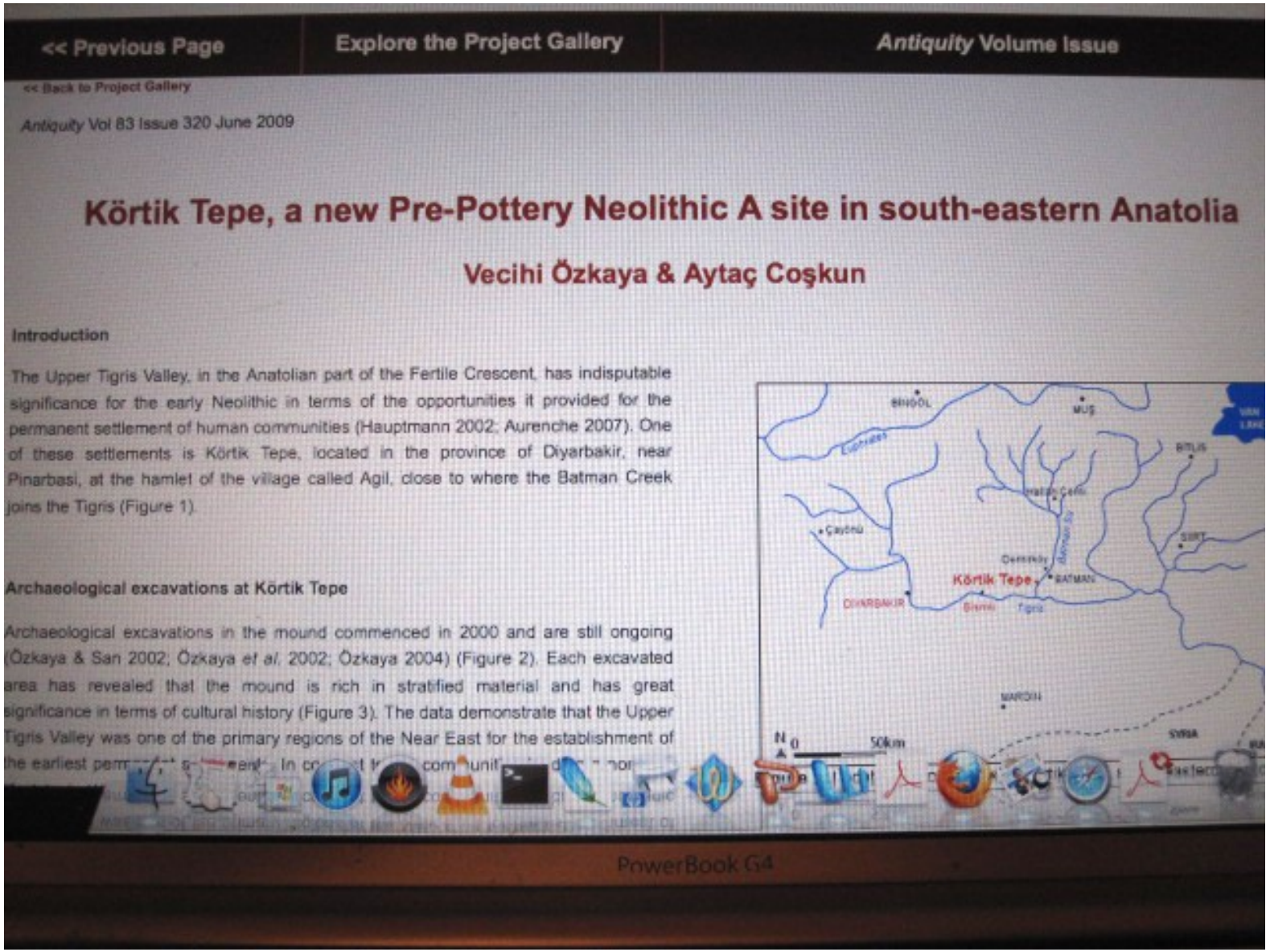
KöRTIK TEPE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Antiquity Volume Issue
<< Back to Project Gallery
Antiquity Vol 83 Issue 320 June 2009
Körtik Tepe, a new Pre-Pottery Neolithic A site in south-eastern Anatolia
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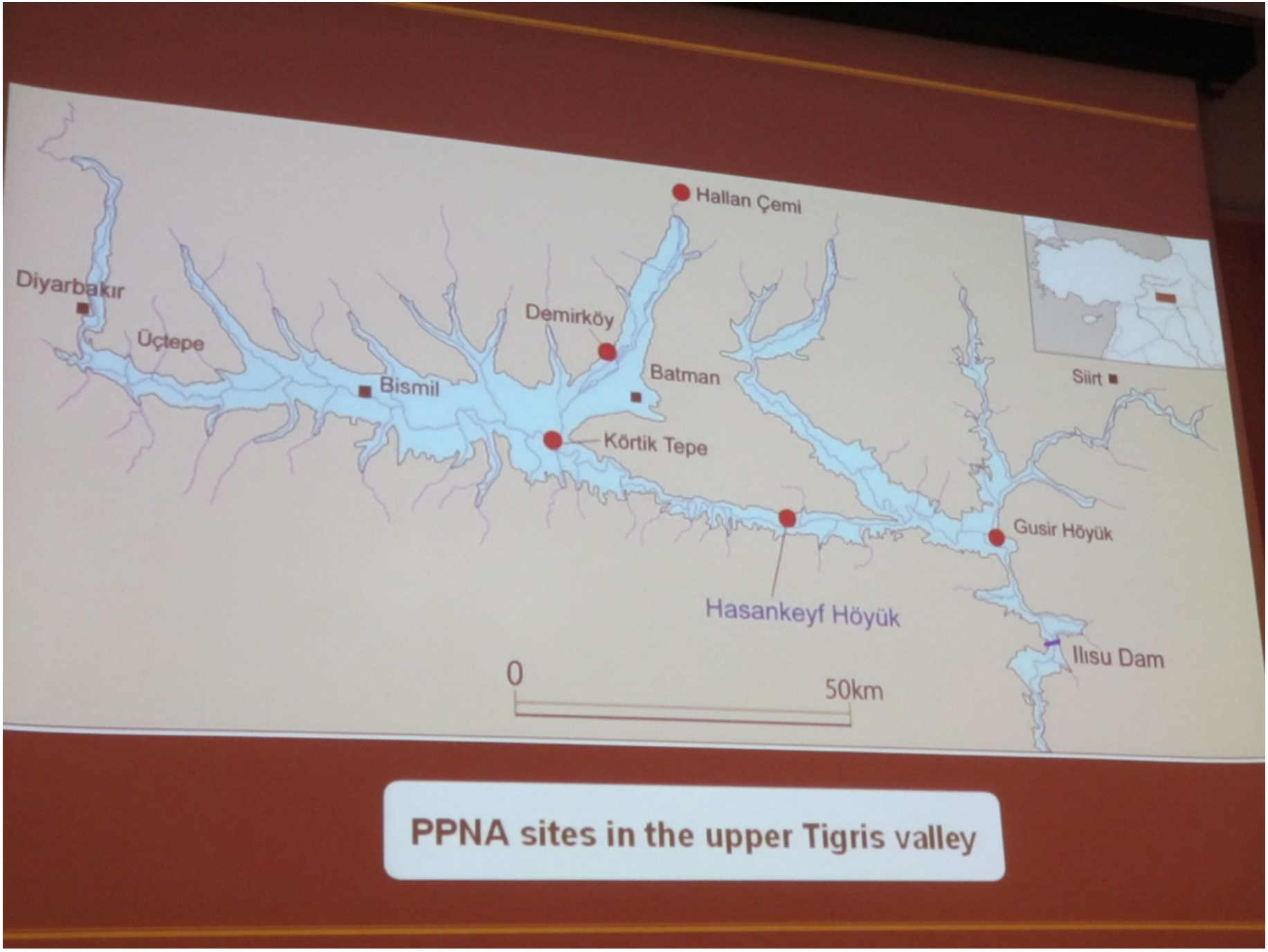
Introduction
The Upper Tigris Valley, in the Anatolian part of the Fertile Crescent, has indisputable significance for the early Neolithic in terms of the opportunities it provided for the permanent settlement of human communities (Hauptmann 2002; Aurenche 2007). One of these settlements is Körtik Tepe, located in the province of Diyarbakir, near Pinarbasi, at the hamlet of the village called Agil, close to where the Batman Creek joins the Tigris (Figure 1).
Archaeological excavations at Körtik Tepe
Archaeological excavations in the mound commenced in 2000 and are still ongoing (Özkaya & San 2002; Özkaya et al. 2002; Özkaya 2004) (Figure 2). Each excavated area has revealed that the mound is rich in stratified material and has great significance in terms of cultural history (Figure 3). The data demonstrate that the Upper Tigris Valley was one of the primary regions of the Near East for the establishment of
Körtik Tepe
BATMAN
DIYARBAKIR
MARDIN
SYRIA
50km
PowerBook G4



