More Than Meets The Eye

Studies on Upper Palaeolithic Diversity in the Near East

Edited by

A. Nigel Goring-Morris and Anna Belfer-Cohen

Published by
Oxbow Books, Park End Place, Oxford OX1 1HN

ISBN 1 84217 082 1

Oxbow Books

10. The Early Upper Palaeolithic at Üçağızlı Cave (Hatay, Turkey): Some Preliminary Results

Steven L. Kuhn, Mary C. Stiner, Kristopher W. Kerry and Erksin Güleç

10. The Early Upper Palaeolithic at Üçağızlı Cave (Hatay, Turkey): Some Preliminary Results

Steven L. Kuhn, Mary C. Stiner, Kristopher W. Kerry and Erksin Güleç

Introduction

Üçağızlı Cave preserves a sequence of early Upper Palaeolithic assemblages spanning roughly 10,000 years and documenting the transition from the 'Initial Upper Palaeolithic' (*sensu* Marks 1990) to a somewhat later Upper Palaeolithic assemblage that resembles the Ahmarian. Unlike many recently excavated sites of similar age in the Levant, conditions of organic preservation at Üçağızlı Cave are excellent. In addition to rich lithic assemblages, the site yields faunal and molluscan materials that provide novel perspectives on Early Upper Palaeolithic (henceforth EUP) subsistence behaviour and ornament use. Assemblages from the most recent intact EUP layers (B-B4) embody many features of classic European Upper Palaeolithic industries, including bone tools and personal ornamentation, sometimes argued to be rare or absent in the Levant during this period. This paper summarizes results from the first two seasons of excavation in the site, with particular attention to the most recent Upper Palaeolithic deposits.

Archaeological Background

Üçağizli Cave is situated on the Mediterranean coast of the Hatay region of southern Turkey. Centred on the capital city of Antakya (ancient Antioch), the Hatay occupies the extreme northeast corner of the Mediterranean basin (Fig. 10.1). The Hatay is part of the modern state of Turkey, but topographically and ecologically it resembles the coastal Levant much more closely than it does Anatolia. As shall become apparent, the artefact assemblages also find their closest parallels in areas farther to the south. The site itself is situated directly on the seacoast about 15 km south of the mouth of the Asi (Orontes) river (Fig. 10.1). The surface of the archaeological deposits lies at an elevation about 17 m above current sea level.

Üçağızlı Cave was discovered by A. Minzoni-Deroche, who excavated at the site until 1990 (Minzoni-Deroche 1992). The current project, a joint effort of the University of Arizona and Ankara University, began with test excavations in 1997, followed by full-scale excavations in 1999 and 2000 (Kuhn *et al.*1999).

As it appears today, Üçağızlı Cave is the remnant of a larger collapsed cave. Pleistocene sediments are preserved in two main areas, the tunnel-like chamber to the southwest, and along what was once the back wall of the main chamber at the north end of the site (Fig. 10.2). Minzoni-Deroche excavated mainly in the southern chamber, whereas the more recent excavations have concentrated on the north end of the site. Breccias high on the back wall contain Epipalaeolithic artefacts, showing that at least three metres of deposits were lost to erosion subsequent to the cave's collapse. The substantial accumulation of material now lost to erosion also indicates that the cave collapsed well after the Upper Palaeolithic occupations discussed here. Despite this loss of sediments, a sequence of intact early Upper Palaeolithic deposits roughly three metres deep remains within the northern area.

Our excavations have exposed a north-south stratigraphic section nine and a half metres long (Fig. 10.2). The width of the trench varies from one to three metres. Although this is not an especially large area, it encompasses between one-half and one third of the surface of intact archaeological deposits at the site: to the immediate west of the excavation trench *in situ* deposits are truncated by an erosional slope just outside the current dripline. The archaeological sequence at Üçağızlı has been divided into eight cultural layers (B-I), each of which has one or more subdivisions (Fig. 10.3). The dominant bedding plane slopes down to the north, and the upper layers are more steeply inclined than the lower ones. The sediments are principally allochtanous, geogenic red clays (terra rosa) mixed with varying amounts of anthropogenic sediments, primarily calcite ash. Boundaries between layers are not generally marked by changes in sediment

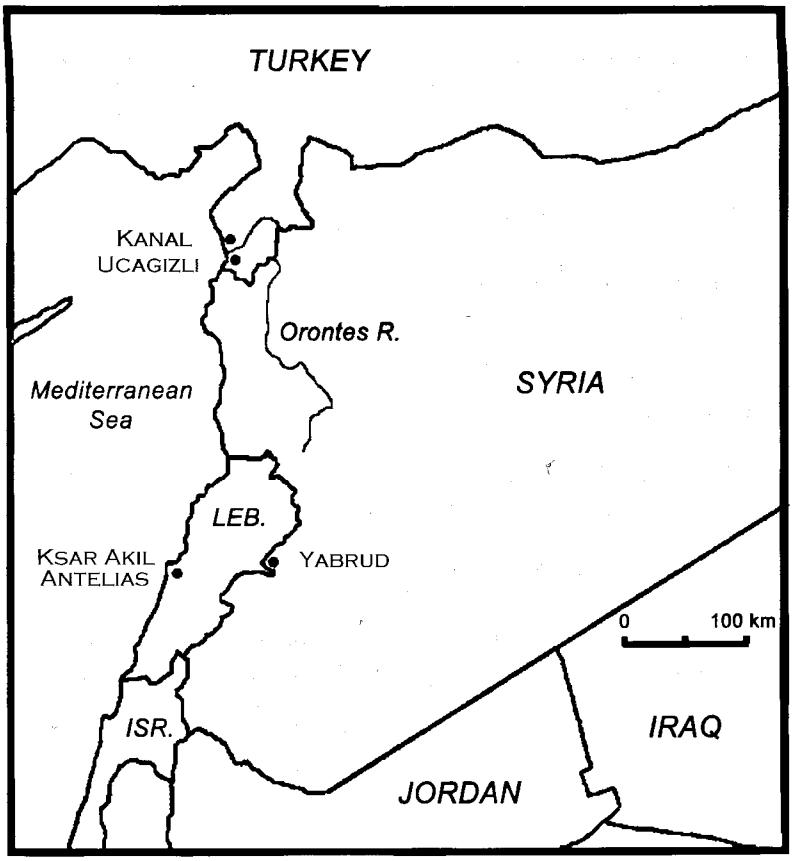

Fig. 10.1 Map of the northern Levant, showing locations of some sites mentioned in text.

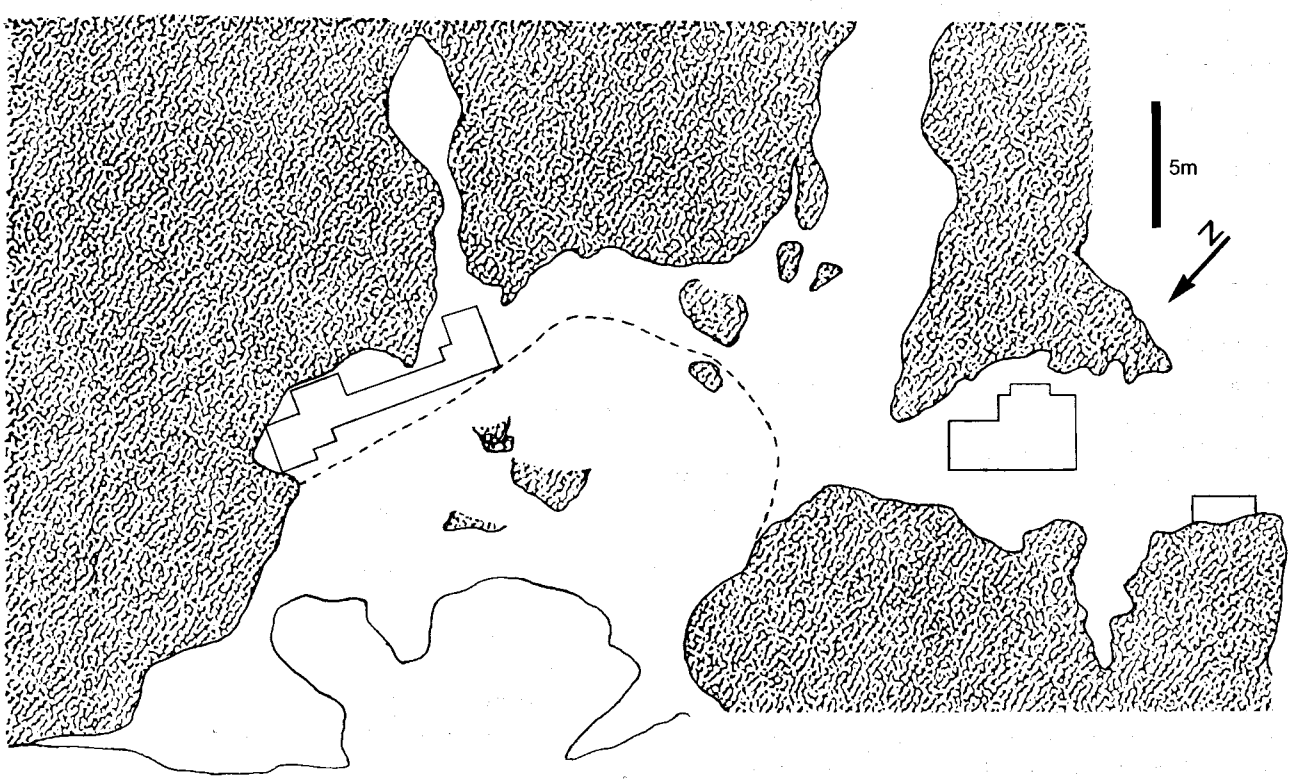

Fig. 10.2 Map of Üçağızlı Cave, showing locations of various excavation areas.

