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# A Zooarchaeological Analysis of Change in Animal Utilization at Bethsaida from Iron Age II through the Early Roman Period

Toni Gayle Fisher
*University of Tennessee - Knoxville*

To the Graduate Council:

I am submitting herewith a dissertation written by Toni Gayle Fisher entitled "A Zooarchaeological Analysis of Change in Animal Utilization at Bethsaida from Iron Age II through the Early Roman Period." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Anthropology.

Walter E. Klippel, Major Professor

We have read this dissertation and recommend its acceptance:

Paul W. Parmalee, Charles H. Faulkner, Schuyler W. Huck

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

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Anne Mayhew
Vice Chancellor and
Dean of Graduate Studies

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# A Zooarchaeological Analysis of Change in Animal Utilization at Bethsaida from Iron Age II through the Early Roman Period

A Dissertation
Presented for the
Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

Toni Gayle Fisher
December 2005

## Dedication

This is dedicated to Mom and Alexis who always knew it could be done;
Dad and Erica who thought it MIGHT be done,
and Denny and Alan who supported me WHILE it was being done.

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I thank Walter E. Klippel for his guidance along the way, and Paul W. Parmalee, Charles H. Faulkner and Schuyler W. Huck for their insight. A number of wonderful people helped in gathering and sorting data: Sarah Whitney, Kirsten Johnson and especially the Bethsaida 'family'. Denny Clark and Frank Hancock read through mountains of material and were tremendous resources for editing.

Special thanks go to Richard Freund, who encouraged me from the start and welcomed me into the world of academia, and to Rami Arav who had to work with me for all those years.

I gratefully acknowledge the permission granted by Rami Arav of the University of Nebraska at Omaha, chief archaeologist of the Bethsaida Excavations Project, for use of certain designated figures which appear in the appendix.

# Abstract

This dissertation examines and compares the patterns of animal utilization by the peoples who inhabited et-Tell / Bethsaida during three historical periods: the Iron Age (specifically Iron Age IIA, IIB and IIC, 1000–740 BCE), the Early Hellenistic Period (332–142 BCE) and the Late Hellenistic / Early Roman Period (142 BCE–second century CE). The research presented here analyzes animal bones discovered during excavations from 1995 through 1998 at et-Tell, a site in present-day Israel. Zooarchaeological analysis of these remains in their archaeological contexts, in combination and comparison with data from neighboring sites, is used to identify the economic strategies and lifeways of the societies at et-Tell in each of these periods, relationships between meat producers and consumers, class and power distinctions between inhabitants in different parts of the site, and potential ethnic markers which signal identification with wider cultural groupings.

Iron Age et-Tell – apparently the capital city of the Geshurite kingdom – was a major urban center engaged in intensive agriculture. This investigation reveals significant differences in animal utilization between the *bit hilani* (a palace) and the city's gate complex, providing insight into Geshurite culture and evidence of the class dynamics between the city's elites and commoners. After an extended period of sparse inhabitation following the Assyrian conquest in the Iron Age, the Early Hellenistic Period at et-Tell was a time of rebuilding and a major agricultural focus. Intra-site differences in animal usage between the northern and southern ends of the tel indicate class differences, a more specialized system of meat procurement and likely economic relationships

between inhabitants of these distinct areas within the site. During the Late Hellenistic / Early Roman Period, the faunal evidence indicates a more diverse economic base at et-Tell, known then as Bethsaida or Bethsaida-Julias. The key intra-site distinction in faunal use during this period was between the Early Roman temple and the non-temple areas, which suggests certain class differences and helps clarify the relationship of the temple's imperial cult to the community's economic life. Potential faunal ethnic markers during each period investigated remain ambiguous, and are better explained in terms of socio-economic differences.

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# Chapter 1
# Introduction

This dissertation examines and compares the patterns of animal utilization by the peoples who inhabited et-Tell / Bethsaida during three historical periods: the Iron Age (specifically Iron Age IIA, IIB and IIC, 1000–740 BCE), the Early Hellenistic Period (332–142 BCE) and the Late Hellenistic / Early Roman Period (142 BCE–second century CE). This faunal analysis is then used to identify economic strategies of the societies represented, potential class distinctions between different parts of the site (i.e., distinguishing elite areas from more proletarian ones) and possible ethnic markers within the site. This information, when combined and compared with similar data from neighboring sites, helps shed light on the ancient lifeways of this particular region.

## ***Location and Identification of Bethsaida***

The site, recognized as Bethsaida by the archaeological team supervised by Rami Arav and a consortium headed by the University of Nebraska at Omaha, is a mound known by the neighboring inhabitants as et-Tell. It is located in Israel, two kilometers north of Lake Kinneret (also known simply as "the Kinneret" and as the Sea of Galilee) and 250m east of the Upper Jordan River (Figure 1; all Figures are located in Appendix B). It

encompasses a 400 x 200m elliptical area (Figure 2), and is approximately 165 m below sea level, with its surface about 45 meters above Lake Kinneret. The western side of the tel has two freshwater springs (Arav 1995).

The location of the first century CE city of Bethsaida has long been in dispute. Although both the Christian New Testament and the first century Jewish historian, Josephus, mention it numerous times, medieval religious pilgrim sources give thoroughly contradictory information regarding its location, indicating that its identification had become lost by that time (fifth century CE and onwards). In 1838 E. Robinson proposed et-Tell as the location of Bethsaida, but 50 years later G. Shumacher dismissed that identification and proposed two other sites directly on the shore of the Kinneret: el-Araj and Masudiyeh (Rousseau and Arav 1995). Both the name "Bethsaida" (meaning "House of the Fisherman") and the New Testament references seem to indicate that Bethsaida was a fishing community, and thus located close to the shore of the Kinneret; et-Tell's distance from the Kinneret seemed to exclude this identification.

In 1987 Rami Arav made test probes at the three different proposed sites for Bethsaida (Figure 1), discovering that both el-Araj and Masudiyeh (Mesadiye) contained stratified artifacts dating only from the Byzantine period (beginning the fourth century CE), not earlier. Et-Tell, on the other hand, included stratified artifacts just below the tel surface from the Early Roman Period (first century BCE through second century CE) and the Hellenistic Period (332-63 BCE), with lower strata showing roughly continuous occupation all the way back to the Iron Age IIA (1000-925 BCE), and even earlier material from the Early Bronze Age (3200-2600 BCE). This shows conclusively that neither el-Araj nor Masudiyeh could have been first century Bethsaida, whereas et-Tell's

stratigraphy is consistent with historical data concerning Bethsaida (Rousseau and Arav 1995).

Subsequent geological surveys by the Geography and Geology Department of the University of Nebraska at Omaha, led by geologist John Shroder, have confirmed that geological activity has caused Lake Kinneret to recede from the tel since the first century CE (Shroder and Inbar 1995; Shroder et al 1999). The processes which have contributed to this include: 1) uplift of the site away from the shoreline by rift faulting, 2) building out of the shoreline by sediment deposition resulting from flash flooding of the Jordan and other nearby rivers, and 3) a drop in the water level of Lake Kinneret, away from the site. Shroder and Inbar (1995) have also proposed that up through at least the early second century CE it was possible to negotiate watercraft easily between the tel and the Kinneret.

Artifacts found at the site in excavations since 1987 include numerous fish hooks, net weights and anchors. These finds further support the correlation of et-Tell to the textual evidence which indicates that the economy of the city on this tel (i.e., artificial mound; this Hebrew term is synonymous with the Arabic word "tell") in the first century CE was a fishing community (Arav 1995:27). Although inscriptional evidence confirming the site as Bethsaida has not yet been found, the circumstantial case for this identification is strong, corresponding well to the historical data. Furthermore, probes at rival sites proposed as Bethsaida resulted in no stratified artifacts correlating to the first century CE, thereby discrediting those sites.

## ***The Emerging History of et-Tell***

Arav (2004) has divided the stratigraphy of the tel into six strata as follows:

Stratum 1: Middle Ages to the present

Stratum 2: Hellenistic/Early Roman Period (332 BCE to second century CE)

Stratum 3: Persian Period (540-332 BCE)

Stratum 4: Iron Age IIC (732-540 BCE, the Assyrian Period)

Stratum 5a: Iron Age IIB (856-732 BCE)

Stratum 5b: Iron Age IIB (920-856 BCE)

Stratum 6: Iron Age IIA (1000-920 BCE)

Differences between Arav's dating of Iron Age sub-periods and the "standard" dating of them in Syro-Palestinian archaeology result from the standard dating's correlation to major events in Judah. Arav adjusts the dates to correspond to events in northern Palestine, which are more pertinent for the history of et-Tell.

Sherds from the Early Bronze Age (3200-2600 BCE) have been found at the site. Apart from selective probes, the excavation protocol requires that digging stop in a locus whenever artifacts earlier than the Iron Age begin to be uncovered. As a result, few Early Bronze features have been discovered, and thus the extent of that habitation cannot as yet be ascertained. However, probes below the Iron Age IIA stratum reveal sufficient Early Bronze pottery to indicate that the tel was occupied during the Early Bronze Age. Since excavation of the Early Bronze Age has not been conducted it is not yet apparent what brought this occupation to an end, but it is clear that the tel remained largely unpopulated for approximately the next 1700 years. Occupation resumed in Iron Age IIA

(950-856 BCE; Stratum 6b and Stratum 6a); a major part of the city wall dates from this period.

The size of the city, its wall and the presence of a *bit hilani* style palace, combined with geographic location, are key factors in the formation of Arav's working hypothesis that the city during the Iron Age is to be associated with a group of people known as the Geshurites, perhaps as their capital city. Et-Tell is far larger than any other Iron Age tel in the southern Golan, the area associated with the Geshurite culture. The fourteenth century BCE el-Amarna letters refer to a "land of Gari" or "Garu," located in the southern Golan (el-Amarna, No. 256); A. Mazar (1986) views "Gari" as a possible corruption of the name "Geshur." Earlier archaeologists (Epstein (1993) and others) have identified a number of towns in the southern Golan with locations named in this letter. The Geshurites are mentioned a number of times in the Hebrew Bible as occupying enclaves left unoccupied by the Hebrew tribe of Manasseh. One of the wives of Israel's King David (c. 1000 BCE) was Maacah, daughter of Talmai, the Geshurite king. Arav (1999) hypothesizes that et-Tell was the city where Talmai resided and from which he ruled. Apart from passing references, historical sources provide little information about the Geshurites. The excavations of et-Tell by the Bethsaida Excavations Project and of various locations in the Golan (e.g. Tel-Hadar, En-Gev) by the Land of Geshur Project (headed by Tel Aviv University) promise to provide much needed material culture for understanding the history and lifeways of this relatively unknown group of people.

Large scale building activity took place also in Stratum 5 (Iron Age IIB). The first major renovation of the *bit hilani* palace occurred at some point during Iron Age IIB. Two destruction layers were found during this period, the first in the mid-ninth century.

Speculation as to the first destruction is under investigation at this time; the second has been associated with the Assyrian invasion of Tiglath-pileser III in 732 BCE.

The city gate, probably rebuilt after the first destruction, has been discovered. The city gate complex contained numerous stelae and a cultic "high place" discovered just outside the gate, consisting of a raised area approached by a set of steps, with a rectangular basalt offering basin lying in front of a 1.15m high stele with a bull head deity on its face. The gatehouse structure consisted of four chambers, with a defensive tower in front of each side. The second destruction layer includes the destruction of this gate, probably in 732 BCE by Tiglath-pileser III, who destroyed the Aram-Damascus kingdom and a sizable portion of the Northern Kingdom of Israel in an attempt to conquer and consolidate these territories under his control. Pieces of the burned city gate, arrow heads in one of the gate chambers, burned grain in another chamber and basalt "clinkers", i.e., pieces of basalt, plaster, pottery or mud brick that fused together due to intense heat, bear witness to the city's fall by Assyrian forces.

During Iron Age IIC (732-540 BCE, Stratum 4) the city would have been under Assyrian control, followed by Babylonian control, during which major alterations of the palace took place. Stratum 3 (Persian Period) is poorly understood; although a number of Persian pottery sherds and a rare glass seal from a Persian king found at the site show occupation during this period, few structures from it have been found. It appears that the inhabitants largely reused the previous structures.

The Hellenistic and Early Roman Periods (332 BCE-second century CE, Stratum 2) contain a large number of structures and extensive pottery. Large courtyard buildings (i.e., the so-called vintner's and fisherman's houses) have been found, along with several

smaller structures. A large structure, tentatively identified as a Roman temple, has been a focus of particular attention, fueled by the nearby discovery of two incense shovels (one partial and one complete), considered to have been used in cultic activities (Freund 1999). During the Hellenistic Period, the area was initially under the control of the Ptolemies, but came under Seleucid control around 200 BCE, becoming part of Lower Gaulanitis (Josephus, *Antiq.* 13:395). In 142 BCE Jews in Judea attained independence from the Seleucids and the Hasmonean dynasty which was based in Jerusalem, was established. The Hasmonean king, Alexander Jannaeus, annexed the district to his kingdom in 81 BCE (Josephus, *Antiq.* 13:393-94; *War* 1:90-94). Within this dissertation, the Hellenistic Period has been divided. "Early Hellenistic" is used to designate roughly the period of Ptolemaic and Seleucid control, with "Late Hellenistic" designating the period beginning approximately with the ascendancy of the Hasmoneans; "Late Hellenistic" and "Early Roman" are treated together.

Rome gained control of Hasmonean territories in 63 BCE. Herod the Great, a client king under Roman rule (reigning 37-4 BCE), received this area from the Emperor Augustus, and later passed it on to his son Philip upon his death. The Herodians maintained a very close association with the Augustan family, with Herod the Great building temples for the imperial cult in several locations, including Panaeus (today known as Banias), Sebaste, and Caesarea Maritima. Philip built the city of Caesarea at Panaeus, known as Caesarea Philippi in the New Testament, as his capital in honor of Augustus in 3-2 BCE. The city of Bethsaida, at the south end of Philip's territory, is mentioned in the New Testament as an area of significant activity by Jesus of Nazareth and the early Jesus movement. It is also mentioned as the home of three of Jesus'

disciples, Peter, Andrew and Philip (John 1:44, 12:21). In 30 CE the tetrarch Philip renamed the town of Bethsaida "Julias" in honor of Julia-Livia, the wife of Augustus and mother of Tiberias (the emperor at that time), and elevated Julias to the status of *polis*. Arav speculated that the structure tentatively identified as a Roman temple at Bethsaida-Julias (et-Tell) was in honor of Livia-Julia, and thus part of the imperial cult (Arav 1999). Both archaeological and geological data indicate that Bethsaida-Julias was a prominent fishing center in the early first century CE.

During the Jewish War against Rome (66-73 CE), a major battle was fought below Bethsaida, recounted by Josephus, commander of the northern front (Josephus, *Life* 72). There is no archaeological evidence of a battle involving the city of Bethsaida itself. It appears that the city was evacuated around that time, but was subsequently resettled. Later rabbinic sources refer to a "Tzaydan" in association with certain Jewish sages; "Tzaydan" is likely a reference to Bethsaida, because of the linguistic similarities of the two names (Freund 1995).

The city's demise in the fourth century CE was probably related to a major earthquake, a damming of the Upper Jordan River by a landslide, and a subsequent catastrophic flood caused by the collapse of that landslide dam, which largely filled the protected inlet of the Kinneret, rendering it unusable and thus removing the economic base for Bethsaida. The exact date of the city's demise is uncertain, but it is likely to have occurred at least by the early fourth century (Shroder and Inbar 1995).

Stratum 1 contains evidence of sporadic settlement of et-Tell, from the Middle Ages up to the present. The tel contains more than 100 Bedouin tombs dating from the

sixteenth to twentieth centuries CE. Modern Syrian bunkers from 1960-66 CE are intrusive features.

### *Implications of the Apparent History for this Investigation*

It is the intent of this author to investigate any changes through time in the utilization of animals at et-Tell as the Iron Age inhabitants (Geshurites?) were replaced by different cultures over a 1,200 year time span. As stated earlier, this study will focus on Strata 2-6, with the exception of Stratum 3 (Persian Period). Stratum 1 (Middle Ages to present) will not be considered as there are few structures from this stratum, apart from Bedouin tombs and modern military bunkers, trenches and gun emplacements. The Bronze Age will not be included because this has not yet become a focus of the excavation, and sufficient cultural materials from this period have not yet been recovered for meaningful analysis.

All periods between the Iron Age IIA (Stratum 6) and the Early Roman (Stratum 2) are represented in the recovered cultural materials, indicating roughly continuous occupation of the site during this time. However, the recovered materials are not uniformly distributed among these periods; much is from the Iron Age (especially IIA and IIB), relatively little is from the Persian Period (with very few structures that can be identified solely with this period) and a substantial amount is from the Hellenistic/Early Roman Period. Therefore, while it is possible to discuss animal usage in the Iron Age, Early Hellenistic and Late Hellenistic/Early Roman Period, the recovered materials do not yet make that possible for the intervening Persian Period. That period has therefore been excluded from this investigation.

If indeed the Iron Age IIA inhabitants of the site were Geshurites, it is not clear when that culture came to an end. Relying on both historical texts and the archaeological finds, two destructions of the city occurred in the Iron Age: in mid-ninth century BCE, presumably by the Syrians/Arameans under Ben-Hadad, and at about 732 BCE with the conquest of this region by the Assyrians under Tiglath-pileser III. Historical sources are silent about whether Geshurite culture was simply assimilated to that of the Syrian/Arameans (with which it presumably had earlier links) in the mid-ninth century, or whether that culture continued relatively intact until the destruction by the Assyrians. Even at that point there is considerable debate among participants in the Bethsaida Excavations Project. One theory presently being investigated is whether "destruction" of a city, attested in Assyrian historical sources, routinely entailed utter devastation, or whether that merely meant that the gate of a city had been destroyed, rendering the city incapable of defense, but leaving the rest of the city intact. If only the latter, a culture could conceivably continue, albeit under the ultimate political and military control of another. Excavation of the gate complex at et-Tell clearly indicates that a great conflagration destroyed the city gate about 732 BCE; the bull-headed deity stele was smashed and war materials were found inside the gate chambers, accompanied by large amounts of smashed pottery. However, there is not a corresponding destruction layer that covers the entire Iron Age IIB city; the fate of the city's population and its culture is not yet clear, nor is it certain how much direct influence the conquerors exercised over the city immediately after this time. Since many of the same structures continued to be used throughout the Iron Age, it has not yet been determined whether the cultural activities of the city during these periods can be distinguished, even though the ceramics of the

various sub-periods of the Iron Age are distinguishable. As a result, the faunal analysis of the Iron Age needs to be combined, without distinguishing among the sub-periods IIA, IIB and IIC. Thus, Strata 6-4 are treated together in this study.

The Early Hellenistic and Late Hellenistic/Early Roman Periods, all from Stratum 2, are treated separately in this investigation. The project has much material relating to these periods. Although it may be impossible to distinguish the ethnicity of the peoples who inhabited the site during these eras, it may be possible to suggest ethnic areas in the Late Hellenistic/Early Roman Period, with spatial analysis pointing toward different animal utilization in separate areas of the site. The absence or presence of particular species in specific areas of the site may suggest an hypothesis regarding ethnicity.

## ***Excavation Methods***

The site has been divided into three major areas along the crest of the mound, designated Areas A, B and C, from south to north. The primary areas of focus in the 1995 through 1998 excavation seasons – the source of data for this study – were Areas A and B, with limited excavation in Area C. These two major areas contained an abundance of Iron Age through Early Roman remains. Up to the present, the excavation protocol has been to go no deeper than the Iron Age strata. Earlier materials have been found but are considered intrusive from lower strata.

The project director has endeavored to extract all the information from the tel as possible, using a modified Wheeler-Kenyon method. This method concentrates on direct observation, recorded in a daily diary along with drawings and photographs, and focuses

on the different layers of deposit and the interpretation of their relationship to one another. A grid of 5 x 5m squares is used for the framework of the excavation. In the early days of the excavation standing baulks were left between the 5 x 5m squares for stratigraphic purposes. Many of these subsequently have been removed for interpretation of structural foundations. The data are sorted by square, locus, stratum and basket number. At the end of each excavation day the basket contents are recorded on computer, identifying time periods by the ceramics found in each locus.