PPNA sites in the upper Tigris valley

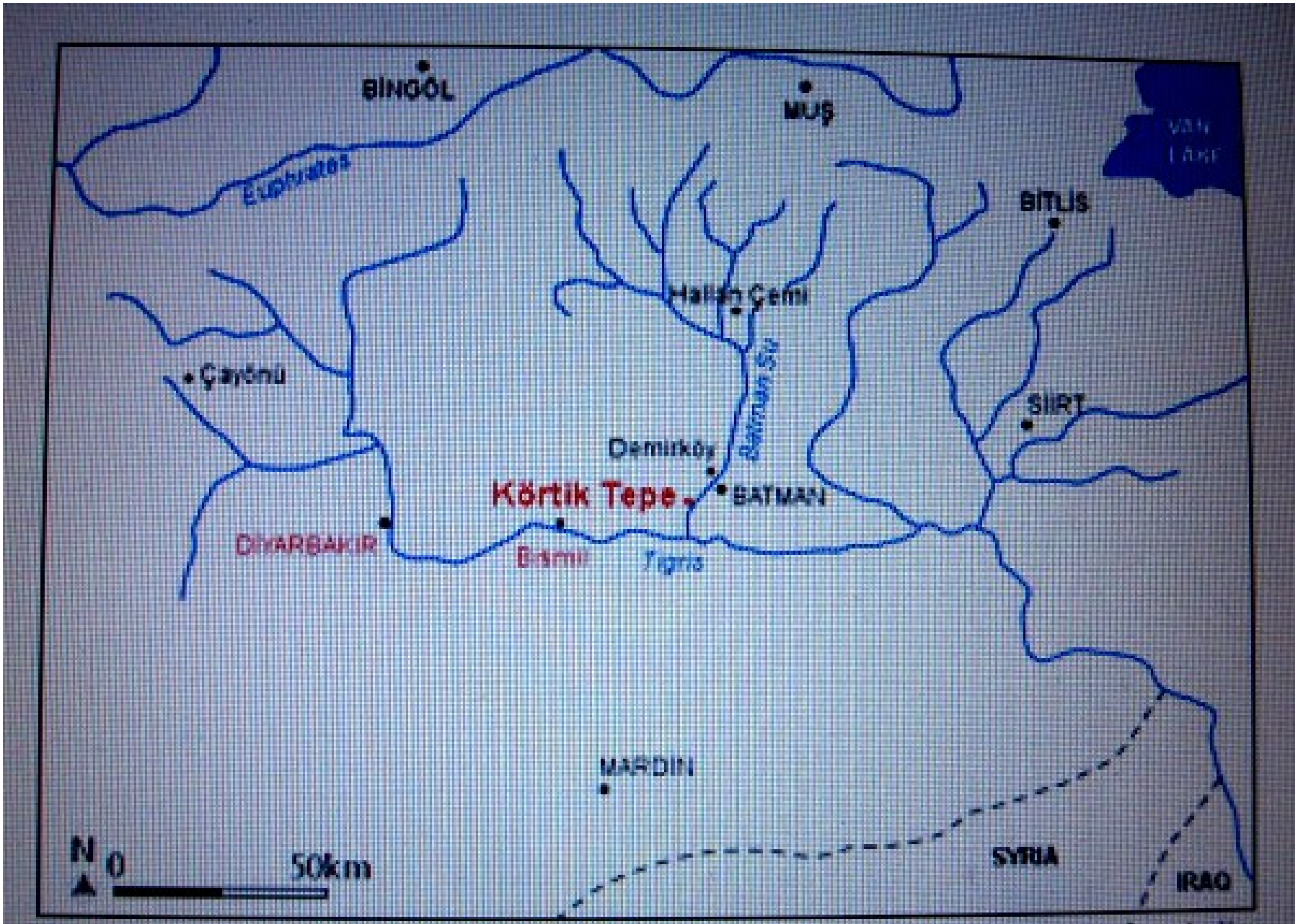


Figure 1. Location map of the site Körtik Tepe, south-eastern Anatolia.

Kortik Tepe

- In the Upper Tigris drainage close to other important PPNA sites
- Excavated from 2000, now halted
- 6 architectural phases of PPNA
- Circular houses 2.5 to 3.5 m diameter
- Smaller round structures with pebble floors
- Walls are thin lines of stone

Other information

- Tombs under floors of houses
- Some170 tombs excavated so far
- Richest assemblage of grave goods in any PPNA site
- Suggest social differentiation
- Site is pre-agricultural
- A lot of fishing
- Lithics similar to other sites in Anatolia, including obsidian

Figure 3. PPNA general view of Körtik Tepe finds in 2008.
Click to enlarge.

