CHAPTER 3

THE HUMAN REMAINS

Vered Eshed

INTRODUCTION

The human remains from this rock-cut tomb at Tsur Natan were in a poor state of preservation, detracting from the level of anthropological detail obtainable. Nevertheless, the manner of burial was identified, as well as the minimum number of burials and some age and gender information.

As described above (Chapter 2), this tomb was hewn in a low and relatively small space. The tomb access shaft had been truncated in part by a Byzantine quarry. The excavation began in this damaged section, moving from east to west. Thus it was possible to infer that the first human remains found were the last to be interred. As mentioned, the bones' preservation was poor throughout the tomb, but was better in the more sheltered interior of the tomb, on the west side.

Most of the interments were found in partial articulation and appear to have been primary burials which were pushed further back into the tomb to make space for subsequent interments.

DETAILS OF THE TOMB INTERMENTS
from east (entrance) to west (interior)

Skeletons 1-3 were found close to the entrance of the tomb:

Skeleton 1

Found in the southeast of the tomb, these remains included fragments of a skull, mandible and post-cranial bones (from an arm). Most of the bones were found in anatomical articulation, indicating primary burial. The body seems to have been placed on its right side, oriented north-south with the head to the south. In the right side of the lower jaw were found molar teeth which were not heavily worn. In the first molar there was an exposure of localized dentin on all mounds. The degree of dental erosion suggests that this individual died at 18-25 years of age (Hillson 1993: 176-201). The gender was not clear.

Skeleton 2

Found near Skeleton 1, in the tomb center, remains of this interment included fragments of skull, lower jaw and postcranial bones. Some of the remains were found in anatomical articulation, indicating primary burial. However, the body orientation was not clear. The vertical diameter of the femoral head measured 45mm, suggesting that this individual was male (Bass 1987). In the lower jaw was found the second molar tooth. The third molar seems to have fallen out or been removed prematurely (i.e. when this individual was still alive); in its place in the jaw was observed the beginnings of bone re-absorption. The estimate of this individual's age was 30 years, and was based on the degree of tooth wear (exposure of dentin between the local mounds [Hillson 1993: 176-201]). In summary, this individual was a male aged about 30.

Skeleton 3

These remains were represented by a concentration of bones in the west-center of the tomb. Mixed with the human bones were those of an animal (or animals). Some of the human bones were found in articulation (particularly the upper limbs) and others were not articulated. The body orientation was not clear. Bones found included the lower jaw, teeth and postcranial bones representing a single interment. The head of the upper arm bone (*humerus*) was completely fused to the rest of the bone, a characteristic feature of individuals over 19 years of age (Johnston and Zimmer 1989). The one lower incisor tooth found was eroded to half the height of its crown, as is typical for individuals over the age of 40 (Hillson 1993: 176-201).

In summary, this concentration of bones represents at least one adult aged over 40 years, the gender of whom is unclear.

Skeletons 4-7 were mostly found further into the tomb (generally west of Skeletons 1-3) and lower. The bones were found in partial articulation or in heaps and, as stated, it seemed that the interments in

this section had been disturbed, moved and pressed further into the tomb to make space for the later interments.

Skeleton 4

This concentration of bones in the southeast-center of the tomb were the remains of a child. Included were fragments of the upper skull as well as postcranial bones. In terms of teeth, we recovered a nearly-developed lower molar of which the whole crown and a third of the root were found intact. We also found a complete second lower milk tooth. These teeth formed the basis of our age estimate, which was four years.

Skeleton 5

This concentration of bones near the west side of the tomb included skull and postcranial bone fragments. Near the skull were found three beads made from cowry shell (reg. nos. 71/1-3; see below, Chapter 5, p. 40). The distal epifiza of the femur was fused to the rest of the bone, which was quite thick. This indicates that the individual was over 19 years of age (Bass 1987; Johnston and Zimmer 1989). However, beyond this the age of the deceased could not be clarified. On the back of the occipital-parietal skull bone there was evidence of muscular connectors forming a prominent ridge (superior nuchal line), a typically masculine morphological feature (Bass 1987). In summary, this was a concentration of bones representing one interment, an adult of probable male gender and unclear age.

