

Animals and ritual during the Levantine PPNB : a case study from the site of Kfar Hahores, Israel

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ABSTRACT

Excavations at the site of Kfar Hahores (Lower Galilee, Israel), have revealed what appears to be the first PPNB cemetery in the southern Levant. It contains primary and secondary human burials and evidence of a wide range of ritual activities including plastered skulls and special arrangements of isolated bones. Analysis of the grave contexts points to the existence of a unique set of ritual activities involving animals that has until now not been identified in this period.

KEY WORDS

Pre-Pottery Neolithic B,
Levant,
burials,
ritual practices.

RÉSUMÉ

Les animaux et le rituel pendant le PPNB levantin : une étude de cas sur le site de Kfar Hahores, Israël.

Les fouilles du site de Kfar Hahores (Basse-Galilée, Israël) ont mis en évidence ce qui apparaît comme le premier cimetière du PPNB au Levant Sud. Il contient des inhumations humaines primaires et secondaires, et témoigne de nombreux exemples d'activités rituelles, y compris des crânes plâtrés et des dispositions particulières d'os isolés. L'analyse du mobilier sépulcral indique l'existence d'un ensemble unique d'activités rituelles impliquant des animaux, jusqu'à présent jamais identifiées pour cette période.

MOTS CLÉS

PPNB,
Levant,
inhumations,
rituels.

Developments in ideology and belief systems, as reflected in mortuary and other cult processes, have long been recognised as integral to the social, cultural and economic processes involved in the "Neolithic Revolution" (Bar-Yosef & Belfer-Cohen 1989a, 1989b; Banning 1998; Kuijt 2000; Kuijt & Goring-Morris 2002; Verhoeven 2002). Thus the Pre-Pottery Neolithic B (PPNB), which serves as the critical period when these socio-economic changes occur, is associated with the advent of elaborate ritual practices including skull removal, decoration and lime-plaster modelling of skulls, artefact caches, cultic architecture (rooms, installations), statuettes and figurines (Bienert 1991; Hershkovitz *et al.* 1995; Cauvin 1997; Rollefson 1983, 1986, 1998, 2000; Schmandt-Besserat 1997, 1998; Goren *et al.* 2001; Verhoeven 2002).

The site of Kfar Hahoresht located in the lower Galilee, Israel, has yielded additional evidence of mortuary practices involving the manipulation of faunal elements. Examination of these human-animal associations may contribute to our understanding of mortuary practices characteristic of these early Neolithic village societies and the significance attached to the species utilised.

KFAR HAHORESH

The mid-PPNB site of Kfar Hahoresht, dated by ^{14}C to 8650 ± 50 BP, is nestled in the upper reaches of a wadi on the western flanks of the Nazareth Hills in the lower Galilee (Fig. 1) (Goring-Morris 1991, 1994, 2000; Goring-Morris *et al.* 1994-95, 1995, 1998, 2001). The hilly topography and geomorphology of this area is unsuitable for agriculture in contrast to the wide and fertile valleys of the lowland regions of the Galilee. Test pits and electromagnetic conductivity surveys have shown that the site is small, extending over a mere 0.2-0.25 hectares. It is located in a natural embayment beneath a low cliff at the base of a steep, north-facing hill. Southern portions of the site, including the cliff, have been buried following natural geomorphologic processes under 1.5 m of colluvium, while

the northern extent is eroded. Excavation of 425 m² has exposed several distinct architectural phases in two different areas, which are all characterised by a paucity of residential architecture and extensive lime-plastered surfaces, which may have served as cappings for burials. Indeed, no houses have been found at the site and the most common architectural features are L-shaped walls adjacent to which most of the human burials were interred.

The lithic assemblage comprises typical mid-PPNB lithic artefacts; sickle blades, burins, arrowheads (including Byblos and Amuq points, often with Abu Gosh retouch), borers and awls. Bifacial elements are rare. The most common raw material is a cream-beige coloured flint found locally, but a finer textured flint was also used for the more standardised tools, particularly the sickle blades and projectile points. In addition, a small assemblage of ground-stone tools was recovered including mortars, bowls, querns, pestles, mullers and hammerstones. These were made on chalk, chert and basalts of different textures (Goring-Morris 1994, 2000; Goring-Morris *et al.* 1994-95, 1995).

The faunal assemblage is dominated by hunted species, primarily mountain gazelle (*Gazella gazella*). Aurochs (*Bos primigenius*), deer (*Dama mesopotamica*), wild boar (*Sus scrofa*), small carnivores especially red fox (*Vulpes vulpes*) and bones of Cape hare (*Lepus capensis*), are also common (Goring-Morris *et al.* 1994-95, 1995). Goats (*Capra aegagrus*), which constitute the second most common taxa, are indistinguishable from wild animals on the basis of their morphometry and are primarily represented by adults. They may represent animals in the throes of domestication, *i.e.* 'incipient domesticates' (Horwitz 1989; Horwitz *et al.* 1999). In addition, remains of a wide range of reptiles, rodents, birds and fish have been recovered, some of which may represent intrusive elements.

