

1986 EXCAVATIONS AT DHUWEILA, EASTERN JORDAN A PRELIMINARY REPORT

by
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In April/May 1986 excavations were undertaken at the site of Dhuweila, a small prehistoric hunting camp in the basalt *hammada* east of Azraq. The excavations were carried out with kind permission of the Department of Antiquities of Jordan as part of the Black Desert Survey, a project sponsored by the British Institute at Amman for Archaeology and History. I would like to thank Dr. Adnan Hadidi, Director of Antiquities and our Department Representative Mr. Ibrahim Haj Hassan for all the assistance afforded us in the field. The excavations were funded by The British Institute at Amman for Archaeology and History, The British Academy, The G.A. Wainwright Fund, The Prehistoric Society, The Society of Antiquaries of London, The Ashmolean Museum and Manchester Museum.

Dhuweila is a small prehistoric hunting camp lying on a low basalt ridge overlooking a series of mudflats, just north of the modern Trans-Arabian Pipeline track (Figs. 1, 2). There have been two stages of occupation at the site, the first, Stage 1, dated in the late Pre-Pottery Neolithic B period. A radio-carbon date of 8190 \pm 60 bp (BM-2349) was obtained from charcoal in a hearth just above bedrock. On typological grounds Stage 2 can be dated in the Late Neolithic, probably the late 6th to 5th millennia B.C. No radio-carbon dates are yet available for this stage. The main part of the site consists of an oval pile of tumbled rocks about 20 metres long and 12 metres wide. For excavation it was divided into four quadrants about a central point. Each of these quadrants was subdivided into squares of 4 x 4 metres. All soil was sieved through 5mm mesh. Samples for flotation were collected after sieving although logistics limited the amount of soil which could be processed. In addition to the main site, one metre square test pits were cut around the

perimeter to check the extent of occupation.

Stage 1 consists of one or more well built huts with thick walls constructed of carefully laid basalt blocks, often selected to present a smooth surface, particularly to the interior of the building. No complete structures could be distinguished, but where preserved the walls were roughly rectilinear. Inside the structures were several phases of occupation debris including ash deposits and clay-lined pits. A series of thinner curving walls was attached to the outer face of the main wall in the east quadrant and the area immediately outside the building was heavily disturbed by a number of pits and hearths, most of them ringed with small stones. In later phases the exterior pits were re-cut and stone platforms laid outside the main structures.

When the site was re-occupied in Stage 2, much of the original structures must still have been standing as whole sections of wall were incorporated into the buildings of the new stage. The main building uncovered was a stone structure over eight metres long, lying parallel to the crest of the ridge. It was entered at the eastern end by a narrow paved corridor and some stone steps leading down into the interior which was cleaned out almost to bedrock, leaving some traces of the original Stage 1 occupation debris sealed beneath the lowest floor. This floor was of large flat basalt slabs, one of which had been used as a grinding stone. The grinding stone was roughly circular and had a central hollow. Basalt rubbers, flint tools and miscellaneous occupation debris were found on this floor which was in turn sealed by a second and more extensive flagstone floor. Later and less clearly defined phases could be distinguished in the uppermost levels. Structures within these included two curving stone platforms, one enclosing a