Skeleton 6

These remains in the northwest of the tomb included fragments of the upper skull, postcranial bones and teeth. The long bones were thick and indicated an adult older than 15 years (Bass 1987). A second upper molar tooth was identified, revealing an exposure of dentin between two mounds and a hole on one lateral side resulting from tooth decay (Hillson 1993: 176-201). Another tooth, a second upper premolar, exhibited a 'dentine cup' on one of its crown mounds. The assessment of this individual's age at death, based on tooth wear, was 30-40 years (Hillson 1993: 176-201). The gender was not clear.

Skeleton 7

These bones were found in the north corner of the tomb, at the lowest elevation of all humain remains. Recovered were upper skull fragments of a child, found near a bowl (too fragmented to be analyzed). The bones were very thin and the seams within the bones—such as the sutures in the dome of the skull—were closed. Also found was a first fixed lower molar, exhibiting a fully developed crown and no root. Based on dental development, the estimated age of the deceased was about three years (Ubelaker 1978).

SUMMARY

The bones in this tomb represent at least seven individuals, including two children and five adults and a gender distribution as detailed in Table 3.1.

Table 3.1. Distribution of age and gender in the L2 tomb at Tsur Natan.

Skeleton no.	Gender	Age
1	Gender not known	18-25
2	Male	Over 30
3	Gender not known	Over 40
4	Child	4
5	Male	Over 19
6	Gender not known	30-40
7	Child	3

DISCUSSION

Conn Herriott

Problems confronting the anthropological research of Iron Age tombs

Detailed osteological/physical anthropology reports from southern Levantine Iron Age burial contexts are in short supply (Bloch-Smith 1992: 38). This is the case especially for older archaeological reports and for rescue excavations, the latter too often suffering from funding or methodological issues (not the least of which are a poorly-controlled profit motive and restrictions placed on archaeological research,

especially by certain influential factions of the Ultra-Orthodox Jewish community).

This notwithstanding, undisturbed examples of cave and chamber tomb interments have shown that individuals were usually laid on their backs, following an orientation dictated by local tradition or what was most convenient in the particular cave or chamber (*ibid.*). Bodies would be laid out and grave offerings placed around them, usually near the cave/tomb center (*ibid.* 36). Subsequently, the remains would be moved to the sides and further into the tomb, making room for the next primary interments. As the above report makes clear, this was the case also in the Tsur Natan tomb. Another clear example is Lachish Tomb 223 (*ibid.*, citing Abercrombie 1979: 41-42, n.34).

Number of Interments

Bloch-Smith (1992: 37) has noted that reports rarely give a minimum number of individuals; one exception is the 12th/mid-11th century BCE Baqah Valley Cave A4, where at least 225 individuals were interred (*ibid.*). Lachish Tomb 120 held the remains of over 1,500 individuals (*ibid.*). This is obviously very different from the seven-individual minimum we have at Tsur Natan. So it appears Tsur Natan was a relatively modest cave/chamber/shaft tomb in terms of scale. (As part of an article we hope to publish soon, we are looking closer at what this range in tomb size might imply regarding kinship structure in relation to burial context, and why some tombs contain large numbers of individuals and some only a few.)

Gender and Age

Generally men and women are represented equally in this tomb type and received virtually the same grave gifts. Single burials of men are rare and no example of a single adult female was known at the time of Bloch-Smith's writing in the early 1990s (1992: 67). That said, the evidence from Baqah, Lachish and elswhere suggests a cultural tendency to separate males from females (and children) within a single tomb. At Baqah men outnumbered women 2:1. This corresponds with the Tsur Natan tomb's lack of confirmed females as opposed to at least two males. However, there is no evidence in the tomb of separating adults from children. Another practice documented elsewhere (*ibid.* 37) but not evinced at Tsur Natan is the secondary-burial separation of skulls from other bones.