Four different activity areas have been defined at the site (Fig. 2) : a *production area* located on the eastern side of the excavation which displays an emphasis on activities associated with industrial and maintenance activities such as lime plaster

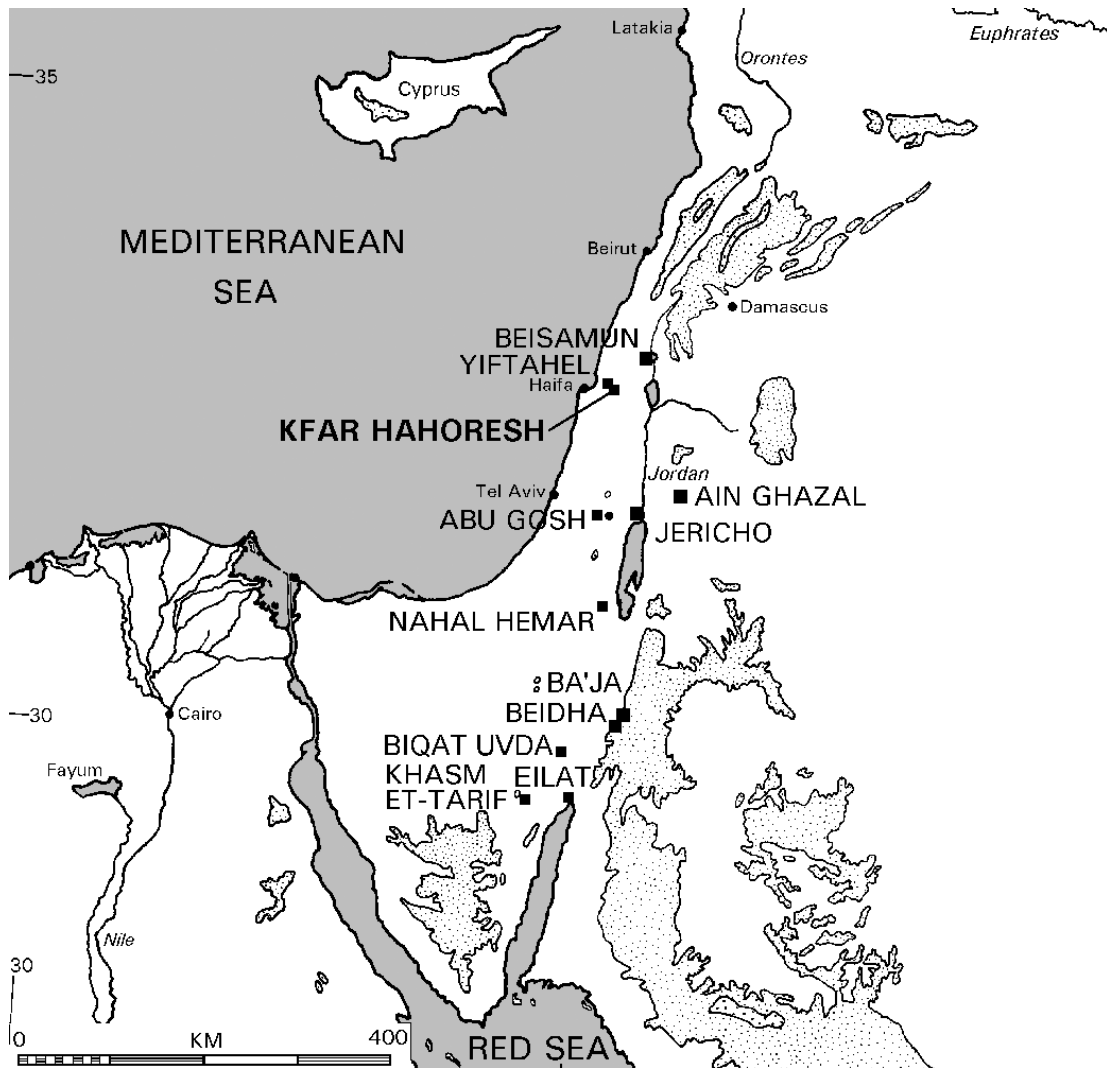


Fig. 1. – Map showing location of Kfar Hahores and other sites mentioned in the text.

production and flint knapping; *midden deposits* located on the southern and western part of the excavation which are rich in burnt organic remains (animal bones and ash) and probably represent food refuse; an area located to the west and northwest of the excavation which has tentatively been identified as a *cult area* with remains of broken monoliths and a plastered hearth; and a *funerary area*, lying to the east of the cult area, which is demarcated by an arc of lime-plastered

surfaces which overlie secondary and/or primary human remains, the latter often found together with organic and non-organic grave goods (Goring-Morris 2000; Goring-Morris *et al.* 1998).