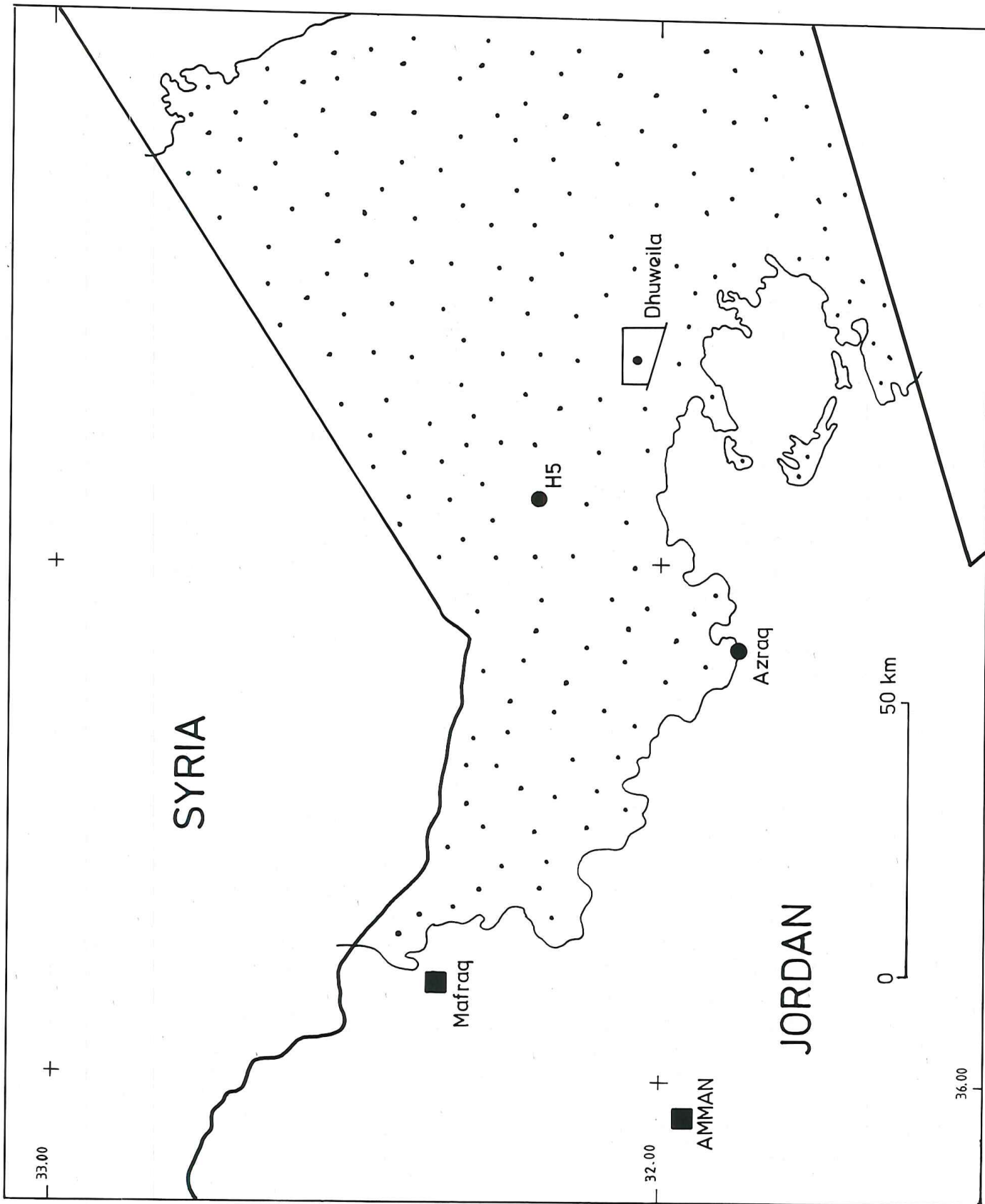


Fig. 1: Eastern Jordan.