All ongoing work is done by teams of volunteers, generally students from backgrounds other than archaeology. These students normally come for a three-week session of excavation, with generally four sessions conducted in May through July each year. Excavation during other times of the year is extremely limited.

The project is funded by a consortium of universities and colleges, headed by the University of Nebraska at Omaha. These schools supply most of the student volunteers who excavate the site. They also provide area supervisors, who are usually professors who have excavated at the site for a minimum of two years. The curriculum offers field school credit for those who attend.

In the early days of the project only minimal numbers of baskets of dirt were screened, as it was thought too time consuming a process to screen all baskets from every stratum, for the project relied on a limited amount of people, time and funds. Limited screening was done only in loci that were primarily Hellenistic or Early Roman, for the express purpose of recovering coins. Such a procedure was thus thought irrelevant for the Iron Age, when no coins existed. No wet screening or flotation has ever been undertaken at the site.

## ***Faunal Analysis***

### *Zooarchaeology in Syro-Palestinian/Israeli Archaeology*

In spite of the fine zooarchaeological work done by L. Horwitz (1986), P. Wapnish and B. Hesse (1991) and others, the faunal collections of Israel have only recently been taken seriously. In the past, the animal bone counts and analysis were relegated, at best, to appendices of the findings of the archaeological investigative reports. This was not the only bias found in these reports. Particularly problematic in what was often termed "biblical archaeology" was the tendency to rely too heavily on the Bible as the main determiner of the archaeological objectives and as the primary interpretive lens for the artifacts, which inevitably biased the results of any findings. There was a failure in an earlier period to recognize that the Bible, as religious literature, was often more ideological and prescriptive than historically descriptive.

Zooarchaeology, as part of a broader program of archaeological investigation, can help discover the different lifeways of the tel's inhabitants. Faunal analysis can show the subsistence patterns of these peoples and can be employed for determining strategies of each society represented in the cultural layers, along with textual evidence to support facts.

### *Zooarchaeology at Bethsaida*

The Bethsaida Excavation Project had no zooarchaeologist participating until 1995. At that point, after five years of involvement as an excavation volunteer at Bethsaida, I assumed all zooarchaeological responsibilities for the Project. Previously, the faunal

material had been accumulated and stored for the future. The investigation presented in this dissertation at last examines these faunal remains. My involvement between 1995 and 1998 entailed field excavation for approximately two months at Bethsaida each year, usually as an area supervisor, with concurrent laboratory work sorting, measuring, identifying and cataloguing all faunal materials, conducted at the Beth Alon Museum at Kibbutz Ginnosar. In 1998 I spent one month, primarily in laboratory work at the Beth Alon Museum and with the comparative collection at the Givat Ram campus of Hebrew University in Jerusalem. In 1996, a shipment of approximately 27,000 bones from the 1995 and 1996 excavation seasons arrived at the University of Tennessee in Knoxville from the archaeological site, allowing a more thorough examination, using the University's comparative collection. To these, 12,000 more bones have been added from the 1997-1998 seasons for this investigation.

All excavation decisions regarding what areas to excavate and the methods of recovery have resided with the project director, Rami Arav, determined by his assessment of what was most valuable for the Bethsaida Excavations Project as a whole. Therefore, the research objectives of this study were formulated within the constraints of those decisions, seeking to maximize the zooarchaeological information that could be obtained from those particular excavation methods and the nature of the resulting artifacts.

The bones used for this investigation are from the 1995-1998 excavation seasons, and come from all strata and loci excavated during those particular seasons, primarily from Area A and Area B. The selection of 1995 as the starting point for the study was prompted by the project director's decision that year to begin dry sieving all soil from all squares and all strata, using 1/8-inch screen. This starting date for the analysis ensures

that data distortions are not introduced by the use of different collection methods in different loci. This change in recovery methods increased the faunal finds tremendously. Not only were small bones recovered, but also numerous bone fragments. According to Hesse (1996), a large amount of small fragments indicate both that the excavation techniques were intense and that powerful depositional and post-depositional forces took place to reshape the original bone into fragmented pieces left for today's excavators. He also indicates the importance of identifying the differential bias before using them in cultural history analysis. Payne (1975:16) suggests that dry screening is not as efficient as wet screening except in "unusual soil conditions (sands, loesses)." The soil at Bethsaida is neither of these, although it is primarily a dry, loose dirt, passing easily through the screen of the sieve. In his discussion of the relative effectiveness of different screening methods, James (1997:395) indicates that only about 10% of fish remains were found when a ¼" mesh was used, 33.1% with a 1/8" mesh and 35.7% with a 1/16" mesh. He concludes by saying that, even though wet sieving is more time consuming, its use will produce a more accurate picture of the subsistence patterns and environmental conditions. Unfortunately, neither wet sieving nor flotation has been used thus far at Bethsaida, resulting in a lack of small rodent, fish and bird bones in the sample.

Perhaps most disappointing has been the paucity of fish bones recovered, since the closeness of the tel to both Lake Kinneret and the Upper Jordan River suggests that its occupants were in a prime position for subsistence on freshwater resources, as is also attested by the fishing implements found during excavation and the implications in historical sources that Bethsaida was a fishing community. A number of fish, including *Barbus longiceps, Barbus canis, Varicorhimus damascinus, Acanthobrama terrae-*

*sanctae,* and *Clarius lazara* were found in ancient times in Lake Kinneret (Nun 1993). However, few fish bones have been recovered, with the exception of catfish (*Clarius lazara)* of which numerous pectoral spines and supraethmoids have been found. The relatively greater recovery of catfish bones over those other species is most likely due to the large size of *Clarius* found in the Kinneret, making recovery easier. In addition to the absence of either wet sieving or flotation as recovery methods, the scarcity of fish remains is also likely a consequence of virtually all excavators being volunteers from backgrounds other than archaeology. This is not limited to et-Tell, however. Hellwing and Feig (1989) comment on the lack of fish bones discovered at Tel Michal, also a site near a major body of water. They posit that the scarcity is caused by the softening of the bone by cooking or their ingestion, together with the edible parts of the fish. It is also possible that smaller bones, especially those as fragile as fish bones, often were overlooked and discarded by volunteers as they were excavating.

Because of the overall dearth of both small animal bones and of fish remains, this investigation will be unable to determine the role of small animals, birds and fish in the diet of the cultures represented. Other small and medium-sized animals (i.e. hedgehogs, rock badgers) have been found on the site but this paper is concerned only with the primary domestic animal species and wild game used as food (Table 1 and Figure 3; all Tables are located in Appendix A). Fish are examined briefly, however, in the ethnicity portion of the study, examining the clear evidence of catfish utilization in relation to the prohibition of catfish consumption in Jewish dietary laws. Does such consumption have implications for identifying the ethnicity of the tel's inhabitants?

The faunal material in this study has been dated according to the ceramic material found in each locus. Such a procedure is highly debated in zooarchaeological circles and somewhat arbitrary (O'Connor 1996). Bones frequently are recovered from middens which intrude into earlier strata; these may not be recognized as such during the excavation process itself and are not properly identified as a separate locus, thus contaminating the archaeological results. The procedures in this investigation, however, are in accordance with Hesse's contention (1996:110) that "the only satisfying response to this problem is to segregate bone fragments through time by ceramic associations rather than by stratigraphic divisions." To do otherwise would introduce a subjective 'guess' after the fact which itself would bias the results. Therefore, it is safest to use the ceramic finds for dating bones, relying on multiple squares to compensate for error introduced by this procedure.

Faunal material at et-Tell indicates that the inhabitants utilized sheep, goats, cattle, pigs, wild game (fallow deer and gazelle) and catfish for food. Cut marks found on many bones indicate that the animals were being butchered. Many fragments contain burn marks. This could imply cooking of the animal or the bone being tossed into the fire after the meat has been consumed, indicating human processing. Any differences observed can be used to infer if animal utilization changed in the 1200-year span of nearly continuous settlement

### *Issues and Methods*

This study examines the different animal utilization strategies that took place over the centuries of occupation of the et-Tell site, focusing on the particular animals used and the

distinct elements or body parts employed in each discrete geographical portion of the site in different time periods. These analyses were then compared within the site to the different time periods of habitation. By this means, it was hoped that a distinct boundary in animal utilization would be observed between successive cultures and perhaps between social classes within any given culture. It was also hypothesized that faunal indicators of ethnicity might be detectable by comparing the bone collection with other material finds.

### *Differential Utilization of Animals*

A number of strategies have been developed recently identifying the utilization of animals in ancient sites. These studies have accomplished much in postulating the economy of these cultures.

This analysis looks at the faunal material found in Strata 2, 4, 5 and 6 to ascertain how the inhabitants were utilizing the animals in their respective cultures. The examination of the faunal material focuses on the differential age of death for domestic species, element of species found, modification of the bone (including cut marks, gnaw marks and burning), and the side of the animal from which the bone comes. Since the bones are so fragmented, sex of the animals was not possible to determine. Very few horn cores from caprines have been found, nor were any characteristics usually utilized to determine sex discrimination observed. The age of death was ascertained by using Silver's (1969) method of aging by epiphyseal fusion, Payne's (1973) method for aging sheep and goats through life tables using tooth wear as age indicators, and Grant's (1982) guide to tooth wear in ungulates. Modifications were explored in accordance with the

works of Stiner et al. (1995) on burning and Marshall's (1986) work on bone modification.

How animals were used in different historical periods was determined by comparing the archaeological remains with the life table presented by Payne (1973:281), who asserts:

> When people keep sheep or goats, the age at which the animals are slaughtered depends on a range of factors: on the relative value placed in the different products, on characteristics of stock and on a range of environmental factors.

He states that animals killed at an early age are often used for their meat products while animals slaughtered in later years had been used for their by-products, such as dairy products, wool, traction ( i.e., draughting, pulling plows or other loads) and dung.

A number of methods have been explored endeavoring to determine the age of an animal at slaughter. Silver (1969) employs the method of epiphyseal fusion to set categories of age ranging from juvenile to adult, as he asserts that cartilage ossification is constant for each bone pertaining to individual species. According to this scheme, the degree of fusion of the different elements suggests an approximate age. Fusion occurs in the distal epiphysis of the first phalanx of caprines between 13-16 months, in cattle at one and a half years and before birth in pigs. The metacarpal fusion occurs on the distal epiphysis of sheep and goats approximately at 18-24 months, cattle at two to two and a half years and pigs at two years. These are the main elements found and analyzed for this dissertation. Using this method, Silver designates the boundary between "juveniles" and "adults" as two years for caprines, two and a half years for cattle and two years for pigs. This study will use the same terminology in classifying the element fusion in each of the animals discussed. A delineation of 'younger adult' and 'older adult' will be made on

elements that show initial epiphyseal fusion to those displaying complete epiphyseal fusion.

Payne (1973) establishes tooth wear stages for ascertaining the age of caprovines by comparing the archaeological record with modern-day sheep and goats. Using this principle, in a study of sheep and goats from Turkish Angora goats, Payne and Deniz (1982) devised a model of tooth wear occurring in animals of different ages.

In this study of animal usage at et-Tell/Bethsaida, both tooth wear stages (TWS) and epiphyseal fusion are used to identify caprine ages. Payne used complete mandibles in his research; the caprovine teeth found at et-Tell/Bethsaida, however, are mostly single teeth. Because of this, each tooth was allocated its own "tooth wear age" using the Payne criteria. Payne places single teeth (using $M_1$, $M_2$ and $M_3$) into groups of stages; this was likewise done with the et-Tell/Bethsaida collection. "Juveniles" in this plan are considered animals under two years old, "young adults" are two to four years old and "adults" are four to six years old.

Silver states that the age of the animal may be deduced accurately by looking at the areas where epiphyseal fusion has occurred. The use of epiphyseal fusion was used to corroborate the findings of this paper. Silver (1969:283) states:

> Really accurate estimates of an animal can be made only when the following conditions are fulfilled – (a) that it belongs to a species or a breed of which the age characteristics are well documented, (b) that its plane of nutrition is known, (c) that most of the teeth and a representative selection of bones are available, and (d) that it is not fully adult.

Although all these conditions cannot possibly be met with an archaeological collection, the confirmation of approximately the same age structure being seen in two separate analyses give a relatively accurate view of the animal at slaughter.

Life tables are offered based on Payne's 1973 model. Using these graphs it was possible to identify economic lifestyles that changed through time. Measurements taken of complete or near complete elements (such as phalanges) were done according to von den Driesch's (1976) *A Guide to the Measurement of Animal Bones from Archaeological Sites*.

## *Bone Modification Classification*

Stiner et al. (1995:225) maintain:

> Because fire figures prominently in the food preparation technologies of most prehistoric and modern human cultures, it is reasonable to expect at least some burning of bones stems from cooking activities.

This group further states that the data of burned bones can be used for reconstructing site structure and spatial analysis. The et-Tell faunal collection of burnt bone was scaled according to Johnson (1989): unburned, scorched, (superficial burning) charred (blackened, towards charcoal) and calcined (loss of all organic material, blue-white). Shipman et al. (1984:323) declare that bone is most likely burned as a result of humans throwing bones into a fire after the meat has been consumed, as roasting bones with meat on them will not get hot enough to produce a burn category. Burn due to sacrificial offerings is also a possibility with the et-Tell collection as stepped high places and a temple have been found at the site. It is assumed that all burned bone found in the same context with cooking ware at et-Tell/Bethsaida was burned during cooking or disposal of throwing bone waste into an open fire.

Another type of bone modification investigated in the et-Tell data is that of cut marks and gnaw marks. Marshall (1986) and many others have examined these types of

marks that occur on archaeological bone. They assume that processing strategies and food transport can be determined by the number and positioning of cut marks on artifacts. At et-Tell cut marks have been found on some of the faunal material, but not on elements large enough to be identified according to species.

### *MNI vs. NISP vs. RF*

Grayson (1981:77) states, "Unless a paleontological or archaeological site is completely excavated and every bone preserved in that site retrieved, the bone collection recovered is a sample of the entire assemblage of bones which could have been retrieved." He asserts later in the same article that it is not known how large a sample should be in order to adequately represent a population. The collection of animal bones at et-Tell has a large number of bones in the assemblage. The stratigraphy of the site has been documented with care. During the excavation years 1995-1998 the recording of bone was done with this dissertation in mind, so that documentation of all uncovered faunal material has been precise. As stated above, the collection contains many fragmented bones. The amount of both identifiable and unidentifiable bone is large. Marshall and Pilgram (1993:261) maintain that "quantitative data should contribute to clarity rather than to the ambiguity currently surrounding the interpretation of body-part representation from archaeological sites." In their research of faunal material from Ngamuriak they concluded that NISP (Number of Identifiable Specimens) is the more suitable method of quantifying a large, highly fragmented collection. MNI (Minimum Number of Individuals) "fails to achieve one-to-one correspondence through biased undercounting" in highly fragmented situations. Ringrose (1993) counters that although NISP is the simplest quantifying

method, as it plainly classifies by taxon and location, it ignores the fact that many bones in the sample came from the same animal. A problem also exists with MNI as it counts the number of "paired" elements in the collection. Ringrose (1993:125) asserts that if

> …it is not possible for specimens from the same individual to be present in two locations, then it is nonsensical to calculate the MNI at a level of aggregation where these two locations are taken together, since specimens will be, implicitly, counted as being from the same individual when in fact, they cannot be. Unfortunately, it is almost always impossible for us to know when this is the case, unless clearly separated spatial or stratagraphic units are involved, but it does mean that we should be aware of amalgamating too much, especially in cases where there is little evidence of post-depositional disturbance.

Hesse and Wapnish (1985) discuss this problem and propose another method of estimating abundance, using Relative Frequency (RF). This procedure is used to overcome MNI's primary weakness that the existence of the entire animal is inferred from one body part, and the problem encountered by NISP, that the categories of animals are represented by the variable numbers of the types of fragments. Calculation of RF is accomplished by listing the types of bones representing a category along with the number of fragments in each. Once this is done, the total number of fragments is divided by the number of elements. "This works under the assumption that each type of element within a category constitutes an alternative estimator of the relative abundance of the category" (Hesse and Wapnish 1985:116). They continue by stating that RF seems to work better than MNI in models of category counting. This procedure is susceptible to distortion by widely different levels of interdependence.

Zeder (1986) discusses all these methods of evaluation in her dissertation, *Urbanism and Animal Exploitation in Southwest Highland Iran 3400-1500 B.C.* She states these methods of calculation do not provide "any more accurate a reflection of

species utilization than do unaltered counts" (Zeder 1986:177). To compensate for this, she uses the percentage of counts and weights of both identifiable and unidentifiable bones. However, all these bone count methods, including those of Zeder, introduce bias into an assemblage.

Gautier (1984:240) discusses recovery rates and parameters for defining the "chances of preservation or recovery". In his paper, he looks at the analysis of differing authors and divides the bone count by the time span studied. He concludes by saying this number is an estimate of preservation based on data which are also an estimate. He speaks to this assumption by allowing that (Gautier 1984:244) "neither fragment counts or MNI counts are precisely proportional to the original number of animals in thanataocoensoes, since the preservation chances of the species represented are different (due to size, architecture and number of diagnostic bones)". He further states that animal ratios obtained from different sites will be affected by bias because of the skeletal complexity, even if concerning the same species.

Marshall and Pilgram (1993) discuss the problem of high grease content bone in their research. They assert that bones such as humerus shafts possibly undergo intensive processing and fragmentation, thus causing a bias towards other elements with lower grease content.

Payne (1975) speaks to bias in sampling due to dry screening. He asserts that a bias will be seen in sampling methods as larger animals are more likely to be placed in the collection than smaller ones. He continues by stating that bones that were deposited before the animal had reached an age of epiphyseal fusion were likely to be under-

represented in the collection as they are smaller and more fragile than fused ends, thus making them more easily broken.

I have tried to address this issue by carefully watching the excavators as they dig at et-Tell and by screening much of the soil myself. Payne states (1975:14) that a badly biased sample can be recognized by a paucity of carpals, tarsals and phalanges relative to limb bones, by a lack of single teeth (especially smaller teeth) and by a scarcity of unfused epiphyses relative to diaphyses. The et-Tell collection has many carpals and single teeth. We have also made use of 1/8" screening of all baskets excavated in all loci. Although this has not been a practical method for collecting the bones of very small animals, it has proven valuable in the compilation of large (e.g., cattle), medium (e.g., sheep, goats) and small (e.g., catfish) elements. Payne (1975) considers this to be a "reasonably reliable" process for larger mammals.

This dissertation uses the percentage of bone counts, along with NISP, as the main procedures for analysis. The high number of fragmented bones found on the site would necessitate the utilization of NISP according to Marshall and Pilgram's (1993) research. In addition to this criterion, the process of using percentage counts of weight in both identifiable and unidentifiable bone fragments has been used. The basis of determining the NISP is used throughout the discrete loci, using a process of "vertical excavation" (Grayson 1973:44), which uses the boundaries presented by stratagraphic divisions. These numbers are then placed into percentages of animals seen in each period and compared within the site.

## ***Social and Economic Organization Through Time***

This research attempts to ascertain what type of economic/society arrangements were prevalent in the periods under investigation. There have been numerous articles written on distinguishing between complex societies, hunter/gatherer economies and agricultural communities. These studies have been based on research done in pollen research and in zooarchaeological investigations. Crabtree (1990) looks at a wide variety of studies in complex societies. She discusses two different methods for using zooarchaeological collections to study trade within a society. One approach is to look at the mode by which meat and animal by-products are exchanged between producers and consumers, i.e., how are the consumers who do not raise animals procuring animal products? She asks a set of four questions: 1) Are nomadic pastoralists or specialist hunters providing the meat for the consumers? 2) Is it possible to identify these consumer/producer sites? 3) What species of animals, types/cuts of meat are provided to the consumers? 4) Are these meats/by-products being sold to consumers via a market, or are the consumers being provisioned through a centrally administered system?

Another factor she identifies as crucial is whether faunal remains can be utilized in studying long distance trade. The presence of exotic animal remains or marine animals can point to trade relationships with other cultures. The present study does not address this issue, for the main animals studied are domestic animals.

Zeder (1988) and Wattenmaker (1986) have both reported on how consumer/producing societies interact. They suggest that as an urban complex grows, a limited number of domestic species can be seen in the assemblage, along with a more restricted range of wild animals.