From the 10th century on children were increasingly interred in cave and bench tombs (*ibid.* 66). In all times and most places children were buried with adults. Child cremations have been found along the coast, and in individual simple graves, jars and urns in other places such as Megiddo (*ibid.*). The finds associated with children were most commonly bowls, followed by beads, metal jewelry, scarabs, scaraboids, faience pieces and shells. A five year-old at Tel es-Saidiyeh Tomb 27 was found with a silver necklace, carnelian and other beads, bronze bracelets, rings of silver and steatite, a bronze hair clasp, a bronze fibula, a stamp seal, a bronze weaving spindle and a zoomorphic pottery vessel (*ibid.*). Only one other burial, a Tell el-Farah cist, has yielded so rich an array of finery (*ibid.*).

Bloch-Smith (1992: 37, citing Goodman and Armelagos 1989: 225-7) suggests that the large numbers of children in cave and bench tombs reflects high child mortality rates. Furthermore she maintains that this should be viewed as supporting evidence for the interpretation of these tombs as for families. Although we had no identified infants at Tsur Natan, the fact that there were at least two children in our tomb does correspond with this apparent pattern.

A Lack of Burnt Human Remains

In another respect also Tsur Natan fits the general mold for Shephelah and highland burial practices: a lack of evidence for burning human remains. As mentioned, child cremations have been found along the coast and in the northern valleys. Burnt bones were also found in Jericho Tomb 2 (*ibid.* 38, dating the tomb to 1200 BCE) but apparently nowhere else. This begs the question of cultural differences between the populations of these areas.

But such patterns based on specific tomb traits are difficult to see without proper publication, of which there has been relatively little. In some ways the human remains from the Tsur Natan tomb do give a somewhat unusual and modest impression: its interments being fewer in number and less organised than many other tombs, men not being separated from women (as far as we can tell) and children, and skulls

not being separated from other bones. On the other hand, its male-female ratios, the presence of children, and the absence of burnt bones seem to point to this tomb following a general highland tradition. Until a wider database of well-published tombs—beyond the large urban cemeteries—can be built up, osteology will not contribute its due share to the interpretation of interment practices and cultural links.

Comparing Interment Practices

It may be instructive to compare burial types in certain respects (following Bloch-Smith 1992: 69). Whereas in cave and chamber tombs such as Tsur Natan females and males are represented equally, some other burial types hold more females than males (females were 3:1 more common than males in pit burials and cists, equally represented in anthropoid coffin burials, and were 2:3 less common in bench tombs). Regarding age group representation, cave tombs held the lowest number of children and adolescents but twice as many infants as any other type. There is something odd at work here: given the period's high infant mortality rate, there should be more infant interments and only cave tombs reflect that rate. It seems that infants were buried or treated in an archaeologically invisible manner.

A Note on Animal Bones

The animals whose bones were found with Skeleton 3 at Tsur Natan—which we did not have analysed—may well have simply been later intruders in the tomb. It is worth noting, however, that there is some evidence for animals having been considered appropriate grave gifts. The charred pig bones found mixed with the human remains in Lachish Tomb 120 (Bloch-Smith 1992: 37) may not be comparable to Tsur Natan, given the great qualitative and quantitative differences between the tombs (over 1,500 individuals represented at Lachish 120, with secondary burial practices involving skull separation). But findings at several other tombs suggest that this was indeed part of general burial practice, at least for some groups in the Shephelah and beyond (for example, see Gezer Tomb 8I and Lachish Tomb 107 [*ibid.*]). Gezer Tomb 8I yielded stones covering a pile of mixed human, sheep, goat and cow bones. Like Tomb 120 there, Lachish 107 contained charred animal bones—mostly pig—covering human bones. Indeed, aside from cave/chamber tombs, animal bones have been found in simple and cist graves, jar burials, a cremation burial, and bench tombs (Bloch-Smith 1992: 105). Probably much more have been found than we know and have been overlooked, being subsumed within large assemblages of human bones.