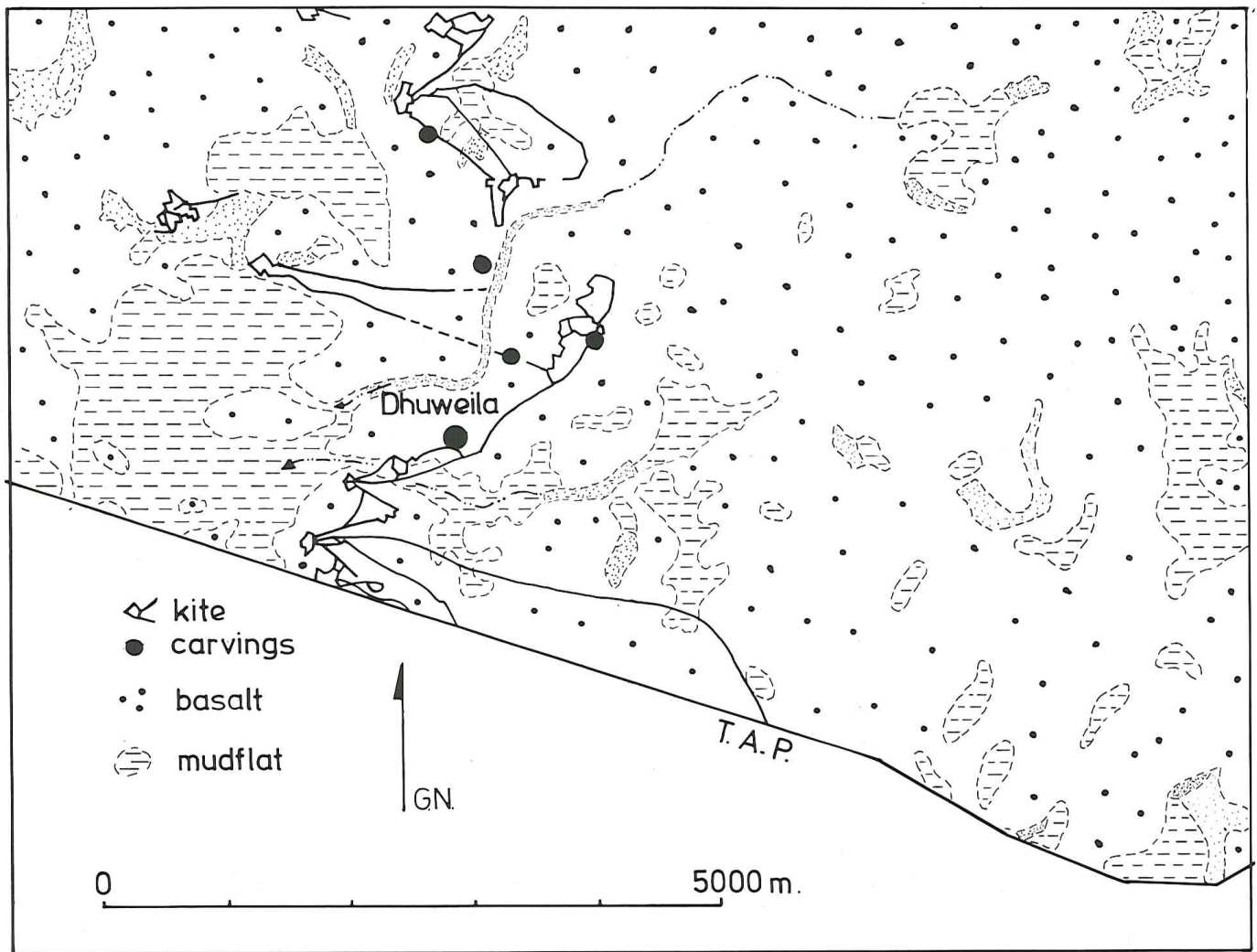


Fig. 2: T.A.P. line: Dhuweila.

grinding stone with a central hollow. Southeast of the main structural complex was a corral formed in part by an extension of the eastern wall of the main complex which swung around to link with a 'kite' wall running up to the southeastern corner of the site.

Finds from the site included large amounts of chipped stone, basalt rubbers and grinding stones, some shells and stone beads, one limestone animal figurine and some fragments of fabric impressed plaster. Preliminary analysis of the plaster seems to suggest that the fabric may have been linen (McClintock pers. comm.). The basalt tools were found predominantly in Stage 2 and the impressed plaster belongs to this later stage also. Although Stage 2 appears to be contemporary with the Pottery Neolithic in Syria/Palestine, the site is almost aceramic. The few sherds recovered fall into two classes. Most are coarse

red ware with basalt inclusions and smoothed or burnished surfaces. They come from vessels moulded over a form, with the clay applied in layers. One sherd is finer buff ware and is from a hand built pot. The site also yielded considerable amounts of bone and some carbonized botanical remains, both of which are in the process of analysis. Preliminary examination of the faunal remains (Garrard pers. comm.) shows very high proportions of gazelle in Stage 1, together with some equid and small game. Remains from Stage 2 reflect a similar pattern, but may also include some domestic sheep.

Preliminary study of the chipped stone indicates that in Stage 1 (PPNB) blades are struck predominantly from bipolar cores, some of naviform type (Fig. 3). These are mostly made on blocks of tabular flint with cortex remaining on one or both sides. Irregular flake cores were also found.