The age profile or kill-off pattern can be used to determine how animal resources were utilized. This can be used to identify trade of animals between consumers and producers. Wapnish and Hesse (1988b) maintain that a self-contained economy, where animals are both raised and consumed, will show a harvest profile of all aged animals, whereas a consuming community will display an abundance of market-aged animals, i.e., one and a half to two and a half year olds; in a producing economy the age profile will show more neonatal and older animal mortality.

As the examined material for this dissertation covers a 1200 year time span, the episodes of differing social organization are of concern. Analysis of the animal bones makes it possible to ascertain the processes of urbanism, pastoralism and agriculture, along with the economic and trade relations, within the different periods of the site and in comparison to other Iron Age, Hellenistic, and Late Hellenistic/Early Roman sites in the region, such as Dan, Hazor, Tel Anafa, Jerusalem and others.

Using recognized ceramics, structures and (in the Early Hellenistic and Late Hellenistic/Early Roman Periods) coins, as guidelines, the excavation of et-Tell has established well defined markers for the site's habitation. A review of the literature containing material concerning these different functions demonstrates that faunal material can be used to make assumptions about the past economic lives of these people. Wapnish and Hesse (1991) and Zeder (1986) have done extensive research in this area. Zeder (1986:3) contends:

> Specialized decision-making is only one component of the state, albeit perhaps the primary component and that specialized economy is another vital ingredient of state process…. Specialized economic relations are found at virtually all levels of cultural complexity.

She refers not only to more common sets of economic activity, such as specialist potters, but to a full range of economic activities from production, to product movement and lastly to distribution. She asserts that the degree of regulation of these resources implies the differing economic strategies. For example, whereas a herding community may be regulated internally, a greater degree of regulation will be seen with an agricultural community utilizing cattle for traction. It is possible to see a difference in the communities of et-Tell through the ages. Since a large Geshurite settlement did indeed exist there, it is hypothesized that the faunal material provides evidence of an urban economy. In addition, a disproportionate number of specific body parts found can be an indication of trade relationship, especially when compared with surrounding sites. During the Early Hellenistic and Late Hellenistic/Early Roman Periods it is possible to discern a more village-like economic structure, rather than the wealthy, urban economy of the Iron Age settlement. In assessing trade relations with the surrounding Hellenistic-Early Roman populations it is possible to assume the animal strategy in trade situations. For example, a different pattern is noticed in a population employing sheep/goats for marketable wool or distributing meat to non-producers as opposed to herders exploiting the animals for their own use. In these strategies one can expect to see "significant, predictable variation in the species, ages and sexes of the animals consumed, and on the methods of butchery and meat preparation practiced" (Zeder 1986:14).

Wapnish and Hesse (1991) assert that the patterns of age and species point to differing economies. By ascertaining which species are more abundant one can make inferences as to what economy was being utilized at a specific time. They claim, "Sedentism is seen as a consequence of a community's increased dependence on

agriculture, while nomadism results when animal husbandry dominates extractive activities" (1991:25). Rosen (1986) looks at percentages of cattle to the percentage of ovicaprines to discern the mainstay of a subsistence economy. According to him, a collection containing less that 5-7% bovines indicates a societal economy based on ovicaprine herding. If the number of bovines is 20% or more of the total herding animals, agricultural subsistence is indicated, based on the assumption that the mainstay of the subsistence economy is based on bovine-drawn plow agriculture. The present study utilizes such ratios of caprines to cattle to identify what economy was being used at different points in time at et-Tell/Bethsaida.

Wapnish and Hesse, as well as Zeder, furthermore expect a difference in the patterning of faunal material in different sectors of the city. Body part representation will vary in elite living areas and public buildings compared to the more common domestic areas. They predict that high status areas are not expected to engage in the production of direct procurement of meat. In these instances, only certain bones should be encountered; part selectivity and evidence of butchery should be seen. In less differentiated areas, slaughter refuse, or offal, should be more common. The gate complex and palace area of et-Tell are the foci of this period. This area, with its stelae, produced a number of faunal remains. Although the palace area of et-Tell is associated with the city's elite faction, faunal material found in the gate complex indicates practices seen by the common people. The bones found in this area demonstrate what type animals were utilized in specific cultic schemes performed by the general population.

This study shows that et-Tell was a complex society throughout the periods under investigation and reconstructs the economic and societal changes seen through the more

than 1200-year habitation of the site. The discrete periods, represented by loci in different strata of the site, are compared to one another to ascertain differences in animal strategies. Furthermore, loci within the same stratum are compared to attempt to distinguish class differences within the city.

## ***Ethnicity Considered***

Up until ca. 1200 BCE the area later known as Israel (Palestine), including the region surrounding the Kinneret, was inhabited by a group of people generically known as the Canaanites. North of the et-Tell area, Hazor had been a major Canaanite city throughout the Middle and Late Bronze Ages. A new group of people known as the Israelites moved into the Northeast area of the lake area between 1200 and 1000 BCE. They succeeded in destroying and/or assimilating major Canaanite areas to the north and west of et-Tell, and over a period of time occupied locations within this area as well. According to Mazar (1986) this area of the Golan was inhabited by a Canaanite group known in ancient texts as the Geshurites. Their region "was a large tract of territory in the Golan stretching southwards as far as the Yarmuk and identical with biblical Geshur" (Mazar 1986:117). He further states (1986:18):

> Geshur remained constant from the Amarna period, in the first half of the 14th century BCE, right down to the time of the Israelite conquest and the occupation of Canaan in the13th and 12th centuries BCE. For the biblical sources do not speak of Geshur and Maacah as kingdoms in the latter period either, but refer to them as ethnic and territorial units, viz, areas occupied by the Geshurites and Maachathites which remained, after the conquest, as foreign enclaves inside Israel.

At this time it is not known whether the group of people who invaded the land was, in fact foreigners, conquering the earlier populations, or whether they were indigenous peoples taking control as Canaanite culture crumbled. This dissertation does not address the on-going debate concerning this issue, but there are questions about whether and at what point Israelite (later Jewish) culture may have been included with the population at et-Tell. As mentioned earlier, the area seems to have come under Hasmonean (Jewish) control in 81 BCE. Historical sources indicate that the area was populated by both Jews and non-Jews in the Early Roman Period (Josephus, *War* 3.57). Although ethnicity of the entire site may not be possible to determine, there is the prospect of establishing which areas on site the different groups lived.

This may be made possible in relation to the faunal material since historical sources claim that Israelite/Jewish culture prohibited the consumption of certain foods as a ritualistic taboo. Leviticus 11 of the Hebrew Bible preserves a list of ritually impure foods which were forbidden, including pigs, hares, camel, badger, raptor, and flesh-eating birds, as well as a number of fish, including catfish. It is inconclusive as to when this portion of the Hebrew Bible was written and by whom. Some scholars argue that the books containing the dietary laws were written in the same period as tradition acknowledges, i.e., the period from 1200-1000 BCE. Others argue more convincingly for a later date, after the so-called Babylonian Exile of the Hebrew people, thus giving a time frame of the mid-sixth to the fifth/fourth centuries BCE (Friedman 1987), although there may be reliance on earlier tradition. The latter date places the story of the triumph over the indigenous people of the "promised land," as opposed to the triumph itself, after 586 BCE. If this later dating of the books is correct, it would indicate a strong effort by the

societal leaders to demand the people's attention and lay down new rules by which to live. If this is indeed what occurred, the books of the law were written by people who placed the blame for the exile on Israel's adoption of Canaanite practices. Many opinions have been given as to the reason these foods (i.e. Hesse and Wapnish 1997, Houston 1993) were labeled taboo in view of the fact that there are no rationale given in the Hebrew Bible.

It is not clear how well the written prohibitions were followed in actual societal practice. For example, Hesse and Wapnish (1997:261) conclude that some of the pertinent texts reflect cultic circumstances that indicate that swine were not *sacrificed* on the altar, but may not have been forbidden for home use. They also suggest that the avoidance of pork consumption was not limited to Israelites in this period, and therefore may not be a reliable indicator of ethnicity. They claim that since this environment held such a diverse social matrix that avoided pig consumption, one cannot use such a marker for establishing a cultural classification for any specific group. Distinct Israelite food taboos in the Iron Age have not been considered, as the Canaanites/Geshurites were not Israelites, and it is not probable that a major Israelite faction lived at et-Tell at this time.

While it is not possible to verify ethnicity at the site, it will be seen that the issue of class markers can be seen in the different areas of the site. This is assumed by the 'non-kosher' and more highly esteemed food remains in the patterns of pork bones, catfish bones and differing body parts are found in the different strata.

Redding (1991) suggests that the role of the pig in Egyptian diet through the Old Kingdom was very important, but this significance dropped through the Middle and New Kingdom. Hecker (1982), however, proposes that this is a result of the pig's relationship

to the working class, as numerous pig remains have been unearthed in the excavation of Tell el-Amarna. He indicates that pig utilization does not appear at the nearby XI site outside the workmen's village, and infers the possibility of pigs that pigs were consumed only by certain social classes. He views the discovery of a *tricinella* cyst attributed to a pork-related tapeworm in a mummy identified as a member of the working class, as confirmation of this conjecture. In his conclusion, Redding implies that the pig's position in the subsistence of ancient Egyptians was that of a locally maintained, inexpensive resource that individual families employed to supplement other sources of protein. This would correspond to Hecker's (1982) view of the pig being utilized by the working class. Hesse (1995b) concurs with this assumption by stating that pig remains found in the Philistine city of Miqne-Ekron are collected from Fields I and II, the area along the city wall, rather than from Field IV, the elite sector.

A key issue considered in this dissertation's chapter on ethnicity is whether the faunal evidence contains ethnic markers, or whether these materials are better understood in terms of societal classes at et-Tell/Bethsaida.

# Chapter 2
# The Iron Age

## ***History of Palestine during the Iron Age Period***

The Iron Age I/II in Israel saw a renewal of settlement and marked growth in the Golan area much like what had occurred in the Middle Bronze Age IIB. A number of Iron Age I/II archaeological sites in and around Lake Kinneret have been excavated. This was a time of major upheaval in and around the entire Mediterranean area. New peoples and cultures began moving in and settling into areas previously either not populated or very sparsely populated. Hazor, in the north, had reached its zenith and began a decline at the end of the Bronze Age. Other cities, such as Beth Shean, Megiddo and Lachish were destroyed at the end of the Bronze Age, but rebuilt and recovered, continuing the Late Bronze Age culture into the first half of the twelfth century BCE (Mazar 1992). It was during this period that both the so-called Sea Peoples and the Israelites arrived/appeared in the land. Thus, it has been suggested that Iron Age I saw a transition that may be linked to the decline of the Egyptian influence and domination in Canaan (Mazar 1992).

Arav (2004) has separated the Iron Age at et-Tell into three major strata:

Stratum 4 – Iron Age IIC (732-540 BCE, The Assyrian Period)

Stratum 5 – Iron Age IIB (920-732 BCE)

Stratum 6 – Iron Age IIA (1000-920 BCE)

Greene (2002:3) states that "the impressive number and variety of finds leave no doubt that the Iron Age II was a dominant occupational level/stratum." He also claims (2002:14) that Iron Age II provides an "homogenous material culture." Greene adds that trying to differentiate the material between the first to the fourth quarter of the Iron IIB is almost impossible. Because of this artifact problem, he justifies the restriction and consolidation of the material to Iron IIB, i.e., to the period from 925-732 BCE. Due to the utilization of pottery typology for dating the faunal remains, this study will do the same.

A culture group known as the Canaanites lived in the area during the Iron Age. The Hebrew Bible and other sources refer to these people. The term first appears in an eighteenth century BCE text from Mari in Syria. It appears again in the fourteenth century Amarna letters, but disappears from extra-biblical texts with the Iron Age.

Legendary material within the Hebrew Bible describes the Canaanites as descendants of Noah's son, Ham, and further identified with the area in which they lived as Hittites, Jebusites, Amorites, and Geshurites, among others (Hackett 1997). The Hebrew Bible places most of these peoples along the coast of the land, thus their origin was probably Phoenician in the first half of the first millennium BCE. The Canaanites were an urbanized culture; the people lived in large urban centers, with settlements of small villages outside the city and with a few medium sized towns in between the villages. Excavations in Akko, Tel Dan, Hazor, Shechem, Dor, Lachish and Gezer have also been identified with the Canaanite culture.

Within the larger Canaanite cultural community was a people known as the Geshurites. They are mentioned in the Amarna letters as a people who, in the fourteenth

century BCE, inhabited a league of seven cities bordering the kingdom of Pihilu and Ashtaroth in Bashan. The Bashan area is located in the area from the Yarmuk River in the south to the Jordan River in the west, the hinterland and the city of Hazor on the east, and Mt. Hermon as the northern border. Mazar (1986:117) describes this area as "a region blessed with plentiful crops, olive oil, cattle, and extensive hunting grounds, whose population enjoys a high living standard thanks to its well developed agricultural economy." Later he states that the bountiful land enabled the Geshurites and Maachahites to develop a flourishing agriculture, taking full advantage of the extensive pastureland located in the area and to establish cities in the most populated areas, which facilitated trade networks on critical lines of communication. Et-Tell is situated on an important location near a well-traveled route known as the Via Maris. Because of this location, Greene (2002) has contended that numerous foreign and domestic conquerors marched through the area and the city was eventually doomed to suffer the fortune of ignominy, subjected to whoever was in political power at the time. During the eleventh century, the Geshurite tribes were able to set up an independent kingdom of their own. It was ruled by a dynasty of kings from the Middle Bronze to the Iron Age; two of whom were Ammihud and his son, Talmai. During the mid-ninth century BCE Geshur was incorporated into the kingdom of Aram-Damascus and shared its fate in 734 BCE when Tiglath-pileser III invaded the area. It is possible that Tiglath-pileser III then set up an administrative region that was eventually absorbed into Aram and then was forgotten as a separate national and political entity. Thus, no further reference was made to it. Tadmor (1962) refers to a fragment of a royal inscription on a stone found in Nimrud that describes Tiglath-pileser III's military activities in southern Syria and Northern Israel:

> The widespread [land of Beth] Hazael in its entirety from M{ount Leba}non as far as the town of Gilead and the Town of Abel-Beth-Macaah which are on the borderland of the Land of Beth Omri I restored to the territory of Assyria. Officials of mine as governors I appointed over them.

Tadmor adds that the land of Beth Hazael was the area that included the lands of Bashan and Golan all the way to Ramoth Gilead. This agrees with the physical evidence seen at et-Tell where the city was not rebuilt after the conflagration. Greene (2002:13) argues that the city was not so much destroyed as "crippled and left defenseless." The *bit hilan*i (a Syrian type palace structure associated with a leader, chief or king) was remodeled at this point, but the gate complex was never rebuilt, rendering the city open to conquerors. Greene asserts that the Upper City was used as an Assyrian outpost and a district administrative center by the subjugators.

In 1887 a group of cuneiform tablets were found at el-Amarna in Egypt, dating back to the fourteenth century BCE, which included letters sent from Syria-Palestine to the courts of the Egyptian pharaohs Amenophis III and his son, Akhenaten. These letters are an invaluable resource for understanding the day-to-day practices, social and political structure, and social diversity in Syria-Palestine of the Canaanite tribes in this period, as well as their interactions with the Egyptians in charge of the lands.

Claire Epstein (1993) proposes that the seven cities mentioned in the Amarna letters should be identified with sites located southeast of Lake Kinneret, making the major area of fourteenth century BCE Geshurite inhabitation in the western section of the Golan with their chief socio-economic-political orientation being toward the lake and having major trade relations/interaction with the Israelite kingdom during the Iron Age. The Hebrew Bible supports this theory that Geshurites intermingled with the Israelite

people and fostered a reciprocal relationship with them, that sometimes included periods of hostility. The Hebrew Bible records that the Israelite king David married Maacah, the daughter of Geshurite king Talmai, and from this union issued David's son, Absalom (1 Samuel 1-2). After killing his half-brother, Amnon, the heir apparent, Absalom fled from his father to Geshur, to take refuge there with his grandparents. Absalom subsequently attempted to wrest the kingdom from his father, David, which ended in Absalom's death, thereupon opening the throne to another half-brother, Solomon, at the time of King David's death. Under Solomon, Geshur became subordinate to the kingdom of Israel for a short time.

Upon discovery of the size and magnitude of the city found at et-Tell – far larger than any other Geshurite site, Arav (1995) put forth the theory that et-Tell was the capital of the Geshurite kingdom. Along with this assumption he posits that this city is the one known as *Tzer* in the Hebrew Bible (Josh.19:35). On the hypothesis that a scribal error substituted the Hebrew letter *resh* ("r") for the very similar looking Hebrew letter *daleth* ("d"), he postulates that the original form of the word *Tzer* was *Tzed*, a form of the word for "fisherman." Joshua 19:35 contains a list of fortified cities located around the Kinneret, including "Tzer, Hamat, Raqat and Kinneret" – all, except for Tzer, previously identified with other locations around the Kinneret; if Tzer is identified with et-Tell, the locations are all organized from the Upper Jordan River, clockwise around the Kinneret.

According to Geus (1986) an Iron Age city would normally have been placed on a tel, mountain or ridge, and surrounded by city walls. The walls were usually comprised of a large or main wall, a revetment wall to help in retaining the main wall and a glacis, i.e., an external, artificial solid slope made of layers of earth or crushed lime. Rising

above the walls, towers were built next to the city gate for defensive purposes. The city uncovered at et-Tell accords well with Geus's description, and thus appears comparable to other Iron Age cities in the area. It is a large, fortified city with a surrounding wall, a four-chambered city gate, a piazza near the gate, with public structures nearby. The city wall excavated thus far at the tel is approximately seven meters thick, built in an inset/offset design (similar to the one found at Megiddo), with a solid tower located on the north wall, an outer retainer wall constructed further down the slope, and a glacis at the base of the slope. No Iron Age private houses have been uncovered thus far; this likely skews the data.

Evidence of the Iron Age IIC is seen in Stratum 4 at et-Tell. It is in these loci that immense changes to the appearance of the tel occurred. A destruction layer in the chamber area of the gate establishes that the city underwent a major conflagration, probably during the second campaign of Tiglath-pileser III (734-732 BCE), leaving the city, as Greene (2000:78) describes, "wounded but not slain." The superimposed structures of the revetment wall collapsed and buried the towers and the floor, sealing off Stratum 5. Due to its thickness, the city wall remained the only remnant of the previous stratum. A new wall (W311) was built with large boulders and attached to the remaining city wall, making the wall much thicker. A building composed of spacious rooms (perhaps a public building) was formed utilizing this wall with other corresponding walls in the immediate area. The entrance to this building led into an elongated room measuring 7.5 x 3m. Three other openings were found to this room; one opening at the eastern end connecting this room with another. It appears this room was part of a larger building that is no longer present. The building was destroyed by a violent blaze leaving

thousands of pottery sherds on the floor. The dating of these sherds suggests the date for this destruction in the third quarter of the eighth century BCE and perhaps the Assyrian conquest of 732 BCE (Arav 1999:31).

The walls of Stratum 4 were built during this period. They were discovered 17m north of the earlier Iron Age residential and military fortification area. These were the most important remains found in Stratum 4. The widths of the city walls vary from 6.2m to 7m. This wall has no precedent in other Iron Age cities in Israel outside of Dan, and is thus perhaps another indication of Northern innovation (Arav 1999).

## ***Iron Age Animal Usage at et-Tell***

The Iron Age faunal assemblage contains 4755 specimens: 553 identifiable to species, genus or family, 651 identifiable only as large mammal class, 1355 only as medium-sized mammal, 728 only as small mammal, and 1435 specimens that were unidentifiable to either species or size. The material was found in all areas of the site; however, Area A and Area B provided the most abundant source of Iron Age samples because of the more extensive excavation there. The top layers of the tel at this location have been intruded with Syrian bunkers and a number of Bedouin graves. In the beginning of the excavation project it was assumed that the largest collection of artifacts would be from the Hellenistic and Roman Periods. However, after removing the Syrian and Bedouin layers, Iron Age material became evident, in addition to materials from the Hellenistic and Roman Periods. Two major areas of excavation were a large Iron Age city gate complex and an Iron Age *bit hilani*, or palace; these two areas will be discussed separately. A

third location in the upper northern part of Area B also contained Iron Age materials. At this time there has not been enough excavation in the area to ascertain its full nature; however, its proximity to the *bit hilani* and the similarities of its small assemblage to that of the *bit hilani*, make possible some intriguing interpretive possibilities.