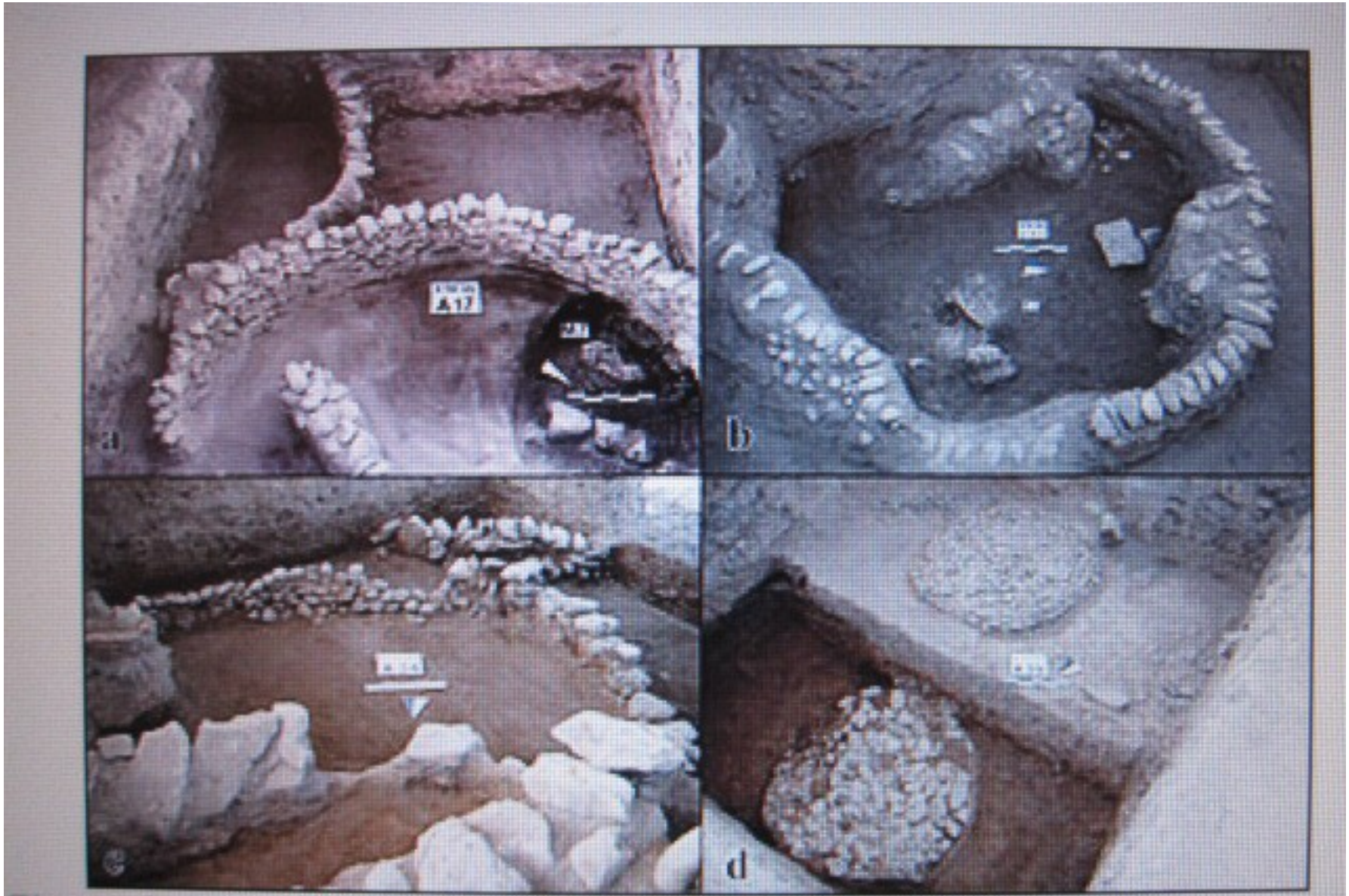


Figure 4. a-c) PPNA circular structures and intramural tombs; d) storage uni

Click to enlarge

Kortik houses and sub-floor tombs

Figure 6. PPNA tomb contexts

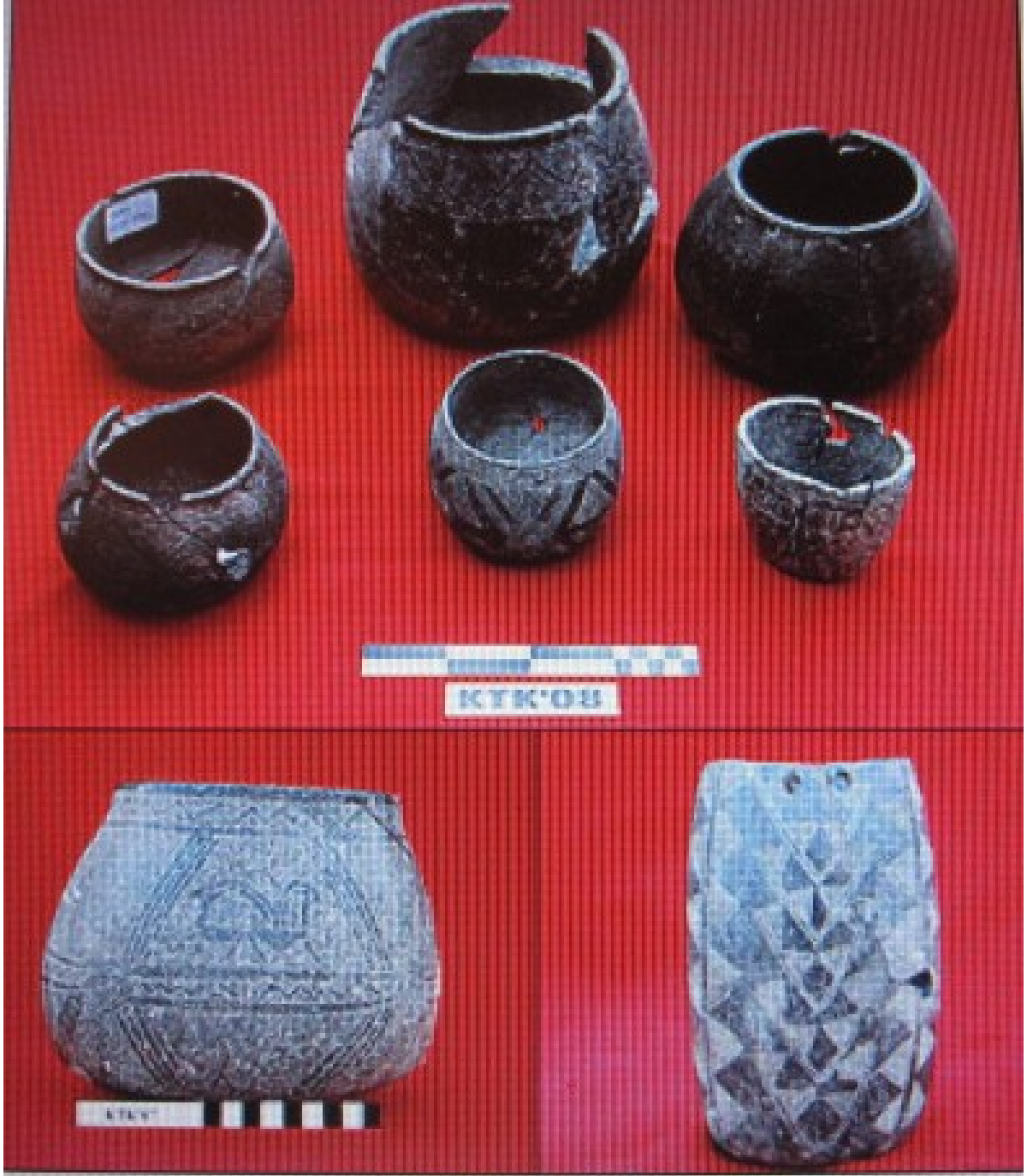


Figure 7. PPNA stone vessels.

