Bioarchaeology of the Near East, 6:21–52 (2012)

Being an "ass": An Early Bronze Age burial of a donkey from Tell es-Safi/Gath, Israel

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Abstract: *Burials of domestic asses appear in the Early Bronze Age (EBA) of the Near East, yet there is little understanding of the nature and importance of such burials. Usually, they are treated relatively simplistically as the remains of adored pets (if carefully interred) or sick animals who have lost their usefulness (e.g. as beasts of burden). Also, the relationship between the burials and the surrounding deposits and structures is rarely clear (e.g. were they buried in an abandoned area of sites or purposely buried beneath floors). In this paper, we discuss the excavation and analytical results of the burial of an ass found under the floor of an EB III house at the site of Tell es-Safi/Gath, Israel. By integrating the results of zooarchaeological, architectural, stratigraphic, and typochronological analyses to this bioarchaeological deposit, it is clear that the ass was deliberately bound, slaughtered and buried as a foundation deposit under the EB III house. The importance of this taxon to the religious and economic realms of the EBA of the Near East is discussed. If this approach is applied to the other ass burials dispersed across the region, their significance is clarified.*

Key words: ritual; sacrifice; Early Bronze Age; zooarchaeology; *Equus asinus*

Introduction

Burials of domestic asses (*Equus asinus*) appear in the Early Bronze Age (EBA) of the Near East, yet there is little understanding of the nature and importance of such burials. While domestic ass (also known as donkeys) remains become increasingly frequent during the course of the Early Bronze Age (EBA) of the Near East, most remains are isolated bones or teeth (e.g., Greenfield & Greenfield in press; Horwitz et al. 2002). Occasionally, burials of complete skeletons are uncovered (Kussinger 1988; Meadow & Uerpman 1986-1991; Zarins 1986), yet there is no patterning evident in their burial context that allows for an easy interpretation. Usually, they are treated

Received 25 October 2012; accepted 7 January 2013; published online 30 January 2013 on www.anthropology.uw.edu.pl

in reports in a relatively simplistic manner as the remains of adored pets (if carefully interred) or sick animals who have lost their usefulness (e.g. as beasts of burden who were disposed by being dumped into pits) (Boessneck et al. 1992; Clutton-Brock 1992). This situation changes somewhat in the Middle Bronze Age (MBA) when burials become more common and are often associated with symbolic, elite or ritual contexts (Katz 2009; Schwartz 2007; Schwartz et al. 2006; Wapnish 1997).

Part of the problem with the interpretation of the nature of EBA equid burials derives from the nature of the recovery of specimens. The absence of a trained zooarchaeologist from most Near Eastern excavation teams, until the recent past, hindered effective collection of anatomical and contextual data (Meadow 1978). Most specimens were delivered to specialists long after the excavations were completed and without adequate documentation as to the distribution of remains and their contextual associations. As a result, most zooarchaeological analyses of such remains were conducted in laboratories in isolation from the rest of the archaeological remains and often long after the remains were removed from their archaeological contexts. Without contextual and detailed anatomical information, it is often difficult, if not impossible, to reconstruct the process by which the burial occurred and the relationship between the burials and the surrounding deposits and structures. For example, was the skeleton buried hurriedly or slowly, was it in an occupied or abandoned area of the site, was it buried purposely through and beneath a floor or was a floor laid over it afterwards, was it slaughtered or had it died in some other way, was it bound when buried, etc.? The answers to each of these questions have important implications for interpreting the significance of the burial.

There are many instances of animals being thrown into pits (Meadow & Uerpman 1986-1991; Vila 2005; Zarins 1986), and it may be difficult to determine if they were a ritual deposit. The anatomical orientation of some ass skeletal burials cannot be explained simply as a natural death or by being thrown into rubbish deposits. While the bones in most skeletons are for the most part in anatomical articulation, as if the ligaments holding the skeleton together were still intact, the position of a few bones in a small number of burials is unusual and probably a result of post-mortem movement (Vila 2005). Some of the movement could have been the result of natural decomposition and associated movement, but others are placed in such an unusual orientation that they may have been disarticulated and placed back into the graves afterwards even though no traces of cut marks were observed.

Another hindrance to the understanding of the nature of EBA equid burial remains is the level of taxonomic analysis (Grigson 1993). Many equid specimens are too fragmentary or lack preservation of the necessary diagnostic features to distinguish their taxonomic affiliation. Hence, it is difficult to evaluate the significance of most burials of equids from the third millennium since they are often not identified to the

species level as horses, onagers or donkeys (not to speak of mules and hinnies). Most are simply identified vaguely as equids (Yannai & Marder 2001; Zarins 1986).

In this paper, we discuss the excavation and analytical results of the burial of a complete ass found under the floor of an EB[1] III house at the site of Tell es-Safi/Gath, Israel. By integrating the results of zooarchaeological, architectural, stratigraphic, and typochronological analyses to this bioarchaeological deposit, we try to determine whether the ass burial from the EBA of Tell es-Safi/Gath was a ritual deposit, the remains of an animal that stumbled into a pit, an accidental intrusion from later periods, or other options. The answer to this question enables us to determine the importance of this taxon to the religious and economic realms of the EBA of the Near East. If this approach is applied to the other ass burials dispersed across the region, their significance may be better clarified.

Asses in the EBA of the Near East

In recent years, donkeys, which are also known more scientifically as asses (*Equus asinus*), have become widely recognized as having been domesticated somewhere in Northeast Africa from the Nubian ass sometime around the end of the Chalcolithic (Kimura et al. 2011; Milevski 2009:251; Rossel et al. 2008). Subsequently, it spread as a domesticated animal from there into Egypt and the Near East during the EBA, although it may have appeared in the southern Levant as early as the Chalcolithic (Grigson 1993, 1995; Hesse & Wapnish 2002). Wherever domestic asses appeared, they set in motion changes to the nature of local cultures that had hitherto been impossible.

Economic perspectives

Domestic asses can be used for both their primary (meat, bone, hide and blood) and secondary products (draught power, milk, dung, hair, etc.) (Langdon 1986; Outram et al. 2009; Sherratt 1981). In most societies, they were mainly used as beasts of burden (carrying goods and/or people) or for their pulling power (for ploughs, wagons, and other such tasks). There is strong evidence that early domestic asses were used for many of these tasks; for example, they were used for plowing and as draft animals in Mesopotamia by the early 3rd millennium BCE[2] (Jans & Bretschneider 1998; Postgate 1986). While it is not clear whether donkeys were used for traction in the

[1] The abbreviations of EBA and EB are used in different ways in this paper, largely according to their conventional usage in the literature of the southern Levant. EB is used when we refer to a phase or series of phases within the Early Bronze Age (e.g. EB II-III or EB III), while EBA refers to the period as a whole.

[2] The abbreviations CE and BCE are substituted in this essay in place of the more commonly used AD and BC to follow the convention used in the southern Levant.