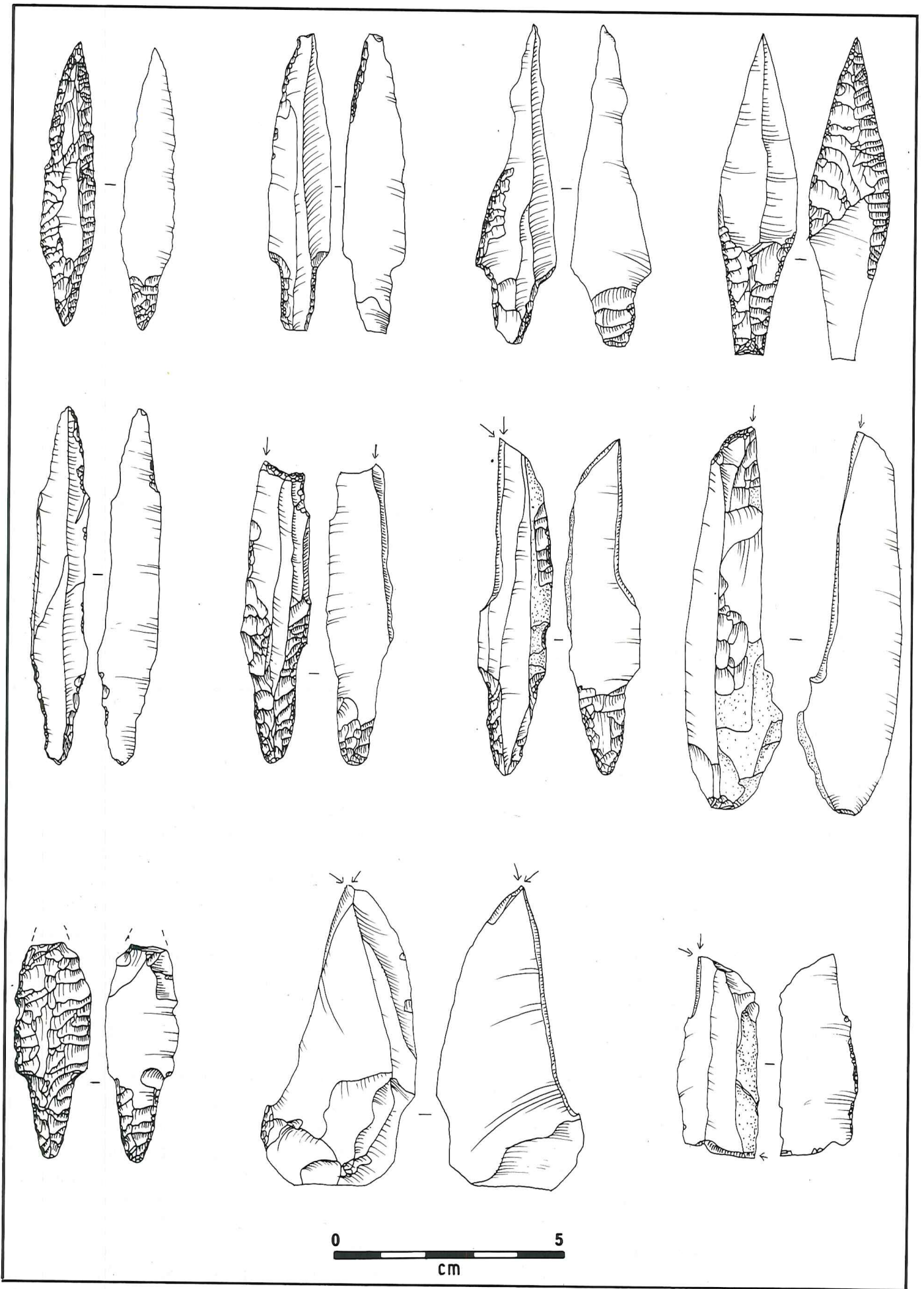


Fig. 3: Dhuweila Stage 1: Chipped stone tools.

Roughouts and partially prepared cores, as well as quite high incidences of core trimming elements show that some knapping was carried out on site. The raw material used is mostly a medium grained grey tabular chert typical of the limestone *reg* which must have been brought in from a source at least 20 kilometres away. Arrowheads and burins both feature strongly among the tools in Stage 1. Scrapers, borers and bifacial tools occur in small numbers and sickle blades are very rare. Arrowheads are mostly of Beïda and Byblos type. True Amuq and Jericho points seem to be absent. The burin class includes both dihedral and truncation forms.

