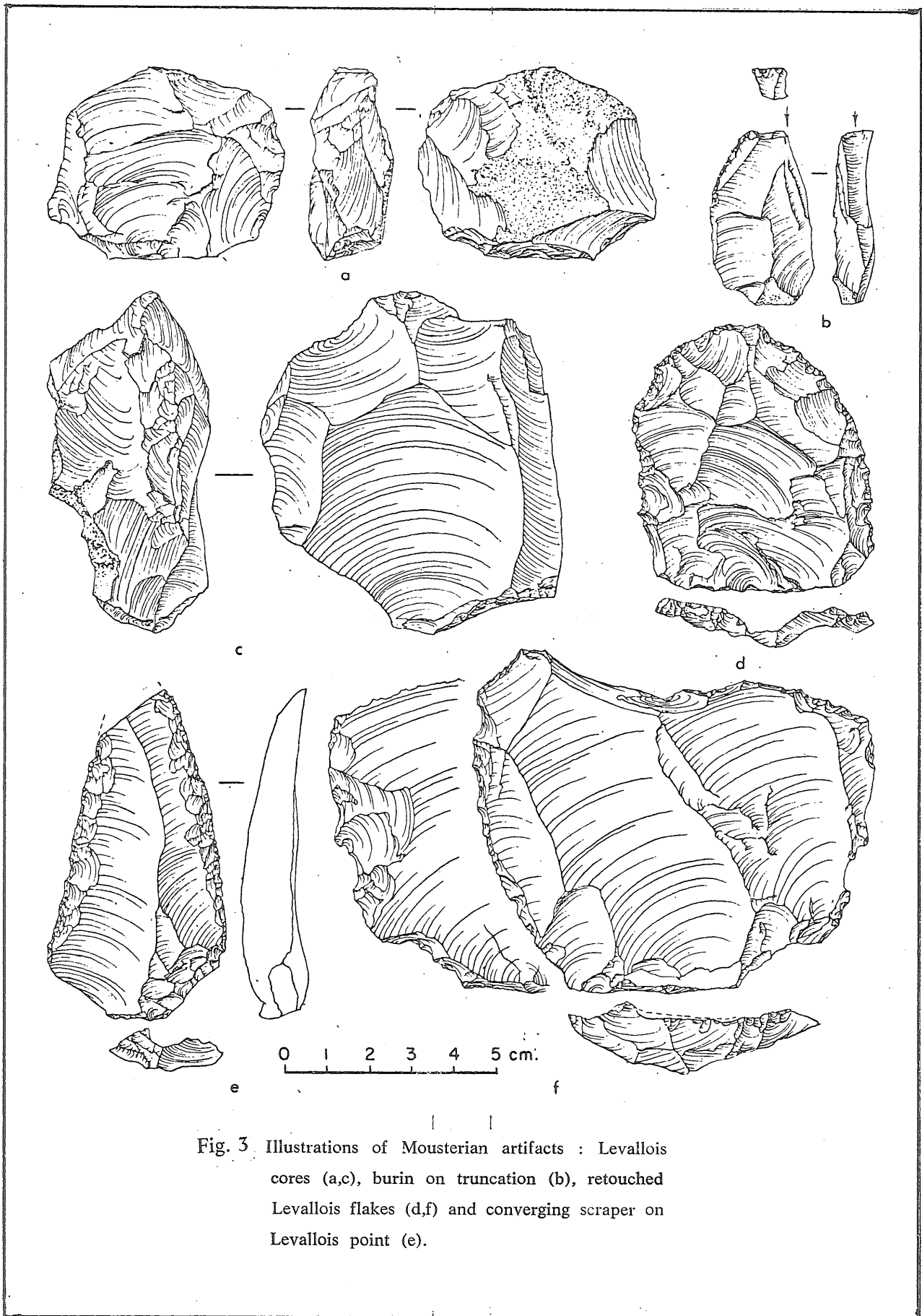


Fig. 3. Illustrations of Mousterian artifacts : Levallois cores (a,c), burin on truncation (b), retouched Levallois flakes (d,f) and converging scraper on Levallois point (e).

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