EBA of the southern Levant (in the absence of texts or iconographic depictions), they were clearly used as beasts of burden based on the small number of EBA zoomorphic figurines from the region. Figurines of asses appear at a number of sites across the southern Levant from the earliest phases of the EBA. In many cases, they are depicted as carrying various objects (jars, containers) and/or with saddles or harnesses. They are clearly being used as beasts of burden (Milevski 2009).

Asses as valuable beasts of burden are clearly depicted as early as Old Kingdom Egypt, where they were raised on a large scale to meet transport demands. For example, a land owner is noted by a Dynasty 4 scribe to possess over 760 asses; Herkhug, the caravan master of Pharaoh Meren-Re (Dynasty 6), returns with three hundred asses laden with incense, ebony, and grain. Asses continued to be used as beasts of burden in the Middle Kingdom, where there are hieroglyphic texts describing donkey caravans carrying goods between Egypt and the southern Levant and elsewhere, such as in the story of the "Eloquent Peasant". While they were used for threshing, they do not appear to have been used in agricultural pursuits such as ploughing (Brewer 2002:446-447; Milevski 2005, 2009:244, 2011; Partridge 1996:95-99; Pritchard 1955:407).

There are also depictions of asses as beasts of burden, associated with Canaanites. One of the clearest depictions comes from the Beni Hasan tombs from Middle Kingdom, c. 19th century BCE Egypt (Newberry 1893:Pl. XXXI). These have variously been interpreted as illustrating traveling metal-workers or Asiatic merchants with their loaded donkeys (Albright 1960:207-208; Milevski 2009:19, 2011; Shea 1981). Asses are also extensively documented as beasts of burden in the long distance trade networks carrying goods between the Assyrian heartland and Anatolia in the early 2nd millennium BCE. The standard weight carried by an ass was ca. 75kg (Larsen 1967:141-155), which is remarkably similar to the weights observed for loads at a modern alabaster workshop in Egypt—a maximum of 80kg was divided between the two sides of the body (Hester & Heizer 1981:36-37; Milevski 2009:261).

Symbolic or ritual significance of asses

While they are often thought of in terms of their economic contributions, asses also have religious and symbolic importance (Bartosiewicz 1998). These often come in the form of purposeful burials. There are many instances of ass burials that signify a more ritually oriented deposit (Way 2011). To fully comprehend these, the significance of asses in Near Eastern religion must be considered. Most famously, the donkey is recognized as a sacrificial animal in the Old Testament (Exodus 13:13), where the first-born male donkey is offered. Perhaps this is of significance as the donkey is the only sacrificial animal in later Judaic customs that is considered as non-kosher.

But the ritual significance of the ass is older and more widespread than that of the Old Testament. The ass is an animal with considerable symbolic significance throughout the ancient Near East. Textual evidence of the symbolic significance of donkeys is known from MBA texts from Mari (e.g., ARM 2.37:11; A.1056:9–10; A.2226:17, 15), in which donkeys are sacrificed as part of the signing of treaties. There are texts from a variety of locations across the Near East and Egypt, such as LBA Ugarit (where 70 asses are dispatched as part of the god Ba'al's funeral), Egypt (where the ass is one of the symbols of the god Seth, god of chaos), and the Old Testament (where the son of the founding father of the city of Shechem is named *hamor*, which means donkey in Hebrew [Gen. 33:18–34:31] and a donkey is given the power to talk by god in the story of Bala'am [Num. 22]).

These symbolic uses are often connected with the ample archaeological evidence for the interment of donkeys (and other equids) from the ancient Near East, spanning the 3rd to early 1st millennia BCE, from Egypt in the west, through the southern Levant and into Mesopotamia. Some of the earliest examples are known from EBA Egypt, the southern Levant, and Syria, but others are known from the MBA, LBA and even the early Iron Age I. Some of these burials are associated with human burials and have been interpreted either as 'favorite animals', evidence of draft teams placed next to a burial, or evidence of the profession of the nearby buried humans (caravan leaders). Sacrifices associated with chariots or wagons, or elite burials, are interpreted as providing transport or draft animals for the afterlife (MacGinnis 1987:7-10; Porter & Schwartz 2012; Way 2011).

In addition, there are numerous examples of the burial of donkeys not associated with human burials. These occur in domestic settings, under walls and near or under temples. Most often, these interments have been interpreted as relating to a ritual—such as the signing of a treaty (see above) or a general sacrifice for other human burials in a nearby cemetery, or being related to one of the gods (such as Seth) (Way 2010, 2011). Most commonly, though, asses were sacrificed to validate and sanctify agreements, such as treaties (e.g. at Old Babylonian Mari) (Scurlock 2002:399-400).

While asses were sacrificed in ancient Mesopotamia, they were not generally eaten, in contrast to other draft animals (e.g. cattle). They were not offered as "food for the divine table" (Scurlock 2002). This is particularly evident in the annual donkey sacrifice at Old Babylonian Mari.

> "The day of the *gimkum*, donkey carts (*qersū*) are set up (and) a donkey is killed" (Birot 1980: 142 ii 7-10). Note that the animal is "killed" (*dâku*) not "offered" (*naqû*), a good indication that it was not intended in any sense as a divine meal. (Scurlock 2002:392).

Asses are also associated with elites in Bronze Age Mesopotamia and Iron Age Israel. For example, they were ridden by the Old Babylonian (MBA, 18th century

BCE) Kings of Mari and carried the Biblical Patriarchs (Abraham), kings (i.e., Saul before he was king), prophets, and judges of Israel (Borowski 1998; Way 2010, 2011). Milevski proposed that there is an evolution in the use of ass during the EBA based on the differential timing of the appearance of figurines in these functions. They were used largely as beasts of burden during the EB I-II, while they were being ridden during the EB II-III. By the beginning of the MBA (MB II), there are images and texts that unambiguously depict and describe elites riding asses (e.g. the Egyptian stela of Serabit el-Khadem in southern Sinai (Gardiner et al. 1952:Pls. XXXVII, XXXIX, LXXXV; Milevski 2009:261, figure 226.265; Staubli 1991:100-107).

Ass burials in the southern Levant and neighbouring regions

Despite the textual and iconographic evidence for the importance of asses, there are very few articulated and complete (or nearly so) ass burials from the EBA of the Near East. Most incidences of ass remains in the southern Levant during the EBA come from isolated scattered remains mixed in with the other animal remains. Burials of domestic asses in the southern Levant are extremely rare, but are found with increasing frequency (Milevski 2009, 2011; Way 2011).

The earliest domestic ass burial of this type is from Abousir and Tarkhan (Egypt) and dates to the First Dynasty (3100-2700 BCE). Other specimens are found scattered across the Near East (Boessneck et al. 1992; Vila 2005:203). But it is unclear in many excavation reports, since they lacked zooarchaeologists on site during excavation, whether the animals were dumped into pits or buried as part of a ritual deposit.