In Stage 2 (Late Neolithic) the industry is less heavily blade based (Fig. 4). Cores are irregular and both blade and flake blanks are smaller. Blade cores tend to have single platforms. Core trimming elements are rare, probably due as much to a change in knapping techniques as to a reduction in on-site blank production. The raw material is again mostly medium grained chert, but there is some use of fine smooth grained creamy chalcedony, especially for the smaller arrowheads. Arrowheads are common in the toolkit. These are mostly small bifacially pressure-flaked forms typical of the late Neolithic in Syra/Palestine. Some are tanged and others leaf-shaped. Together with these are transverse arrowheads which fall into two groups, one with distinct tangs and the other with triangular or trapezoidal plans. Other tools include tabular scrapers and fine bifacially pressure-flaked knives, some burins, borers and a very few sickle blades.

One particularly interesting aspect of the site is the rock carvings (Fig. 5). These were found stratified in Stage 1 and on loose rocks around the site. Most are finely engraved animals, probably gazelle or in some cases equids. Two carvings show human figures and in both cases the figures appear to be wearing costumes of some kind and carrying sticks or weapons. Similar carvings were also recorded from two other nearby sites, Abu Masyadah esh-Sharqi and Abu Masyadah el-Gharbi (Betts n.d.). All the carvings are on basalt,

either small cobbles or slabs of exposed bedrock. Most are carved with fine semi-continuous scratched lines and in some cases the body of the animal has been emphasised by pecking.

The significance of such carvings is naturally open to speculation. One interesting aspect is that the stratified examples appear to have been used in structures after the carving was made, and without regard for the design. In most cases the carving was on the side of or underneath the rock when it was placed in the structure. One such stone, used to line a firepit, had one carving upside down facing the fire and the other covered by the adjacent stone of the pit lining. On this basis, it could be argued that the carvings pre-dated the PPNB occupation at Dhuweila and merely happened to be lying around on the surface when the site was first occupied. However absolutely no trace of earlier occupation was found, either on or near the site, and the same styles of carvings have been found at several other sites in the general area, all associated with scatters of diagnostic PPNB flints.

Stage 1 at Dhuweila seems to represent a short-term hunting camp, perhaps revisited on a fairly regular seasonal basis. The fauna, the toolkit and the carvings all indicate a preoccupation with hunting, particularly of gazelle. There are no permanent water sources near the site and it seems likely that it was occupied in winter or spring when standing water would be available in the *ghadirs* and *qa's* and the fresh grazing would attract animals to the area. The solid nature of the buildings, set against the prevailing wind, also suggests that some protection was needed against the inclement weather of the colder season. It is likely that the first stage of occupation is linked to the use of some of the many 'kites' (animal traps) in the vicinity. Area survey in the region has produced broken points of PPNB type in and around a number of 'kite' enclosures (Helms and Betts n.d.), and Abu Masyadah el-Gharbi, Abu Masyadah esh-Sharqi and one other PPNB site in the vicinity of Dhuweila were all incorporated into 'kite' walls. Dhuweila lies between