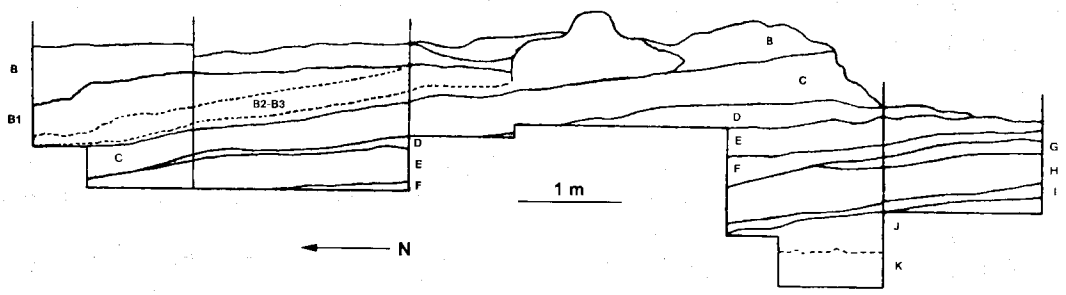

Fig. 10.3 Schematic stratigraphy, Üçağızlı Cave.

mineralogy but by fluctuations in the amount of anthropogenic contribution. Layers B, C, E, and G are relatively pure red clay containing little ash and varying quantities of artefacts and bone: layers C and G are poor in archaeological material, while layers B and E are richer. Layers B1-B4, D, F, and H contain numerous features, such as hearths and ash dumps, and are extremely rich in artefacts and bone. Underlying the Upper Palaeolithic sequence is a relatively pure clay stratum (J) and a thick layer of limestone *éboullis* (layer K), both nearly sterile. No evidence of pre-Upper Palaeolithic cultural remains has been found to date, although a few Mousterian artefacts have been collected from the vicinity of the site.

Broadly speaking, Upper Palaeolithic artefact assemblages can be divided into three main groups or components. The most recent Upper Palaeolithic component is found in layers B, B1, B2, B3, and B4, exposed mainly at the north end of the excavated area; it was also present in the area excavated by Minzoni-Deroche in the south chamber. Layers G-I contain the earliest assemblages, which resemble a comparatively late form of Initial Upper Palaeolithic such as is known from the sites of Ksar Akil (layer XXI) (Azoury 1986; Ohnuma 1988) and Boker Tachtit (level 4) (Marks and Kaufman 1983; Volkman 1983). The intervening strata (C-F) yield materials intermediate in character between the earlier and later components. A pocket of early Epipalaeolithic sediments was also present in another part of the site, but these are not in direct stratigraphic connection with layers B-I. The most recent Upper Palaeolithic assemblages, from strata B-B4, are the main subject of this paper.

Layer B consists of a highly uniform red-orange terra rosa clay. It does contain bones and stone tools but these are comparatively sparse compared to the underlying deposits. Layer B1 refers to thick deposits of nearly pure white calcite ash. Especially large ash concentrations are found both in the north end of the trench in squares D4 and E5, as well as farther south in squares H4/I5 (Fig. 10.3). These ashy deposits contain some bone and flint, and give the appearance of having been formed from a series of closely spaced dumping episodes. The contacts between layer B (the red clay) and the ash that defines B1 are quite sharp. Layers B2 and B3 contain a mixture of ash, organic material, and terra rosa, either coming from outside the cave or worked up from underlying sediments. These layers grade into B1 (and into each other), but here again the contact between B3 and the underlying red clay of layer C is quite sharp. Layer B4 is a yellowish-grey sediment found within a small pit or channel in the extreme northwest corner of the excavation trench (not shown in section). The highest artefact densities were observed in layer B3.

Despite the abundance of ash, layers B1-B3 are nearly devoid of macroscopic charcoal. Even flotation of the ashy sediments has not produced significant amounts of charcoal. Similar 'charcoal free' ash deposits have also been observed in other Levantine sites, including Kebara Cave (P. Goldberg, personal communication; herein). Whether this reflects the type of material burnt, the conditions of burning, or some kind of post-depositional mechanical or chemical destruction of charcoal is an interesting but unresolved geoarchaeological question.

Radiometric Dates

As noted above, there is comparatively little charcoal in the uppermost layers at ÜçaÈÏzlÏ Cave. Three AMS radiocarbon dates are relevant to establishing the ages of these layers. One date of 31,060±140 years bp (uncalibrated) on charcoal comes from a small pocket of hanging ash breccia cemented to the wall just above the top of layer B (AA35258). Two additional determinations, one of 29,130±380 (AA38203) and one of 32,670±760 (AA38201) come from layers B and B1, respectively. These last two determinations were made on aragonite from well-preserved *Monodonta* shells. As a control, a modern example of this species from the same area was also dated. This sample (AA38202) gave a 'post-bomb' age, indicating that no major adjustment in the radiocarbon ages need to be made to correct for hard-water effects and isotopic fractionation, at least in this species. Together, the three dates indicate that layers B-B1 date to sometime between 29,000 and 31,000 radiocarbon years bp: layers B2 and B3 are not likely to be much older.

The inconsistency between the dates run on charcoal and aragonite, the fact that shell dates are younger than the

carbon date from an overlying layer, is somewhat problematic. The shell carbonate dated was determined by FTIR (Fourier Transform Infrared spectroscopy) to be aragonite, and not calcite. This shows that the carbonates were essentially pristine, or at least that massive re-crystallisation had not occurred. Nonetheless, the dates appear slightly too recent. This may be the result of some sort of contamination or exchange of CO_2 with the modern atmosphere that did not result in significant recrystallisation of the shell carbonate. Attempts are underway to obtain additional age determinations.

Lithic Assemblages

The assemblages from layers B-B4 resemble each other closely in both typology and technology, and are described together. In the tables below, layer B is separated from the underlying ashy sediments (B1-B4). Collections from the first two excavation seasons are also presented separately. The 1999 sample has been studied in detail and the results are essentially final. Observations on the 2000 sample should be considered preliminary and only basic technological and typological information is available at present. Based primarily on the type of dorsal cortex present, two general classes of lithic raw materials can be recognized within the assemblages from Üçağızlı Cave. Some flints preserve a distinctively pitted and frosted outer surface typical of extensively rolled pebbles from fluvial contexts. No siliceous rocks are found on the beaches surrounding the cave today. The pebbles used in making the stone tools appear to come from ancient river terrace deposits, the closest of which are located 10–15 km inland. Pebble cortex is comparatively scarce in the deposits from layers B-B4, accounting for between 12% and 15% of the cortical pieces. More common is chalky nodular cortex, either fresh or slightly rolled, which accounts for 80–85% of the cortical pieces. The fact that soft cortical material remains on the specimens suggests that they were collected at or close to primary sources. The locations of primary flint sources are unknown, although we continue to conduct surveys in an attempt to locate them.

Table 10.1 shows the composition of the formal tool assemblages from layers B-B4: the classification follows Hours' (1974:12–14) typology for the Lebanese Upper and Epipalaeolithic sites. The current sample of retouched pieces consists of more than 1,300 specimens. Simple endscrapers (types B1, B2) are the dominant form of retouched tool by far. Long endscrapers (type B2) are more than three times as abundant as short endscrapers (B1), reflecting the predominance of blade blanks (Fig. 10.4). Retouched, pointed blades (types I2 and I3) and pieces with continuous or partial retouch (J1, J6) are the next most common general categories. We added a new type category, J6, for specimens with continuous retouch extending over less than 1/2 of one margin. A large proportion of these are blades with fine, marginal retouch localized near the proximal end. Burins are extremely scarce, accounting for 5% or less of the collection. Typical Aurignacian tool forms, such as carinated and nosed scrapers (types B4, B7, and B8), and blades with Aurignacian retouch (I4) are present but rare. Chanfreins and Emireh points, type fossils of the earliest Levantine Initial Upper Palaeolithic are absent, as are microliths (with one exception).