### *The Bit Hilani*

During the 1994 excavation phase a large structure was found in Area B. This structure has been identified as an Iron Age *bit hilani,* a palace type structure previously found mainly in northern Syria. The extremely large size of the building (28.25x15m) and the use of large basalt boulders suggest this was a major public building. Although there has been some discussion as to whether this building is indeed a *bit hilani*, Arav and Bernett (2000) have made a good argument for the classification. One of the main arguments against the nomenclature is that the *bit hilani* is an architectural design from northern Syria and no *bit hilani* had been discovered so far south in Israel. However, in his research on the architecture of Iron Age structures, Reich (1992:204) comments that "there is no doubt that Israelite architecture of the tenth century B.C. was influenced by northern Syria." Reich makes his argument based on the buildings found in Megiddo, Lachish and Samaria. When searching additional material one can see the similarities of this in Area B of et-Tell with other excavated buildings that have been classified in this summary. Arav and Bernett (2000) cite a number of locations from the ninth to seventh centuries BCE which include buildings presumed to be *bit hilani* (Figures 4 and 5). These include Tell Sheikh Hassan and Tell Sheikh Hamad/Dur Katlimmu, both recent excavations in Syria. The authors (Arav and Bernett, 2000:50) describe a *bit hilani* as a

distinctive palace type in northern Syria, which was first mentioned in Assyrian literature. It further reflects an innovation in Assyrian art and architecture. These buildings were developed during the conquest of the Aramean and Neo-Hittite principalities in Syria. They usually consisted of an entrance porch parallel to the building's façade, with a second "broad room" behind the vestibule, sometimes referred to as the throne room, where the throne was placed at one of the narrow ends. Additional dwelling rooms surrounded these. A stairway oftentimes led to an upper floor. There is no interior courtyard, but two or three pillars are found associated with this type of palace (Figures 4 and 5). In comparing Figures 4 and 5, one can see the similarities between Tel Sheikh Hassan's and et-Tell's *bit hilanis*, with the long room (throne room) flanked by smaller rooms surrounding the throne room.

The *bit hilani* was utilized in various phases of et-Tell's occupancy. It was probably built during the mid-tenth century BCE, as pottery sherds from the constructional phase resemble specimens found from Hazor's Strata X-XI (Iron Age I-III), which corresponds to Stratum 6 of the Bethsaida Excavation Project. Stratum 6 ends with a conflagration of the city in the first half of the ninth century, perhaps the result of conquest by Ben Hadad I.

During the ninth and eighth centuries BCE some alterations and remodeling took place on the building. At that time a partition wall was erected in the main hall and entrances were blocked. The hall went out of use at this time. Most of the faunal remains from the1995-1998 excavation work came from this area. Although most of the ceramics found in the rest of the palace area present a mixture of all strata, the loci where these artifacts were found are largely from the Iron Age. Among the most significant finds in

the building, an Egyptian figurine depicting a dwarf god, referred to as a "Pataikos," was found along with other Iron Age II material.

### *The Bit Hilani Fauna*

Although a large amount of faunal material was uncovered in rooms 2-8 in the 1994 season of the *bit hilani*'s discovery, that material is not included in the present research, because none of the excavated dirt had been sieved, in contrast to the protocol for all subsequent material. As a result, the faunal analysis of this structure begins in 1995. All of the bone artifacts from the *bit hilani* from 1995-1998 come from the main hall, vestibule, room one, and just outside the entrance, and were collected from 12 different loci, and they form a very interesting assemblage. The full *bit hilani* assemblage is displayed in Table 2 and Figure 6.

In the *bit hilani* cattle elements outnumber those of caprines; the caprine-to-cattle ratio is 0.67:1. There are 134 cattle bones in the *bit hilani*, 48% of the assemblage from this structure. The caprines found in the *bit hilani* make up 32% of all species found, with the assemblage containing 90 elements in all. Of these, 9 are sheep, 27 are goat and 54 are domestic caprine remains that could not be distinguished between sheep or goat; the sheep-to-goat ratio is 0.33:1. Strikingly, all of the pig specimens from the Iron Age come from the *bit hilani* area. The remainder of the assemblage consists of gazelle, fallow deer, equid and catfish elements. Five cattle bones had only cut marks, one had a cut mark and a chop mark, six had cut marks and were scorched, one had cut marks and was charred, forty-five were scorched and eight were charred.

In the *bit hilani* area, all caprine body parts are represented in the assemblage, which indicates that the entire carcass was being utilized. Figure 7 shows the relative proportions of body parts for caprines. No cut marks or gnaw marks were found on any of the sheep-goat bones in the *bit hilani*; 16 were scorched and 12 were charred.

Figure 8 indicates that all cattle body parts are represented in the *bit hilani*. There are a high proportion of feet, with the other elements being almost equal to one another. Most of the foot parts consist of phalanges, and the cranial bones consist of teeth. This could indicate that the smaller bones were left in the area whilst the larger bones were carried out. Grantham (2000) states that in modern Druse villages a large amount of bone waste is taken to a nearby dump whilst smaller, less odoriferous bones are disposed of "casually" in the courtyard or alley. This higher amount of offal indicates that the animals were being processed in the immediate vicinity, as opposed to dismembered parts of the animal being brought in from elsewhere. The proportion of offal in the *bit hilani*, however, is slightly less than in the rest of the Iron Age assemblage (62% and 76%, respectively).

Discussion of the implications of the *bit hilani* faunal assemblage is reserved until after the gate complex and Area B materials have been presented.

### *The Gate Complex*

The 1996 excavation season ended just as the team was beginning to uncover what turned out to be an Iron Age inner city gate (Figure 9; in the photo in Figure 2, the tether from the balloon holding the camera aloft runs down to the threshold of the inner gate). The evidence for this lay in a beautifully preserved pavement, subsequently recognized as

running through the gatehouse. The 1997 and 1998 seasons were devoted to the task of uncovering the gate, located roughly midway on the eastern wall of the city, near the palace. Subsequent excavation gives evidence of an outer gate to the north of this courtyard, although this has been largely destroyed, mostly by modern Syrian military-related earth-moving activity at the site. The inner gate itself (Figure 10) is part of a four-chambered gatehouse, with four deep chambers roughly equal in size, bounded by immense piers. According to Mazar (1992) this type gatehouse began to appear at the end of the tenth century BCE and became the most standard gate type, found in Megiddo, Dan, Timnah, Gezer and Beer-sheba. The gatehouse is flanked by large defensive towers on both its northern and southern sides.

The courtyard just outside the inner gatehouse is paved with basalt stones (foreground of Figure 10), and contained a small cultic altar, or a "stepped high place" (Figure 11), located just outside the threshold area and comprised of three steps leading up to a podium with a rectangular basalt basin. Tipped over the basin was a stele (Figure 12) with a bull-headed deity carved upon it, broken into five pieces. Arav (2004) uses this stele, similar to two stelae found in southern Syrian Hauran, to argue that the city was a Geshurite city at this time. Four other stelae with no carvings were also found in the gatehouse area –two on each side of the entrance, one in front of the northern tower, and the fourth at the inner end of the gatehouse. All stelae were found with the tops broken off.

The threshold of the gate is built of well dressed, flat stones, with a rounded stop stone in its center, against which the closed gates would rest (Figure 10). Just inside the threshold, remains of a carbonized (i.e., burned) wooden beam assumed to be part of the

gate door was discovered, along with arched red brick material, fallen from the ceiling of the gatehouse. Chamber one of the gatehouse contained a few ceramic and basalt vessels. Chamber two contained a one meter layer of ash and large pieces of carbonized wood, presumably from the ceiling. A meter-thick layer of barley grain covered most of the floor in chamber three, indicating that it most likely functioned as a granary during its final phase. Chamber four also contained a layer of ash and numerous pottery sherds and vessels, a small quantity of carbonized grain and fifteen iron arrow heads. A small section of plaster was found on the walls of this chamber.

## *The Gate Complex Fauna*

The following discussion of the gate complex examines separately the individual areas of the complex, moving from outer to inner areas: the gate courtyard (the paved area immediately outside the gatehouse), the stepped high place (or altar area), the pavement within the gatehouse and chamber four of the gatehouse. Sixteen loci in the complex contained faunal remains. Domestic species (Table 7 and Figure 13) represented include 52% caprines, 25% cattle and 1% equid. Caprines outnumbered cattle 2.07:1. Goats were more plentiful than sheep, with a sheep-to-goat ratio of 0.41:1. Wild game included 9% catfish, 6% gazelle and 6% fallow deer. No swine were found in this area. The number of identifiable faunal elements found in the gate complex area totaled 235.

### *The Gate Courtyard*:

There were 100 elements identifiable found in the paved courtyard located just outside the gatehouse (Table 3). Of these, caprines made up 51% of the assemblage, cattle 29%,

and equid 1%. The number of wild game remains, made up of gazelle, fallow deer and catfish, in this area is quite large, constituting 19% of the assemblage. No pig elements were found in this area. Caprines outnumber cattle by a 1.76:1 ratio, and the sheep-to-goat ratio equaled 0.58:1 with 7 sheep and 12 goat elements found.

*Stepped High Place, with Bull-headed God Stele*:

Although few identifiable faunal remains occur here (26 elements), they are relevant to a study of sacred areas (Table 4). All the former animals are present in these loci except equids. Caprines still outnumber cattle, but by less than in other areas of the gate complex, with a ratio of 1.33:1. Sheep fall far behind goats, with a ratio of 0.40:1. No axial elements (i.e., vertebrae or ribs) are present in this assemblage. Foot and cranial bones are foremost but there are also a significant number of forelimbs.

The age profile of this area exhibits only juveniles. There were five left side elements and only one right, with four elements scorched and two charred. There were 128 bone pieces in this section that were too small to identify; of these, 9 came from large mammals, 10 from medium-sized mammals, 34 from small mammals and 75 pieces that were too fragmentary to categorize; these unidentifiable elements weighed 193.9 grams. Seventy-six were scorched, two were charred and two were blackened. The number of burned elements gives the impression that sacrificial burning and/or cooking of the animal happened nearby, as well, even though the offering basin is not suitable for burning materials.

*The Gatehouse Pavement*:

The pavement within the gatehouse contained 67 elements (Table 5). Of these, caprines accounted for 44 elements, cattle 12, gazelle 4, and fallow deer 2. Two equid and three fish bones were found. The most frequent body parts were foot and cranial elements with a few more forelimbs, but an almost equal amount of axials and hind limbs.

The ratio of caprines to cattle was 3.67:1. The sheep-to-goat ratio equals 0.50:1. Three equid elements were recovered in this area. One of the equid elements exhibited a cut mark. The age profile of the animals, based on epiphyseal fusion, shows eleven adults and eight juveniles. There are sixteen right elements and twelve left, with two elements scorched, two charred and three with cut marks. All body parts are represented. The body part representation, along with the cut marks, suggests that slaughter and butchering took place nearby (Zeder 1988, Wapnish and Hesse 1991 and Redding 1994).

*Gatehouse Chamber Four*:

Chamber four held a plethora of artifacts, including incense burners, 15 iron arrow heads and numerous pottery sherds and vessels. It also contained a layer of ash, and a small quantity of carbonized grain. Plaster remains were found on the walls. Many of the sherds have been sent for reconstruction. The presence of the iron arrow heads would suggest that this area was used as a military stronghold during the battle which resulted in the destruction of the gatehouse, probably during the second conquest of Tiglath-pileser III (734-732 BCE).

The faunal material from this area consisted of 42 specimens (Table 6). Once again there were more caprine elements than cattle elements with a ratio of 1.58:1. Of

the caprines, only seven elements could be identified to species; three were sheep, four were goat, yielding a sheep-to-goat ratio of 0.75:1. The age profile of the animals, established on the basis of epiphyseal fusion, indicates three adults, but no juveniles. Five right elements and three left elements were observed along with one scorched and three charred remains. A large number of foot elements were found in this area.

### *Gate Complex Animal Usage*

The gate area was a significant area of ancient cities. The normal activities of entrance and exit to the city made it an important point of control, a place through which all must pass, regardless of power, authority, status or class; it represented the "shared space" common to the community as a whole. Information could most easily be disseminated from this location because of the high traffic. Taxation activities on commerce could most easily occur here. Its vulnerability in times of war was compensated for by the additional fortifications of defensive towers for protection, and the use of both outer and inner gates. The symbolic status of the city could most easily be expressed by ritual activity in the gate area. Textual evidence indicates that gates were used as gathering places, and as locations for legal transactions. In all likelihood, they also served as major areas of commerce.

The courtyard was the most spacious aspect of the et-Tell gate complex, but the stepped high place, with its bull-headed deity stele, formed the most impressive remaining aspect of this area which it overlooked; another three stelae were also prominently placed in this courtyard. Perhaps the most striking feature of the gate complex's faunal material is the high percentage of offal, indicating nearby slaughter.

Whether this slaughter occurred ritually in some relationship to the high place, or commercially as the meeting point between producers and consumers, is not clear.

Wapnish and Hesse state (1991) that in sacred areas the faunal samples generally have a relatively higher number of slaughter refuse (or offal) elements, i.e., head and toes, or offal, than areas utilized for butchering. Later, they describe this refuse as seen in areas where skinning is taking place, which forms a natural complement to sacrificial slaughter, as seen within Israelite culture; Leviticus 7:8 in the Hebrew Bible describes the skin of animals that are sacrificed as something which the priest would retain as payment for the sacrificial transaction, a practice which may well parallel the cultic practices of this Geshurite site. Cranial and foot elements account for 82% of the mammalian elements in the stepped high place and for 77% in the adjacent courtyard area, thus consistent with the expectation based on the Wapnish and Hesse claim. Leviticus 7:32-34 also speak of offering the shoulder and breast of an animal for an "elevation offering," as well as right thighs from "offerings of well-being," as belonging to the priests, as well; in the latter form of offering, the remainder of the sacrifice was consumed by the family and guests of the one who offered it. Within the gate complex as a whole, 23 forelimb elements and 19 hind limb elements were discovered, which would be consistent with retention by any priestly official who functioned in relation to gate ritual activity, if Geshurite culture had somewhat parallel practices. However, there are other ways in which the faunal material might be understood.

The stepped high place would be the first routine stop for a person entering an Iron Age city. This is where the resident or visitor paused to make some sort of offering to the god of the city before actually entering the city itself. Presumably the city gate

cultic spot would not be the major cultic spot for the community; its unavoidability in terms of traffic into and out of the city inevitably made it a "less sacred" spot than one more centrally located within a city, with more controlled access, yet its accessibility also underscores its significance, for it was most closely linked to everyday activity, with the greatest contact by "commoners" within the city, rather than the elite. The city gate thus provides a window into the life of Iron Age commoners that is otherwise inaccessible at this point in the excavation of et-Tell, since the excavation has thus far focused on more monumental architectural features and elite dwelling areas, rather than the dwellings of commoners. Thus, rather than viewing the gate complex's faunal material primarily from a priestly perspective, it might make more sense to view it in relation to those ordinary activities which occurred in the gate area. The line between sacred and secular was by no means as firmly drawn in ancient cultures as occurs today. Thus, if trade activities occurred in the gate courtyard, portions of that transaction might be offered to the city deity as an "ordinary" activity. For example, the offering of a hide or some other portion of an animal purchased right after slaughter and butchering would be consistent with the gate complex faunal evidence. Leviticus 17:1-6 also talks about animals slaughtered for ordinary consumption being ritually "offered" to the deity prior to consumption; for Israelites this entailed the draining, collecting and ritual manipulation of the animal's blood, although this focus on blood is absent in Canaanite ritual texts (Wapnish and Hesse 1991:38). Presumably Geshurite/Canaanite ritual practice would entail some sort of functional equivalent to that Israelite practice, which would naturally occur close to a public area where slaughter and butchering was done.

No “altar” for sacrificial burning had been discovered in the gate complex up through the 1998 excavation system, the most recent boundary of the faunal assemblage used in this dissertation. Since that time, such an altar has been discovered on the inner side of the gatehouse, but none of the bone materials related to that are included in this study. The rectangular basin in front of the stele of the deity in the stepped high place is unsuitable for burning, but only for receiving gifts. However, sacrifices of produce (“first-fruits”) and the offering of other gifts in Israelite contexts is well attested. The large amount of barley found in chamber three of the gatehouse may represent such offerings; alternatively, that grain might represent “tax” revenue gathered in the gate area.

The preparation and sale of food items in the public space of the gate courtyard and its environs would provide an alternative explanation for those burned elements, which in no way contradicts the likelihood of sacrificial burning for at least part of the assemblage. The “meaty” elements from both forelimbs and hind limbs constitute 20% of the faunal assemblage in the gate complex, ranging 17-21% among the gate complex components; although the courtyard contained the highest percentage of these “meaty” elements, the percentage remains quite consistent throughout the complex (Figure 14). To put this into perspective, this compares with 27% meaty portions in the *bit hilani*.

The different sections of the gate complex do show different patterns of usage of animals. In gatehouse chamber four, epiphyseal fusion data indicates only adults in the sample, whereas the stepped high place area contained only juveniles. This could point to offering only juveniles in the sacred area, whereas lesser priestly functionaries consumed a lesser quality meat from a valued animal, as represented by chamber four. When the sheep-to-goat ratio in the courtyard (0.25:1) is compared to that of the *bit hilani*

(0.33:1), there is not much of a "class" difference, since the elites were consuming only slightly more sheep than the population at large. The stepped high place area had a caprine-to-cattle ratio of 1.33:1, chamber four with a ratio of 1.58:1, the courtyard had a ratio of 1.76:1, but the pavement through the gatehouse had a much higher ratio of 3.67:1, with a 2.07:1 ratio for the whole gate complex; it is probably no accident that the area before the bull-headed deity would have a greater proportion of cattle elements than the remainder of the complex. Chamber four, the gatehouse chamber closest to the stepped high place, has a particularly close functional relationship to that cultic structure, as evidenced by similar unusual sieved cups (incense burners?) found both in the offering basin and in that chamber (Arav 2004); chamber four had the second highest proportion of cattle elements in the gate complex. A symbolic link between the bull-headed deity and the beef consumption in the *bit hilani* probably also exists, in addition to mere culinary preferences of the elite.

The TWS for cattle in the gate complex is presented in Table 8; all teeth were $M_{1,2.}$ Epiphyseal fusion on the cattle phalanges indicates three elements were from juveniles and eight from adults. The combined TWS and epiphyseal fusion data show that both younger and older animals are represented in the cattle assemblage, with three teeth from younger animals and three teeth from older animals, suggesting that cattle were being used for both beef and traction. In addition, eleven bones had been scorched, four charred, four displayed cut marks, and one had a cut mark and a chop mark – consistent with sacrificial burning and/or cooking.

Wild game accounted for 22% of the bones found in the gate complex, including 14 gazelle, 15 deer and 22 catfish bones. This indicates that game was an important

subsidiary resource. Once again, looking at ritual observances in the Hebrew Bible, and extrapolating these observances for a Geshurite community, Deuteronomy 12:1 discusses the consumption of deer and gazelle. Although these animals were not considered animals that could be sacrificed on the altar in the high place, they were certainly allowed to be eaten by the common person. These animals were most likely offered at the city gate along with caprines and cattle. No pig elements have been found in the gate complex, although pig is present in the *bit hilani.*

In all species 18 bones came from juvenile animals and 20 were from adult animals. Forty-five elements came from the right sides of the animals, and 40 elements from the left side. Modification occurred on 7% of the caprine bones, 8% of the cattle, 2% of the catfish, and 2% of the deer. One hind-element of an equid from the pavement area had a cut mark. There were no modifications of gazelle material. The modifications included nineteen elements scorched, eighteen charred, one calcined, seven with cut marks and one cattle element that had a cut mark and a chop mark. All cut marks occurred on cattle, goat, sheep and equid elements.