Hallan Çemi

- Upper Tigris drainage
- Excavated by Michael Rosenberg, 1991-1996
- Sedentary site in rich ecotone
- Hunting, no agriculture,pig domestication?
- 9700-9200 cal BC

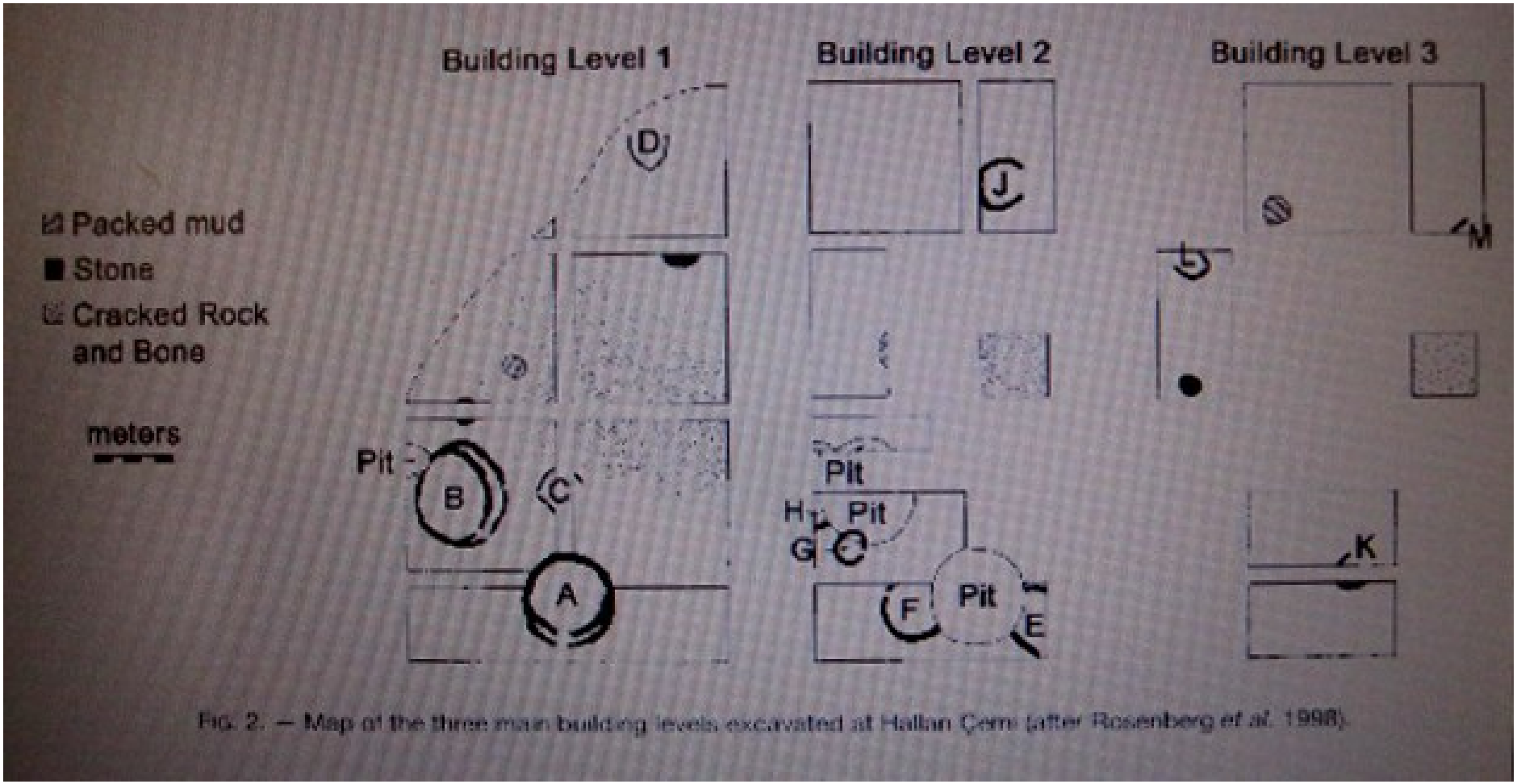


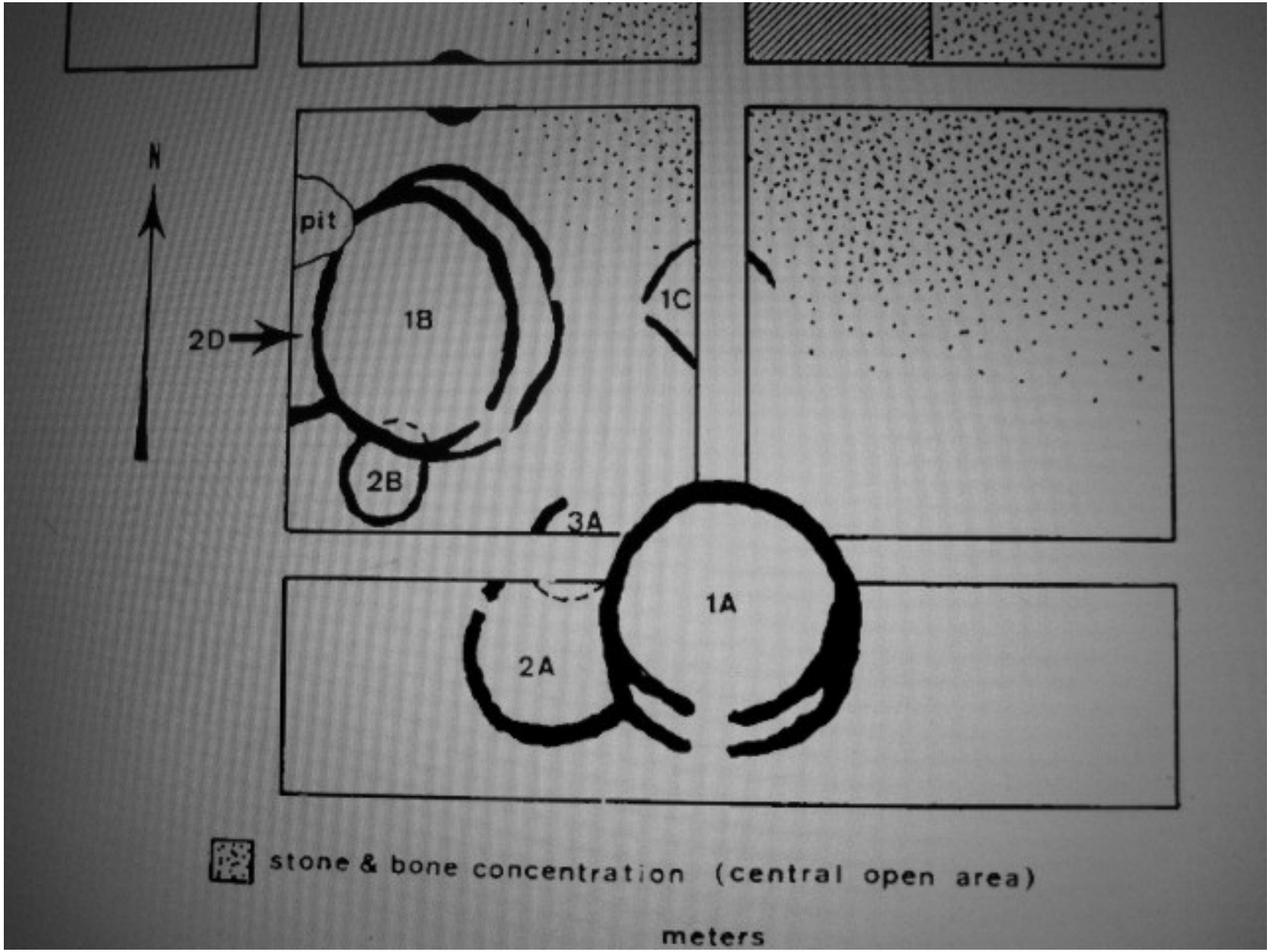
Fig. 2. — Map of the three main building levels excavated at Hallan Çemi (after Rosenberg *et al.* 1998).