Horwitz (1987) proposed seven criteria for distinguishing food offerings for dead from chance animal bones: close association with tomb or human remains; narrow species range; deliberate selection of particular body parts; articulation; preference for one body side; and age-based and sex-based selection. Needless to say, we cannot demonstrate that any of these criteria were met at Tsur Natan. However, other Late Bronze and Iron Age tombs do offer compelling evidence and therefore the possibility must always remain open that any animal remains reflect offerings to the deceased as food, gifts, after-life companions or sacrifices. In light of this we may wonder if some of the food vessels among the grave gifts at Tsur Natan (see below, Chapter 3) relate to animals given in sacrifice to the dead or as food (Bloch-Smith 1992: 105). But this remains only a possibility until scientific analyses are numerous enough for us to weigh up what is exception and what is rule.

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CHAPTER 4

CERAMICS

Sergey Alon, Gunnar Lehmann & Oz Varoner

The indicative pottery from the tomb at Tsur Natan dates consistently to the Early and Late Iron Age II. It is possible that some of the ceramics are even older and belong to the Iron Age IB. In terms of the current absolute dates of these periods, the earliest finds from the tomb may belong to the end of the 11th century BCE and the latest to the first half of the 9th century BCE.

THE ASSEMBLAGE

Open Vessels: Bowls, Chalice, Krater (Fig. 4.1:1-6)

Fig. 4.1:1. Bowl fragment with a brown-orange fabric and many white inclusions. The rim is turned inward. Parallels can be seen from Dor (Dor Iron IIA, or in general chronology Late Iron IIA [Gilboa 2001: Pl. Pl. 5.77:10]); also similar, but with red slip, was a type found near Tsur Natan, in a burial cave at et-Taiyiba (Yannai 2002: Fig. 2:19).

Fig. 4.1:2. Small fragment of a straight simple bowl rim with a buff fabric and fine inclusions. As this is a very small fragment it is difficult to compare to others, but parallels may include bowl types 33b and 38a at Megiddo (Arie 2011: 171,174). These types date to Early/Late Iron IIA and Iron IIB. As the rim is simple it most likely dates to Iron IIA. A similar bowl, but with a red slip, was found in the nearby et-Taiyiba burial cave (Yannai 2002: Fig. 3:7).

Fig. 4.1:3. Rim fragment of a red-slipped bowl with an orange fabric and medium-sized white and red inclusions. The rim is simple and slightly incurving. Such bowls are typical of Early and Late Iron IIA. The type can be identified with bowl type 33 at Megiddo (Arie 2011: 171). For a similar form see Dor (Dor Iron I/II, or in general chronology Early Iron IIA [Gilboa 2001: Pl. 5.III: type BL33b]). Comparable also is a bowl found in the et-Taiyiba burial cave (Yannai 2002: Fig. 2:5,12; Fig. 3:7).

Fig. 4.1:4. This small rim fragment of a bowl is difficult to find comparisons for, due to its very small size. The fabric is buff orange with white and red inclusions. The rim is slightly thickened and the diameter is rather wide. It may be a fragment of a carinated bowl, such as one found at Dor (Area B1, Phase 9, Dor Iron I/II, or in general chronology Early Iron IIA [Gilboa 2001: Pl. 5.67:32]).

Fig. 4.1:5. Chalice with a stepped base and a red fabric, with large white inclusions. The simple rim of this chalice is rare. Similarly formed chalices usually have more elaborate, often flaring rims. They are typical of Iron IB-Late IIA. A parallel for this vessel was found at Megiddo (Arie 2011: Chalice 31). A chalice with a stepped base but a flaring rim was found in the et-Taiyiba burial cave (Yannai 2002: Fig. 5:3-4).

Fig. 4.1:6. Deep bowl with a folded rim and a dark orange fabric with medium-sized white inclusions. This is one of the most frequent types from Iron IB through Early Iron IIA. There are numerous parallels for this type, including from Megiddo (Arie 2011: krater type 32 [Early-Late Iron IIA]), Keisan (Stratum 9a-b, Early Iron IIA (Briend and Humbert