### *Area B*

Excavation had taken place in 1995 in Area B but due to the discovery of the Iron Age city gate in Area A that year, the excavation in Area B was halted at the end of the season and work thereafter concentrated on Area A. Area B contained only six loci that included Iron Age bones. The total bone count from this area is 41, with most of those coming from one locus (Table 9): sixteen elements from cattle, two from sheep, three from goats, four from caprines (indistinguishable between sheep or goat), ten from gazelle and six

from catfish. One locus contained only non-identifiable and burned bone. There was a total of 2,359.1 grams of non-identifiable bones, 2092.8 grams of which came from the locus with the most identifiable elements. The body parts included no axials, but all other body parts are represented. Locus 225, where most of the faunal material was recovered, also yielded a number of Iron Age cooking pots, indicating this area may have been used as an area for food preparation. Since so many cranial and foot elements were found, nearby slaughter can also be inferred. Although the assemblage is small, and thus caution must be exercised in extrapolating much from the evidence of this assemblage, the cattle elements constitute 39% of the assemblage, caprines 22%, and wild game 39% (with gazelle at 24% and catfish at 15% comprising the wild game figure). The reliance upon wild game may indicate a lower economic status for the residents of this area, even though it is only 20m from the *bit hilani*. This perhaps represents the living area of servants of the royal family. The relatively high proportion of cattle elements is comprised primarily of offal (81%). That, combined with the number of cooking pots, suggests that the food preparation was for the benefit of the royal family.

### *All Iron Age Fauna*

Most of the identified specimens were from domestic caprines (40%; Table 10). Where possible, the goats and sheep have been separated according to the criteria of Boessneck et al. (1964). The number of domestic cattle bones found (38%), however, comes very close to the total for caprines. It is assumed that by this date all cattle are *Bos taurus*. Borowski (1998) claims the process of domestication of cattle took place in the Levant as early as 6400 BCE. The evidence for this comes from bones found at Catal Huyuk,

Turkey. He states that cattle were probably originally bred for by-products, such as milk, meat, hide, dung and bone, but by the Iron Age they were raised mainly for traction, milk and dung, with meat, hide and other by- products as a secondary resource.

Catfish remains account for 8% of all bone recovered. This is not surprising as et-Tell is located close to Lake Kinneret. It is probable that other fish were also utilized at et-Tell, but bones from these other species have not been preserved, or were not collected in the screening process, possibly due to their small size. Borowski (1998) indicates that, even though catfish were considered "unclean" by the Israelites, a large number of catfish bones were found in Iron Age Jerusalem, including the "City of David," the oldest portion of the city.

Wild game was also an important resource during this period, since gazelle (6%) and fallow deer (3%) have both been recovered here. Pig bones account for 5% of the assemblage; however, these were found in only four loci out of approximately thirty that were excavated – all four in the area of the *bit hilani.* Lastly, the assemblage included 1% of equid bones.

A large number of unidentifiable bones were also recovered. These were placed in categories of large mammals (such as donkey or cattle), medium-sized mammals (such as goat, sheep, gazelle), or small mammals (any mammal smaller than a goat). Not surprisingly, medium-sized mammal bones outnumbered all other classes by at least 2:1. All specimens were looked at individually to determine if any alterations had taken place following death. These were categorized according to Johnson's (1989) classifications of "unburned, scorched, charred and calcined," along with indications of cut or gnaw marks.

## *Caprines*

Domestic caprines were utilized for many different purposes in the Ancient Near East, as is also true today. Caprines have been employed since at least the late fourth and early third millennia BCE (Greenfield 1988) for both their primary products of meat, hide and bone and their secondary products of wool and milk. Cheese, yogurt and butter are three main staples mentioned in the Hebrew Bible, in addition to milk. The ability to produce wool is a chief reason for keeping caprines. Goat hair has been used for tents, carrying sacks and rope, in addition to the use of wool for the weaving of fabrics and making clothes.

Goat-keeping was a subsistence strategy seen all over the Levant area. Goats may well have been one of the first animals to have been domesticated (Davis 1987). They are relatively hearty animals that can be easily maintained, mature quickly, and are a good source of secondary products such as dairy, meat and hair. Although goat hair is not as good as a sheep's wool for clothing, it is used today by Bedouins for making tents and rope (Borowski 1998). Wapnish and Hesse (1991) suggest that if goats outnumber sheep, dairy was probably the main secondary product of the animal. Sheep and cattle are both considered "grazers." This means both species eat the grass that is close to the ground. A goat is considered a "browser," eating food that is above the ground. Goat herding is a good combination with raising cattle since goats do not compete with cattle for the same pasturage

According to Hesse (1995a), on the other hand, sheep were the first animals to be domesticated. Evidence of sheep being raised for wool products is illustrated in a figurine found in western Iran which dates from the sixth millennium BCE. Sheep do not

thrive as well in harsher climes, so they present a riskier investment than goats for the keeper (Redding 1984). Sheep are usually kept along with goats, so the proportional structure of the herd is shaped largely by the environmental conditions in which it is kept.

When assessing the caprine assemblage according to the methods used by Zeder (1988) and Redding (1984), it appears that the production strategy of the Iron Age inhabitants with their caprine herd is that of herd security. At et-Tell the sheep-to-goat ratio is 0.39:1. This corresponds to the trend Redding notes in hot, arid climates. He describes herd security (Redding 1984:227) as "the minimization of fluctuations in herd size, particularly those that result in a reduction of annual yields." In this simulation he explains that in a good environment, a sheep-to-goat ratio would likely be 1:1. However, there is a difference in the ability of sheep and goat to rebound from losses, and these differences lead to variations in the ratios. Since he claims that the cost of raising sheep and goats is practically identical, the cost would not influence the ratio. However, he points out that sheep productivity decreases with increased heat and aridity of a region, but rises in colder, wetter climes. He indicates that changes may be observed in the sheep-to-goat ratio as herders became more engaged with agriculture, moving to a herd security strategy; this is most like the Tepe Ali Kosg site (Redding 1984:239). Zeder (1988:12) likewise states:

> … selection of animals received through direct channels will reflect the herder's interest in perpetuating herd security. Consequently, animals utilized are expected to be those best suited to local ecological conditions and to the management strategies of the herders. In particular, animals with high replacement potential should be favored, even over animals with a greater or better quality meat yield. High reproductive capacities, for example, would make goats the more attractive of the two caprid species….

Zeder (1988) further states that the possibility of nomads interested in promoting herd security would favor disposing of a higher number of goats than sheep to the consumers who are receiving meat. Citing Redding, Zeder says that since goats are a faster regenerating resource, they would be the more attractive animal for the pastoralist/nomad. In direct channels between herders and consumers using no or few "middle-men", the selection of animals would reflect the herder's interest in perpetuating the flock; thus, animals with high replacement values would be favored. The pastoralists' goal of herd security would surpass the urban dwellers' fondness or preference for the taste of sheep, and would raise the hardier, more efficient goat instead. This is evidenced by sheep-to-goat ratio (0.33:1) in the *bit hilani* assemblage, which is actually lower than the ratio in the combined gate complex and Area B (0.43:1). Table 10 demonstrates that goats outnumbered sheep, with a sheep-to-goat ratio of 0.39:1 at et-Tell during the Iron Age, reflecting the pattern suggested by both Redding and Zeder for both herd security and direct channel production.

Constructing harvest profiles by classifying an animal by age of death and building an age distribution chart is one way of ascertaining how the animal was used. Payne developed a method for doing this in his 1973 actualistic study of the caprines from Asvan Kale, Turkey. He proposed that the age at which animals were slaughtered depended on a number of different factors based on the different products being exploited. By using Payne's "kill-off" patterns one can surmise how the animals were primarily being used, e.g., for meat, for milk or for wool. In Payne's model, if meat production is the primary usage, a pattern of slaughtering young adults (mostly males between the ages of two and three years) would be evidenced. If milk production is the

main usage, the kill-off pattern will show an increase in lamb slaughter, and more adult survival; surplus lambs would be killed so as not to endanger the milk supply. If wool production is the strategy for the herd, the emphasis would be placed on the adult animal. In such a situation, the herder would only breed enough animals to replace the flock; males not used for stud would be castrated; animals would be slaughtered when the wool quality of the adult decreases. Payne clearly recognizes, however, that animals were not used for just a single purpose in ancient times, any more than today, but were utilized for multiple purposes.

By comparing the Iron Age graph of the et-Tell caprine kill-off pattern with Payne's model (Figure 15), it appears that et-Tell's inhabitants were using their caprines primarily for meat during the Iron Age. The graph shows a high slaughter rate taking place in the two to three year age range, with only a few animals living to older ages. Payne (1973) claims that when caprines are utilized for meat production, the prime slaughter age is two to three years; at this age the animal's growth slows down to a point that it is not economical to continue feeding it. Therefore, most males would be killed off by this time, leaving only enough males necessary for breeding. Females would not be slaughtered unless there were more females than needed to sustain the breeding flock. The meat of the animal is tenderer between two and three years as well, making it a more desirable consumable resource at this age. The et-Tell kill-off pattern, with an additional "bubble" of older animals, is also consistent with utilization of secondary products of either wool or milk. If sex could be determined, the predominant secondary product could be ascertained; a higher number of adult males would indicate wool production (since castrated males produce better wool), whereas a higher number of adult females

would indicate milk production. However, sufficient data to determine sex of caprines at et-Tell was not available. Wapnish and Hesse (1991:29), however, suggest that a higher proportion of goats than sheep may indicate a focus on dairying, since goats produce better milk than sheep, whereas sheep produce better wool. This well fits the sheep-to-goat ratio at et-Tell, and thus indicates that although caprines were used at et-Tell primarily for meat, dairy was the primary secondary product.

Silver's (1969) method of epiphyseal bone fusion to establish an age-of-slaughter chart (Table 11) shows a higher percentage (55%) of et-Tell caprines being slaughtered in the juvenile stage, no slaughter in the young adult stage, and 45% of animals slaughtered in the adult stage. This is consistent with the kill-off pattern established above on the basis of tooth wear, i.e., a slightly higher percentage of juveniles were slaughtered compared to young adults or adults.

When assessing the body part representation (Table 12), there is a high percentage (63%) of non-meat-bearing bones such as cranial and foot elements (offal, in this paper). Wapnish and Hesse (1991:20) suggest this is due to slaughtering effects, or the primary refuse of butchering. Zeder (1988) speaks of this as the result of direct procurement, i.e., direct distribution of the meat from the herder to the consumer. In this model, all skeletal parts are seen as the act of slaughtering, and are likely to occur in the vicinity of the consuming household, thus representing on-site butchery. In on-site butchery, the refuse bone material would be similar to that found in a complete skeleton. This would, then, reflect the herders' interests in perpetuating his herd, as opposed to the consumers' taste preferences. Et-Tell's material suggests this may be what was occurring during this time

period, with the animals being purchased from the herder, then slaughtered on-site by the consumer.

The goat distribution in the *bit hilani* indicates the largest quantity of body parts is represented by forelimbs (Table 2). Wapnish et al. (1977:42) indicate, "The front leg in all of these creatures carries the larger proportion of the meat on a carcass." It would stand to reason that the elite are eating the most desirable parts, even though goat is generally considered a less desirable meat than sheep; however, if goat is what is available from producers, then the more desirable portions would be expected to predominate in an elite section.

The gate complex area displays a greater number of feet and cranial bones than the other body parts, representing 69% of the assemblage (Figure 16). This indicates that slaughter took place nearby. It may be assumed that the animals found in this area were consumed by the more common people. The material found in the gate complex is most likely refuse from the altar and, quite possibly, from market/shop areas that might reasonably be expected in gate complex area.

### *Cattle*

Et-Tell contains a proportionally high number of cattle elements (38%) – exceptionally high when compared with many other sites, to be discussed later in this chapter. Slayton claims (1992:623) Bashan, a name by which the area east and northeast of the Kinneret was known during at least part of the Iron Age, was "perfectly suited for agriculture and cattle…. Because of its fertility and productivity, Bashan was the prize in wars between Syria and Israel." Furthermore, the Hebrew Bible speaks of Bashan as an area well

known for its cattle (Psalm 22:12, Amos 4:1-2, Ezekiel 39:17-19). The large amount of cattle remains found at the et-Tell site, in this general region, would confirm these statements. Zeder (1986), Wapnish and Hesse (1991) and Rosen (1986) all concur that a high percentage of cattle points to agricultural practices. Rosen (1986:166) asserts:

> Whenever the percentage of bovines is 20% or more of the total ruminants, agriculture based on bovine-drawn ploughs seems to have been the mainstay subsistence of the economy.

Wapnish and Hesse (1991:26) further add that these statistics help distinguish an economy based on intensive agriculture as opposed to one where caprines are being exported. Zeder (1988:40) contends that, using Redding's model of herd management systems, areas under high cultivation favor high proportions of cattle and goats as opposed to sheep, for cattle and goats do not compete for the same pasturing resources. The caprine-to-cattle ratio at et-Tell during the Iron Age is 1.06:1; as indicated above, the sheep-to-goat ratio at et-Tell is 0.39:1, fitting the expectation for a situation involving a proportionately high number of cattle. Cattle have high water requirements, which made Et-Tell's a prime location for raising cattle. Et-Tell had three primary water sources: the Jordan River is presently only about 0.4 kilometers away, a spring is located approximately 100m from the tel, and it is likely that at least an arm of the Kinneret reached very close to et-Tell in the Iron Age. Borowski (1998) asserts that cattle rarely wander and need more attention than other ruminants, thus needing to be raised under stable, settled conditions, e.g., near a city like et-Tell. The presence and the prominent location of the large amount of barley discovered in the gatehouse, especially Chamber 3, confirms the importance of et-Tell's agricultural activity in the Iron Age.

The age and body part representation for cattle found in Iron Age et-Tell suggest that cattle were being used for meat, by products and draughting (Figure 17, and Tables 13-15). When the animal was older, it was slaughtered and used for its meat and hide.

A major problem with the et-Tell/Bethsaida faunal material is that all specimens are apparently post-depositionally damaged, which reduces the number of elements in the collection which can be aged by either the tooth wear stage method or the epiphyseal fusion method. In most cases there are no complete mandibles with which to age the wear stages; although many teeth have been found at the site, they are largely loose, damaged, individual teeth. Unfortunately, little to no studies have been performed (that this writer is aware of) dealing with single cattle teeth found at an excavation site, therefore, the only resource available for this research is work done on complete or nearly complete mandibles. This imposes more variability into an age profile for this particular study. Most of the elements used for aging by epiphyseal fusion in this collection are phalanges, since they are the most numerous complete elements found.

The teeth were individually recorded using Grant's 1982 method. Although she used complete mandibles for her study and was able to focus on points of "tooth wear stages" (TWS), Grant gives each individual tooth in a mandible an alphabetic value which is then used to classify the complete mandible into a numerical value. Grant asserts that this method can only be used to give a relative age estimation, not a 'real' age designation. She states that one can only surmise that A would be younger than B, B would be younger than C, etc. In her research, Grant is able to ascertain a difference in wear on $M_1$and $M_3$ on a mandible, stating that heavier wear can be seen on one tooth whilst lighter wear is noticed on another tooth in that same mandible. With single teeth,

this is impossible. The only proposition that can be made is to place a relative age value on each individual tooth. This value is then used to calculate a rough age state for the cattle found in a particular site.

The material collected from et-Tell uses only single teeth, 25 of which were mandibular teeth that could be categorized into the single TWS category used by Grant. Using the categories above, in Table 14 it appears that fourteen of the animals were younger (A-C [eleven $M_{1,2}$, three $M_3$]) and eleven were older (D-L [nine $M_{1,2}$, two $M_3$]).

Bones in the assemblage aged by epiphyseal fusion (Table 15) were mostly metapodials with one distal tibia, with 14 juvenile, 2 young adult and 31 adult elements. By this tabulation based on epiphyseal fusion, most of the animals were adult, and thus probably used especially for traction, milk and dung, and then used for meat in old age. The younger animals would be utilized primarily for their meat.

*Pigs*

As stated above, all of the Iron Age assemblage of pigs comes from the *bit hilani*. There were 27 pig specimens in the assemblage equaling 10% of the *bit hilani* assemblage. Of these, eleven were burned and five were scorched or charred, suggesting that the animals were cooked.

Four teeth were in the material. The tooth wear stages of the pig teeth (Grant 1982) indicate that they were all from young animals. One tooth was coded as "V" (perforation in crypt visible), one coded "E" (tooth erupting through bone), one coded "C" and one "D." Rolett and Chiu (1994) discuss the usage of tooth wear stages for single teeth. They conclude that there are relatively insignificant differences of less than

three wear stages in heavily worn molars than with a complete mandible. Fusion of metapodials shows one juvenile, and two young adult and one older adult animal. The significance of young and young adult animals in the collection suggests a hunting context. In hunting situations the age profile found usually shows a strong dependence on young or prime animals (Stiner 1994).

Complications occur with swine in this geographic location when trying to ascertain whether the animals were wild or domesticated. According to Hesse (1990:203):

> …at the limits of the distribution of the wild pig in Palestine and when the specimens are few, relying solely on osteometrics to determine status of swine in the archaeological remains can be risky. For this reason verification usually demands the discovery of pig related artifacts or evidence that the pig cull matches the practice of swineherds rather than the take of boar hunters, i.e., an abundance of young in the slaughter.

In that same article Hesse looks at a number of different sites in the area with the intention of focusing on the utilization of pig in the immediate environment of Canaan. The sites he looks at are from the Chalcolithic Period, the Early, Middle and Late Bronze Ages, and then finally the Iron Age. In most of the earlier sites he found pig remains. However, when he analyzed the Iron Age sites he found very few pig specimens, i.e., from 0% to only 1.5%. Most of the Iron Age sites that have pig are those associated with the Philistines. Those sites (Tel Miqne, Tel Batash and Ashkelon), all found on the coastal plains and in the area known as the Shephalah, each produced parallel patterns of pig use. Hesse suggests that the earlier sites may illustrate textual evidence that speaks to the issue of wild animals, such as deer and venison, being associated with elite social

classes in Canaan. Hesse found no pig remains in the elite building at Miqne, only a few pig bones in a sample from a sanctuary in Philistine Qasile.

The material culture found so far at et-Tell suggests that the inhabitants of the community were Geshurite in the Iron Age (Arav 2004). This may be the reason swine have been found only in the *bit hilani*, reflecting an earlier practice of honoring the king with the hunt. This would agree with Hesse's (1990:214) suggestion "of an increased demand by the elite for wild game for the table and the success of the hunters who supplied them." Hesse discusses a high rise in pig remains in the beginning of the Iron Age Period and gives examples from the Philistine sites of Tel Miqne-Ekron, Tel Batash and Ashkelon. Hesse continues by suggesting that, in the Bronze Age, pigs were given to royalty by hunters. Taking into account the pig remains found in the *bit hilani* of et-Tell, and Hesse's suggestion of Late Bronze Age which associates hunting practices with the elite social classes, if the pigs were indeed given to the royalty as a gift from hunters, this could be considered a remnant of the older Bronze Age Geshurite culture being practiced. It cannot be discerned at this time whether these animals were wild or domesticated since no pens for keeping the pigs have been found, and pig elements found are not complete enough for using routine calculations for distinguishing wild from domestic animals. However, the percentage of pig elements found at the palace area is almost the same. Hesse looked at early assemblages containing pig elements and compared them to later assemblages with no pig elements. He concludes that the later assemblages may point to political centralization that encouraged restrictions in pig husbandry. Whether hunted or raised as domesticates, pigs in the Iron Age at et-Tell pigs apparently were eaten in this community.

Pigs represent 10% of the faunal material found in the *bit hilani*, but is found nowhere else in the Iron Age material, representing 5% of the total Iron Age assemblage. The percentage of domestic animals being raised on or near the site equals 38% for cattle and 40% for caprines. Harris (1985:67) discusses the fecundity of pigs in his research of pig utilization in Egypt, stating:

> Over a lifetime a pig can convert 35% of the energy in its feed to meat compared with 13% for sheep and a mere 6.5% for cattle. A piglet can gain a pound for ever three to five pounds it eats while a calf needs to eat ten pounds to gain one. A cow needs nine months to drop a single calf, and under modern conditions the calf needs another four months to reach four hundred pounds. But less than four months after insemination, a single sow can give birth to eight or more piglets, each of which after six months can weigh over four hundred pounds.