Three levels of architecture at Hallan Çemi

TABLE 1. — Radiocarbon dates from building levels 1-3 (Higham *et al.* 2007). Dates were calibrated with OxCal 4.0 using the IntCal 04 curve (Bronk Ramsey 1995; 2001, Reimer *et al.* 2004)

Building Level	Sample Number	Date	Cal Years BP (2σ range)	Cal Years BC (2σ range)
1	OxA-12298	9980 +/- 60	11710-11247	9761-9298
1	OxA-12328	9960 +/- 45	11612-11248	9663-9299
1	OxA-12329	10085 +/- 45	11959-11399	10010-9450
2	OxA-12330	9980 +/- 45	11695-11259	9746-9310
2	OxA-12331	9975 +/- 45	11690-11254	9741-9305
2	OxA-12332	9935 +/- 45	11604-11237	9655-9288
2	OxA-12333	10050 +/- 45	11807-11329	9859-9380
3	OxA-12334	9970 +/- 45	11685-11251	9736-9302
3	OxA-12335	9995 +/- 40	11699-11270	9750-9321
3	OxA-12336	10020 +/- 40	11746-11317	9797-9368

Hallan Cemi radiocarbon dates for three levels



Structures around bone pit in center of site

Plant Remains

- Pulses such as lentil and bitter vetch arecommon
- Almond and pistachio
- How to process toxicity?
- Sea club rush and Gundelia - oil plants?
- Lots of wood charcoal from local trees

Fauna

- 2 tones of bones from central pit
- Sheep 6:1 over goats; also red deer, fox, beaver, bear, hare, stone marten, wild cat, hedgehog
- Horns of wild cattle
- Lots of catfish and carp
- Birds, many turtles
- Pigs, possibly tamed
- Stiner and Starkovich Archaeozoologica 44/1: 47-61 (2009)

TABLE 2. — Average biomass values assigned to each species or body size group (Dunning 1993, Silva & Downing 1995).

	Mass (kg)	MNI	Biomass
Small birds (songbirds)	0.1	1	0.1
Medium birds (Galliformes, Columbiformes)	0.2	3	0.6
Large birds (small raptors, owls)	1	4	4
Very large birds (*Otis tarda* and large raptors)	7	2	14
Combined bird biomass			18.7
Testudo graeca	2	16	32
Lepus capensis	2.8	2	5.6
Vulpes vulpes	3.5	4	14
Ovis/Capra	80	22	1760
Cervus elaphus	170	9	1530
Sus scrofa	200	7	1400
Ursus arctos	170	2	340

Average biomass value assigned to each species

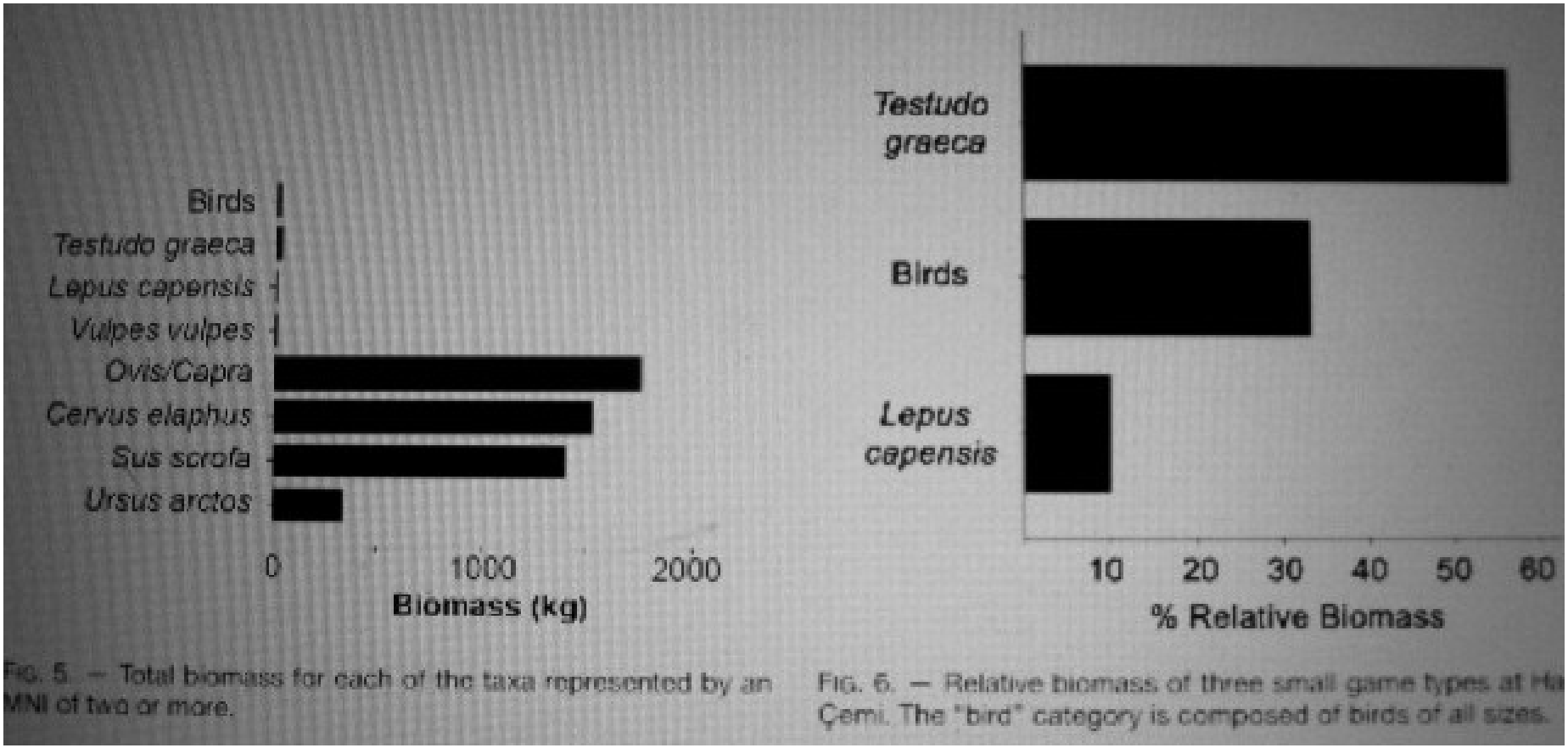


FIG. 5. — Total biomass for each of the taxa represented by an MNI of two or more.

FIG. 6. — Relative biomass of three small game types at Çemi. The "bird" category is composed of birds of all sizes.