Most EBA ass burials are in the form of isolated burials in pits (Vila 2005). A few clearly contextualized ass burials have been excavated in recent years in EBA Canaan. A complete ass skeleton was recovered from a pit, dug into virgin soil, at the edge of the EB IB settlement of Tell Lod. Similar to the specimen from Tell es-Safi/Gath, the cervical area of the vertebral column was broken, i.e. behind the skull (Milevski 2009:figure 23:22; Yannai 2008; Yannai & Marder 2001). It is not yet apparent as to why the break occurred, but it might be that the animal was intentionally sacrificed. But its context is unclear. A second complete ass burial (male, 6-9 years old) was found in the EB III stratum at Tell es-Sakan, south of Wadi Ghazzeh, Gaza. It was found in a domestic quarter, buried within the walls of house, which is thought to have been already abandoned (de Miroschedji et al. 2001:97). A third ass burial has been mentioned for Site H (Nahal Habesor), but there is little information about it (Horwitz et al. 2002:110-111, figs. 112-113; Milevski 2009:263).

Equid burials become more common during the MBA in Canaan and the Egyptian Delta (Hesse & Wapnish 2002:473). Most were probably asses, although the one from Tell el-Ajjul may have been a horse (or mule, which is rarely considered). Many of these equid burials were associated with human tombs (e.g. Tell el-Ajjul,

Jericho, and Tell ed-Daba). One of the clearest examples of a special deposit is from the royal tomb from Umm el-Marra, Syria (early MBA), where equids were buried in an upright position within elite tombs (Schwartz et al. 2012). But, this is a rare case. Other burials are foundation deposits (e.g. Tell Jemmeh, Tel el-Ajjul, and Tel Miqne-Ekron) (Lev-Tov 2000; Wapnish 1997).

MBA ass burials are known from more clearly religious contexts, as well. At Tel Haror in Israel, a complete ass skeleton with a bronze bit in its mouth was found in the courtyard of a temple complex; a second skeleton was found nearby (Katz 2009; Oren 1997). Ass burials were found in a small temple (Complex FS) at Tell Brak, Syria. The burials may have been dedicated to the god Shakkan, who is thought to have had a special relation with equids. The temple has been interpreted as part of a complex of buildings that may have functioned as a caravanserai or way station. Not only are there buried asses, but also there are references to equids on bullae associated with the complex (Milevski 2009:263; Oates & Oates 1993:162-164; Oates et al. 2001).

There appears to be a clear change in context from the EBA into the MBA. In the MBA, most ass burials appear to be associated with public or monumental architecture (i.e. fortifications, temples, large public buildings, elite burials, etc.), such as at Tell el-'Ajjul, Lachish, and Jericho (Katz 2009; Stiebing 1971). This association is less clear in the EBA.

EBA Tel es-Safi

Our concern in this paper is the burials of asses in pits that are not in clearly recognizable special contexts. An examination of these data should expand our understanding of the role of domestic asses during the EBA. In particular, we will be employing new evidence from the site of Tell es-Safi, Israel.

Location and background

The EBA of the southern Levant is a dynamic time period. It is the period of earliest urbanism or when true cities first take hold across the region (Greenberg 2002). Population is agglomerated through the EBA into large urban centers. The nature of political, economic, social, and ritual systems changes dramatically as the area is increasingly incorporated into a number of small city-states. There is evidence for dramatic increases in the scale of productive specialization, local and large-scale long distance exchange, and warfare (Amiran & Gophna 1989; de Miroschedji 2009; Horwitz & Tchernov 1989; Ilan & Sebbane 1989; Rosen 1997; Shalev 1994). These developments do not take place in isolation since there is interaction, both direct and indirect, with the more complex societies in Egypt (Old Kingdom), Syria and Mesopotamia (Kansa et al. 2010; Milevski 2011). The end of the EBA is marked by

the collapse of all of the urban centers in the region (Faust & Ashkenazy 2007). One of the major centers for the region during the EBA is the site of Tell es-Safi/Gath.

Tell es-Safi/Gath has been known since the 19th century, and was initially excavated by Bliss and Macalister in 1899 (Avissar 2004; Avissar & Maeir 2012). Subsequently, the site lay relatively dormant until 1996 when a long-term excavation program was launched at the site by Aren Maeir (Maeir 2012). Since then, the surface survey and excavations of the site have revealed considerable and significant information about the role of the site during the EBA.

The site is located at the western end of the Judean foothills (Shephelah) overlooking the southern coastal plain of south-central Israel (**Figure 1**). From this vantage point, it has a view almost to Ashdod on the coast and to the upper ridges of the Judean Mountains, from Hebron to Bethlehem. It geographically dominates the region, even though it may have been a second tier centre for nearby Yarmuth (de Miroschedji 1999; Maeir 2012).

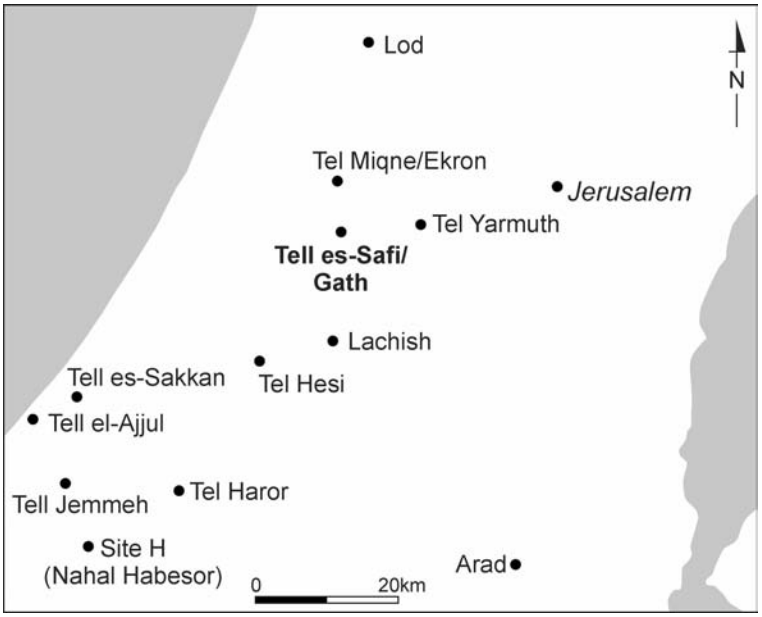

Figure 1. Map of Israel showing location of Tell es-Safi/Gath and other important EBA localities mentioned in text.

Size and extent of EBA occupation at Tell es-Safi/Gath

Tell es-Safi/Gath was occupied from the 5th millennium BCE through to the 20th century CE (Maeir 2003, 2008, 2012). For the purposes of this paper, we are restricting

our description to the significant EBA occupation at the site. Material culture characteristic of all three phases of the EBA (EB I-III) has been found across much of the entire upper tell. The ceramic assemblage is typical of the late EBA of the southern Levant and is similar to that found elsewhere in the region (de Miroschedji 1993; Maeir et al. 2011; Usshiskin 2004).