Using this criterion of efficiency and productiveness the percentage of swine should be much greater than that of caprines or cattle, if pigs were being raised in the area. Redding (1992) states that the yield rates for pigs to sheep are so much greater that a herder would only need seven sows to produce the same amount as one hundred caprines. Redding (1991:104) further states that pigs are major predators of domestic crops and can do extensive damage to fields of wheat and barley. As has already been seen, the site of et-Tell was primarily an agricultural area. Because of these agricultural factors, the raising of pigs would be a poor strategy.

### *Equids*

Equids represent only 1% of the total Iron Age faunal assemblage. Equids clearly were not a major or crucial element in Geshurite et-Tell during this period.

### *Wild Game*

Wild game constitutes 9% of the *bit hilani* assemblage. Excluding this material, wild game constitutes 24% of the remainder of the Iron Age material. When looking at these differences as class distinctions, one may conjecture that the common people were relying more on game than were the elite (*bit hilani*) population. All body part portions of gazelle have been found, indicating that gazelles were being used for meat. However, only one forelimb element and one foot element from fallow deer have been found. Fallow deer have been found in the Iron Age strata of Beersheba (Hellwing 1984), Lachish (Lernau 1975) and Tel Miqne-Ekron (Hesse 1986). The gazelle has been identified at these sites as well and at the Iron Age sites of Tel Michal (Borowski 1998), 'Izbet Sartah (Borowski 1998) and Tell Halif (Seger et al. 1990). Fish bones recovered at et-Tell indicate that fishing in Lake Kinneret was taking place during the time frame of our investigation. Fish have been found in other Iron Age sites including the City of David (Lernau and Lernau 1992). This suggests that hunting was prolific and wild game provided supplementary meat resources during the Iron Age at et-Tell. The evidence from Area B, with a 39% reliance on wild game perhaps indicates that these supplementary meat resources were especially important for the lowest socio-economic classes at et-Tell.

## ***Et-Tell in Comparison to Other Iron Age Sites***

A different pattern of cattle usage emerges at et-Tell, compared to other Iron Age sites in the region. In the period from the Late Bronze to Early Iron Ages atTel Dan, in the

northern area of the region, near today's Israel-Lebanon border, a change from a predominance of cattle to a predominance of caprines occurred. Wapnish and Hesse (1991) attribute this to increased pastoralism in Iron Age I, in which a more complex society devolved. At Tel Miqne to the south, the relative number of cattle increases in the Iron Age I assemblage, but caprines still outnumbered cattle 45:37, a caprine-to-cattle ratio of 1.22:1 (Hesse 1986:23). Only five of 193 identifiable bones represented cattle at the site of Tel 'Ira (Horwitz 1999), i.e., 3%, compared to et-Tell's 38%. A similar sparseness of cattle remains holds true for the sites of Horbat Rosh Zayit and excavations in the City of David (Horwitz 1996; Horwitz 2000).

Wapnish and Hesse (1991) analyzed the faunal material from the ninth to sixth century BCE site of Tel Dan. They ascertain that the nearly 50% contribution of cattle bones in the Tel Dan faunal assemblage indicates a highly urbanized area. The analyzed material shows that 75% of these animals were slaughtered after three and a half years of age, suggesting that these animals were being used as draught animals. The representation of sheep and goats at Tel Dan indicates animals were selected at an older age. Wapnish and Hesse suggest the pattern found here suggests a marketable offtake from meat and fiber production from the caprines. Deer supplied the city with an 18-20% contribution, which implied an important subsidiary source of meat. Only four pig specimens were found in the ninth-eighth centuries in Area M, a "sequence of pavements from the center of the site" (Wapnish and Hesse 1991:34), and none were found in the other areas or time periods. It is also stated that the proportion of slaughter refuse in this area is the lowest recorded proportion for the site. The authors attribute the pattern of

higher meatier elements (forelimbs and hind limbs) to a general increase of meat consumption in times of relative affluence.

The gate complex area of et-Tell is comparable to Area M of Tel Dan in that much of the material from Iron Age et-Tell comes from the paved courtyard area, with the exception that Tel Dan's Area M is centrally located, rather than at the entrance to the city. The faunal material found in this area of et-Tell also displays a mortality pattern in which younger caprines were being utilized along with the much older sheep/goats (Table 11). Wapnish and Hesse (1991) assert that when a mortality spread is greater than would be expected in an economy exclusively dependent on imports, such a profile points to a local production of meat products.

Horwitz (2000) reports that in the animal remains found at the Iron Age fort of Horbat Rosh Zayit, there were slightly more caprines than cattle in the tenth-ninth centuries BCE than in the ninth-eighth centuries BCE. Twenty to 25 percent of the caprines were slaughtered before two years of age, but over 50% of the herd was kept into maturity, a mortality profile consistent with secondary product exploitation. The number of cattle bones found at the site was too small to conduct an age profile, but all body parts were represented. Despite some oddities of the mortality profile, she concluded that the site was involved in the production of caprines as a main food resource, rather than relying on a market system for obtaining meat.

Horwitz (1996) also conducted the research of faunal material excavated in the City of David, a site found on the hill of Ophel, south of the Old City of Jerusalem. She states that the Iron Age II deposits were dominated by caprines and cattle, with a few specimens of deer, pig, donkey and a wildcat. The body part representation of caprines

displays a high proportion of forelimb and hind limbs. Using condylar index estimates for the metatarsal and metacarpal of adult animals to assess the number of goat to sheep, she maintains that there was an equal number of goat and sheep in the Iron Age II. She presumes that the Iron Age assemblage, with its broad spectrum of both wild and domestic fauna, resembles the pattern of a site involved in the primary production of food through hunting and herding.

Hellwing and Feig (1989) examined Iron Age animal usage at Tel Michal (located in the southern part of the Sharon coastal plain). Their research exhibited 64% *Ovis/Capra*, 33% *Bos taurus*, and 1% *Sus scrofa*. In the strata for that period one camel and one chicken specimen were also found. The ratio of adult to young animals was: *Ovis/Capra*, 232:7; *Bos*, 118:5. The body parts representation showed a domination of anterior parts with a preponderance of forelegs. They postulated that the people at this site raised most animals to adulthood with a 'sound knowledge of animal husbandry' and exploited the animals for meat, by-products and draught power.

Lernau's faunal work (1975) at Lachish (located near the coastal plain leading into the Hebron hills) indicates a nearly equal percentage of cattle and caprine bones from the Iron Age there (48% cattle and 47% caprines), somewhat similar to et-Tell's. Of the cattle bones nearly all were determined to be from adult animals. Sheep outnumbered goats 28 to 25 but with an MNI of four animals for both. They conclude that the caprines were utilized for meat and hides, wool and milk. Two gazelle, three fallow deer and one fish remains were also found. Lernau states that fish may have been dried and transported to Lachish during this period. Pig was not found in the collection.

Hesse (1986) researched the faunal material of the Iron Age found at Tel Miqne-Ekron, located in southern Israel. He suggests that cattle and pigs became more significant in the Iron Age in the Miqne-Ekron area, with pig numbers rising from almost zero to a more pronounced quantity during this time frame. A decrease in sheep and goats occurred in the same period. Tel Miqne-Ekron was inhabited by a culture group known as the Philistines during the Iron Age. Hesse asserts that the appearance of these people marked a substantial shift in the foodways and pastoral systems seen earlier at the site, with a noticeable growth of importance of pork and beef in their diet, and a decrease of mutton and chevon, indicating secondary products as a focus of the pastoral economy during the Iron Age I. Intensified production of pastoral effort is seen in the shift to cattle, along with the mortality profile of cattle being slaughtered at optimal meat-bearing age. As the Iron II Period came into focus, the number of sheep and goat is noted in his charts as 'insufficient'. He concludes that the people of Tel Miqne-Ekron were probably obtaining the caprine products they needed through trade with pastoralist producers. Although not found in the elite building at Tel Miqne-Ekron, pig is found in other sectors of the site. Precisely the reversed situation occurs at et-Tell.

Et-Tell's faunal material correlates with that found in Tel Dan, the City of David and Horbat Rosh Zayit. The material coincides with the Tel Dan site in that et-Tell material, like the Tel Dan assemblage in Area M, displays a large contribution of cattle with a slaughter pattern of older animals, thus suggesting the employment of these animals for draught power before using the slaughtered animal for meat. Sheep and goats were also used for purposes other than a primary meat source at et-Tell. The broad age

spectrum, slaughtering younger animals along with older animals with few young adults represented, suggests marketable offtake from meat and fiber (hair).

Comparing et-Tell with the City of David presents a comparison in the hunting mode of collecting animal resources. In all three areas of Iron Age et-Tell, wild game was represented in high proportions (16% over all areas). This suggests that wild game contributed significantly to the diet of the Iron Age inhabitants. Wild game was an important subsidiary resource to the diet, demonstrating a site that was utilizing herding and hunting to supplement the nutritional regime.

The stepped high place area found at the site of et-Tell corresponds in a number of ways with the site of Lachish with its sample size of 52 bones from the Israelite sanctuary (Lachish) with an MNI of two sheep and eight goats. Although the et-Tell sample is relatively small in comparison, the assemblage contains approximately a 0.4:1 ratio of sheep to goat. The high place area also held three gazelle, five fallow deer and four catfish bones. Wapnish and Hesse (1991) discuss the animals that were allowed to be used in sacrifice. They name wild bull, cattle, caprines, and fallow deer but indicate that gazelle is possibly, but "probably not," a proper animal for sacrifice; they were discussing Ugaritic ritual texts in this passage, but this agrees with the practices mentioned in the Hebrew Bible as gazelle was not a proper offering in Israelite altar ritual as well. All animals capable of being aged according to epiphyseal fusion in the et-Tell stepped high place area were juveniles. This agrees with Wapnish and Hesse's (1991) findings that the cultic area at Tel Dan had a greater abundance of young animals and more slaughter refuse.

The plethora of bone material and diversity of species found at et-Tell makes it a good example of the utilization of domestic fauna at an Iron Age site.

# Chapter 3
# The Early Hellenistic Period

## ***History of Palestine during the Early Hellenistic Period***

According to Davies and Finkelstein (1984) the last decades of the Persian Empire ended in complications of war for the peoples of Palestine, leaving the land ripe for attack from Alexander's army (336-323 BCE). Palestine had been designated as part of the fifth Persian satrapy, or province, in the reorganization of the Empire under Darius I (522-486 BCE). It is stated in the Hebrew Bible (2 Kings 15:29) and other sources that Tiglath-pileser III (745-727 BCE) resettled the people of Galilee to Assyria. Freyne (1980) assumes the first phase of this take-over was largely administrative, with only the upper levels of society being taken captive. In a second siege, the territory was organized as a separate province and the people were not only deported, but there was a repopulating of the area with new peoples. This repopulation occurred once again in 716 BCE by Sargon II.

Alexander began his offensive into Persia in the spring of 334 BCE. After taking Asia Minor, Alexander and his army advanced into Syria. Here he inflicted a decisive defeat against Darius (336-331 BCE). He resumed his assault on Tyre, fighting a battle that lasted seven months before the city was finally taken. After Alexander leveled the city, he advanced into Palestine. The governor of Gaza resisted but after a two-month

siege, Alexander captured this city as well. After Alexander's death in 323 BCE there was a period of prolonged and violent warfare among his generals, because he had left no legal heirs to take the reins of power. His kingdom passed to his opponents, with Palestine coming under the rule of the Ptolemies (ca. 312 BCE); Seleucus (ca. 312/311 BCE) taking control of Syria and Babylon, and Lysimachus (ca. 315 BCE) procuring the western part of Asia Minor. The Ptolemies ruled Palestine for a hundred years, a period of relative political peace.

In 219 BCE the Seleucid ruler, Antiochus III, invaded Palestine from Syria, marching into Upper Galilee by way of the Phoenician coast. Ptolemy IV Philopator (221-203 BCE) defeated Antiochus in a battle in the south of the country in 217 BCE, taking control of the area once again in the name of the Ptolemies. When Ptolemy IV Philopator died in 201 BCE, Antiochus took advantage of the resulting power vacuum and invaded the area again in 201 BCE, but was defeated in 200 BCE by the Ptolemaic general, Scopus. Scopus, however, was routed in an encounter with Antiochus in the northern part of the country near Panion. The house of Antiochus ruled until 164 BCE when the rebellion of the Maccabees forced the Seleucid kings to abandon the country entirely.

Davies and Finkelstein (1984) propose that it is almost certain that the Jews living in the land would have requested from Alexander the right to "live according to the laws of their fathers," as they had during the reign of the Persian kings. There is no clear evidence that the population inhabiting the site at et-Tell was completely Jewish. Meyers (1992) discusses this problem by stating that it is difficult to distinguish any indigenous culture at this point, since Hellenism adopted many of the elements of the local culture to

which it was united. He states (Meyers 1992:87) further that "some geographical areas remained relatively immune or isolated from the major characteristics of Hellenism… namely, the upper Galilee or Tetracomia and the Golan, also known as Gaulanitis." From earlier years the Golan was used largely for agricultural purposes. During this period the Golan was an independent administrative unit holding the rank of toparchy, or basic unit of administration. According to Davies and Finkelstein, (1984) it was probably during the time of Antigonus (ca. 306 BCE) that Palestine was divided into several toparchies. The first unit of division was the 'hyparchy' forming a political-tribal entity. This unit was subdivided into "toparchies," the basic units of administration and taxation. The chief town of a toparchy was called a city, or *polis*. It is also around this time that the origin of Hellenized city names is first seen. Administrative units can be recognized by the ending "-itis," such as Gaulanitis (Jones 1931). Hyparchies acquired an "–ia" ending, such as Ioudaia, i.e., Judea. These terms were used up until the time of Herod (ca. 37 BCE). It is possible that it was at this time et-Tell became known as "Bethsaida". Tcherikover (1979) points out that a "city" in this usage is not a city in today's sense of the term, but a petty state. The *polis* was an independent urban community with a council appointed by the people, made up of merchants, craftsmen, landowners and working farmers with most of the lands surrounding it being the private property of its members. Nearly every Hellenistic town was in the same area as an ancient oriental urban center. The town did not end at the city gates, but extended over the entire surrounding area, so that its borders touched that of the next city. Tcherikover (1979) asserts that the majority of the citizens were engaged in agriculture and commerce.

## ***Et-Tell during the Early Hellenistic Period***

The Early Hellenistic Period of et-Tell/Bethsaida is evident in Stratum 2, which includes all the materials from the Hellenistic and Roman Periods, dating from the fourth century BCE to the second century CE. It is composed of four layers of construction and reuse of previous structures found exposed on the site. The practice of using stable walls for building material in later periods was widespread throughout the different occupation strata of the site (Arav 2000). The thick basalt walls of the earlier Iron Age were restructured to form the Hellenistic and Roman structures. Arav states that the Early Hellenistic settlement appears to have been downsized from the large, monarchical city of the Iron Age to a large village, organized by large courtyard houses positioned side by side, connected by large alleyways or sizeable openings. It is important to note, however, that this "downsizing" occurred after an extended period of rather sparse habitation of the site.

In the early days of the project a number of Hellenistic artifacts were found. At the present stage of excavation, three major structures belonging to the Hellenistic period have been uncovered. However, upon discovery of the Iron Age city gate complex in 1996 most work became concentrated in that area, leaving most of the Hellenistic Period for later excavation.

During the 1995-1998 seasons there were two main areas concentrated on for excavation; Area A (consisting of Squares G, H, I, J, K, L, M 51-54) and Area B North (consisting of Squares G, H, I 34-37). One square in Area B South was also excavated (I 42, consisting of one locus). Altogether, 17 squares comprising 41 loci were excavated.

### *Area A*

The upper stratum consists of a few fragile walls built within or atop a large fieldstone paved area. In squares H-I 53-52 this stratum superimposes an earlier wall built here implying that the earlier structure was no longer utilized in this period. The walls here are inconsistent in their construction. Some were built on a line of heavy boulders whilst others were built using small fieldstones in two faces. A small number of coins and pottery dating to the second half of the second and third century CE have been found in this section. Building activities in this area and period were confined to rebuilding and small alterations of the Iron Age structures. Superimposed on and built into the Iron Age city wall in Squares I-K 59-60 is a one room house. No animal remains were found in the latter squares. Arav concludes that this portion of this stratum, with its one-face walls and unidentified structures, is extremely modest and poor (Arav 1999:25).

#### *Area A Early Hellenistic Fauna*

Area A Early Hellenistic loci with animal remains are in squares G-M 51-54 and contain 115 identifiable animal bones in eight squares from 27 different loci (Table 19 and Figure 18). The same range of species was found here as was found in the Iron Age assemblage: sheep, goat, cattle, equid, pig, gazelle, fallow deer and fish. Relatively more caprine elements were found from this period, representing 49% of all specimens found in Area A. Cattle were next with 37%, followed by 2% equid, 3% pig, 3% gazelle, 4% fallow deer and 3% catfish. The ratio of caprines to cattle is 1.33:1; the ratio of sheep to goats is 0.75:1. The wild game constitute 10% of the whole assemblage. Epiphyseal fusion indicates that 23 juvenile and 34 adult animals were slaughtered. Eighteen elements

showed modification, including twelve scorched, four that were charred and one that displayed cut marks; these marks were found on cattle, caprines, gazelle, equid and fish remains.

*Caprines*:

Caprine bones were most plentiful in these loci, with more goat than sheep and a sheep-to-goat ratio of 0.75:1. All body parts are represented about equally (Table 16), suggesting on-site butchering. Of these, eight showed marks of modification with six scorched, and two charred. Epiphyseal fusion indicates three juveniles and four adults. Only one tooth was discovered in this area, an $M_3$ from a juvenile animal.

*Cattle*:

Forty-two cattle elements were recorded, with most of these coming from the cranium (16) and foot (21), i.e., 88% offal. No axials are exhibited and only two forelimb and three hind limb elements were found (Table 18). Scorch and charred marks were present on elements from each group. Of these, one pelvic bone is from a juvenile and five phalanges are adult bones. Five teeth were found in the collection from these squares; TWS data appear in Table 20. This combination of ages of slaughter looks as though the animals were being used primarily for agricultural purposes. The younger animals were used for meat, whilst the older animals were maintained and kept as draughting animals until they were too old to be useful. They, too, would then have been killed and butchered.

*Pigs*:

Three pig elements were uncovered in Area A. All three were identified as phalange 1. One phalange had a cut mark; one was from a juvenile and one was from an adult.

*Equid*:

The squares yielded two equid elements; both were teeth. One was scorched, the other unmodified. The condition of the elements made it impossible to age them or determine the species.

*Wild Game*:

The Area A section contained 10% wild game with 3% gazelle, 4% fallow deer and 3% catfish. No evidence of burns was apparent, but a cut mark was found on one of the gazelle remains. One fallow deer bone was from a juvenile.

### *Area B North*

The 1994-1995 excavation seasons discovered multiple Hellenistic structures on the site. As indicated above, the seasons before 1995 did not screen all excavated dirt, whereas in 1995 all material was; therefore, none of the faunal remains from 1994 was analyzed for this report and few from 1995 were incorporated, as they were being used by another investigator and not available. The squares from G-I 34-36 are part of the corpus investigated in this report. No buildings are associated with these squares.

*Area B North Early Hellenistic Fauna*

This area included eight squares made up of 13 loci, which contained 204 bones (Table 19 and Figure 19). Cattle bones dominated remains from this area, representing 46% of the material. Caprines are second with 35%, equid has a 5% representation, and pig 3%. Wild game comprised 11% of this group with 5% gazelle, 1% fallow deer and 5% catfish. The caprine-to-cattle ratio is 0.77:1; the sheep-to-goat is 0.36:1. Modification includes 11% scorched, 6% charred and cut marks on 2% of the material. Fusion data for all animals in this assemblage indicate 13 were juvenile animals and 17 were adults.

*Caprines*:

There were 72 caprine bones in the material altogether, with 14 goat, 5 sheep and 53 identified to family only. Most of these elements were cranial bones. The sheep-to-goat ratio is 0.36:1. All body parts are represented with the highest number of specimens made up of cranial elements and foot elements showing the second largest number (Table 17), i.e., 81% offal. Most of the cranial parts consisted of single teeth. Modifications to the caprine material include four scorched bones, five charred and two with chop marks.

*Cattle*:

The number of cattle found in this area is striking. The ratio of caprines to cattle in this area is 0.77:1. Hesse (1995a:214) states:

> The abundance of cattle remains has been cited as an indirect indication in the significance of intensive agriculture, since this usually involves the breaking up of fields with plows.