The retouched and pointed blades (types I2 and I3) are perhaps the most interesting group of retouched tools. These two classes subsume a wide variety of forms (Fig. 10.5). Typical el-Wad points (type I3), narrow blades with fine marginal retouch, are in the minority. Most of the pointed blades are larger, broader, and possess more invasive retouch than a typical el-Wad point. Some examples are distinctly asymmetrical, with only one retouched edge, so that the piece approaches a truncation or backed knife in form. However, true abrupt (backing) retouch is rare. Other pointed blades are very symmetrical. In a few cases the retouch is sufficiently invasive to justify classification as a *pointe á face plan*, as described for the material from Ksar Akil layers XVI and XVII (Azoury 1986). Whether this variety in the forms of retouched pointed blades reflects the existence of different functional types, or whether it represents a continuous range of morphological variability resulting from differences in blank form or artefact life histories remains to be established.

The preponderance of tools from the layers B-B4 at Üçağızlı Cave is manufactured on blade blanks. Blades are approximately three times as common as flakes among the tool blanks, and blades are more than twice as common as flakes within the larger size fraction of unretouched material (Table 10.2). The small core assemblage from layers B-B4, constituting less than 2% of the total lithic artefacts, reflects the laminarity of tool blanks and debitage (Table 10.3). A variety of core forms is present, including discoid and even Levallois types, but prismatic blade cores with two opposed platforms are the single most abundant form. The preponderance of bi-directional cores is echoed in a high proportion (47%) of bi-directional dorsal scar patterns on blades from layers B-B4 for which directions of dorsal scars can be determined. Blades tend to be straight in profile, with regular, parallel lateral edges and flat bulbs of percussion. Many have constricted or tapering proximal ends. In combination with high frequencies of punctiform or linear platforms and abundant evidence of platform grinding, these characteristics point to the use of soft-hammer or perhaps indirect percussion for blade manufacture.

Other, non-flaked, stone artefacts from layers B-B4 include a number of hammerstones and at least two pitted anvils. All hammerstones and anvils are made from pebbles of a hard, dense, greenish dioritic stone. This kind of rock does not occur on the coast today, but it can be obtained from the same terrace deposits as the 'pebble' flints described above. The anvils and some of the

Table 10.1 Typological composition of assemblages from layers B-B4, Üçağizli Cave. Type numbers follow Hours' type-list for the Upper and Epipalaeolithic of Lebanon (Hours 1974:12–14). Type J6, pieces with partial retouch, was added for this study (see text). Category totals in boldface.

			1999		2000	
			B	B1-B3	B	B1-B4
A2	sidescrapers and points		**5**	**4**	**3**	**7**
B	endscrapers		**128**	**245**	**87**	**126**
	B	indeterminate (fragment)	28	40	14	10
	B1	simple, short	12	45	13	27
	B2	simple, long	70	132	50	72
	B3	ogival	–	1	1	–
	B4	flat nosed	4	7	1	–
	B6	multiple	10	15	5	7
	B7	simple carinated	–	1	–	–
	B8	multiple carinated	–	–	–	2
	B9	lateral, on flake	–	1	–	–
	B10	circular	4	6	3	8
	B14	*divers*	–	1	–	–
D	burins		**12**	**17**	**3**	**6**
	D1	single blow	1	1	2	–
	D2	dihedral, axial	2	1	–	–
	D3a	dihedral, angle, 2 blows	2	2	1	5
	D3b/c	dihedral, angle, on break	4	6	–	–
	D4	multiple dihedral	1	1	–	–
	D7	on truncation, angle	2	5	–	1
	D8	multiple on truncation	–	1	–	–
E	*perçoirs*		**2**	**1**	**1**	**1**
F	backed blades/points		**6**	**17**	**4**	**6**
G	truncations		**6**	**9**	**4**	**10**
H	notches and denticulates		**11**	**25**	**7**	**4**
	H1, H2	notch	9	20	5	4
	H3	denticulate	2	5	2	–
I	special tools		**67**	**91**	**31**	**50**
	I2	pointed blade	53	80	26	47
	I3	el-Wad point	14	11	5	3
	I4	Aurignacian blade	–	–	–	1
J	retouched pieces and *pièces esquillées*					
	J1+J6	retouched blade	67	148	33	48
	J2	blade w/ inverse retouch	3	2	–	–
	J3	blade w/ alternating retouch	–	–	1	–
	J5	*pièces esquillées*	1	5	1	2
K	multiple tools		**8**	**18**	**1**	**1**
M	non-geometric microliths		**0**	**1**	–	–
Divers			**1**	**4**	–	–
Tool fragments			**5**	**10**	**4**	**3**
	TOTAL		*324*	*597*	*180*	*265*

hammers preserve traces of red pigment. However, this does not mean that pigment preparation was their primary purpose. It is likely that a few episodes of grinding ochre on a stone stain it for life.

Ornaments

One of the remarkable aspects of the Üçağızlı Cave sequence in general, and of the upper layers in particular, is the abundance of ornaments. Nearly 100 ornaments have been recovered from layers B-B4 to date. With a single exception these are all perforated or otherwise modified shells of marine and freshwater molluscs. The exception is the claw (terminal phalanx) of a very large predatory bird that has been notched for suspension. Table 10.4 contains a listing of ornaments from layers B-B4, by species, with both seasons combined. The most common ornamental molluscs are marine gastropods that have been intentionally perforated. Although 24 different species are represented, two taxa, *Columbella rustica* and *Nassarius gibbosula* account for over 80% of the ornament assemblage. The great majority of the species

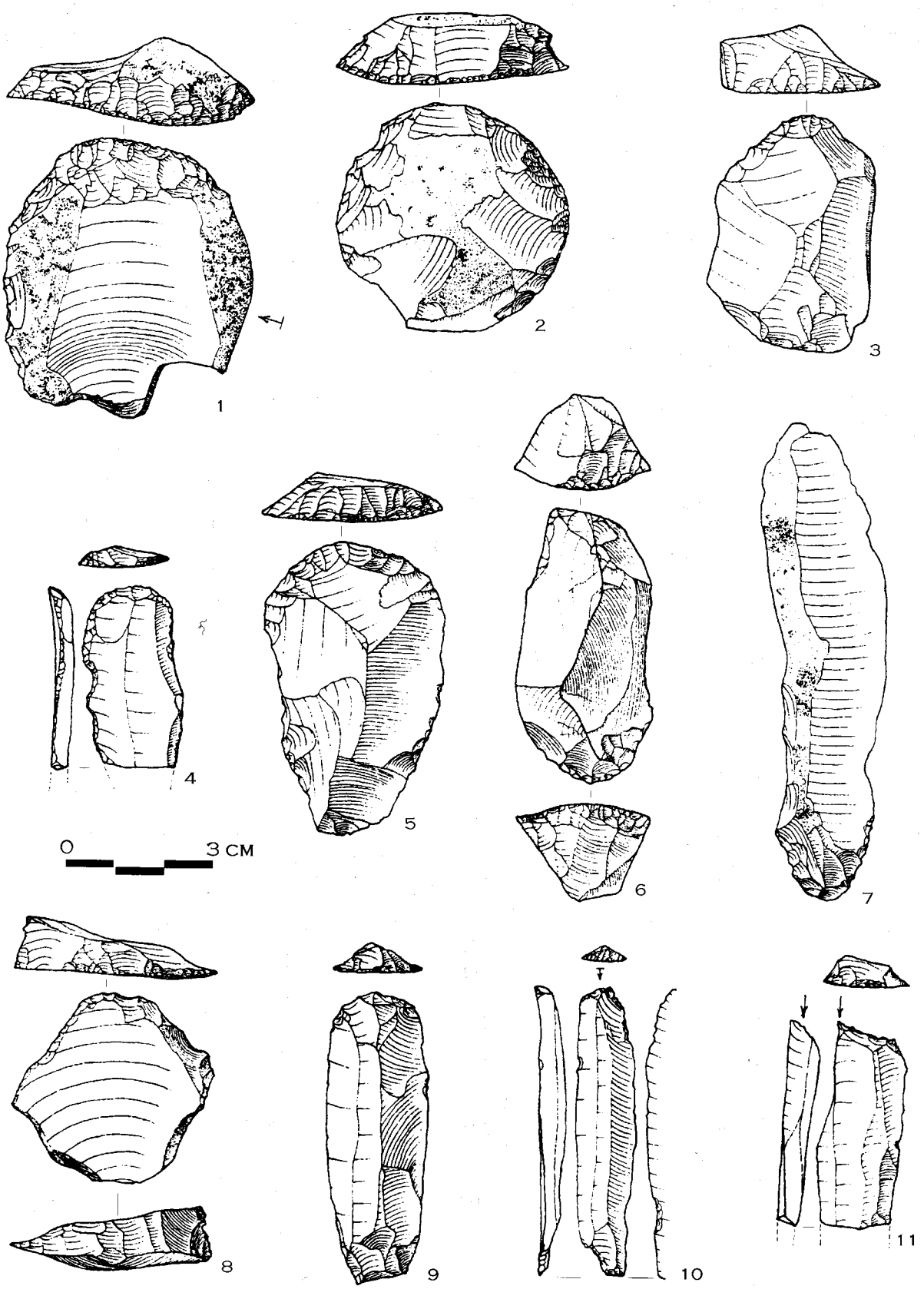

Fig. 10.4 Endscrapers and a burin from layers B-B3 (1999 excavation). Üçağızlı Cave.