Biomass by taxon

Pigs

- Fecund, excellent source of protein, little labor to keep, easy to tame when young, imprint on humans
- Ideal to domesticate by taming neonates
- Hard to control, compete with humans for food (especially cereals)
- Slaughtered young

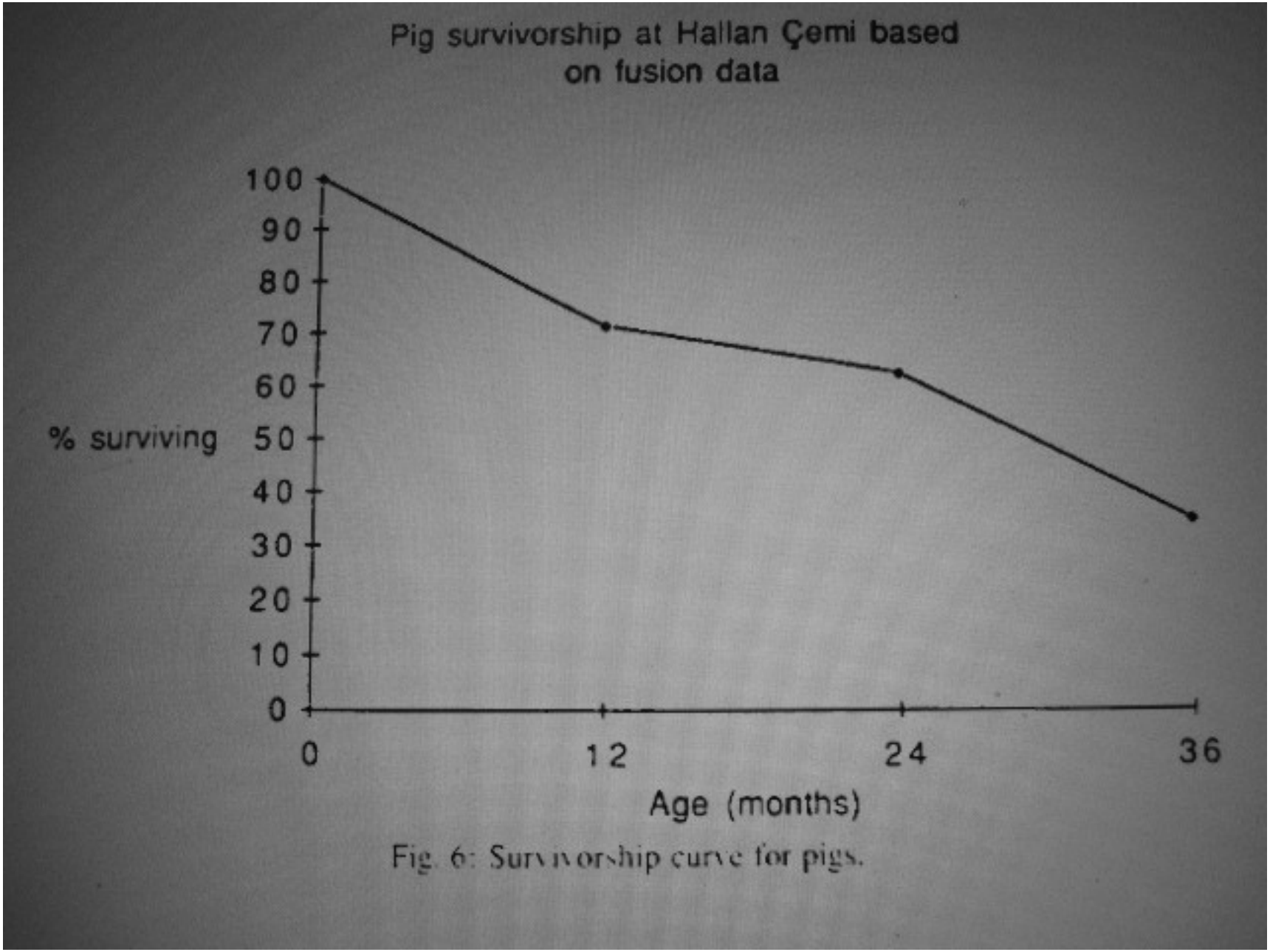
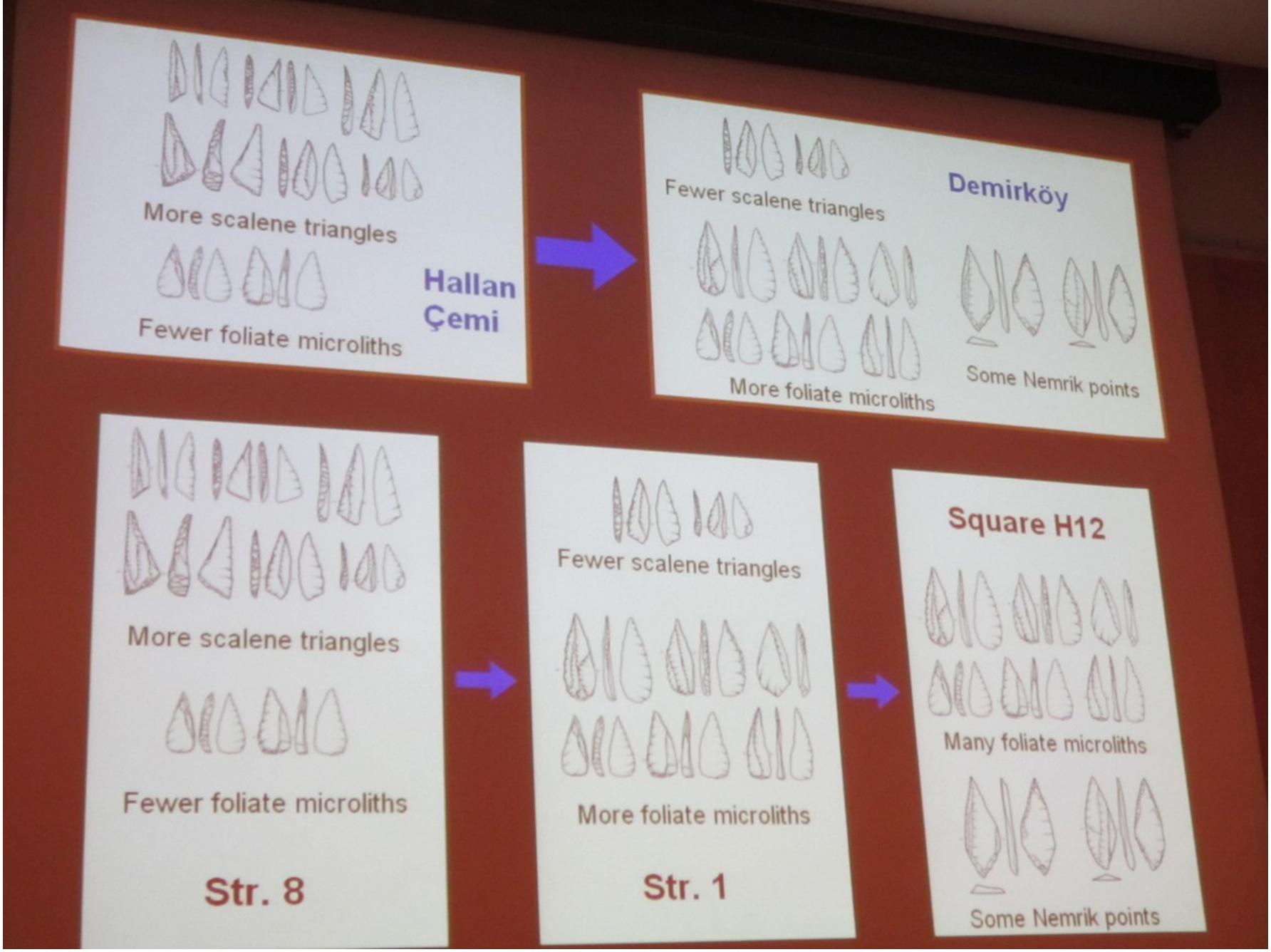


Fig. 6: Survivorship curve for pigs.