All body parts are represented with a large quantity of cranial and foot parts, 88% of the total cattle assemblage for these loci (Table 18). This collection includes twelve scorched bones, three charred and two with cut marks. Epiphyseal fusion was noted on nine phalanges, with one at the juvenile stage and eight at the adult stage. However, the tooth wear chart shows roughly the same number of juveniles as adults (Table 21).

The number of adult animals found would indicate that the inhabitants were using cattle for agricultural purposes until the animals were too old to be of use for that purpose. The animals were then slaughtered and consumed. The number of young animals in the collection suggests slaughter and consumption at the age when the meat is more tender as well.

*Pigs*:

Area B North had six pig bones: four cranial parts and two astragali. No modifications or epiphyseal fusion was noted.

*Equids*:

Ten equid remains were found in this area. These included seven broken teeth, one mandible, a patella and a femur. None of the elements showed signs of modification.

*Wild Game*:

Wild game made up 11% of the faunal material in the Early Hellenistic Period of Area B North with ten gazelle bones, ten fish and two fallow deer. Epiphyseal fusion on the

gazelle bones showed three juveniles and three adults. Modification occurred on six bones: four scorched and two charred; no cut marks were observed.

### *Area B South*

In 1995 the Iron Age *bit hilani* had been discovered in Area B South. The following season Area B South was excavated in hopes of finding a continuation of this palace. Only one Early Hellenistic locus was excavated, in square I 42, which uncovered nine cattle bones and two gazelle bones. The cattle elements consisted of one cranial piece, one forelimb, one hind limb and six foot bones; two phalanges were identifiable as those of an adult. Both gazelle bones were foot elements from juvenile animals. The assemblage from this locus contained one scorched bone, three charred and two with cut marks; both of the latter were on gazelle bones. The assemblage for Area B South is too small for drawing solid conclusions regarding animal utilization within this single locus; these materials, however, are included in the analysis of Early Hellenistic animal usage as a whole.

### *Early Hellenistic Fauna at et-Tell / Bethsaida*

By using Hesse's criteria (1995), the faunal evidence from the Early Hellenistic portion of Stratum 2 at et-Tell/Bethsaida points toward an intensive practice of agriculture in that cattle remains make up 44% of the total assemblage. Rosen (1986) also suggests that an assemblage with more than 20 percent cattle is strong evidence of intensive agriculture.

Although Higham et al. (1981) note phalanx damage in cattle used for traction, the et-Tell cattle phalanx show no signs of deterioration.

Zeder's study (1988) of Tal-e Malyan in Iran, a site with a high percentage of cattle remains, indicates that younger animals were utilized as a primary source of meat consumption by the elite. In the later periods (Zeder 1988:40) more cattle were necessary to meet the requirements of the expanded agricultural production in the valley. These requirements, in turn, necessitated an increase in the size of the pool of cattle available for consumption. This group of animals consisted of an emphasis on four year olds. The et-Tell/Bethsaida collection corresponds to this model (Table 22).

The sheep-to-goat ratio for the entire Early Hellenistic assemblage is 0.57:1; Area B North had an even higher proportion of goats, with a 0.36:1 ratio. Using epiphyseal fusion, the number of juvenile goat elements numbered three juveniles and two adult animals in Area A, and one juvenile, one adult in Area B North. Fusion on the sheep cluster revealed one juvenile animal in Area A and two adult animals in Area B North. Zeder (1986:40) states of the Kaftari assemblage:

> This lack of distinction between age selection of Kaftari sheep and goat bolsters the contention that Kaftari Malyan meat supplies were derived from local caprid flocks exploited for a generalized range of resources including meat, wool and hair.

Redding's (1981) model of Near Eastern herd management systems predicts that intensively cultivated areas will favor a high proportion of cattle and goats with a relatively reduced number of sheep, because goats and cattle don't compete for the same resources, whereas sheep and cattle do. He also suggests cattle are more efficient milk producers than caprines. Et-Tell/Bethsaida's sheep-to-goat ratio in the Early Hellenistic

Period is 0.57:1, with Area B North's ratio even more skewed toward goats with a ratio of 0.36:1, thus fitting Redding's criterion of intense cultivation.

Zeder (1988) discusses the significance of goats in preference to sheep in nomadic flock herding. She purports that a high proportion of goats shows the nomadic interest in promoting herd security. In reliance upon Redding (1981:86-87), she states that the higher proportion of goat is practical since goats reproduce more quickly than sheep. This is a more appealing scenario to pastoralists involved in regular and significant trade with a settled population. According to this theory, the herder determines species selection as a goal, as opposed to the influence of the consumers' preferences.

Both the prominence of cattle and the greater number of goats than sheep combine to strongly indicate that et-Tell /Bethsaida was a predominantly agricultural community in the Early Hellenistic Period (Table 19). The equids (4% of the assemblage) would have contributed to agricultural productiveness, as this animal is known for its draughting power.

Another use of both cattle and equids for draughting power during this period would have been for the reconstruction of the community after many years of light habitation, although on a smaller scale than its Iron Age urban glory. The large size of the houses excavated in Areas B and C indicates the presence of a high level of prosperity.

During excavation of Area A, a large number of cooking pots, casseroles and an oven were found. It was hypothesized at the time that the section excavated was part of a kitchen area, although no complete structure was located. A number of Iturean (Golan ware) pottery pieces were also found here. This probably is more an indication of trade

than of residents; a significant move of Itureans into the region did not occur until the Late Hellenistic Period, in the late second century BCE.

The three Early Hellenistic areas examined in this study exhibit a change in animal usage from the south end of the tel (Area A) to the north (Area B North). At the south, toward Lake Kinneret, caprines outnumber cattle (1.33:1), and the sheep-to-goat ratio is 0.75:1, exhibiting a much more even balance between sheep and goats. Although the proportion of cattle is relatively high, it pales by comparison to the 0.77:1 caprine-to-cattle ratio at the north, and the north's 0.36:1 sheep-to-goat ratio radically differs. Substantially different lifeways appear to be expressed in these two portions of the tel. The rather sparse assemblage from Area B South, from in between these other areas, supports the pattern of Area B North with no domestic caprine elements found in this one square. The assemblage consisted only of nine cattle bones and two gazelle bones,

Yet another difference between Areas A and B North is evidenced. The percentage of cattle offal (cranial and foot elements) is immensely high, and identical in both areas (88%), indicating that cattle were being slaughtered on-site for both. The slaughter ages for cattle in both areas are predominantly adult animals, suggesting harvest after they were no longer productive in their draughting ability. However, the percentage of caprine offal is decidedly different: 46% in Area A and 81% in Area B North, indicating that the people who occupied Area A obtained caprines in the form of butchered meat from elsewhere, rather than primarily producing and slaughtering the animals themselves, whereas the people in Area B North performed its own caprine slaughtering. Furthermore, the caprine of consumption choice for Area A residents is sheep. This is why the proportion of sheep is higher in Area A than in the rest of the tel's

"normal" predominance of goats over sheep for an intense agricultural setting. Goats still outnumber sheep in Area A, but by a far slimmer margin than in Area B North. Area A residents gain by purchasing sheep, rather than raising them themselves, thus avoiding competition for resources with their own cattle.

Where were Area A residents getting their sheep? Sheep pastoralists may certainly be part of the picture. However, in that situation they would be going through a procurement site or market rather than direct channel procurement from pastoralist producers. This is suggested because of the relatively low amount of caprine offal. A more at-hand source, however, would be Area B North. This would help explain the high amount of caprine offal in Area B North and the scarcity of meaty portions of sheep in that area. Area B North's excessive amount of caprine offal contains an especially high number of cranial parts (primarily teeth), which are hard to distinguish between sheep and goat. This category may well contain evidence of the sheep that the producers in Area B North slaughter, butcher and sell to Area A residents.

A final element to note in the distinction between Areas A and B North is their differing levels of wealth. The structures in Area A from the Early Hellenistic Period are described by Arav (1999:25) as "remarkably humble and poor," whereas Area B North and C contains villa-type houses. The producers (i.e., Area B North) control the resources, and reap the monetary benefits. Sufficient material evidence does not exist to identify whether these two areas of et-Tell were inhabited by different ethnic groups, but class differences certainly are present.

## ***Et-Tell in Comparison to Other Early Hellenistic Sites***

Tel Anafa is a site located in the Upper Galilee in northern Israel. The Hellenistic phases of this site have been divided into HELL 1, HELL 2A and HELL 2C. Tel Anafa's caprine-to-cattle ratio shifts increasingly in favor of cattle in each of this phases, from 1.2:1 in HELL 1, to 1.1:1 in HELL 2A, to 0.9:1 in HELL 2C. HELL 2C cattle bones outnumber those of caprines. Redding (1994) states that this baseline model of Tel Anafa during these phases reflects a site dedicated to intensive agriculture. This was concluded by analyzing the sheep-to-goat ratio and the age profile.

Redding (1994) also discusses the ratios of caprines to cattle found at Tel Dan in the Early Bronze and Iron Age deposits. These deposits showed ratios of 1.75:1 in the Late Bronze Age (1550-1200 BCE), 1.40:1 in the ninth-seventh centuries and 1.12:1 in the seventh century (Wapnish and Hesse 1991:77). This latter ratio is most like the Early Hellenistic et-Tell/Bethsaida ratio of 0.88:1.

The et-Tell/Bethsaida cattle material indicates that more adult than juvenile animals were slaughtered, with twenty adults to six juveniles. This corresponds to Redding's hypothesis (1995) that in an agricultural context more adults would be slaughtered after they reached an age where they were no longer capable of being used for service. The juveniles butchered and consumed would be sick newborns and 24-36 month old excess males not needed to maintain herds. At et-Tell, gender could not be determined.

The sheep-to-goat ratio found at Tel Anafa for the HELL 1 Period is 5:1; in the HELL 2A phase it is 7:1. Redding declares that this is a much larger ratio than found at most of the other sites in this area, and attributes this to large importations of sheep,

either from nomads or from nearby villages/towns. He argues that the sheep-to-goat ratio should be 2:1 or less as agriculture becomes the more dominate subsistence or the environment becomes increasingly hot and arid (Redding 1984:234). He demonstrates this by referring to the sheep-to-goat ratio found in Hesban's Late Hellenistic Period and Tel Dan's Iron Age material, where the sheep-to-goat ratios are 1.8:1 and 1.7:1, respectively – the model for moderate involvement in agriculture.

The et-Tell/Bethsaida sheep-to-goat ratio in this phase is 0.57:1. This suggests that goats are being utilized as supplemental dietary functions in a highly intensive agricultural community around the site (Redding 1994:286), as lower numbers of sheep became less competitive to cattle for fodder.

Survival rates of sheep/goats at et-Tell/Bethsaida show that 61% survived to two years of age and 21% survived to 48 months. The et-Tell caprine teeth are compared to Payne's utilization model based on kill-off patterns in Figure 20. Following Payne's model, this would indicate that the et-Tell caprines were used for wool purposes. This would stand to reason if sheep outnumbered goat in the body part representation as sheep are utilized for their wool by-products. Borowski (1998) discusses the ancient use of goat hair for rope making and its modern utilization for making tents and sacks for transport. He states (Borowski 1998:63) that it is possible this was true in ancient times as well. This would support Payne's model of wool production in this time.

The Tel Anafa caprines in HELL 1-2A show a survival rate of 60% of animals living to an age of 16 months. The non-meat-bearing bone to meat-bearing bone ratio of sheep/goat at Bethsaida is 2.8:1. This pattern is also seen at Tel Anafa. Redding (1994)

states that a ratio of 2:1 can be considered as a pattern for the complete animal entering the site.

The small number of pigs found in the HELL 1 phase of Tel Anafa indicates that this animal was relatively unimportant at the site and probably hunted but not kept. Et-Tell/ Bethsaida had nine elements, or 3% of the Early Hellenistic faunal assemblage. It appears that pigs contributed more to the diet of the Early Hellenistic et-Tell/Bethsaidans than to the residents of Tel Anafa during this period. However, because of the low number of elements and the theory that the site was practicing intensive agriculture, the pig assemblage found probably derives from wild pig being hunted in and around the area.

Gazelle and red deer both contribute to the diet of Hellenistic Tel Anafa, but only in very small amount. In HELL 1, only eight deer were found. In HELL 2A, three deer and two gazelle are in the Tel Anafa collection. Redding (1994) suggests this is a possible indication of agricultural production around the site. The et-Tell/Bethsaida assemblage contains seven fallow deer bones and fifteen gazelle elements, indicating that hunting was still a large part of the subsistence strategy in this area of lush woodlands and natural spring waters.

Equids are represented in Tel Anafa by two specimens, both *Equus sp*. Et-Tell/Bethsaida has twelve specimens from this period, indicating reliance on the animals for draughting power.

Fish accounted for a small percentage of the Hellenistic compilation of Tel Anafa with only six bones representing both identified and non identifiable species. Et-

Tell/Bethsaida's catfish represents 4% of the total faunal material indicating fishing tendencies at the site, a predilection expected from a site so close to a water source.

The ratios of caprines to cattle in the Hellenistic strata of Tel Michal (Hellwing and Feig 1989) were 2.27:1. The percentage of cattle in this period came to 28% of all animals found. Of these, 137 animals were adult and only five were juveniles. The authors state that herding of cattle decreased in importance from the Persian Period to the Hellenistic Period at this site.

Caprines represented 62% of the material found in the Hellenistic Period at Tel Michal, with a large disparity of adult to juveniles; 320 to 7, with a large number of these elements being mandibular. Of the anterior skeletal pieces, most derive from the forelegs, denoting the possible preference of the inhabitants for the forefront of the body. No pig or gazelle remains were found in the Hellenistic Period of Tel Michal, whilst only one fallow deer bone and five fish elements were identified. This would suggest that hunting and fishing activities were not pursued vigorously by the residents.

The et-Tell/Bethsaida material contains all body parts of caprines, indicating that the entire animal was being brought to the site for slaughter. Redding (1994) suggests that using the ratio of metapodials to radii can also reflect information on how sheep/goats were being used on site. The expected number of metapodials to radii is 2:1 if animals were being slaughtered locally. The et-Tell/Bethsaida ratio is 2.25:1, thus relatively consistent with the ratio of low bearing meat to meat bones found (2.8:1), which suggests local butchering practices.

Both the age profile of cattle and the sheep-to-goat ratio suggest the residents of et-Tell/Bethsaida were involved in intensive agriculture. Similar activities are indicated

for the HELL 1-2A phase at Tel Anafa and the Late Bronze and Iron Age Period at Tel Dan. The inhabitants emerge as a population engaged in intensive agriculture using cattle and equids for draughting. Cattle were consumed after their time of service came to an end. Both cattle and caprines were butchered on-site in Area B North, but only cattle were butchered on-site in Area A; Area A received its caprine meat from elsewhere.

# Chapter 4
# The Late Hellenistic/Early Roman Period

## ***History of Palestine during the Late Hellenistic/Early Roman Period***

In the second century BCE the Seleucid regime responded to several revolts by its subjects. This led to a weakness in the regime, as its military resources were spread thin. Ambitious strong men attempted to expand their own regional power by playing the Seleucid contender against the escalation of Roman influence taking place in the eastern Mediterranean. For example, the rulers of Philadelphia, Zeno Cotylas and his son Theodorus (134 BCE), along with Nabatean power, took control of the cities in the Decapolis, whilst to the north, the Itureans were extending their control over much of Galilee and into the east to Gaulanitis, Auranitis and Batanea.

Another of these revolts against the Seleucids occurred in Judea, led by Judah the Maccabee and by his brothers, Jonathan and Simon, who were formerly local officers in the Seleucid Imperial administration. As a result of the Maccabean revolt, this family (the Hasmoneans) was able to consolidate political-economic-religious power in Judea. The Hasmoneans gained independence from Seleucid control in 142 BCE, and then extended their rule over most of Palestine. Davies and Finkelstein (1984) posit that the principal motive for the Hasmonean plan of expansion may have been to establish rule to the rest of the country in the same manner as their prototypical king, David. John

Hyrcanus (134-104 BCE) started a major war of conquest against the remaining Seleucids after 129 BCE. He took control of Shechem, destroying the city of Samaria, marched into Scythopolis, destroying Mt. Carmel, and extended his control in central Palestine up to the frontier of Galilee. Hyrcanus' son, Aristobulos (104-103 BCE), extended the rule into Galilee in 104 BCE by defeating the Itureans. Finally, Alexander Janneus (103-76 BCE) subjected nearby Hellenistic cities until Hasmonean territory was practically the same as that under Solomon's rule centuries earlier. Presumably et-Tell/Bethsaida came under Hasmonean (and thus Jewish) control in this period.

The Roman Period in Palestine began in 63 BCE when the Roman General, Pompey, gained control of the region for Rome. After besieging the Temple in Jerusalem, he moved into the Decapolis (a generic name for a loose confederation of ten cities and their territories, mostly east of the Jordan River), and restored the cities back to the original inhabitants. This ushered in Roman domination through client-rulers. The Romans had two ways of ruling its occupied lands. If the conquered people were adequately "civilized," i.e., organized into self-governing Greek cities that controlled the countryside, the Romans simply annexed the territory as a province. If the area consisted of small villages and towns or temple-communities with its own dynasty, temple-state or king, Rome ruled the area indirectly by appointing client-rulers.

The first of these client-rulers was Herod the Great. During his reign (37-4 BCE), massive building projects took place over much of the area he ruled. When Herod died in 4 BCE, his kingdom was divided among his sons: Archelaus (reigned 4 BCE-6 CE) ruled Judea and Samaria, Antipas (reigned 4 BCE-39 CE) ruled Galilee and the Jewish area east of the Jordan River called Perea, and Philip (reigned 4 BCE-34 CE) received the area

east of the Kinneret, i.e., Gaulanitis and Batanea, with the Jordan River as the dividing line between his territory and that of Antipas. In 6 CE Archaelus was deposed for incompetence. His territory then came under direct Roman rule through a prefect. Herod's sons continued their father's building schemes: Antipas rebuilt and fortified Sepphoris and built Tiberias in the Galilee whilst Philip renovated Panias, renaming it Caesarea after Caesar Augustus. Philip also promoted the village of Bethsaida to the status of a *polis*, and renamed it Julias (Josephus, *Ant*. 18:27-28), after the wife of Augustus and mother of the next Roman emperor, Tiberius. Galilee and Perea came under direct Roman control in 44 CE. Other regions east of Lake Kinneret were controlled by a Jewish ruler up to the 90's CE after Agrippa II died (reigned 37-44 CE).

## ***Et-Tell during the Late Hellenistic/Early Roman Period***

The mound of et-Tell/Bethsaida lay in the North Transjordan region known at this time as Gaulanitis but was called Trachonitis in pre-Hellenistic times. Philo uses the term "Trachonitis" to refer to the entire realm that Herod Philip ruled over, but Josephus and other ancient authors do not use this term. Trachonitis had been an administrative area with the rank of hyparchy. According to Josephus (*Vita 9)*, the northernmost boundary lay 25 miles south of Damascus, and included the base of Mt. Hermon to the Northwest, Gaulanitis in the West, and Batanea and Auranitis in the South. The area east of the Kinneret was ruled by Zenodorus about 30 BCE following the settlement by Octavian. In ca. 23 BCE Herod added this region to the territory he controlled, and as expressed by Jones (1931), forced the people *against their natural instincts*, to practice agriculture.

Herod eventually settled a colony of law-abiding and industrious, but military, Jews and 3,000 Idumeans in the area (Jones, 1931).

Meyers (1979) refers to Gaulanitis as the area adjacent to Upper Galilee, with its northern border the city territory of Caesarea Philipi (Panias) and its southern border reaching to Hippos-Susitha in the Decapolis. He further adds that 'by sheer topography, Gaulanitis was strongly tied to northern and northeastern Galilee' (Meyers 1979:694).