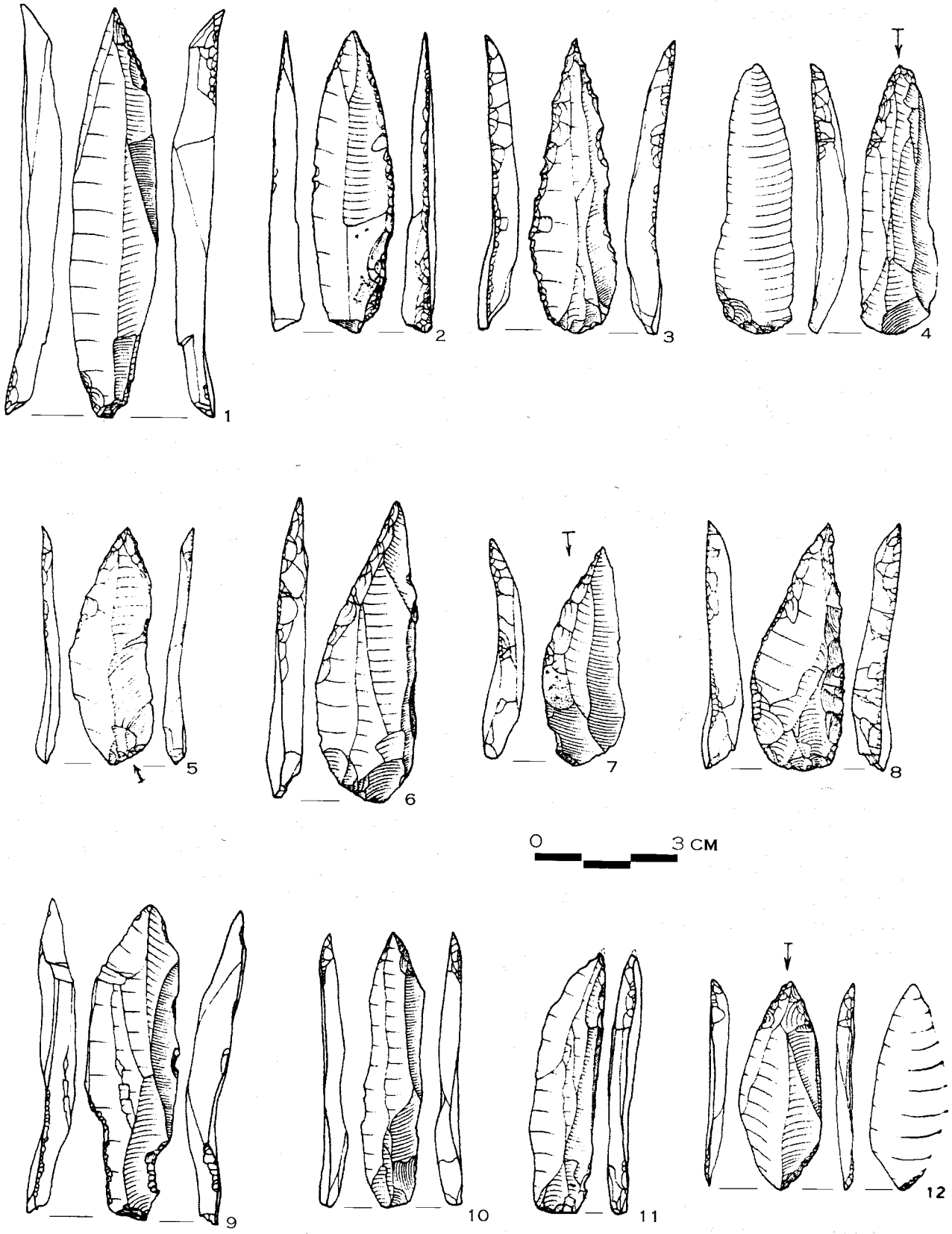

Fig. 10.5 Pointed blade and tools from layers B-B3 (1999 excavation). Üçağızlı Cave.

Table 10.2 Tool blank and debitage forms from layers B-B4, Üçağızlı Cave.

	1999		2000	
	B	B1-B3	B	B1-B4
Tool blanks				
flakes	54	94	33	65
blades and bladelets	182	358	109	165
other forms	8	28	7	11
indeterminate	80	117	31	24
Unretouched (> 2.5 cm)				
flakes	124	157	(no data)	
blades and bladelets	287	397		
other forms	19	26		
indeterminate	95	115		
Unretouched (< 2.5 cm)				
flakes	537	464	(no data)	
blades and bladelets	221	144		
other forms	40	45		
indeterminate	700	721		

present are native to the eastern Mediterranean. However, the third most abundant gastropod, *Theodoxus jordanii*, actually inhabits fresh or brackish water. Its shells could probably have been collected in the nearby Asi (Orontes) river. These same species of marine and freshwater mollusc were used as ornaments throughout the Upper and Epipalaeolithic in the Levant (*e.g.*, D. Bar-Yosef 1989, personal communication 2000; van Regtern Altena 1962; Gilead 1995a; Kuhn *et al.* 2001).

Several characteristics of the ornamental mollusc species distinguish them from shells introduced into the site for other purposes, such as for food. First, the ornamental gastropod species are very small (7–18 mm in length) carnivorous or omnivorous species, with minimal food value. Most of the archaeological specimens of these taxa were modified by humans, usually by punching a small, irregular hole through the shell wall near the lip with some sort of pointed tool. These perforations are quite distinct from the small, very regular circular holes bored by predatory molluscs (see d'Errico *et al.* 1993; Stiner 1999a). Rarer forms of modification include incision or sawing. The ornamental shells are usually whole, seldom burnt, and a significant portion show evidence of abrasion by water or wave action, indicating that they were collected from beaches. In contrast, the species consumed as food are much larger and more common herbivorous types (see below). In archaeological context the food shells are almost always fragmentary and frequently burnt, but never wave-worn, indicating that they were collected while alive.

Bone tools

A total of 14 bone and antler artefacts were recovered from layers B-B3 during the 1999 and 2000 excavation seasons. They range from very small, needle-like pieces less than 3 mm in diameter, made from splinters of compact bone, to larger awls, 'points', or pins, up to 8 mm in diameter. The larger objects are manufactured of either compact bone or antler. The bone and antler tools are neither elaborate nor especially numerous, but they do indicate that the use of tough organic composites was part of the technological repertoire of the inhabitants of this site 30,000 years ago.

Fauna

Vertebrate and mollusc remains from layers B-B4 at Üçağızlı Cave provide evidence of a diversified subsistence base encompassing both terrestrial and marine resources. Terrestrial prey dominates the fauna. The three most common medium and large game species are roe deer (*Capreolus capreolus*), wild goat (*Capra* sp., probably *Capra aegagrus*), and fallow deer (*Dama mesopotamica*), in order of abundance. Both wild cattle (*Bos primigenius*) and wild pig (*Sus scrofa*) are present in smaller but significant quantities. Small game is

Table 10.3 Core forms from layers B-B4, Üçağızlı Cave.

	1999		2000		
CORE FORM	B	B1-B3	B	B1-B4	Total
ested nodule	3	4	–	–	7
- unifacial	1	1	1	–	3
isc- bifacial	1	–	–	1	2
entripetal Levallois	–	2	1	–	3
nidirectional Levallois	–	1	–	–	1
idirectional Levallois	–	1	–	–	1
ingle plat. flake/blade core	1	2	–	–	3
pposed plat. flake/blade core	3	3	2	1	9
ingle plat. prismatic blade core	1	1	2	2	6
pposed plat. prismatic blade core	2	11	1	2	16
ipolar core	–	1	2	2	5
morphous core	–	2	–	–	2

Table 10.4 Percent NISP, ornamental molluscs from Üçağızlı Cave (1999 and 2000 samples combined).