The number of human inhumations, both primary and secondary, stand today at more than 60 individuals based on counts of post-cranial remains (Eshed 2001; Simmons pers comm. 2002), all recovered from 320 m². Some fifteen

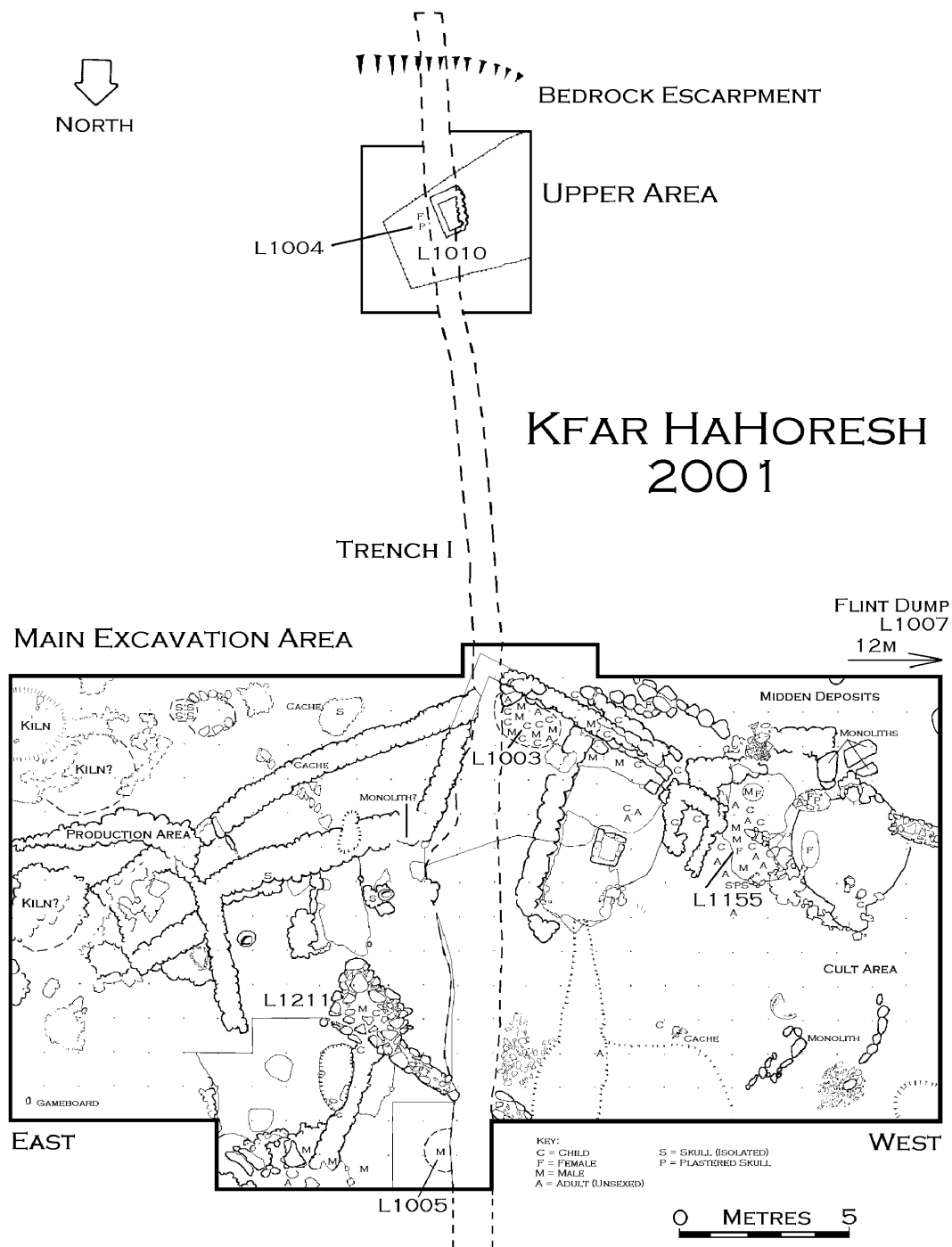


Fig. 2. – Map showing excavation areas at Kfar Hahores and main loci noted in the text.



FIG. 3. – Locus 1003 showing bone circle constructed out of human long bones.

of the primary burials show evidence of post-depositional head removal (Eshed 2001), and three plastered skulls have been recovered from the site (Hershkovitz *et al.* 1995; Goren *et al.* 2001). Many of the human burial contexts are notable for their co-association with minute coloured pebbles, sea shells, flint artefact caches, ashy lime fill and animal remains. Taking into account all these features as well as the dearth of domestic architecture, Kfar Hahoreh differs markedly from known PPNB village sites in the southern Levant, such as the neighbouring settlement of Yiftah'el (Garfinkel 1987) or other sites in this region such as Abu Ghosh, Beisamoun (Lechevallier 1978), 'Ain Ghazal (Rollefson 2000) and Munhata (Perrot 1967), and has been interpreted as a mortuary cult centre which served the neighbouring areas in the lower Galilee (Goring-Morris 2000).

Four different patterns of association between humans and animals have been identified to date at the site, and each of these are briefly described below.

