

# PRELIMINARY REPORT ON THE PLANT REMAINS FROM M'LEFAAT

Mark NESBITT

During the 1990 season of excavations at Qermez Dere, the British team was invited to carry out two days of water flotation at M'lefaat. With the assistance of Mr. Francis Thornton, the Qermez Dere flotation machine was taken to M'lefaat and operated using a petrol pump on the banks of the Khazir river. Approximately 150 litres/hour of the friable, easily desegregated deposits could be floated. Seeds were collected in a 0.35 mm mesh, heavy residues including bone and chipped stone on an internal 1 mm mesh.

The table 1 gives the list of samples collected during 2-3 May.

In each case the samples were shovelled out from two artificially defined 20 cm spits. The superficially homogeneous appearance of the house fills on excavation is confirmed by the similarity in the contents of the four samples (Fig. 36).

The seeds in sample MT-4 have been sorted and provisionally identified (Tab. 2). The samples also contain large quantities of well preserved charcoal which has not yet been identified.

The seed remains cover a similar range of species as at Qermez Dere (Watkins *et al.*, 1991, 22-26), although with a narrower range of grasses. Even though the types of contexts sampled at each site are broadly similar — fill of semi-subterranean houses — much greater amounts of charred material, in a much better state of preservation, were recovered from M'lefaat. In contrast, densities of chipped stone and animal bones were similar.

The seeds from M'lefaat present the same problem as at other Neolithic sites : are we dealing with gathering from the wild, or is this a case of early cultivation, at a point before morphologically domesticated types have evolved ? At present no definite answer is available (for a full discussion of this problem, see Hillman, Colledge, Harris, 1989), but the M'lefaat material is perfectly consistent with the gathering of plant foods from stands of wild grasses and pulses. As usual at Early Neolithic sites, a number of large barley grains are present, whose size and shape overlap with both wild *Hordeum spontaneum* and domesticated *H. distichum*. No identification to species is present.

Reconstruction of the site environment awaits analysis of the charcoal. Today M'lefaat lies in the same vegetation zone as Qermez Dere, « moist steppe », which would have a climax vegetation of « an open savannah dominated by *Pistacia* and other small trees » (Guest, 1966, 72) if it was not for the impact of cultivation and grazing. At Qermez Dere the charcoal evidence points to a *Pistacia*-savannah at 10.000 B.P. and M'lefaat was probably similar. However, M'lefaat lies closer to modern day oak forest, and oak may have grown closer to the site in the past.

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The site is about 35 km east of Mosul, at the crossing of the Khazir river by the Mosul-Erbil road. Accelerator dates on the seeds lie between 9700-9900 uncal BP. Since completion of this report (in 1992) full analysis of the plant remains has been completed, and should be published in a year or so's time.

**Table 1. Samples collected during 2-3 may.**

	Litres	Context
MT-1	612	Upper fill of west part of house 3
MT-2	360	Lower fill of west part of house 3
MT-3	240	Upper fill of house 8
MT-4	240	Lower fill of house 8

**Table 2. Provisional identifications of seeds in sample MT-4.**

<b>GRASSES</b>		
Goat-grass ( <i>Aegilops</i> ) grains	- whole	38
	- fragments	156
Goat-grass spikelet bases	- whole	9
	- fragments	34
Large barley ( <i>Hordeum</i> ) grains	- whole	12
	- fragments	3
Small barley grains	- fragments	33
Possible wild einkorn/wild rye grains	- whole	3
<b>PULSES</b>		
Lentils ( <i>Lens</i> )	- whole	82
Bitter vetch ( <i>Vicia ervilia</i> )	- whole	30
Vetches ( <i>Vicia/Lathyrus</i> )	- whole	23
	- fragments	348
This category of fragments includes some lentils and bitter vetch.		
<b>WEED SEEDS</b>		
Unidentified		37
<b>NUTS</b>		
<i>Pistacia</i> nut	- fragments	1
<b>INDETERMINATE MATERIAL</b>	- small quantity	
Note: in this score-sheet fragmented seeds have been converted to intact equivalents.		