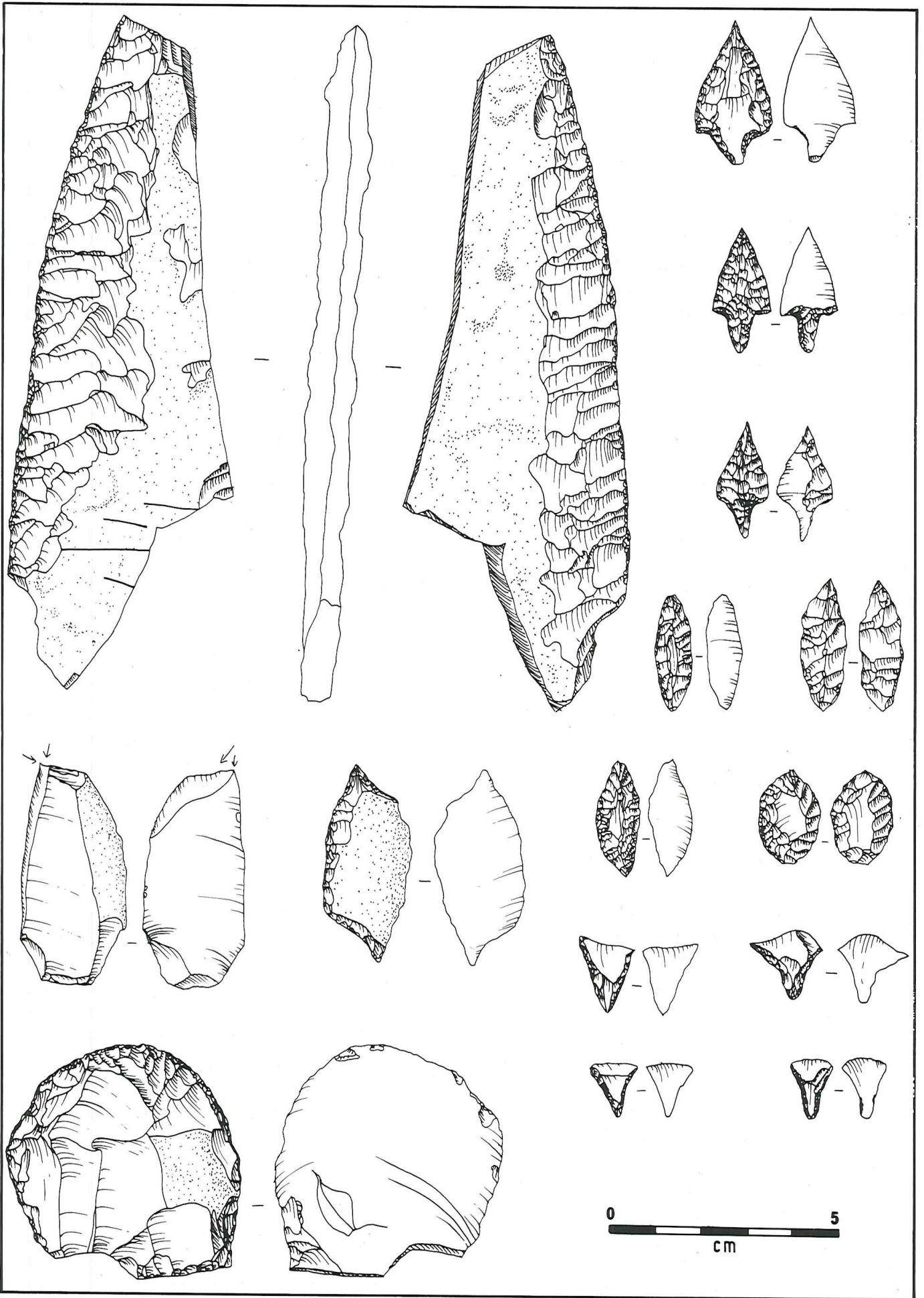


Fig. 4: Dhuweila Stage 2: Chipped stone tools.