Suvivorship curve for pigs



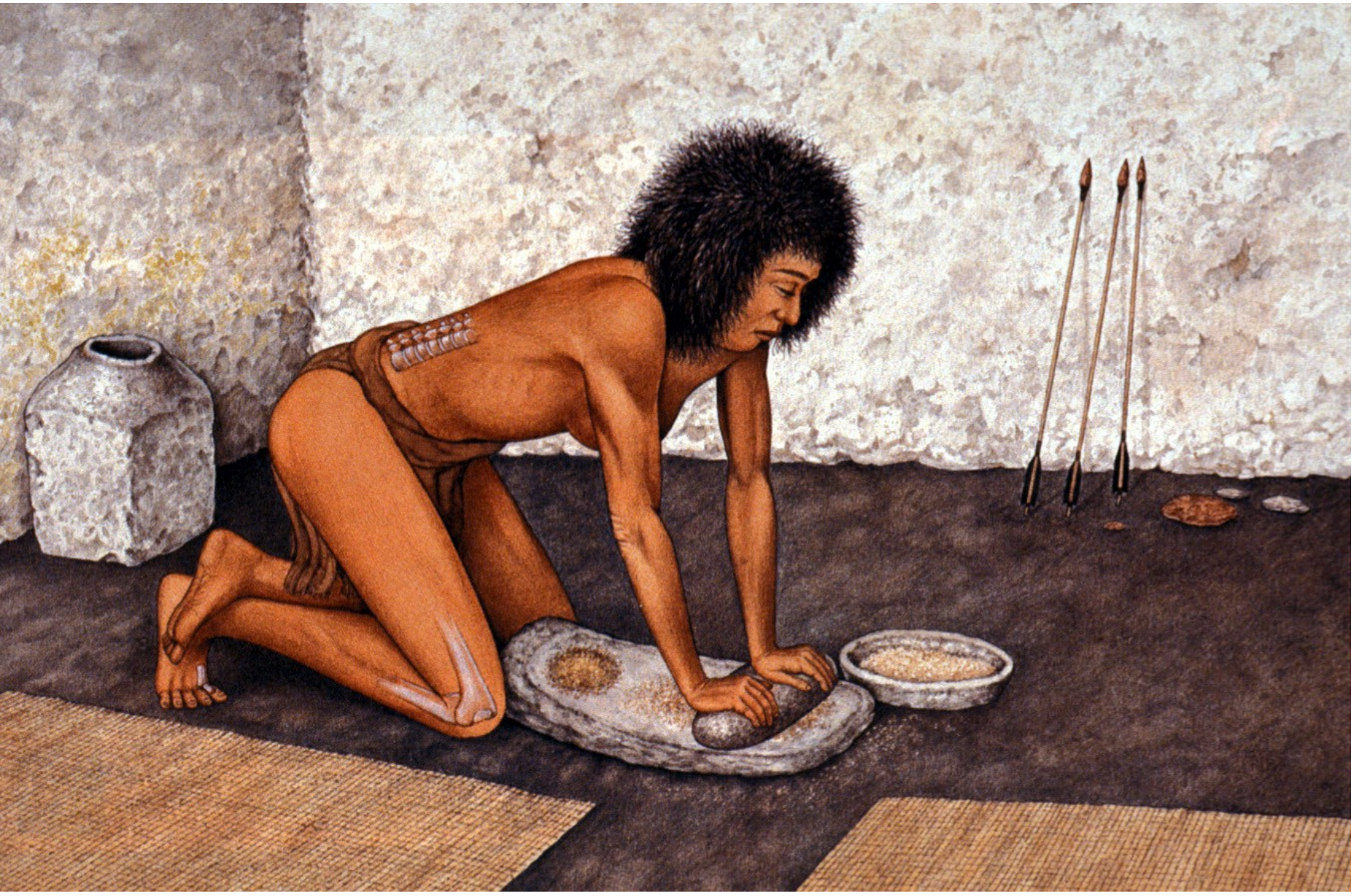
Hallan Cemi and Demirkoy Lithics

Food Strategies

- Sought high quality large animals
- May have had feasts
- Some articulated skeletons in bone pit
- Intensive use of plant food
- Unusually high quality food sources allowed permanent settlement and rich diets

GroundStone

- Sandstone mortars, pestles, querns
- Variety of manos,nutting stones,pestles
- Some pestles carved in animal form
- Trough querns, some of which had the bottoms deliberately punched out



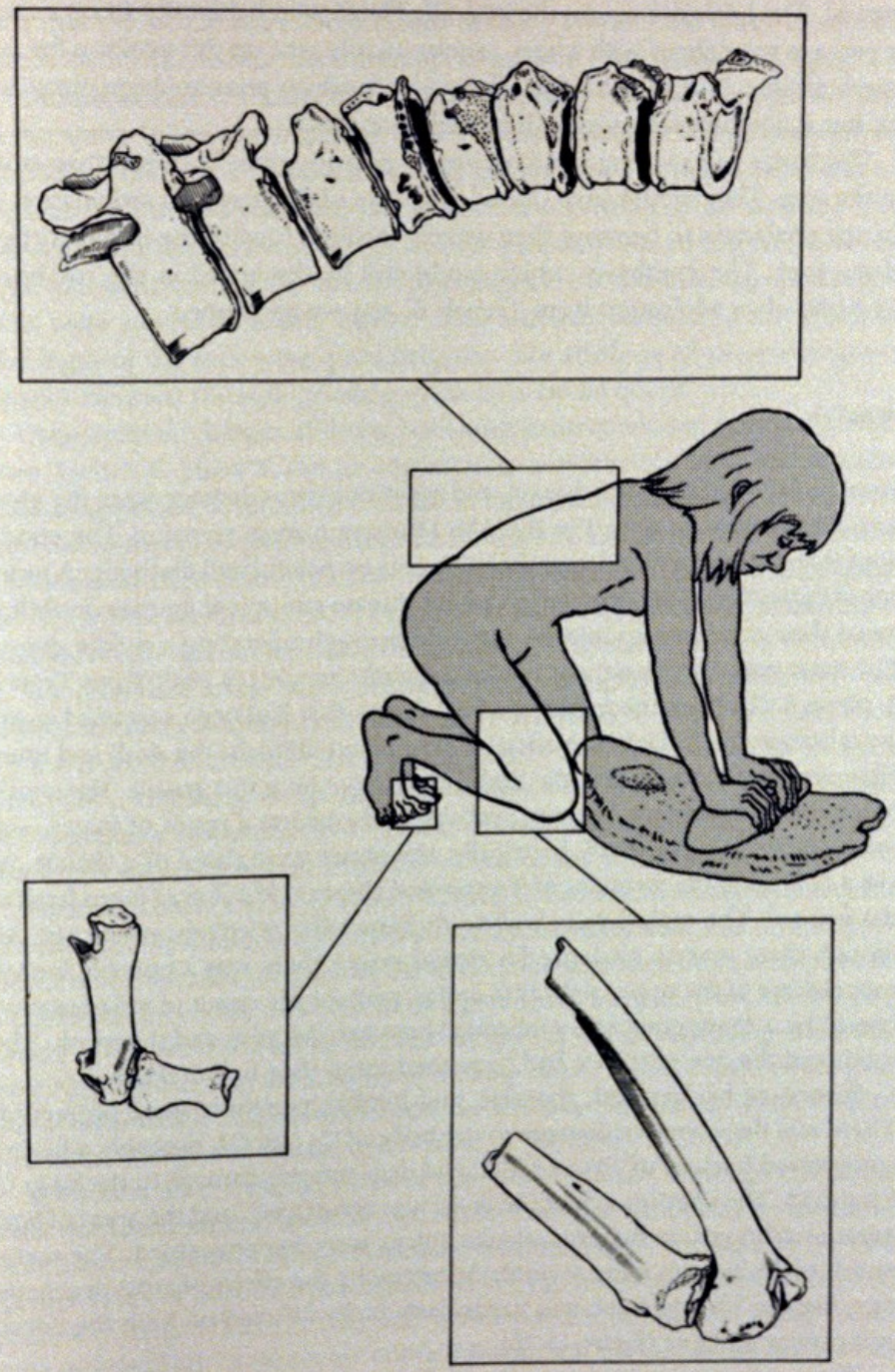
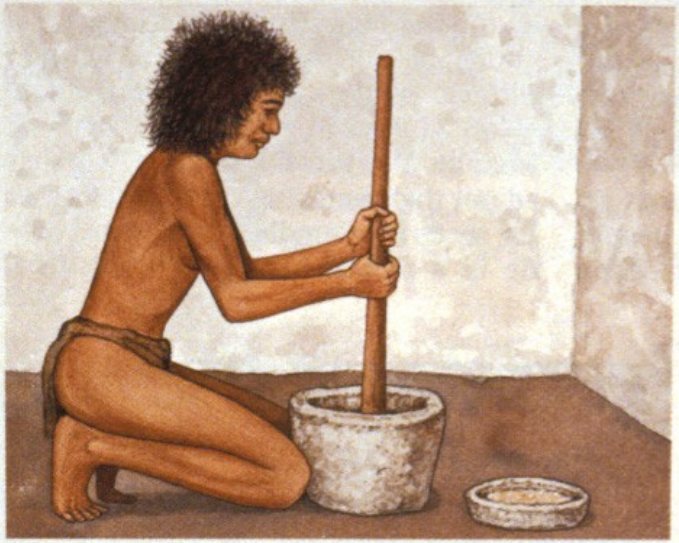