ANIMAL DEPICTION

In several instances, human bones at Kfar Hahoreh appear to have been arranged to form specific patterns. One such example, in what has been termed the “funerary area” of the site (Fig. 1), is a circular arrangement of human long

bones in a shallow ashy pit (L1003) (Fig. 3), while another is found in L1155 and has tentatively been interpreted as a depiction of an animal (Figs 4A, B) (Goring-Morris *et al.* 1998).

The animal depiction was found underneath a lime-plaster surface in a large, ash-filled pit. It constitutes the outline of an animal made by the intentional arrangement of articulated and isolated human long bones and cranial remains, derived from at least four individuals (Figs. 4A, B). The bones appear to have been set in the form of an animal in profile, outlining its face, body, right forelimb with a hoof, right hind limb and upturned tail. The face points to the south. Different bones of the skeleton appear to have been selected to represent different parts of the skeleton. For example, the mouth of the animal is indicated by an upturned human skull and mandible; the foot by an upturned mandible and the bushy tail by an articulated human lower leg and foot. The entire depiction covers an area of circa 1.5 m. As illustrated in figure 4A, a later human interment has disturbed the bones which constitute the belly and hind limbs, and these have been dislodged. The identity of the animal depicted in this drawing is difficult to ascertain but its large head, bushy-tipped upturned tail suggest either a carnivore or an auroch. The latter is less likely since no horns are depicted, although the forefoot bears some resemblance to a hoof.

It is possible that another, similar depiction was delineated to the left of the outline in L1155, but this was poorly preserved. A stone-lined post hole separates the two, as well as a line of sea shells.

Two analogues to the Kfar Hahoreh animal depiction are known from the southern Levant. They comprise outlines of animals associated with Late Neolithic (6th millennium BC), open air sanctuary complexes at Jebel Khazm et-Tarif, Sinai Peninsula (Eddy & Wendorf 1999) and site 6 at Biqat 'Uvda, Negev Desert (Figs. 5A, B) (Yogev & Avner 1983; Avner 2002). In both instances, profiles of animals have been constructed from small stones which have been set in the ground. At Jebel Khazm et-Tarif, drawings were found in seven sanctuaries. The

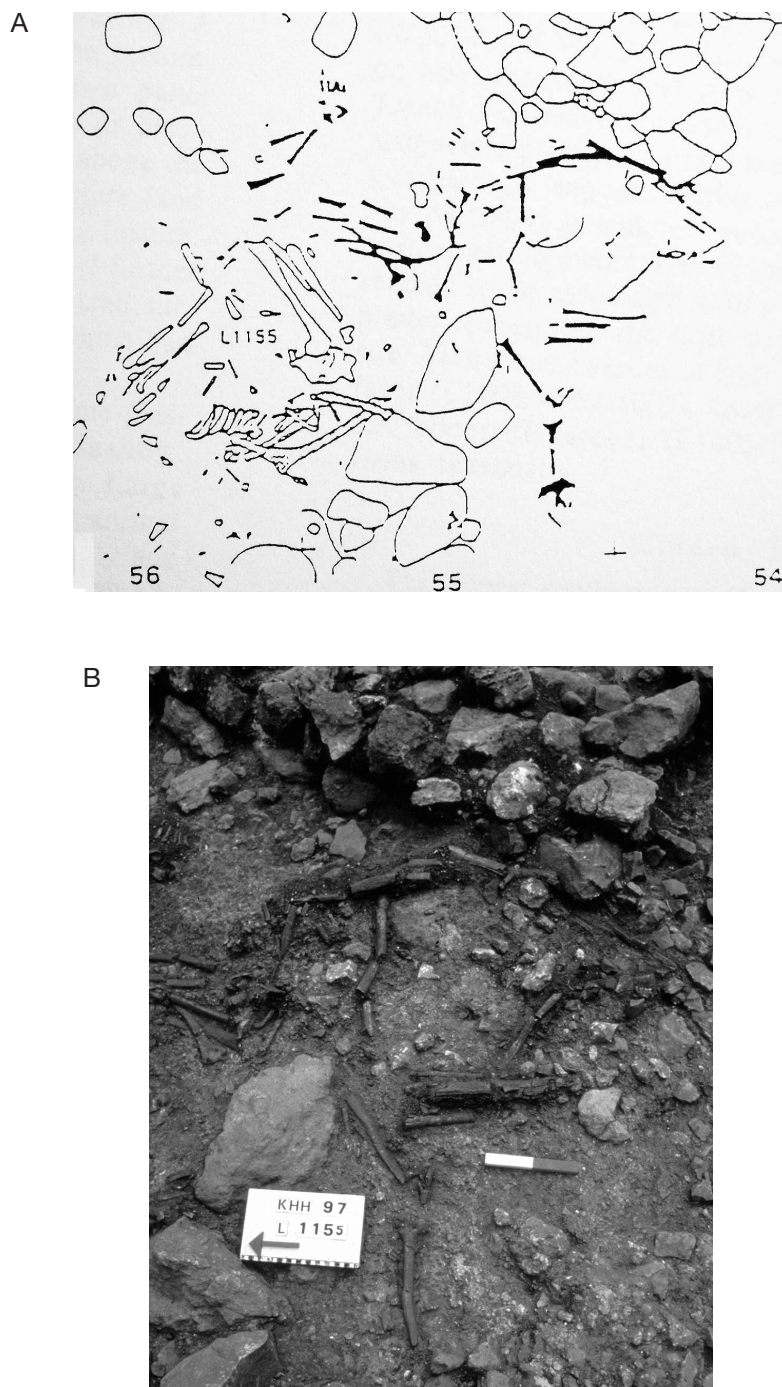
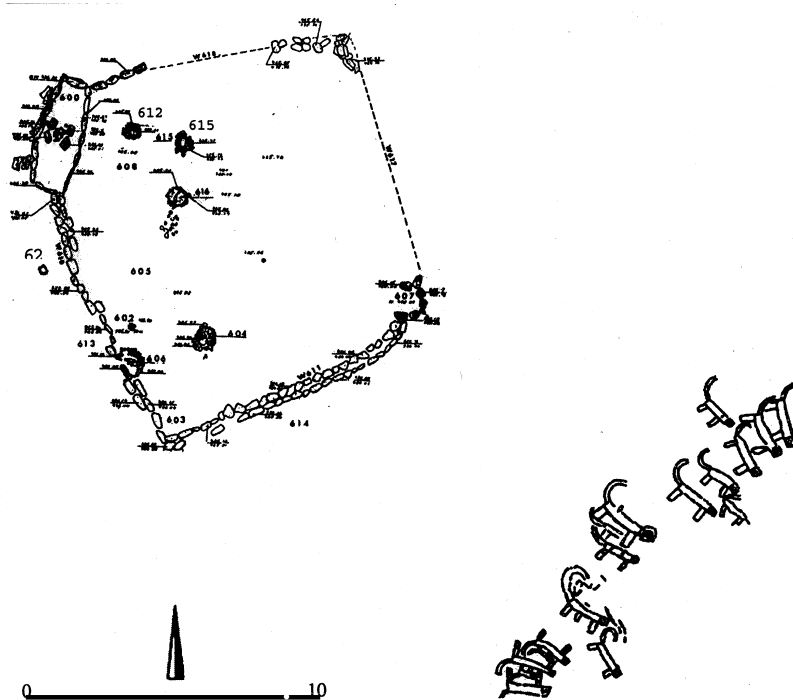