During the EBA, Tell es-Safi/Gath is one of the major urban centers of the region. Surface survey and excavations at the site have demonstrated that the EBA town is deeply buried across most of the site under thick later deposits. The EBA deposits appear at either end of the site, implying that this horizon existed across the entire site (except for the lower city). Based on the surface survey and excavations, it would appear that Tell es-Safi/Gath is c. 24ha in extent during this period, which is the largest occupation across the upper tell (**Figure 2**) (Uziel & Maeir 2005). In terms of its importance in the regional settlement hierarchy, Tell es-Safi/Gath is in the upper tier and was likely one of the most important sites in the region. Whether it was an equal or subservient site to nearby Tel Yarmuth, which was larger in extent (32ha?) (de Miroschedji 2006), cannot be determined at this time. A large palace area was excavated at Yarmuth, and it may be very possible that such a palace was located on the western summit of Tell es-Safi/Gath site. But it would be deeply buried under 30m of deposit.

The city was possibly surrounded by a large fortification system. Walls dating to the EB III, perhaps representing fortifications, were uncovered near the summit of the tell on the western slopes of the site (Area F), immediately below remains of the MBA (MB II), during the 2008 season of excavations (Maeir 2012). But, none have as yet been exposed on other ends of the site.

The EBA of Area E

At the eastern end of the upper tell, a tongue of the EBA city is exposed since later occupations have eroded away. Intensive excavations of this area (Area E) since 2000 have demonstrated the presence of a large urban neighbourhood that formed the eastern edge of the city dating to the EB III (c. 2600-2300 BCE). Beneath this neighbourhood, test excavations have demonstrated underlying EBA II (c. 3000-2600 BCE) deposits in the same area.

In Area E, approximately 300 m² of the EBA III neighbourhood (Stratum E5) has been exposed, with three stages of architectural development (E5a-c). Based on the nature, configuration and distribution of architectural, artefactual, and other remains, the excavations appear to have uncovered a domestic neighborhood. This neighbourhood is defined by a cluster of EB III multi-room houses, some of which are separated by a narrow alleyway. Each house has several relatively well-built large and small rooms (**Figure 3**). At least 2 (and probably more) houses have been defined.

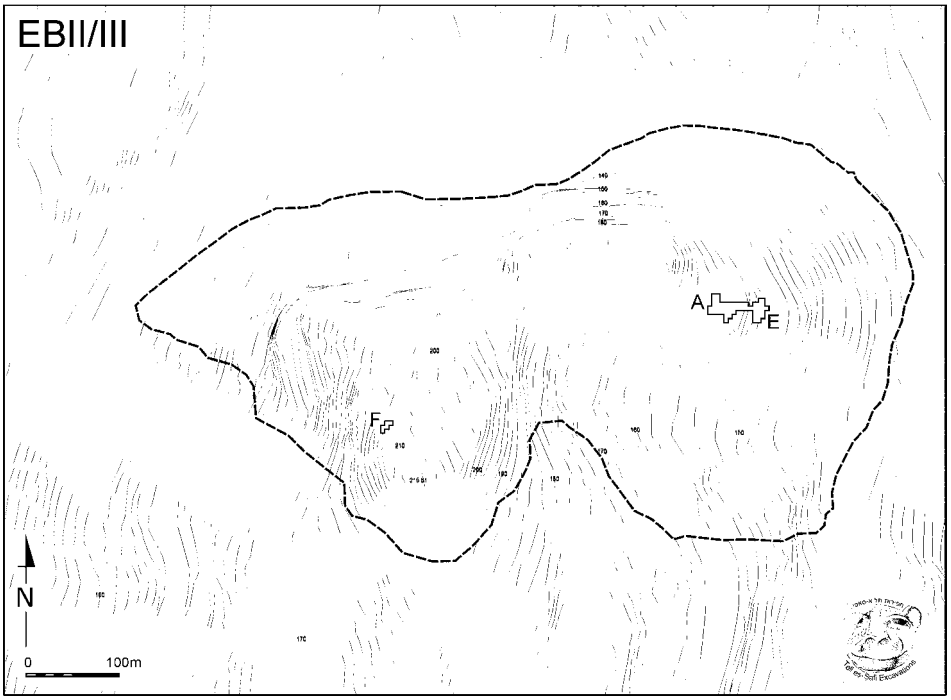

Figure 2. Map of Tell es-Safi/Gath, showing extent of the EB III occupation.

One house is to the west of the alley, while the other is to the east. The cluster of rooms to the east is probably the remains of 2-3 house complexes given the thickness of the walls between some of the room clusters.

The walls are mostly mud-brick on 3-5 courses of stone foundations. The stone foundations appear to have been laid either at ground level or dug into the ground for one or two courses. They do not extend deeply beneath the ancient ground level since there is minimal or no evidence for foundation trenches.

Within each of the rooms, extensive artefactual and ecofactual remains were found. Many of the vessels were well-preserved, evidence that these houses, and their contents, fell into disuse quite suddenly, apparently in a conflagration. The finds from Stratum E5 include a by-and-large quotidian household repertoire, which is quite similar to that reported from the late EB III deposits at Tel Yarmuth (de Miroschedji 2006). The fauna, flora, ceramics, figurines, and other remains are currently undergoing analysis.

The pit in which the ass skeleton was found is dug into the underlying Stratum E6. The architecture associated with this stratum is below the E5 walls, has the same orientation, and is associated with early EB III (EB IIIA) associated pottery. This