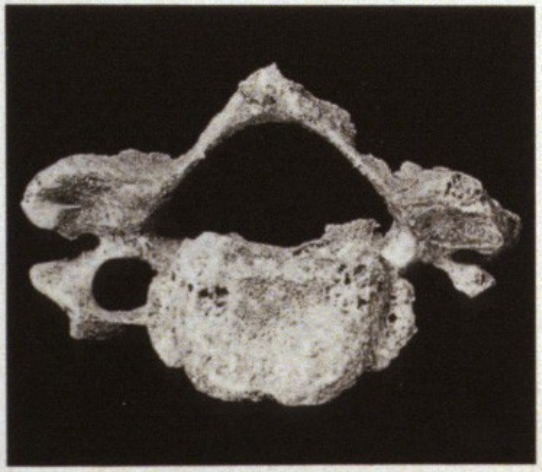
Figure 11.8 The areas of the skeleton that are most often affected by injuries associated with the use of the saddle quern.

BONE ABNORMALITIES appeared among the people of Abu Hureyra as a result of the activities depicted here. Carrying loads on the head deformed the bones of the upper spine; the pitting on the vertebra indicates disk damage. Pounding grain in a mortar and pestle and operating a quern strongly developed the arm muscles, as reflected by the bulging in the two humerus (upper arm) bones (*top of photograph*),

USING MORTAR AND PESTLE

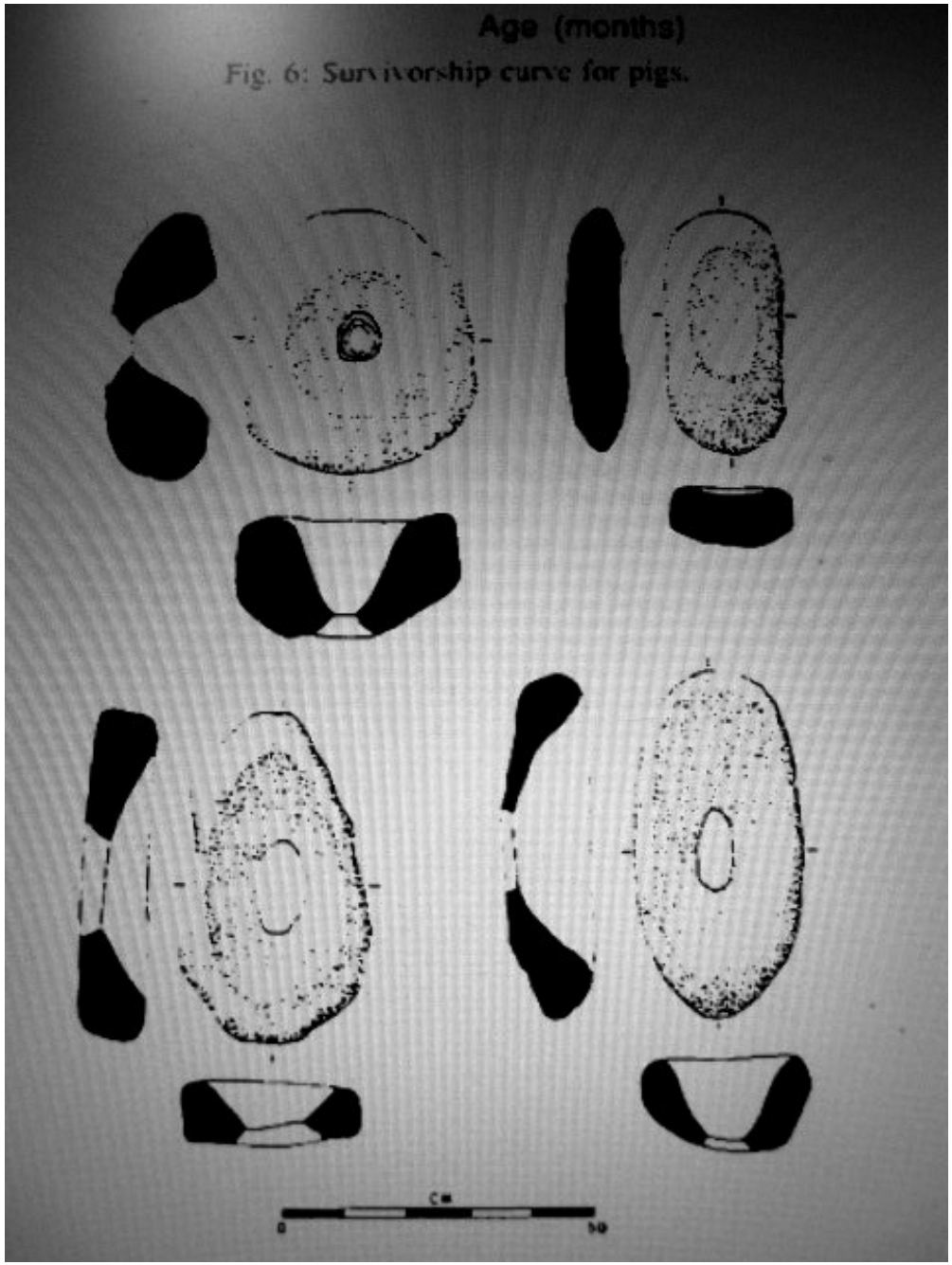


SQUATTING AT REST



EATING

WEAVING



Grinding stones with bottoms broken out

Conclusions

- Sedentism without agriculture or dependence on grasses
- Carbohydrates supplied by tree fruits
- Year-round occupation
- Possible taming/domestication of pigs
- Capriovids predominate, but wild