FIG. 4. – **A**, Drawing of the animal depiction from Locus 1155 at Kfar Hahores (shown in black). Note intrusive human burial which has disturbed the contour of the depiction; **B**, Photograph of the face and forelimb of the depiction.

A



B



FIG. 5. – **A**, Drawing showing the sanctuary at Biqat 'Uvda site 6 with the animal outlines located to the southeast of the main sanctuary structure (after Avner 2002; **B**, Photograph showing a reconstruction of two of the animals outlined in slabs from Biqat 'Uvda.



FIG. 6. – Photograph showing the top layer of the “Bos pit” in Locus 1005. To the left is a remnant of the chalky lime-plaster layer beneath which the human skeleton was lying.

majority of animals resemble carnivores and are depicted with long straight tails and large head. They have been interpreted as representing lions. However, several other outlines show animals without a tail whose identity is unclear (Eddy & Wendorf 1999; Avner 2002). Large felines (lion, leopard) are among the animals identified on stone pillars in the cult structures at the sites of Göbekli Tepe and Nevalı Çori, southeast Turkey (Hauptmann 1993; Peters & Schmidt, this volume).

At the Biqat ‘Uvda sanctuary, outlines of 19 animals were executed, most of which were incomplete. The animals face east or southeast. As at Kfar Hahores, the animals are on average 1.5 m long and only their outlines are depicted with excessively large heads and long tails (Avner 2002). All but one of the Biqat Uvda representations have been interpreted as leopards due to their long, upright tails, large heads and the presence of dark stones within the outlines which have been interpreted as spots. The exception is an animal with straight long horns and tail, which has been interpreted as an oryx (Yogev & Avner 1983; Avner 2002).

THE “BOS PIT” AND HUMAN BURIAL

On the northern edge of the Kfar Hahores excavation (Fig. 2), beneath a lime-plastered surface a circular pit some 1 meter in diameter and 35–40 cm deep was discovered which had been dug into virgin soil (L1005). The pit yielded the articulated post-cranial remains of an adult male. The skeleton was lying in partial articulation, in a flexed position. The skull and mandible were missing but it is likely that at the time of initial interment they were present and were subsequently removed by cutting through the overlying plaster surface (Fig. 6). The skeleton lay on an unworked limestone slab and above a pit (L1005) containing 246 bones of aurochs (*Bos primigenius*) (Fig. 6).

The top of the pit comprised 12 angular stones which lay on the same level as the uppermost bones. The bones in the pit were tightly packed into an area of some 2.5 m at the top and contracted to less than 60 cm at the bottom. With the exception of two bones, all belong to aurochs. An MNI count gave a total of 7 adults (based on 7 right, fully fused distal femora) as well as an immature animal aged less than 2–2.5

years old. Estimations of shoulder height calculated on metapodials (van Wijngaarden-Bakker & Bergstrom 1988) gave similar sizes for three of the adult animals — 136.7, 133.9, 133.0 — suggesting that they probably represent females. One adult is markedly larger than the others and may represent a male. The age and sex structure of the remains characterise a small herd comprising a male, 6 adult females and a calf. Their presence in the same pit underlying the burial attest to their having been killed and placed in the pit at the same time as the human burial.