Taxon	LAYER B	B1-B4
MARINE MOLLUSCS		
Class: Gastropoda		
Calistoma laugier	–	<1?
Gibbula adansoni	1	–
Gibbula richardi	2	1
Gibbula leucophaea	<1	<1?
Gibbula turbanoides	1	–
Gibbula sp.	1	–
Naticarius Dillwyn	<1	–
Nevrita josephina	<1	<1
Naticarius millepunctata	<1	1
Columbella rustica	33	44
Pisania maculosa	–	<1
Nassarius gibbosula	50	44
Pyrinella conica	<1	–
Hinia costolata	–	<1
Conus mediterraneus	1	<1
Class: Bivalvia		
Glycymeris sp.	3	3
Acantho. tuberculatum	2	<1
Cerastoderma edule	2	<1
Clausinella fasciata	–	<1
Mactra stultorum	<1	–
other (indeterminate)	<1	–
FRESH & BRACKISH WATER MOLLUSCS		
Class: Gastropoda		
Theodoxus jordani	3	3
Melanopsis praemorsa	<1	–
Class: Bivalvia		
Potomida littoralis	<1	–
TOTAL NISP	385	481

dominated by marine species. Two types of rock-dwelling gastropod, *Patella* sp. and *Monodonta turbinata* were consumed extensively. Tortoise (*Testudo graeca*) and a variety of bird species are the main forms of terrestrial small game. Carnivores include fox (*Vulpes* sp.) and bear (*Ursus arctos*).

Zooarchaeological remains from layers B-B4 are consistent with recent analyses of changing diet breadth in the Mediterranean basin from the Late Mousterian through Epipalaeolithic (Stiner *et al.* 1999, 2000). The data from Üçağızlı provide evidence for early stages of dietary expansion, the inclusion of fast-reproducing but elusive prey such as birds, in the early Upper Palaeolithic. Only later, in the Epipalaeolithic, is there evidence for extensive use of small terrestrial mammals such as lagomorphs at this site.

Elevated frequencies of *Capreolus*, along with the presence of both wild pig and bear, suggest relatively heavy vegetation. Apparently a substantial degree of forest cover prevailed in the area of the site at the time layers B-B4 were deposited. The abundance of shellfish remains also suggests that the sea level was relatively high, and the shoreline fairly close to the cave. Combined with radiometric dates, faunal data thus link the occupation to a relatively warm, wet interval late within Isotope Stage 3. The predominance of terrestrial game in such close proximity to the sea may simply be testament to a very rich terrestrial environment. Local topography could also have made Üçağızlı a particularly suitable base for the hunting of terrestrial game. The drainages closest to the site are short and extremely steep, with high, nearly vertical walls. This box-canyon-like configuration would have made the valleys well suited for ambushing or corralling prey.

Features

Üçağızlı contains a variety of features related directly or indirectly to burning. There are no well-defined, constructed hearths in the upper part of the sequence. At most, fireplaces in layers B-B3 consist of lightly burnt patches of sediment, and even these are difficult to identify and delineate. The absence of formally constructed hearths could well be a function of the fact that intact sediments are confined to the very back of the cave. Alternatively, hearth features may have been obliterated by subsequent human activity. On the other hand, massive accumulations of ash mixed with bone and artefacts, up to 60 cm thick, hint at extensive use and maintenance of fireplaces somewhere in the cave (see Goldberg herein).

In 1999, the remains of a simple structure were uncovered in the northeastern part of the excavation, within layers B1-B2 (Fig. 10.6a,b). This feature consists of a single arched course of limestone blocks, each 20–40 cm in length. The blocks form a 'wall' running roughly parallel to the back wall of the cave at a distance of 1.5 to 2 m from it. The alignment is clearly artificial: it corresponds with neither the cave's dripline nor any obvious fault or crack in the roof, and there were no blocks of comparable size in the surrounding sediments. Moreover, several of the blocks were set on edge rather than resting on their broad faces. Ash was somewhat concentrated 'inside' (east of) the row of stones, and sediments 'outside' (west) of it were distinctly less ashy. Artefacts, including ornaments, are abundant between the row of stones and the back wall of the cave. However, it appears that larger pieces, including cores, hammerstones, and anvils, are concentrated to the north and west of the 'wall'.

This feature has no precedent in the Upper Palaeolithic of the Levant. Its function remains ambiguous, but based on analogies with ethnographic cases the working hypothesis is that the feature delineates a bedding area in the back of the cave (*e.g.*, see Binford 1983:160–162). The concentration of ash could be the output of small,

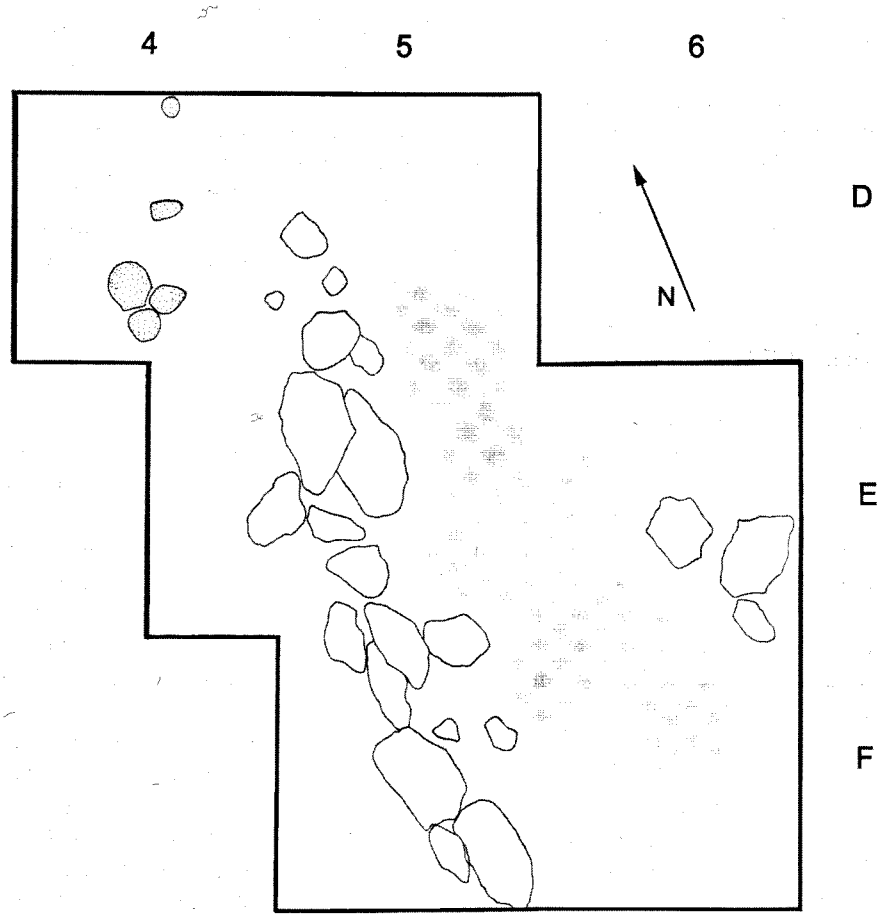

Fig. *10.6 a, Photograph of stone alignment in layers B1/B2, Üçağızlı Cave Scale is one metre long; b, Plan of stone alignment. Light shading indicates ashy sediment. Objects with speckling are artefactual (hammerstones and anvil).*

unstructured fires constructed to warm sleepers, or it could be the residue of burnt bedding material such as grasses and foliage.

Comparisons and Discussion

There is little in Turkey with which to compare the assemblages from Üçağızlı Cave, as it is one of just a handful excavated sites located within the boundaries of the country that contain documented early Upper Palaeolithic deposits. Recent compendia (*e.g.*, Harmankaya and Tanındı 1996; Schyle 1992) list a number of other sites in Turkey reported to contain Upper Palaeolithic deposits, but few of these reports have been verified (Özdoan 1998). One site, Kanal, located on the Mediterranean about 4 km north of Üçağızlı Cave (Bostancı 1968), contained a similar type of initial Upper Palaeolithic, and may have possessed later Upper Palaeolithic layers as well. Karain Cave, located several hundred kilometres to the west near Antalya, is best known for its extensive Middle and Epipalaeolithic deposits, but a thin stratum yielding what appears to be an Aurignacian assemblage was discovered in Karain B in 1998 (Yalçinkaya and Otte 1999). The remarkable scarcity of definite Upper Palaeolithic sites in Turkey is partially attributable to the lack of systematic survey for Pleistocene deposits. Nonetheless, even in well-studied areas, such as the region around Antalya, the early Upper Palaeolithic appears to be exceedingly rare.