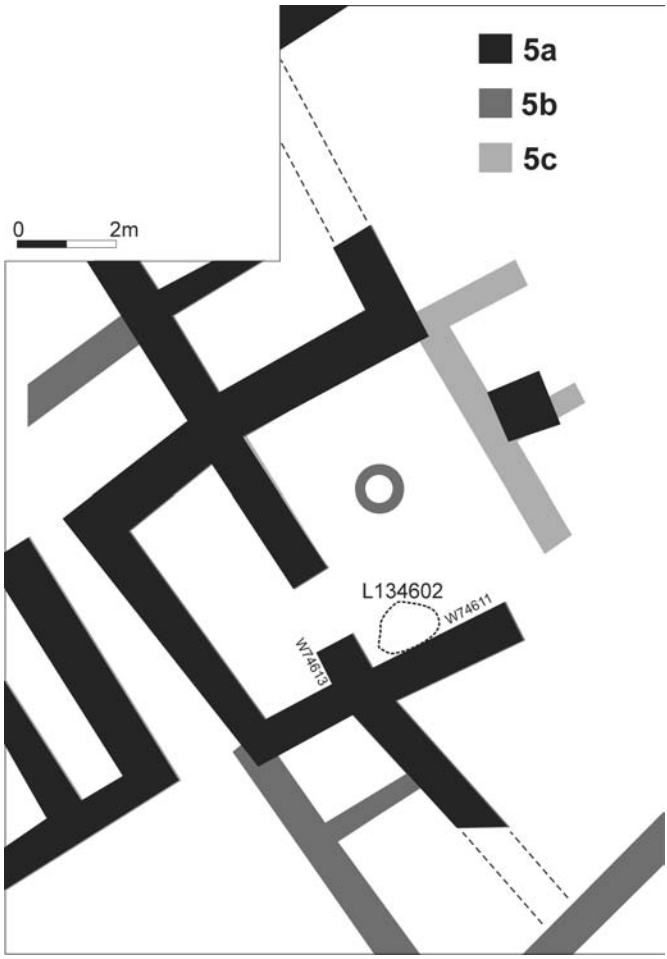

Figure 3. Plan of the EB III neighbourhood uncovered in Area E, Tell es-Safi/Gath, with arrow showing the location of the ass burial (L 134602).

suggests that there was great continuity between the two occupations, including a significant rebuilding of the neighbourhood with the same orientation and using the same walls. This rebuilding of the neighbourhood and the interface between the two horizons is the focus of our concern here. It is at this interface that the remains of a domestic ass skeleton were found and excavated. The remainder of this paper will describe these remains and their significance for enhancing our understanding of the role of asses during the EBA and at Tell es-Safi/Gath.

Archaeological context of the ass burial in Area E

Area E and the EBA neighbourhood

A fully articulated skeleton of a domestic ass or donkey (*Equus asinus*) was found at the end of the 2008 field season in Area E of the site in Square 83B (**Figure 4**). The left half of the skeleton was excavated in 2008, while the right half (which was underneath) and most of the vertebrae were excavated gradually in 2010. In between, the skeleton was covered over with a layer of sediment and cloth and left undisturbed.

Figure 4. Photograph of the location of the ass burial in EB III stratum of Room 114502 in Area E, Tell es-Safi/Gath. Location of burial is marked with an arrow. Tell es-Safi/Gath Project photo credit.

The orientation of the neighbourhood is from NW-SE, which allows for some confusion in descriptions. The skeleton was found in the corner of a room (114502), which is enclosed by four walls. The architecture in this square belongs to both phases of Stratum 5 (a, b and c). Wall 74611 is the southern (southeastern) wall. It abuts Wall 94209 at its SW end. Its NE terminus is destroyed by later occupations in the area, but it continued into the next square to meet W84513, which is the eastern (northeastern) wall. Midway along its length, W74611 is abutted by a short wall (W74613) which runs NW-SE. Wall 94411 may be the continuation of this (74613)

wall, which enters at the NW corner of the square. Wall 74511, which runs parallel to W74611, forms the northern (northwestern) wall of the room. These four walls enclose room 114502. It is the largest room in the cluster of rooms uncovered so far in the neighbourhood. Whether it was roofed over or not cannot be determined as yet.

This room contained an area of chalk collapse in the north and dark brown soil in the south. In the middle of the room, there is a large circular stone installation (94606), which resembles a platform. There was a fire installation between the stone platform and the western wall (W94411).

The skeleton is located in the corner defined by the intersection of walls W74611 and W74613 (at a height of 171.75 m ASL). The ass skeleton is buried within a shallow pit (L134602) that runs parallel to and alongside the foundations of the southern wall of the room (W74611). It backs into the corner formed by this wall and the shorter intersecting wall (W74613). To the northeast, around the edges of the pit with the donkey, a cluster of small stones was uncovered from the E6 stratum. These were not part of the burial pit itself.

Archaeological dating

The pit is dug into a horizon of collapsed mud-brick, mixed with stones, ceramics and bones from Stratum E6 (early EB III). It extends for a depth of c. 20cm into this horizon. This collapse and the underlying deposits is just above a darker soil horizon filled with charcoal, stone, pottery sherds, stone tools, and bone. From the shape, depth and orientation of the pit and its relationship to the surrounding deposits, it appears that the donkey burial post-dates the foundations of Walls 74611 and 74613 and is chronologically positioned between Stratum E5 and 6. Unfortunately, no ceramic or other remains were buried in the pit with the ass skeleton.

Was this an EBA burial pit or a later intrusion? Stratigraphically, the skeleton was found in the bottom of a shallow pit. It appears to have been buried intact. The bottom of the pit was below the lowest level of the house walls from the EB III horizon (Stratum E5) and was cut into the underlying EB II horizon (Stratum E6). In particular, the pit containing the skeleton was found sealed below floor 114502 (171.56m ASL) of the later EB III architectural phase (Stratum E5c). Also, there is no evidence that the burial pit cuts beneath the beaten earth floor associated with Strata E5a and E5b (Floor 84602, 172.10m ASL). In sum, the ass skeleton is definitely not a later burial that was intrusive since the burial pit was sealed beneath the EB IIIB floor. The ass was buried in the pit in the short interval between the destruction of Stratum E6 and the construction of the new neighbourhood in Stratum E5.

In order to rule out any potential for later intrusion, bone samples from the ass skeleton were submitted for radiocarbon analysis (e.g. a large piece of the hard cortical

bone from the shaft of a tibia). Unfortunately, no collagen was recovered (Elisabetta Boaretto, pers. comm. March 22, 2012). Flotation of the sediment from the pit did not reveal any carbonized remains that were useful for radiocarbon dating.

Zoological information

Preservation

No preservative, unfortunately, was painted over the bones during excavation. While this decision was made to increase the probability of eventually extracting aDNA or conducting radiocarbon analysis, it did not avoid the extreme fragmentation that occurred during recovery. In hindsight, preserving at least the longer or more measurable bones would have allowed more measurements to have taken place. In the future, a combination of both practices should be encouraged.

Taxonomic identification

It is very difficult to identify equid remains to the level of species (e.g. between wild African donkeys, wild hemiones, domestic donkeys, and horses) or hybrids and to account for sexual dimorphism from isolated or fragmentary skeletal remains. In this case, however, a complete skeleton was recovered, including both bones and teeth. Therefore, it should be possible to demonstrate its taxonomic affiliation.

It is possible to distinguish taxa by the measurement of some long and other bones (Clutton-Brock 1992:18-22). Absolute size is not a reliable distinction since there is a great deal of overlap between the different taxa. Relying purely upon size can easily lead to misidentification of taxon. However, such bones need to be complete to make such fine distinctions and instances of such good preservation tend to be rare. This is not possible in this situation since the bones fragmented for the most part whenever they were raised from the soil.