The bones represented in the pit are primarily those of meat-rich longbones and trunk elements. In several instances bones were still found in articulation, indicating that whole chunks of meat were placed in the pit. Scanty cranial remains were recovered from the pit; a frontal section of a cranium, underneath it a portion of the maxilla and premaxilla, and three loose teeth. The paucity of cranial remains mirrors the missing skull in the human burial interred above, and it is possible that the *Bos* skulls and jaws were intentionally removed and not buried in the pit. None of the bones were burnt or exhibited cut marks.

The fact that cattle were the chosen species for interment in pit L1005 at Kfar Hahoreh does not appear to have been accidental. Indeed, Cauvin (1997) was the first to point out the important role played by the Near Eastern cattle cult of the Neolithic period (as reflected in his concept of “*peuple du taureau*”) in the development of organised religion. Most notably, *Bos* is a common iconographic image appearing in clay figurines of this period (e.g. Rollefson *et al.* 1995; McAdam 1997; Helmer *et al.* this volume; Verhoeven 2002). Indeed, McAdam (1997), reported that from the 1982–1985 seasons at ‘Ain Ghazal, 49 % of the animal figurines (*i.e.* 41 out of a total of 84) depicted *Bos*. This same pattern continued in finds from later excavation seasons at the site (Rollefson *et al.* 1992). Twenty-four of the 84 figurines described by McAdam (1997) were recovered from a single cache in a house and form a remarkably consistent corpus in terms of size, shape and style. Rollefson *et al.* (1992) report a further two *Bos* figurines which had been

‘killed’ by the insertion of flint blades being stuck into their torso. They were recovered from a pit beneath a floor and are thought to be associated with hunting magic.

The identification of the species depicted in most of the other animal figurines at ‘Ain Ghazal is less clear and 31 figurines could not be identified to species (Rollefson *et al.* 1985 : 88; McAdam 1997). It is suggested (Rollefson *et al.* 1985) that the greater ease with which the *Bos* depicted in the figurines may be identified, relates to the care, and hence more profound symbolic value, attached to this species by their makers. Aurochs feature prominently in the decorations on stone pillars in the cult structures at the sites of Göbekli Tepe and Nevalı Çori (Hauptmann 1993; Schmidt 1999; Peters & Schmidt this volume). Kohler-Rollefson *et al.* (1988 : 425) noted the presence of incised *Bos* metapodials in the ‘Ain Ghazal assemblage which she interpreted as having a ritual significance. In a later paper, Rollefson *et al.* (1990) cites three *Bos* metacarpals which were found on the floor of a plaster-covered bin. The bones lay on top of a small clay figurine depicting *Bos* (Rollefson 1990 : fig. 6). One of the metacarpals was incised and cross-hatched but it is unclear if this is the same item cited by Köhler-Rollefson *et al.* (1988 : 425). Recently, Becker (*in* Horwitz *et al.* 1999 : 73) described remains of a complete, pregnant female *Bos* associated with a human burial from the PPNB site of Basta. She interpreted this as denoting a ritual context, possibly relating to cattle worship. Similarly, *Bos* bucrania and ceramic statuettes depicting aurochs have been found in PPNB ritual contexts at the site of Tel Halula (Syria). Thus, the Kfar Hahoreh *Bos* pit appears to represent a unique variant of ritual activities involving *Bos* during the PPNB. Aurochs continue to appear in later Neolithic ritual contexts in the Near East, most notably at the site of Çatal Hüyük, Turkey (Mellaart 1967).

GAZELLE SKELETON AND PLASTER SKULL

Some 15 metres south of the main excavation area at Kfar Hahoreh, in the upper area of the excavation (Fig. 2), a plaster-surface measuring

about 6×3.75 m, was discovered (L1010). A small stone-lined installation was set into the plaster surface and included a single post-hole. Beneath this was a lime-plastered pit (L1004) containing an excellently preserved lime-plaster modelled human skull, with the plaster painted red (Goring-Morris 2000; Goren *et al.* 2001). Immediately beneath this skull an otherwise complete, but headless skeleton of a mountain gazelle (*Gazella gazella*) was found (Figs 7A, B). Partially articulated remains of another human skeleton were also found to its right. The mountain gazelle is the most common species recorded at the site, and its remains have been recovered from all excavation areas and all contexts. However, L1004 is the only example at the site of an intentional interment of an almost complete gazelle.