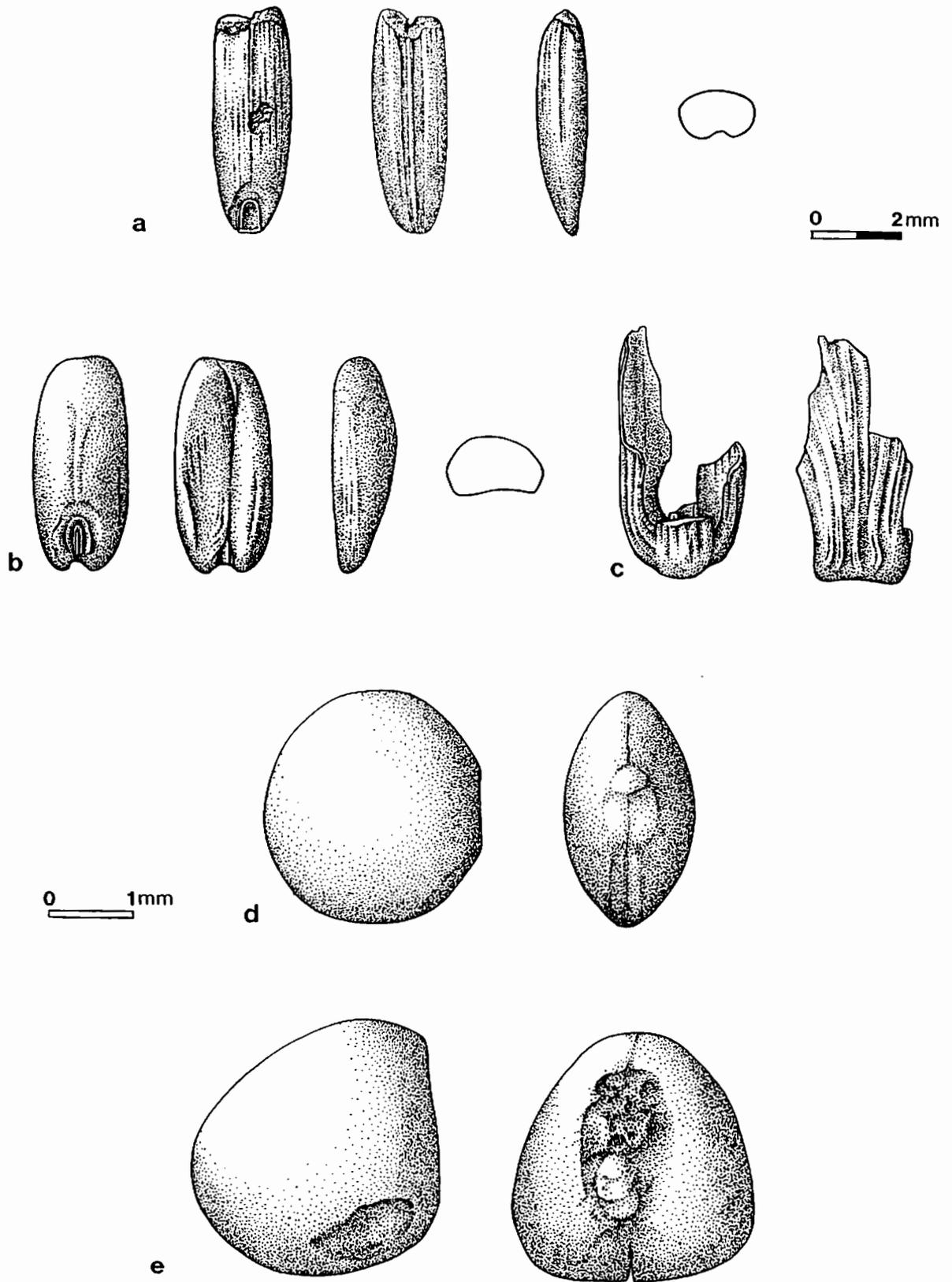


Fig. 36. — M'lefaat. Charred seeds : a. wild barley grain ; b. goat-grass grain ; c. goat-grass spikelet base ; d. lentil ; e. bitter vetch.