The osteological distinctions between asses, half-asses (onagers), and horses are most clearly observed through enamel and dentine differences on the occlusal surface of cheek teeth. Based on a comparison of the cheek teeth, it is clear that the specimen belongs to an ass, and not to an onager or horse. The mandibular cheek teeth have the short V-folds characteristic of an ass (Baxter 1998; Eisenmann 1986; Zeder 1986). The maxillary cheek teeth also have the occlusal surface characteristics of an ass—"Shoe/Boot-of-Italy" pattern. The enamel in the UPM3 and 4 on the occlusal surface also does not have the fold characteristic of horses. The protocone (shoe) in the upper premolars and upper molars is fairly symmetrical. This also stands in strong contrast to the condition in horses where the protocone is very asymmetrical (**Figure 5**).

Figure 5. Photograph of cheek tooth pattern that illustrates the Tell es-Safi/Gath's ass anatomical morphology. HJG photo credit.

It is unlikely that this is a wild specimen given that the density of the bone and the muscle attachments are very gracile. Also, the size of the few bones that could be measured falls into the domestic ass and not the horse range.

Is it a ritual or rubbish bone deposit?

Any interpretation that tries to determine if the skeleton and pit are the result of religious or other forms of belief-driven behavior must take into account the orientation and anatomy of the specimen. Religious behavior is generally considered to contain ritual activities, which are forms of structured behavior.

Ritual deposits are usually distinguished from general garbage deposits, whether they are in pits or not, by their more structured form and archaeological contexts. They are deposits generally positioned in special places and will be of a special nature (Hill 1995). By their position, ritually deposited bones in such special contexts tend to be articulated either fully or partially, as they will have been laid in the ground carefully in order to meet the requirements of the ritual. This requires a careful consideration of the depositional context, orientation and anatomical position of each element, and any evidence for treatment in the manner of death.

Burial context

The identification of ritual deposits also must take into account the archaeological context, and any remains associated with the deposit. This is what has been called structured deposition—it is not random (Morris 2011:4; Richards & Thomas 1984). While consideration of the structured nature of deposits cannot fully define the extent of ritual behavior, it is a useful heuristic concept since it requires recurrence of the type of archaeological deposit, both in terms of "associations and disassociations between finds and their spatial distribution…[and] that the patterns are not due to natural taphonomic processes, but are the product of cultural transformations" (Morris 2011:4). Therefore, ritual deposits are structured as opposed to random deposi-

tion. While nothing is purely random, remains haphazardly thrown into a pit are disarticulated and jumbled.

The specimen from Tell es-Safi/Gath is definitely buried within a purposefully created pit. It is placed beneath a floor in a shallow depression, but the pit or depression was not dug through the floor, which post-dates the creation of the pit. The floor was created after the specimen was placed in the pit. If it had been there before the ass was buried, it is unlikely that it would have had the same dimensions as the skeleton.

The pit was created by scooping out a depression that is more or less the exact size of the animal. The pit has an oblong shape that follows the shape of the animal before the flesh decomposed. It also was excavated to avoid the pre-existing EB II walls, which continue to be used into the EB III. All of this suggests that the burial was a special deposit. Yet, the depositional context is not located in either sacred or elite surroundings. It is in a commoner neighbourhood clearly associated with non-elite behaviour.

Number and distribution of elements

Three types of special animal bone deposits are often considered to be of a ritual nature: (1) burials (completely or partially articulated skeletons); (2) isolated skulls and mandibles (complete or near complete); and (3) isolated articulated limbs (complete or portions of limbs, such as proximal/upper or distal/lower limb bones). The articulated or associated skeletal remains have been called an Animal Bone Group (ABG) (Grant 1984; Morris 2011:5).

The bone remains from the Tell es-Safi/Gath skeleton are that of a fully articulated skeleton. All the bone and teeth elements are present from both sides of the body. None are missing. Almost all were complete when excavated, but most fragmented when lifted out of the soil. None were modified by cultural activities such as burning, or natural processes such as canid or rodent gnawing.

Skeletal orientation

The orientation of the skeleton in the pit provides evidence for the way in which the animal was treated during burial. The animal was carefully laid in the pit on its right side. The neck and main body or torso of the animal faces toward the west; the legs are oriented toward the south; and the dorsal face of the backbone towards the north. The legs are bent so that the hoofs are almost touching, suggesting that the legs were bound together at the hock. They were carefully laid against the already standing EB II mud-brick wall and sealed beneath the level of the EB III floor (**Figure 6**).

The orientation of the head and neck of the animal stands in contrast to the rest of the skeleton. While the vast majority of the skeleton is in a more or less normal articulation, the neck (cervical vertebrae) and head skeletal elements (cranium and

Figure 6. Overhead photograph of entire ass skeleton (2008 excavation), facing north. Richard Wiskin photo credit for Tell es-Safi/Gath project.

mandible) are not in their normal position nor can their position be accounted for as a result of natural decomposition. These parts of the body appear to be disarticulated from the remainder of the skeleton and placed on the stomach in an unusual orientation. In contrast to the rest of the body, the head faces toward the east and the superior (or upper) surface of the head points towards the south. Furthermore, the head is placed upside down on the vertebrae and ribs. The head could not have fallen into this position even if it was twisted around and forced to lie on the thorax. This is not a normal anatomical position since the superior surface of the head would have faced north, instead.

The head and neck form a special unit of bones that are articulated in and of themselves. The cranium and neck vertebrae are not articulated with the remainder of the skeleton, nor are they bent and twisted around, as if they have been forced into a different position. The neck and head appear to have been carefully detached from the rest of the backbone (thoracic vertebrae). The neck bones are still articulated to the cranium and are in a similar reversed orientation to the remainder of the skeleton. There is a space between the cervical and thoracic vertebrae implying that the head and neck were dismembered from the rest of the skeleton. Since the position of the head and cervical vertebrae are at odds with the rest of the skeletal orientation and

appear to have been laid on top of the stomach of the animal after it was already in the pit, it is suggested that the animal was decapitated. This is an unusual anatomical position that cannot be explained as a result of natural death, being thrown or falling into pit, etc.

Mode of death

Is the ass from Tell es-Safi/Gath a sacrificial victim? Or part of a general cleanup and carcass disposal? In other words, was it carefully placed in a pit as part of a ritual, or simply dumped in the pit as part of a general cleanup when the area was being rebuilt? The position of the body and the nature of articulation of elements provide us with our best evidence for why we believe that this specimen is a sacrifice.

When considering whether the remains from Tell es-Safi/Gath are a result of a special or a normal death deposit, the orientation of the skeleton is essential to consider. There are many types of positions that equids are found in both living and death situations. If we first examine the living animal and its associated positions, it will help to unravel the characteristics of the death position.

For living equids (regardless of whether they are horses or asses), there are several normal positions, which include standing, lying, resting and sleeping. The normal standing position for equids is where the head faces forward, the neck is extended straight forward, and the body and limbs are extended to maintain posture (**Figure 7**). A resting position is very different. In this position, the legs are folded under the body and the torso is generally extended but often curved around. There are two main lying or sleeping positions for equids. In one, the head and body is generally stretched out in an orientation that is very similar (and probably indistinguishable) to that of a natural death position (**Figure 8**). In the second, the torso is generally stretched or curled, the head is placed above the front legs, and the legs are slightly folded under the body.