FAUNA FROM OTHER GRAVE CONTEXTS AND THE REMAINS OF RED FOX

Rollefson and Köhler-Rollefson (1993) reported the presence of pig remains in slightly later, Pre-Pottery Neolithic C burial contexts at 'Ain Ghazal. They documented immature pig skulls in two grave pits together with human remains, while a third grave context included "other kinds of pig bones" (Rollefson & Köhler-Rollefson 1993 : 38). In addition, in another part of the site, two secondary burials of the same period were associated with pig bones and a pig-tusk pendant. With this precedent in mind, as well as the presence at Kfar Hahoreh of both the "Bos pit" and the gazelle burial, fauna recovered from grave contexts were carefully excavated and examined.

A sample of 23 grave contexts have been studied to date in detail (from a total of over 30 such locations identified up to the end of the 1999 excavation season). All contained animal bones, but the number of bones and range of species differed. Taxa identified in the graves appear in other locations at the site (Goring-Morris *et al.* 1994-95, 1995) and include : mountain gazelle (*Gazella gazella*), wild goat (*Capra aegagrus*), wild boar (*Sus scrofa*), red fox (*Vulpes vulpes*), hare (*Lepus capensis*), spur-thighed tortoise (*Testudo*

graeca), rodent and snake. Their frequency in grave contexts appears to follow that of their overall frequency in the site. Remains of mountain gazelle (*Gazella gazella*), which is the most common animal found at the site (some 45 % of all identified bones), were also the most abundant finds from grave localities. In some graves, bones of wild boar (*Sus scrofa*) were found (L1353, L1362), while in others (L1020, L1352, L1361, L1373) they were absent. Admittedly, pig remains are generally uncommon on the site (about 5 % of the identified sample), their paucity in the graves reflecting their low density in the assemblage as a whole. Another example pertains to the remains of goat (*Capra*), which are the second most abundant species found at the site (some 20 % of identified remains). Bones of this species were found in most, but not all of the grave contexts studied (16 out of 23 grave contexts studied).

Examination of age profiles of the material from the graves proved to be difficult due to the small sample sizes of these collections. However, in nearly all contexts and for all species examined, remains of both adult and immature animals were found, often together, although bones of adult animals were more common. This may be due to a diagenetic bias relating to the greater robustness and hence selective preservation of bones of mature animals. In the grave localities studied to date, no distinct pattern has been found in the frequencies of skeletal elements and all species appear to be represented by a random assortment of bones.

Burnt bones were recovered from all graves studied and burning was especially common on unidentified bone fragments. This suggests that most, if not all, burnt bones form part of the site fill, and are not directly associated with the mortuary contexts. No cut marked animal bones were found in the 23 grave contexts studied to date. However butchery damage is rare in the assemblage as a whole (less than 4 % of bones identified to date from an NISP of over 4000).

Based on these preliminary findings, it seems most likely that the majority of faunal remains recovered from the grave contexts represent