The best comparisons for the Üçağızlı Cave assemblages come from sites along the coast to the south, in the area of Beirut, Lebanon. Assemblages from layers XVI and XVII at Ksar Akil (Azoury 1986; Ohnuma 1988) appear to be a particularly close technological and typological match, reflected not only in the frequencies of points, burins and endscrapers, but in the form of blades and nature of retouch. The nearby sites of Antelias (layer IV) (Copeland and Hours 1971) and Yabrud II (layers 4 and 5) (Bachdach 1982; Ziffer 1981) also yielded materials that appear to be quite similar to what has been uncovered in layers B-B4 at Üçağızlı. All of these assemblages resemble the Early Ahmarian from the southern and central Levant in their general characteristics, especially the heavy reliance on blades and the abundance of points. However, the Üçağızlı assemblages contain many more endscrapers, and many fewer burins and pointed blades than do typical Ahmarian assemblages from the arid southern and eastern Levant. Other details, including fine marginal retouch and comparatively narrow blades, further distinguish the Ahmarian sites in the south from the northern cave assemblages. An apparent exception is the collection from Lagama XVI from the Sinai (Bar-Yosef and Belfer 1977:72–76), but this is a single small sample.

Recently, assemblages from Ksar Akil and Yabrud, formerly called 'Levantine Aurignacian', have been grouped with the Ahmarian instead (Bergman 1987a; Schyle 1992). This is consistent with a continuing reconfiguration of the term 'Aurignacian', from its original reference to all early Upper Palaeolithic assemblages, to a more specific term designating assemblages with a restricted array of typological and technological features (Belfer-Cohen and Bar-Yosef 1999; Gilead 1991; Marks and Ferring 1988; Ronen 1976). Converting the Aurignacian from a 'catch-all' typological designation is certainly desirable, but in the process we should be cautious not to turn the Ahmarian into another junk category – comprising all blade-dominated Levantine Upper Palaeolithic and even early Epipalaeolithic assemblages (see Bergman and Goring-Morris 1987; Boëda and Muhesen 1993; Ferring 1988, amongst others). Other than historical precedent there is no compelling reason that the entire early Upper Palaeolithic should be assigned to two (or one, or three) general 'cultural phyla'. In fact, the Ahmarian/Levantine Aurignacian distinction is not always clear in the southern Levant (Belfer-Cohen and Bar-Yosef 1999; Coinman 1998a; Kerry 2000), and there is no reason to expect that everything from the northern Levant should fall neatly into just two groups either. The material from layers B-B4 at Üçağızlı is certainly more like the Ahmarian than the Aurignacian, *sensu stricto*, but how much more similar remains an open question.

It is worth noting that our dates for layers B-B4 at Üçağızlı Cave do not fit well with dates from Ksar Akil reported by Mellars and Tixier (1989), despite similarities in the lithic assemblages. These authors report two dates of *ca.* 32,000 years bp for levels argued to correspond to Ewing's layers IX or X. The archaeological materials from the upper part of Üçağızlı Cave most closely resemble Ksar Akil layers XVI and XVII: certainly, they are quite unlike the 'Levantine Aurignacian' from above layer XI at Ksar Akil. Compared with results from Ksar Akil, the dates reported here seem too recent, or *vice versa*. The apparent discrepancy could have a number of sources. As discussed above, it could be a result of contamination of the aragonite in the marine shells dated with mode carbon, or movement of samples within the deposits, issues that can only be resolved by obtaining additional dates. It is also possible that correspondence between Ewing's and Tixier's excavation trenches at Ksar Akil has been reconstructed incorrectly. Finally, it might be the case that Upper Palaeolithic typological and technological diversity in the eastern Mediterranean was more extensive than current models allow, so that no single stratigraphic sequence can adequately characterize the entire region.

Although the results of our analyses are preliminary findings from the first two years of excavation at Üçağızlı Cave do point to a reconsideration of some widespread generalizations about the Levantine EUP. It is sometimes stated that indicators of 'modern human behaviour' such as bone tools, ornaments, and art are scarce in the Levantine Early Upper Palaeolithic (*e.g.*, Clark and Lindly 1989; Gilead 1991, 1995a), even prompting the suggestion that this complex of characteristics is actually

part of a specialized northern Eurasian adaptive complex (Foley and Mirazon-Lahr 1997). In point of fact, ornaments and bone tools are present in association with some Levantine Aurignacian assemblages, *i.e.*, Hayonim D (Bar-Yosef and Belfer-Cohen 1988; Belfer-Cohen and Bar-Yosef 1981). Where they are conspicuously scarce is in Ahmarian, or non-Aurignacian sites.

The abundance of ornaments, as well as the presence of significant numbers of bone tools in layers B-B4 at Üçağızlı Cave seems to run counter to generalizations about Early Ahmarian and Ahmarian-like assemblages. However, other sites in the northern Levant have yielded these same elements. Shell ornaments are abundant throughout the Upper Palaeolithic sequence at Ksar Akil (van Regtern Altena 1962; Kuhn *et al.* 2001), and both shell beads and bone points were recovered from layer 4 at Yabrud II (Rust 1950). What remains evident is that elements such as beads and bone tools are less well represented in the Ahmarian of the central and southern Levant. Once again, it seems that there are significant geographic contrasts within the Levantine EUP, over and above the traditional bipartite division between Ahmarian and Aurignacian. The question of regional variability within the Ahmarian (or non-Aurignacian assemblages) of the Levant is ripe for future investigation.

Acknowledgements

We are deeply grateful to the National Science Foundation (Grant no. SBR 9804722), Ankara University, and the Office of the Vice President for Research at the University of Arizona for their economic and material support of this project. The generous co-operation of the Hatay Museum and the Turkish Directorate of Monuments and Museums have also been instrumental in the successful execution of the research reported here. Paul Goldberg, project geologist, is responsible for the insights into the formation of deposits at Üçağızlı Cave. Artefact illustrations are the work of Kristopher Kerry. We would also like to thank Nigel Goring-Morris and Anna Belfer-Cohen for organizing this volume and for freely sharing their vast knowledge of the Levantine Upper Palaeolithic.

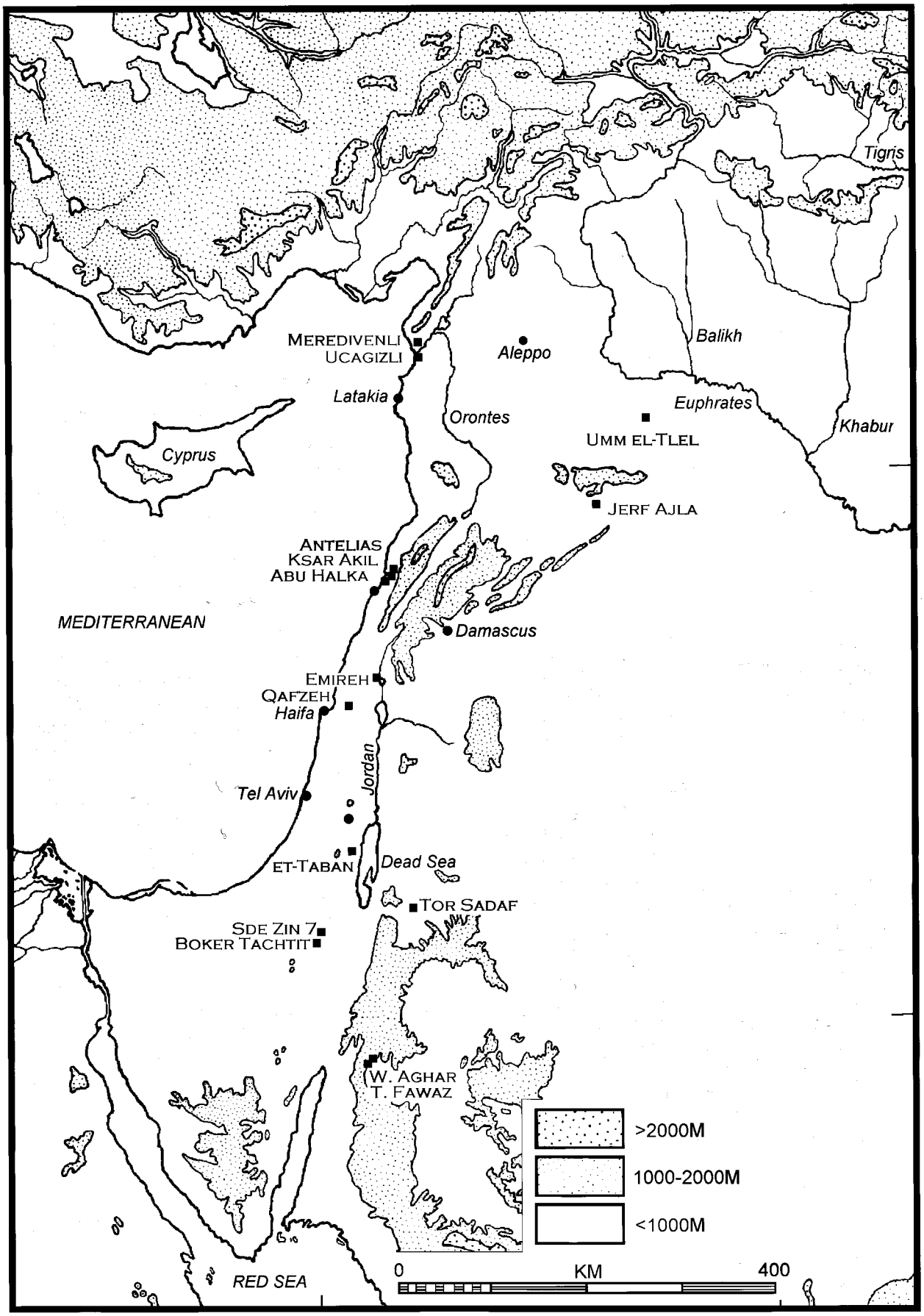

Fig. 1.1 Distribution of Transitional Middle to Upper Palaeolithic and Initial Upper Palaeolithic (ca. *45–38,000 bp) sites in the Levant.*