There are several death positions characteristic of equids (regardless of taxon), including natural, falling, impact, starvation, and slaughter. The position of skeleton is different for each and will be examined next.

The natural or normal death position (or when they die slowly from illness or starvation) for equids when they die a natural death is for the body to be stretched out, lying flat on their side, with their back extended, neck extended, head pointing forward, and their legs either slightly bent at the major joints (e.g. knee) or stretched straight out. This is very similar to a resting or sleeping position for most equids described above. When there is a sudden death, from overexertion, illness, or other causes, the position of the body is similar. The body will be stretched out, with the legs slightly bent. When horses die suddenly from falling, their bodies twist and the bones are crushed. If the animal has been in pain for a long period of time while lying

Figure 7. Photograph of standing ass (HJG photograph, Matlock, MB).

Figure 8. Donkey lying down while at rest. Reprinted with Matt Barrett's permission (www.mattbarrett.net).

on the ground, from illness or by being killed by a carnivore, the torso will usually be curled, with the front leg slightly folded and the hind leg stretched and/or folded (**Figure 9**). When the animal is killed by impact with a moving object (e.g. wagon,

other animals, cars, etc.), the body and skeleton will be twisted in a random manner, and the bones are broken or shattered.

Figure 9. Photo of an aborted and scavenged horse foal. Reprinted with permission of Lonita Stewart (www.canadianvoiceforanimals.org).

Another death scenario involves slaughter by humans. In this case, the skeleton may be whole or disarticulated depending upon the nature of butchering that may subsequently occur. Horses may experience death from humans in the form of being (1) hit over the head with a hammer or axe, (2) shot by various forms of projectiles such as spears, arrows, and bullets or (3) slaughtered, which involves cutting the neck arteries and nerves rapidly to drain the blood and immobilize the animal. In the first scenario, various parts of the cranium will have been crushed and the animal will fall to the ground displaying a random orientation. The cranium is the only place where such an action will have an immediate and sudden impact. In the second scenario, the result will depend on where the animal is shot. It is common knowledge for anyone who spends time hunting, in slaughterhouses, or has been involved in the slaughtering of animals that if the animal is shot in the cranium or heart, it will die rapidly and fall into a position similar to that described above for a rapid death. If the animal is not hit in a lethal point of the body, it may live for a long time in agony, in which case the death position may resemble that of an animal in pain for a long time (as described above).

If the animal is slaughtered with a knife (the last scenario), immobilization and death come rapidly. In order to accomplish this task, the animal must be first immobilized often by being held or having the legs tied together. After the neck is cut,

the blood will quickly drain out and the animal will die. If death occurs rapidly, the experience is akin to a rapid sleep-like death. If the animal was standing when slaughtered, its legs will buckle and it will fall rapidly to the ground, lying in a crumpled position, and partially on its side. If the animal was held down during the slaughtering process, the legs of the animal will be bent at the various leg joints or the legs will be extended parallel to each other. The head and back will be extended. If the animal is slaughtered with its legs bound together, the animal will be lying on its side and the front and rear ends of the legs will meet creating a triangular pattern formed by the base of the skeleton and the ends of the legs.

It is clear from the anatomical orientation of the Tell es-Safi/Gath skeleton that it did not fall while alive and was not thrown haphazardly into the pit after death. The fully articulated orientation of the body suggests that it was purposely and carefully laid in the pit after death. The position of the legs informs us that it was bound at the hocks (carpal/tarsal joint) when it was laid in the pit.

Special treatment after death

The zooarchaeological indications of death are difficult to discern since most deaths come in the form of soft tissue damage. But, there are indications of post-mortem damage to the body. The best evidence for special treatment after death is that the head and most of the neck of the animal were evidently cut off and placed on the stomach, facing in the opposite direction of the rest of the body. In other words, the animal was clearly decapitated.

While the EB III ass from Tell es-Safi/Gath was decapitated, it was not butchered in any other way. Butchering will leave characteristic marks on bones. There will be disarticulation, dismemberment, skinning and other evidences of the butchering process. Butchering generally also damages the bones in a variety of ways, and will result in consequent changes in anatomical orientation and differential presence of various elements (Binford 1978; Lyman 1987, 1994). There is no evidence for butchering (slices, chops, etc.) marks on the skeletal remains. This is similar to most other EBA full skeletal burials (Vila 2005).

Decapitation will often result in missing or damaged cervical vertebrae since it must cut through the bone. In the skeleton from Tell es-Safi/Gath, the 6th and 7th cervical vertebrae are missing and/or damaged. All of the other vertebral (cervical, thoracic, or lumbar) elements are present and mostly intact (**Figure 6**). This would argue against a violent decapitation, such as when the animal was alive. The neck must have been slowly and carefully severed afterwards.

The body and skeleton were not disturbed by post-mortem processes, such as natural scavengers. No body parts were missing or damaged from gnawing by scavengers (e.g., canids, rodents, etc.).

The discovery of such a skeleton with evidence for special treatment beneath the floor of house is unusual; this location is not usually reserved for sacred deposits. Based on the special treatment, we infer that this is a ritualized deposit.

Age at death

The choice of a very young adult individual does not match the descriptions in the Iron Age biblical traditions or MBA Mari documents, where there is an emphasis upon foals. In the Old Testament (OT), the first born must be redeemed or slaughtered. At Mari, foals are clearly specified:

> "They brought me a puppy and a *hazû*-bird to 'kill' the donkey foal (i.e. make peace) between the Haneans and Idamaras but I feared my lord and did not give over the puppy and *hazû*-bird. I had a donkey foal whose mother was a she-donkey killed (and) I established peace between the Haneans and Idamaras" (ARM 2 37:6-14). (Scurlock 2002:400).

The age of the Tell es-Safi/Gath ass skeleton is based on a combination of bone epiphyseal fusion. In general, it appears to be that of a very young adult, c. 4 years of age. All the long bones are fused, but the epiphyseal plates of the vertebral centrums are not.

Sex

In the Old Testament, males are the animal of choice for sacrifices. Sacrifices are linked to the tradition of redemption of the first born male donkey (Borowski 1998, 2002; Hesse et al. 2012; Way 2011). Yet, the specimen from Tell es-Safi/Gath is clearly that of a female—no canines were present in either the mandible or maxilla.

Health

In ancient and modern Near Eastern religions, healthy (and conscious) animals are preferred for sacrifices since they are intended to appease the gods or sanctify agreements. (Levinger 1978; Scurlock 2002). The Tell es-Safi/Gath skeleton does not display any evidence of pathology. It belongs to a young and healthy animal. There is no evidence for dental abscesses, bone lesions, or arthritic joints.