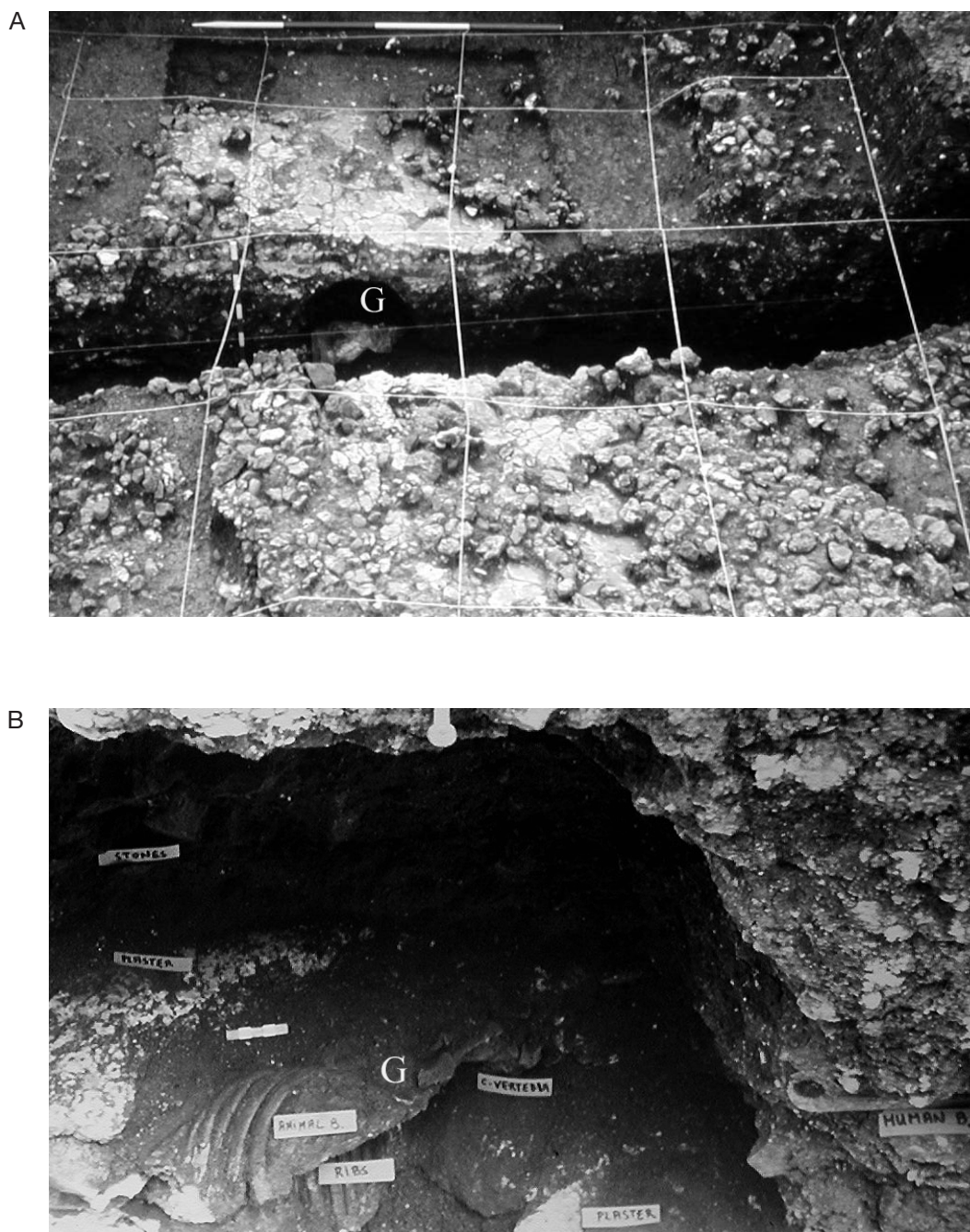


FIG. 7. – **A**, Upper area of the excavation at Kfar Hahoresh showing plaster surfaces truncated by a bulldozer trench. The plaster-moulded skull and gazelle burial were found in the section of the bulldozer trench and are marked by a 'G'; **B**, Photograph showing the rib cage and vertebrae of the gazelle (marked by a 'G'), with isolated human remains to its right. The plaster-moulded skull was located immediately above the gazelle skeleton.

“background noise” and are derived from the general site fill, especially as most of the human interments had been placed in unlined pits. Consequently, distinguishing items belonging to the fill from those directly associated with the interments has proved to be extremely difficult.

A notable exception is the red fox (*Vulpes vulpes*). Both during re-analysis of the fauna from the grave contexts as well as during excavation, it was noted that bones of this species, and especially lower jaws, were especially abundant in grave contexts. Fox mandibles, accompanied by other post-cranial remains of fox, were found in some graves (L1352, L1362) while isolated fox bones, often just mandibles, were recovered from others (L1110, L1373). In most cases fox remains were the only faunal element found. However, fox remains were absent in some grave localities (L1003, L1152, L1304, L1361). In the *Bos* pit (L1005) described above, a fox radius was found. However, it is unclear whether it represents an accidental intrusion in the pit or an intentional inclusion. Iconographic representations of fox are known from the monumental bas-reliefs at Göbekli Tepe and Nevalı Çori (Hauptmann 1993; Schmidt 1999; Peters & Schmidt this volume). As attested to by the data from Kfar Hahoreh, this may indicate that the fox played a symbolic role in the belief system of Levantine communities at this time.

CONCLUSIONS

The simultaneous occurrence of a wide range of animal-human ritual associations at Kfar Hahoreh is unique and re-enforces the hypothesis that this location was not a residential settlement but functioned as a PPNB mortuary cult centre, probably serving villages in the neighbouring valleys of the lower Galilee. The absence of residential architecture or large-scale domestic activities at Kfar Hahoreh is notable and sets it apart from typical PPNB villages excavated to date. The lime-plastered surfaces and accompanying L-shaped walls found at the site may then

represent cappings of burial pits for the final interment of deceased members of the communities using the site, rather than house walls and floors. Interment at Kfar Hahoreh may have followed burial elsewhere, on or off-site *i.e.* secondary burial or as primary interments. Subsequently, in many instances crania were removed and then re-located on site, often as modelled plaster skulls. Together with the practice of multi-stage interment, these findings point to the existence of a planned and complex ritual system.

Based on the corpus of data from Kfar Hahoreh, as well as isolated occurrences from other Neolithic sites in the Levant, we can now add to the repertoire of PPNB mortuary activities animal interments associated with human remains. These all appear to have been the result of intentional ritual acts, and involved selection of species as well as body parts. For example the absence of animal skulls in both the “*Bos* pit” and gazelle interment, associated in the former case with a human skeleton without a skull, and in the latter with a modelled plaster skull.

Given the range of species represented and types of these associations, it seems unlikely that, as has commonly been conjectured, the faunal remains were solely intended as food items for the deceased or even as food offerings for the departed. Moreover, the fact that the Kfar Hahoreh faunal ritual repertoire is paralleled in other Neolithic sites, demonstrates that human-animal burial and depiction of animals in sacred contexts were widespread PPNB practices. The finds from Kfar Hahoreh thus offer new insight into the symbolic world of PPNB peoples and denote another aspect of the shared, pan-Levantine belief system or ‘interaction sphere’ as defined by Bar-Yosef & Belfer-Cohen (1989a, 1989b).

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