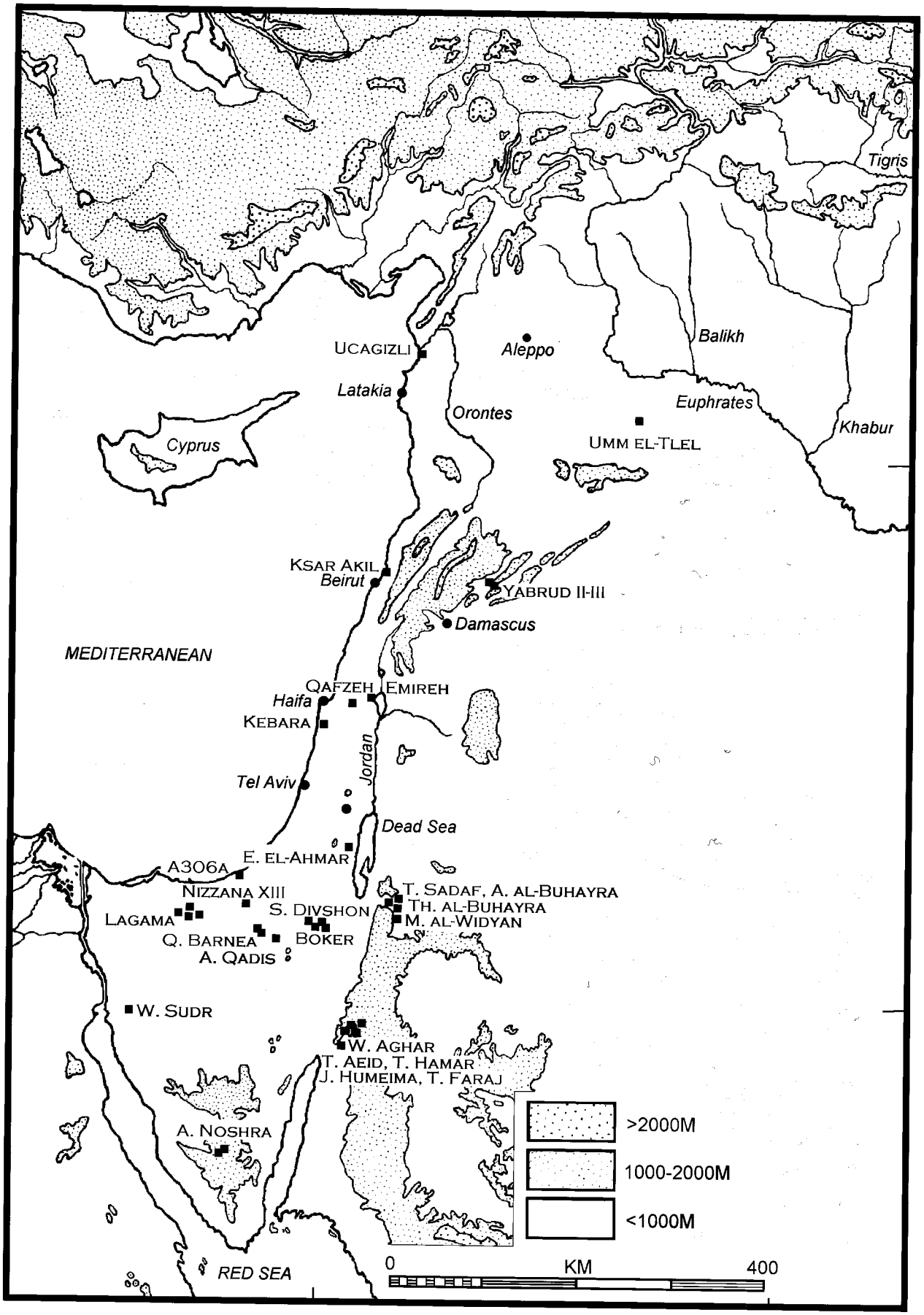

Fig. 1.2 Map showing Early Ahmarian and related (ca. *38/36–25,000 bp) sites in the Levant.*

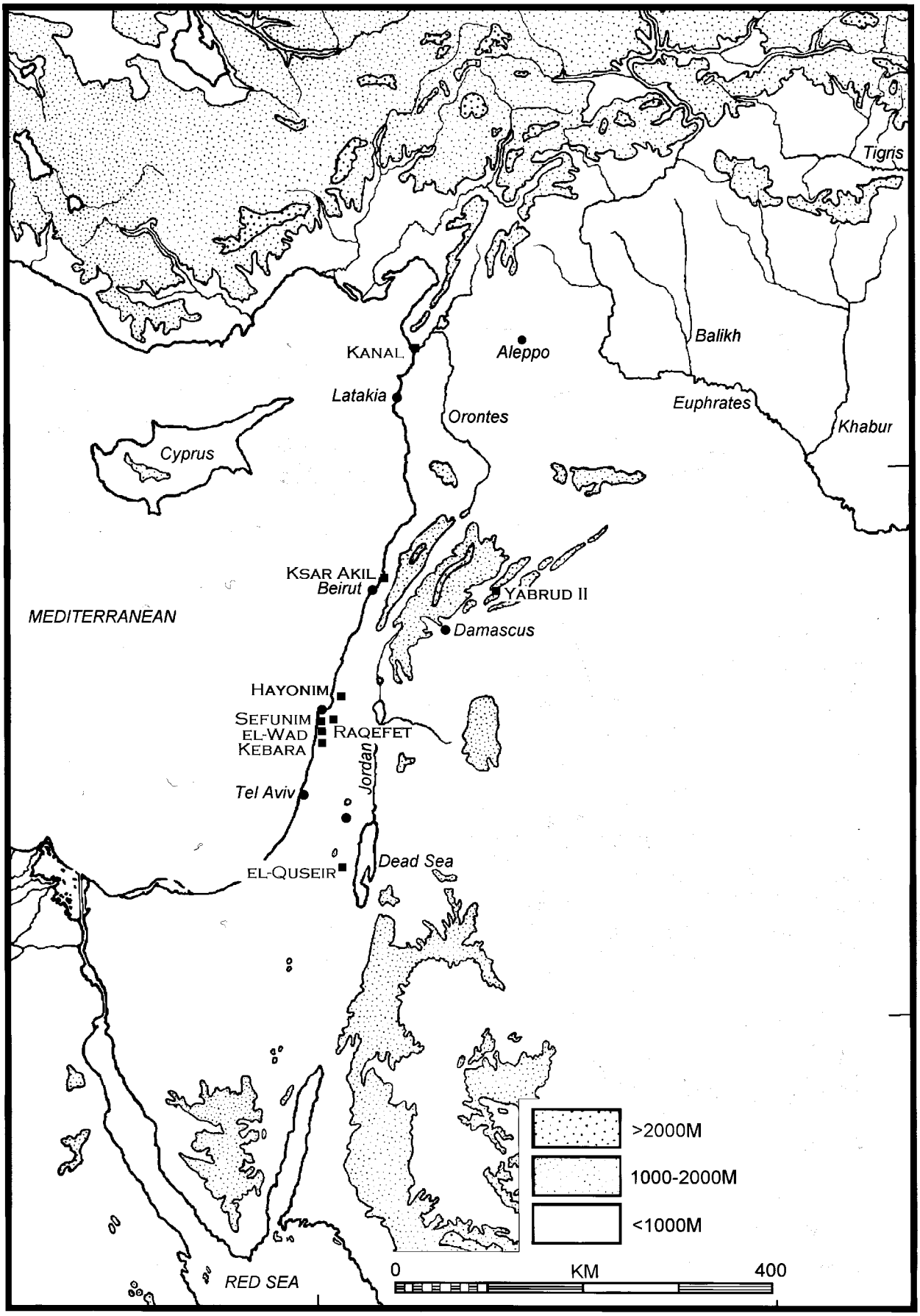

Fig. 1.3 Map of Classic Levantine Aurignacian (ca. *32–26,000 bp) sites in the Levant.*