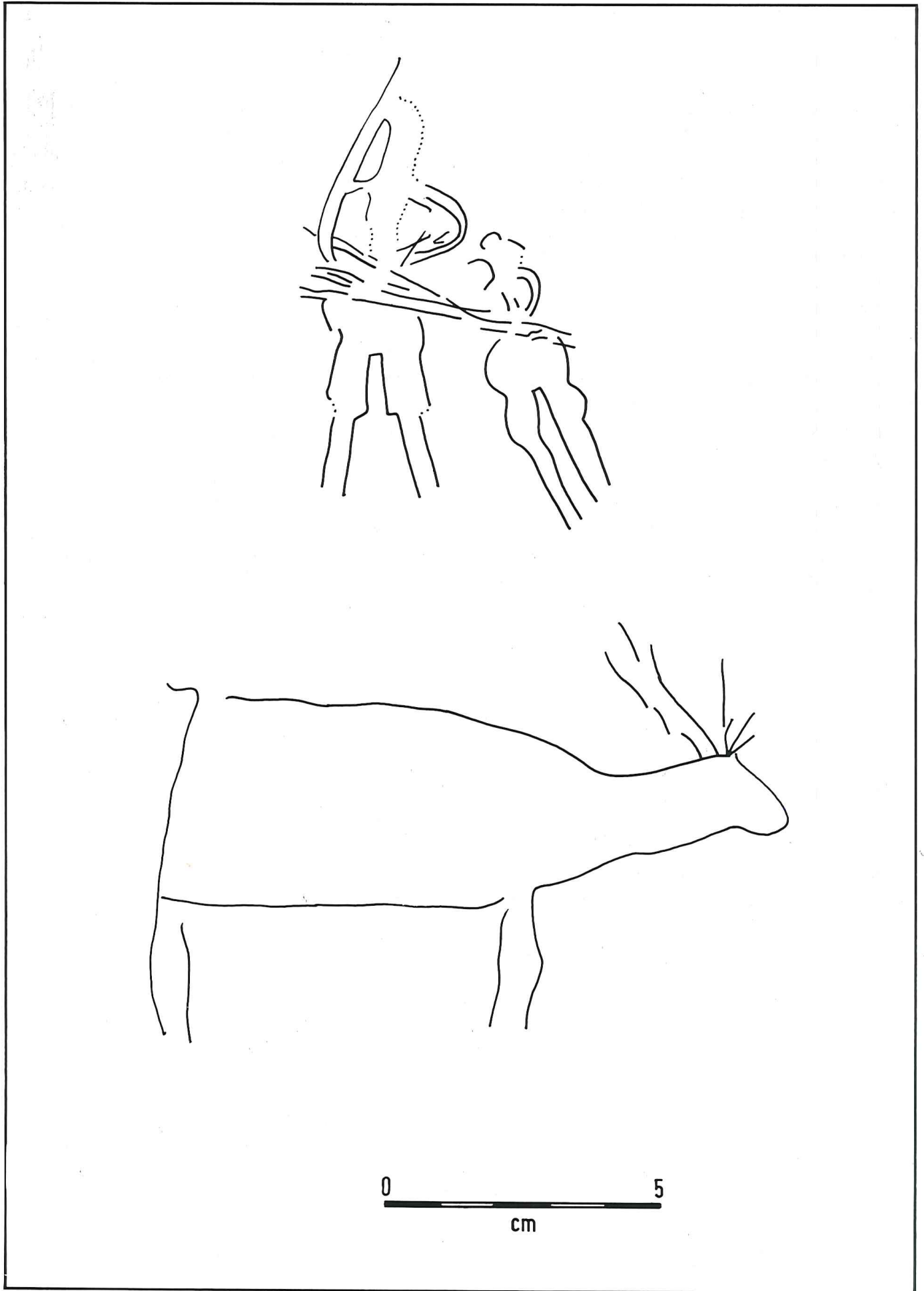


Fig. 5: Rock carvings: Hunters (Abu Masyadah el-Gharbi); Gazelle (Dhuweila).

two robbed out 'kite' walls, but there is only clear evidence for the incorporation of the site into one of these in Stage 2. It is possible however that Stage 1 was also incorporated at one time.

In Stage 2, the economic base of the inhabitants seems to have been broader. The grinding stones, rubbers and pounders suggest that some plant material was being processed and the chipped stone assemblage includes a wider variety of tools than in the preceding PPNB. If the presence of domestic sheep is confirmed then at least part of their subsistence must have been based on pastoralism, although other evidence shows that they were also dependant to a considerable extent on hunting. It is again likely that the site was occupied on a temporary basis, probably during the winter or spring. Certainly domestic sheep would require regular access to water.

Interestingly enough although there are limited typological parallels in the chipped stone assemblage, Dhuweila 2

seems to have very little connection with the "burin sites". It has depth of occupation debris, extensive faunal remains, a tool kit with a high proportion of arrowheads and ground stone tools, none of which are normally associated with "burin sites". Truncation burins do not occur in significant numbers in the tool kit. Until further dating evidence is available it is not possible to be certain as to whether Dhuweila 2 was contemporary with some of the "burin sites" but if it was then it must be concluded that the two types of site either represent different activities by the same or part of the same groups, or that they represent two quite separate groups both exploiting the *hammada* in different ways.

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