Discussion—why sacrifice an ass?

Asses have been used as sacrificial animals to sanctify a number of activities throughout the ancient Near East. From Mesopotamian and biblical sources, the sacrifice of an ass was used to formalize the signing of agreements (Borowski 2002:417; Milevski

2009:263; Scurlock 2002:392). But, why sacrifice a beast of burden? How is it holy? As Milevski has cogently argued, the "cult of beasts of burden" in the Near East is similar to practices found elsewhere in the world. For example, in the Andes, beasts of burden are associated with feasting (and other forms of social gathering) and invocations of supernatural powers (such as to protect the owners and their animals and to increase the prosperity of the owners) (Milevski 2009:263).

During the EBA, asses come to play an ever more important role in regional and inter-regional exchange and transportation. This is clear from their depictions both in iconography and from figurines as beasts of burden and for riding (Al-Ajlouny et al. 2012).[1] Increasingly large quantities of goods are being transported across and between regions, such as copper and other products (e.g. Canaanean blades) (Ilan & Sebbane 1989; Milevski 2005). This suggests that the increasing frequency of domestic asses coincides with the dramatic rise in trade across the region.

The use of the domestic ass to transport goods across and between regions would have allowed a change in the scale of economic systems. This must have lowered the costs of goods since there would be economies of scale. This development would have benefited the owners of domestic asses, who would eventually form the emerging class of merchants. Their livestock (i.e. asses) would have become ever more valuable to their owners. Such merchants or 'donkey caravaneers' probably existed from the EB I onwards. They would have specialized in the transportation of commodities and were probably closely associated with spread of the domesticated ass throughout the Near East (Milevski 2009:304).

As totems, asses are representative of exchange (commerce), not simply obstinacy. Merchants and/or ass herders would have occupied specialised positions and roles in the increasingly complex social structure of Near Eastern state and urban societies. As with all guilds or classes, there will be rituals or ceremonies associated with their activities. While the ass was a means of transportation, it was also an important element in ritual and would represent a totem with an associated cult for groups who rely upon them for their livelihood, i.e. merchants and/or donkey herders (Milevski 2009:267). The iconography of asses in the EBA is limited to a narrow range of motifs that are found across much of the region. These are interpreted to signify not only the role of the animal in daily life, but also that the animal was a symbol for social groups that rely on asses for their livelihood (e.g., merchants) (Milevski 2005, 2009:299-301, 2011:193-196).

The ritual and symbolism surrounding asses probably did not have their origin in the public temple activities of the 3rd millennium BCE for the simple reason that EBA burials are not found in unequivocally temple or elite burial complexes until the

[1] Note that portions of two such EBA 'laden donkey figurines' were found on the surface of Tell es-Safi/Gath. They will be published in a future publication.

MBA. In the MBA, the burials of asses appear as part of foundation rituals, since they are often buried within or beneath temples and large monumental walls. In the EBA, ass burials may be associated with either elite or commoner residences, where they are buried beneath floors and walls.

Conclusion

Summary

The ass skeleton excavated at Tell es-Safi/Gath was found in a shallow pit that was deposited between the EB II and III horizons. The ass was deliberately bound, slaughtered, and buried as a foundation deposit under a house at the rebuilding of the EB III neighbourhood. It was a young and healthy adult female.

The discovery of such a valuable animal as a foundation deposit has ritual and symbolic connotations. It appears to have been sacrificed and buried as part of the ritual blessings accompanying the rebuilding of the neighbourhood. Sacrificial animals buried as foundation deposits are to appease the gods, and sanctify and protect the occupants. As commoners, the choice of an ass for such a ritual activity implies that the ass was an important religious symbol for the occupants of the neighbourhood, even though they were commoners. Asses were an essential element in the transportation of goods within and between regions. They are not simply an elite form of transport. Since the Tell es-Safi/Gath ass is associated with a commoner neighbourhood at the edge of the city, it is likely that this urban space may be the location of the homes and work spaces of the traders who relied upon them as beasts of burden. These would have been the merchants who were involved in exchange and who transported goods across the region during the EBA (See Maeir et al. 2011 for an ivory cylinder seal found at EB III Tell es-Safi/Gath, most likely an imported elite oriented object). It is also possible that the ass may have represented the family or guild totem (Milevski 2005, 2009, 2011).

Discussion: significance of the ass skeleton for Near Eastern religion

One of the most important observations of the Tell es-Safi/Gath ass is that it is found in a clearly domestic, not public or administrative context. While similar burials have been found in clearer public or ritual contexts elsewhere during the EBA of the Near East, this is the first time that such a skeleton has been found in a domestic context, where it was purposefully buried to commemorate or sanctify the rebuilding of a neighbourhood after it had been destroyed. The entire neighbourhood was rebuilt along the same lines as the previous EB II neighbourhood, implying continuity of population and culture. The rebuilding took place very recently after the destruction by burning of the previous neighbourhood level. Hence, such animals and their use

as sacrificial victims were not limited to the elite. This is an area of the site that is not associated with the elite. It is a domestic quarter. No evidence of industrial activity has yet been found.

While domestic asses are generally thought of as low-class animals and were used as beasts of burden, this was not the case in the years following their domestication in the EBA of the Near East. They were used by both the elite and commoners, played important roles in public ceremonies, and had deep symbolic connotations associated with the social and religious thoughts and practices of the time (Al-Ajlouny et al. 2012; Hesse & Wapnish 2002; Way 2010, 2011). The evidence from Tell es-Safi/Gath and other EBA deposits demonstrates that domestic asses figured prominently in elite and commoner, public and private rituals of the peoples of EBA Canaan. Sacrifice and burial of asses in the southern Levant are most likely part of the long tradition going back to Early Dynastic Mesopotamia and Old Kingdom Egypt. As the evidence presented here demonstrates, the importance of domestic asses extends beyond economic into social, political, and religious realms. In the EBA of the Near East, contrary to today, "being an ass" did not have negative connotations.

Acknowledgements

The authors would like to acknowledge the financial, intellectual, and physical help of many individuals and institutions, who are too numerous to detail here. In particular, we would like to acknowledge the help of the Tell es-Safi/Gath excavation team members (staff, students, and volunteers) with its many hundreds of volunteers and professionals whose efforts enabled us to realize the results described in this report; Bar-Ilan University; the Social Science and Humanities Research Council (Canada), and the University of Manitoba. In particular, we would like to acknowledge the help of Shira Kisos, Rotem Shellef, Tina Greenfield, Annie Brown, Trent Cheney, and Noah and Boaz Greenfield for helping to excavate, clean, catalogue, and analyse the various elements. Special thanks must be extended to Hadas Motro for helping to distinguish the enamel patterns in the teeth; and to Liora Horwitz who made the initial connection between H.G. and Tell es-Safi/Gath.

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