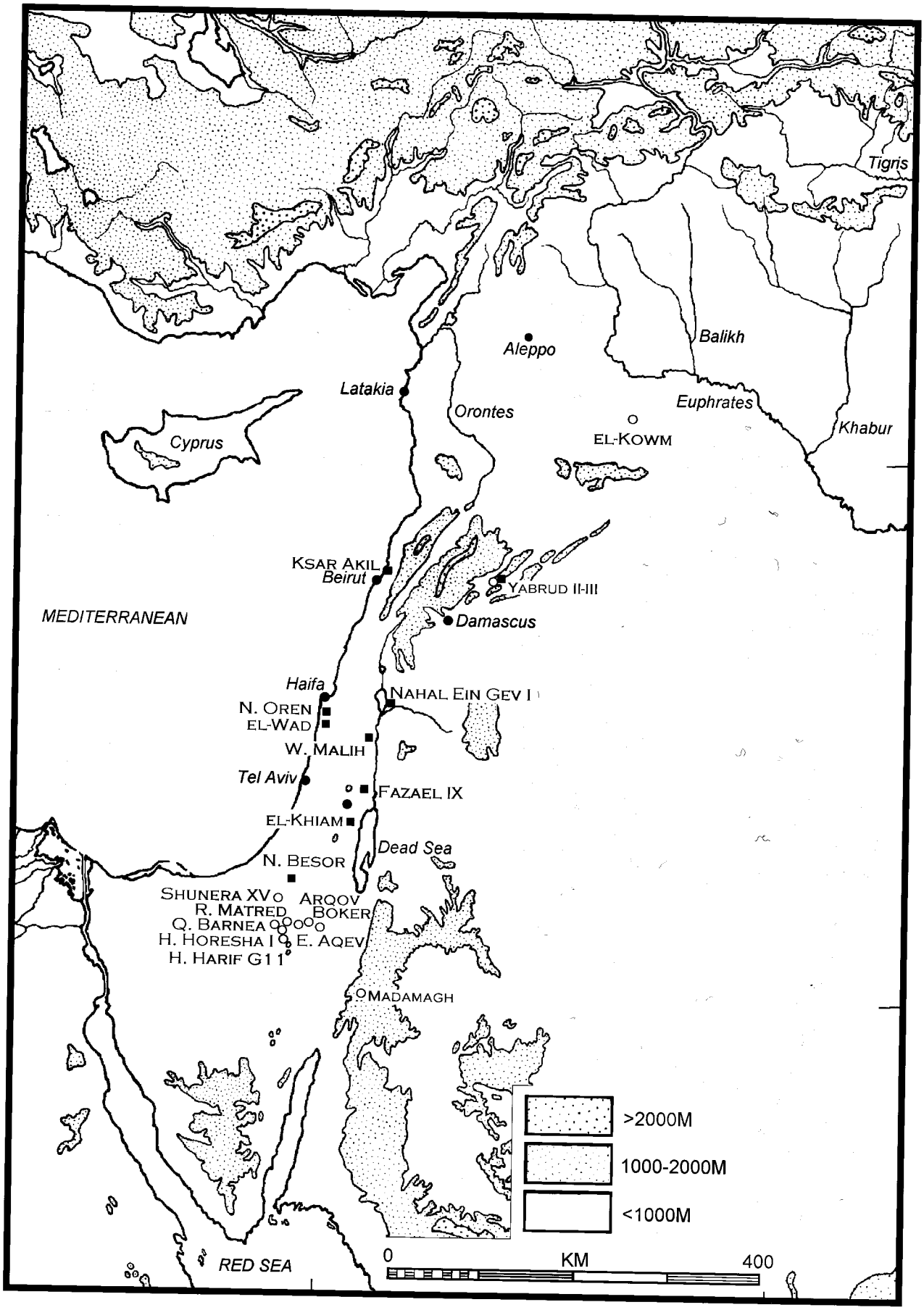

Fig. 1.4 Distributions of Atlitian (ca. *?27/26,000 bp) (solid squares) and Unnamed flake-based occurrences* (ca. *?30–17,000 bp) (open circles) in the Levant. Note the largely discrete distributions.*

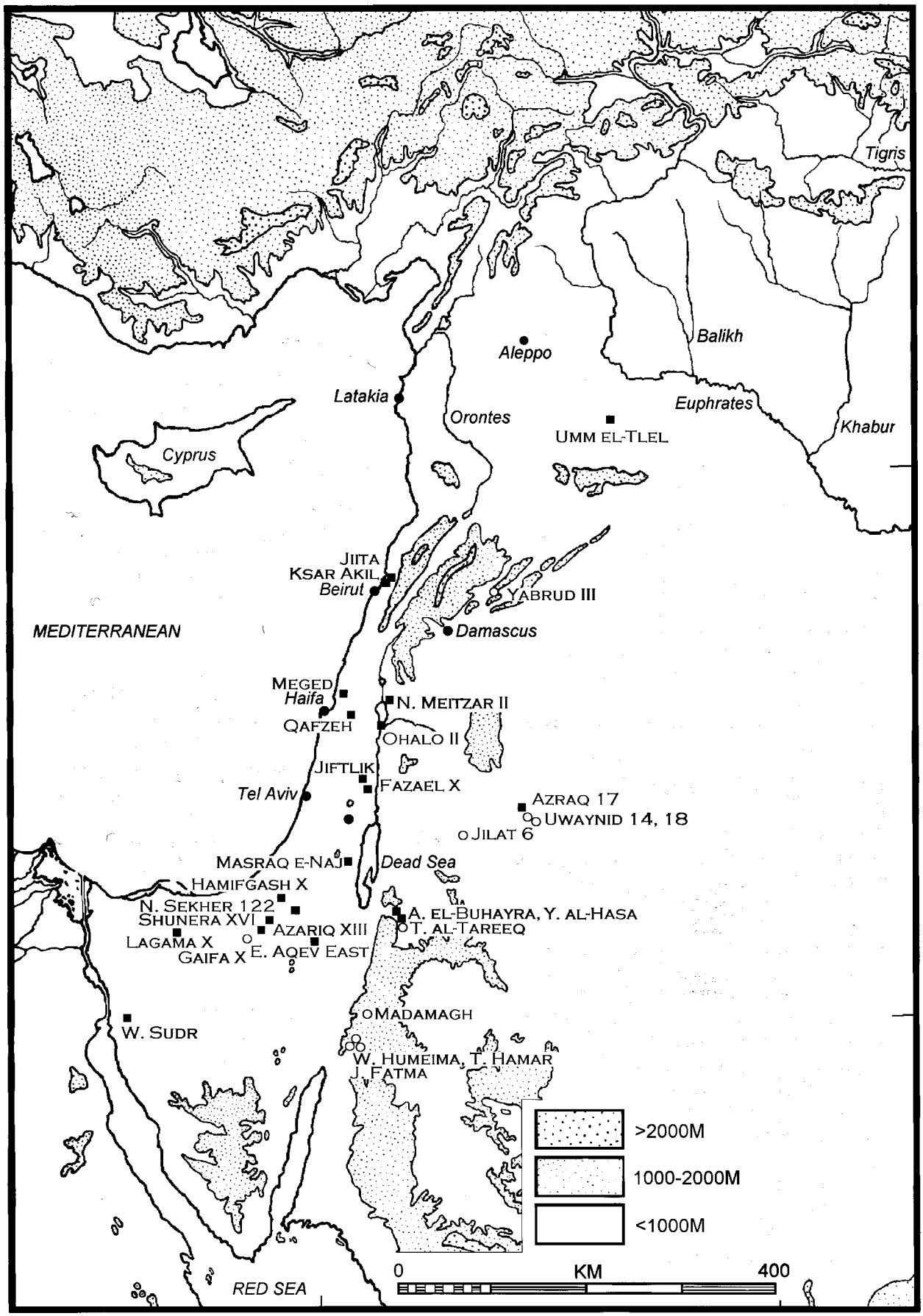

***Fig. 1.5** Distributions of Transitional Upper Palaeolithic – Early Epipalaeolithic entities in the Levant. Masraqan/'Late Ahmarian'* (ca. *22–16,000 bp) (solid squares) and Nebekian sites* (ca. *22,000–20,000 bp) (open circles). Note that the latter are confined primarily east of the Rift Valley.*