A group of people, possibly of Aramean descent, known as the Ituraeans, inhabited North Transjordan and migrated into Trachonitis in the late second century BCE. Jones (1931) contends that this group's territory extended almost to Lake Kinneret and east of the upper Jordan River. In 104/103 BCE the Hasmonean Aristobulos conquered the area in Galilee and Transjordan and attempted to forcefully convert those conquered to Judaism. The Ituraeans, however, kept the area of Lake Huleh and Panias in the north of the country. Jones (1931:269), in reliance upon Josephus and Strabo, describes the Ituraeans as a "wild and unruly folk, living in caves and subsisting partly on their flocks and herds, but mainly on robbery of the rich Damascene territory adjoining the caravans of merchants that passed their way". In 30 BCE Octavian/Augustus gave the southern part of the Ituraean realm to Zenodorus. The area included the Huleh area, Panias and Trachonitis. Trachonitis was transferred to Herod later because Zenodorus failed to pacify groups of Bedouin. By the end of Herod's reign the tribal organization was breaking down and most of this group of people was settled in villages. The rest of the Ituraean principality, including Batanea, Trachonitis and Auranitis, later also came under the control of Agrippa II (48-100 CE). Under Diocletian (284-305 CE), Trachonitis and Auranitis were annexed to Syria.

Meyers speaks to the question of whether there was a Jewish faction in the region in his 1979 report on regionalism and early Judaism. He suggests that the Upper Galilee (or northern and northeastern Galilee) functioned as a sort of refuge area to the Jews from the beginning of its settlement. Oppenheimer (1977:216) discusses the evidence of a Jewish population that observed and studied the Torah in 'the main cities in Galilee, and to both Lower and Upper Galilee'. With these observations and the strong ties between Galilee and Gaulanitis, it is logical to assume that the inhabitants of et-Tell, now called Bethsaida or Bethsaida-Julias, included Jews, and perhaps Ituraeans, among others.

According to Arav (1999) the Late Hellenistic/Early Roman Period (fourth century BCE-second century CE) is included in Stratum 2 at et-Tell. It consists of more than one layer of structures that includes the Hellenistic and Roman activities of construction. Most of these construction endeavors reused the remains of the previous strata that were still standing. This recycling of earlier material to build new structures is seen throughout the area, especially in areas where large basalt stones were the main building materials. This is seen at Bethsaida in the utilization of the remains of the Iron Age city wall from the area of the city gate. These walls were reorganized to form the Hellenistic and Roman stratum. The assemblage of the faunal remains from the Late Hellenistic / Early Roman substratum is organized according to two major distinctions: the Roman temple and the remainder of level.

### *Roman Temple*

What is thought to be a Roman temple has been excavated in Area A, squares G51-52, H51-53, I52-53 , J52-53 and K52-53. It is a 6 x 20m rectangular structure with narrow

walls facing east-west. Unfortunately, the structure has been intruded upon by a modern Syrian military trench that destroyed part of it. The structure consists of Walls 62, 69 and 64, with an average thickness of 1.2m, thicker than most of the private buildings found onsite at this stratum. Portions of the walls were constructed with large stones and fieldstones. Wall 64 exhibited fine masonry work. The southern face of Wall 62 is missing in part, a possible result of looting. One section inclines forward as if damaged by an earthquake. A porch feature is formed by the southern Wall 64 and Wall 62, although the latter extends farther than the former. Remnants of a 48 cm diameter column were found in the center of the porch. This suggests a room with two adjacent columns, a style known in the first century CE described as a distyle temple.

A single dressed stone was found *in situ* indicating a threshold that may have served for one of the side doors into the temple area. This area was partially destroyed by the Syrian trench, leaving only a few stone remnants of the wall. The main room of the structure is a 9.1 x 3.85m rectangular area that was completely empty when excavated. Remains of an entrance threshold were found to the rear side porch at the west.

Arav (1999) hypothesizes that this structure was a temple in that the general ground plan, stone decorations and small finds in the area suggest a building that is more elaborate than a private home. Although it is located on a hill overlooking the entire city below, this structure was not constructed upon a podium as other temples of this period usually were. Arav attributes the difference to the massive Iron Age gate debris underneath, that affected construction. He points out that similar aspects seen in other temples in the area are found here, including an east-west orientation, rectangular structure, a porch situated in *antae* in both east and west ends, column remains, a room

that can be interpreted as a *pronaos*, another room that can be inferred as a *cella*, and a porch that can be construed as the *adyton* – all consistent with a Roman temple building style. An incense shovel, an indication of a sanctuary nearby, was uncovered in a pit approximately 10m from the temple, and in the same vicinity a small figurine (interpreted as possibly depicting Julia-Livia) was found. These artifacts, along with other female figurines, suggest ritual activity related to the Roman Imperial Cult.

## *The Roman Temple Fauna*

The faunal material from the Temple area was recovered from 18 squares consisting of 35 loci. These loci yielded 621 animal bones of which cattle represented 40%, caprine 42%, pig 3%, equid 5%, catfish 2% and 4% each gazelle and deer (Table 24 and Figure 21). The last three categories are wild game remains that constitute 10% of the finds. The caprine-to-cattle ratio is almost equal, 1.03:1. The sheep-to-goat ratio is 0.45:1. There are 24 right elements and 26 lefts for cattle.

### *Caprines*:

The assemblage includes 258 caprine bones. Of these, 35 were sheep, 78 were identified as goat and 145 were indistinguishable between sheep or goat. The body part representation is presented in Table 24 and Figure 25. The sheep-to-goat ratio is 0.45:1. Based on epiphyseal fusion, 27 animals were slaughtered at a young age, none at the young adult stage and 25 during adulthood. Eighteen teeth show wear of up to one and a half years, seven show wear from one and a half to three years, and seven show wear from four or more years. This mixed evidence indicates that animals were slaughtered in

the temple at all stages of life. There were 58 elements from the right side and 55 from the left side. Modifications include nine scorched, six charred, two with cut marks, one charred with a cut mark and one bone calcined.

*Cattle*:

Cattle are represented by 251 elements or 40% of the assemblage. Tooth wear found in this assemblage (Table 29) shows a preponderance of older animals, which agrees with the epiphyseal fusion data (Table 30) which shows two juvenile, one young adult and fourteen adults.

Body part indices show an emphasis on foot bones, with cranial elements being the second most prevalent finds; offal thus comprises 84% of the assemblage; post-cranial elements equal 69% (Table 24 and Figure 26). Modifications on bones included thirteen scorched, eleven charred with cut marks and one chop marked.

*Pigs*:

Twenty pig elements, or 3% of the temple assemblage. Three of those were from juvenile animals, whilst two displayed adult fusion features. Three pig bones were scorched, and two were charred.

*Equids*:

The Temple area included quite a large number of equid bones, compared to other sections and periods of et-Tell – 29 bones, or 5% of the assemblage. Four were scorched,

two charred and one had cut marks. Only one element displayed fusion that indicated an adult animal.

*Wild Game*:

Wild game made up 10% (63 elements) of the temple faunal assemblage. Of these, 24 were gazelle bones, 24 were from deer and 15 were catfish elements. Six of these were scorched, five were charred and one showed cut marks.

### *Non-Temple Late Hellenistic / Early Roman Sections*

Faunal materials from three other sections of Late Hellenistic / Early Roman Bethsaida, apart from the Temple, are included in this study. These materials were initially examined separately, in an attempt to see if different patterns of animal utilization might occurr in these particular sections. These results, however, show more similarities than differences among these sections (Compare Figures 23 and 24). Aspects of the combined faunal assemblage from these non-temple areas, in turn, differ substantially from those of the Roman temple. Therefore, after briefly describing these three sections and the faunal material therein, the combined results will be presented.

#### *Area A (non-temple)*

Squares F,G,I,J,K,L,M,N54, M,N 55, L 56,57,58 and M57 were excavated during the 1995-1998 seasons. Many of the squares, which are largely south of the Roman temple, were excavated with hopes of uncovering more temple structures. However, temple material did not extend to this area. In response to this finding, squares L56-58 and M57

were excavated after the Iron Age City Gate had been exposed, initially through 1 x 1m probes in search of further gate material. A Late Hellenistic/Early Roman dwelling was found in squares K and L54. Arav (1999) postulates that the remnants belong to a structure that contained two rooms with a possible third room on the eastern slope. Remains of a leveled pavement lay west of this chamber. This suggests that in this location, a large portion of this stratum (Stratum 2) is missing. Square L57 contained wall fragments suggesting the position of another structure. These remains were so fragmentary that it is almost impossible to determine a ground plan. Arav (1999) proposes that the buildings were reminiscent of the terrace structures found at the nearby Late Hellenistic/Early Roman Jewish city of Gamla.

From the 28 loci in these squares, 199 animal bones were recovered s. Caprines represent 54% of the fauna, cattle 23%, pig and equid each made up 2%, deer with 4%, and gazelle and catfish each constituting 7% of the finds (Figure 23). The caprine-to-cattle ratio is 2.4:1; the sheep-to-goat ratio is 0.79:1. The age profile, based on bone fusion data indicates 17 juvenile and 13 adult animals. Twenty seven right elements and 27 left elements were recovered. Ten bones were scorched, eight charred, two showed cut marks, three were calcined, and four were scorched with cut marks.

*Caprines:*

Caprine elements (N = 107) represent 54% of the collection (Table 26). Of these, 83 are post-cranial bones. The sheep-to-goat ratio is 0.79:1. Epiphyseal fusion data indicate that 15 were from juveniles and six were from adults. TWS analysis indicates that five elements were from animals under one year old, three from one to three year olds, and

five from three to four and a half year olds. Thirty elements were from the left side, and twelve elements were from the right side. Two bones were scorched, one was calcined, one had cut marks and one exhibited both scorching and a cut mark.

The number of cranial bones for these animals was about half that of the foot parts found. Cranial and foot elements, i.e., offal, constitute 68% of the assemblage. Axials were the next most abundant and were mostly comprised of ribs. The number of forelimbs and hind limbs were equal.

*Cattle:*

Cattle were represented by 45 elements, or 23%. These included 34 postcranial- bones and 11 cranial fragments. Of these, two were from juvenile animals and seven were from adults. Only one partial mandibular tooth was found, whilst four maxilla teeth were recovered in this area. Eight elements came from the right side of the animal and seven from the left. Two bones were scorched, four were charred and one showed both scorching and cut marks.

*Pigs:*

Three foot bones and one forelimb bone from pigs were recovered. Neither age nor side could be determined, and no modifications were detected.

*Equids:*

Equids were also represented by four elements that represent 2% of the assemblage. All elements were tooth remains, consisting of one adult tooth and two right side premolars. One tooth was charred and one premolar was scorched.

*Wild Game:*

Twenty percent of the assemblage was made up of wild game. This included 13 gazelle bones, 8 deer bones and 18 catfish bones. Three gazelle elements came from adult animals, whilst one deer element belonged to a juvenile. The gazelle assemblage included five right side elements and one left side element. One bone was calcined, one had cut marks and one had both scorching and cut marks. The deer elements included one charred bone and one calcined bone. Almost all fragments from gazelle and deer come from the cranial and foot elements. Two fish remains were scorched, and one was charred.

*Area B, Squares G-I 40-45 (non-temple)*

The area consisted of five squares and four loci. Arav (personal communication) indicates that this area is a Late Hellenistic/Early Roman dwelling built on top of the Iron Age pavement. Only 14 faunal remains were found in these loci: six cattle elements, three caprine, two gazelle, one pig, one deer and one catfish. The cattle elements consisted of one cranial fragment and five foot bones; the caprine material contained one cranial piece and two axials; the gazelle remains included one forelimb and one foot; the pig bone was a foot bone, and deer was represented by a hind limb element. One cattle

bone showed signs of scorching, whilst one gazelle element displayed a cut mark. One cattle bone and a gazelle bone were from adult animals, whilst one goat bone and one pig bone were from juvenile animals. This assemblage, with only 14 bones, is too small to make any meaningful decisions about animal usage in these loci. These bones are, of course, included in the consideration of the entire Late Hellenistic / Early Roman assemblage.

*Area B, Squares F-I 34-38 (non-temple)*

A total of 179 bones were uncovered in Squares F-I 34-38. These artifacts came from eight squares and six loci. Caprines are represented with 114 elements. Cattle remains included 37 bones; gazelle with 17, equids with 7 bones, and the deer and catfish represented by 2 bones each (Figure 24). The caprine-to-cattle ratio in this section was 3.1:1. The sheep-to-goat ratio is 0.82:1. Wild game represents 12% of the total finds. No pig elements were found in this section.

*Caprines:*

Caprine bones represent 64% of the assemblage from this section – an extraordinarily high percentage (Table 27). The non-temple loci in Area A, however, also had a high percentage (54%) of caprines. The sheep-to-goat ratio is 0.82:1

The number of young goats slaughtered compared to young sheep is also unusual. Based on epiphyseal fusion data, there were eleven juvenile goat elements and only one juvenile sheep element; only one adult goat element and one adult sheep element were present in the assemblage. Domestic caprines indistinguishable by species are

represented by eight juvenile elements and eight adult elements. Unfortunately, although there were a fair number of teeth in the collection, they could only be sorted according to family, not to species. This suggests a bi-modal pattern with a large proportion of younger animals, a drop up to four years, then a large number of animals living to an older age. This indicates both meat use (represented by the young kill) and by-products use (exhibited by the older kill). The residents may have been raising both sheep and goats in this area for consumption and trade.

Side representation for goat includes 11 right bones and 15 left; for sheep, there are 9 right elements and 11 left. Scorching is present on one goat and one sheep bone each, and one goat element included a cut mark.

*Cattle:*

Thirty-seven cattle bones were found in these squares. As stated above, the caprine-to-cattle ratio equaled 3.1:1. Foot and cranial parts were the largest element category found, with 19 foot and 14 cranial elements, i.e., 89% offal. Post-cranial bones show three forelimb and one hind limb element. Of the cattle elements, four were from adults. There were seven right and eight left elements in the cattle assemblage. Three bones were scorched, two were charred and two had evidence of cut marks.

*Equids:*

Equids are represented by a total of seven bones: two cranials, two axials and three foot bones. Two of these elements came from juvenile animals, and two were scorched.

These squares contain a higher percentage of equid bones than the other Late Hellenistic / Early Roman areas.

*Wild Game:*

Wild game remains constitute 11% of the assemblage and included seventeen gazelle, two deer and two catfish elements. In this group, two gazelle and one deer elements were from juvenile animals, one gazelle element was from a young adult, and ten elements were from adults. The gazelle bones included four right and three left elements. Scorching was seen on four gazelle elements, one had a cut mark, and one was scorched with a cut mark.

*Combined Fauna from Non-Temple Late Hellenistic / Early Roman Sections*

The composite of the three separate excavated areas from the Late Hellenistic/Early Roman Period, apart from the Roman temple, includes 392 bones (Table 25). Caprines predominate with 7%, cattle elements represent 22%, gazelle is 8%, equid and deer are each 3%, pig is 1% and catfish is 5%. Wild game constitute 16% of the assemblage. The caprine-to-cattle ratio is 2.55:1; the sheep-to-goat ratio is 0.76:1.

As a group, these dwelling areas, with their overwhelming majority of caprine remains, have a decidedly different foodway-orientation than the Early Hellenistic Period, when cattle predominated. In this period, the wild game percentage approaches that of cattle and represents a significant portion of the diet. The kill-off pattern for caprines from the three sections strongly emphasizes juvenile and young adult animals (56 elements and 15, respectively), with adults represented by 32 elements. The caprines

are thus being raised primarily for meat, and are being both slaughtered and consumed on-site, as indicated by the representation of all body parts. Residents are not obtaining the animals already butchered from a centralized procurement location.

The kill-off pattern for cattle emphasizes adults, indicating that they are primarily being used for their draughting ability and are slaughtered only once they are no longer productive in that way. Offal represents 90% of the cattle remains, suggesting animals are being slaughtered on-site, but are probably being consumed at other locations.

No radically different animal usage pattern is present among the sections represented here; no pig remains were found in one of the three sections, but pig represents only 1% of the total non-temple assemblage. Treating the three sections as a composite appears justified; this becomes especially obvious when these areas are compared to the Early Roman temple from this period, as discussed in the next section.

### *Late Hellenistic / Early Roman Faunal Usage*

What is most striking about faunal usage in this period is the distinctly different character of the faunal remains from the Roman temple and from other non-temple portions of the tel – both in the vicinity of the temple itself and elsewhere on the site (Table 28). From the evidence available for this study, there is no indication of any other significant distinction in animal utilization in the Late Hellenistic / Early Roman Period, apart from the temple versus non-temple differences. The temple assemblage includes 42% caprines and 40% cattle, for a 1:04 caprine-to-cattle ratio, whilst the non-temple assemblage has 57% caprines and 22% cattle, for a 2.55:1 ratio. The proportion of offal is high in both

areas, indicating slaughtering activity, though the percentage is slightly higher in the temple than elsewhere.

The temple assemblage looks very much like the intense agricultural patterns from the earlier Iron Age and the Early Hellenistic Period, with the substantial presence of cattle that is approximately equivalent to caprines, and more than twice the number of goats as sheep. It appears this way because those involved ritually in this Roman Imperial cult site are probably agriculturally oriented – in all likelihood, in control of the agricultural activity around Bethsaida. If the temple was built in honor of Julia-Livia, as seems likely, significant evidence exists that linked her to the Demeter cult, which viewed the assimilated Julia to Demeter as the goddess who ensures agricultural abundance (Strickert 2004a). She is frequently portrayed holding a handful of standing grain, just as Demeter was. However, a coin issued by Philip upon Julia's death shows drooping grain, rather than an upright sheaf, linking Julia's death with an anticipated loss of agricultural productivity and fruitfulness.

The temple also expresses its Roman orientation. Grantham's (1996) and Davies's (1989) examinations of Roman military camps suggests that Romans utilized mostly "oxen" in their Roman Legion cultic sites. Although, Bethsaida-Julias was not a Roman Legion area, it is reasonable to assume that a structure used for worship in the Roman Imperial Cult would also draw on the same animal resource of other Roman ritual practices.

Inhabitants of the non-temple areas, i.e., most of Bethsaida's residents, relied primarily upon caprines as the primary source of meat. One can justifiably hypothesize that the diet of the elites probably more closely matched the faunal evidence in the

temple, but that cannot be demonstrated in this study, since dwellings of the elite are not directly represented in the faunal assemblage. Animals slaughtered in the temple, with its preponderance of cattle, would most likely be consumed by temple officials and by the elites who offered them. The low percentage of cattle remains in the non-temple areas indicate that those who lived there were neither consuming cattle as a major meat source, nor were they in control of cattle production. Wild game constituted 16% of the faunal remains, indicating its prominent role as a supplementary meat source.

## *Late Hellenistic / Early Roman Fauna, by Category*

*Caprines:*

Redding (1981:91) discusses the different usage of caprines in his "Subsistence Security" article, stating that

> ...in sites that were the loci of intensive agricultural production variation should be observed in the ratio of sheep to goats consumed between area of a site based on the subsistence basis of the individuals contributing to the deposit in each area. Goats, which require less labor than sheep, should have been maintained by individuals involved in agriculture who probably lived on the edges of sites near fields.

He further states that bones in garbage associated with farmers' residences should exhibit a lower sheep-to-goat ratio compared to residences around palaces and other elite structures. The animals associated with this sector/period of Bethsaida appear to be included in this group. The sheep-to-goat ratio during the Late Hellenistic/Early Roman Period is 0.58:1. This ratio distribution is similar to Zeder's (1988) work in Banesh in the TUV area with goat numbers twice as high as sheep. In that article she suggests that the

TUV area is an area that is inhabited by the less wealthy residents of the Banesh complex. However, when one recognizes that the sheep-to-goat ratio for Bethsaida in the Late Hellenistic / Early Roman Period is the result of the weighted average of both the temple ratio (0.45:1) and the non-temple ratio (0.76:1), the similarity to Zeder's study disappears. At Bethsaida, the non-temple areas give the better indicator of the lower socio-economic groups; the temple has too many economic and political power connections to the elites to serve as such.

The et-Tell/Bethsaida caprine body part distribution (Figures 24 and 26) indicates that all body parts were being utilized, with cranial and foot parts more prevalent and axial and fore and hind limbs almost equal. The age structure of the caprines, according to bone fusion is 64 juveniles (or 25%) to 37 adult (8%). In this group it appears that most animals were slaughtered while young. When tooth eruption patterns are compared, however, there is a wide spread of age groups utilized – a pattern that corresponds to Payne's model for milk utilization. Caprines are probably being used primarily for meat and dairy.

*Cattle:*

At this point in Bethsaida's history, cattle play a major role in the total meat consumption, constituting 33% of the total faunal assemblage for this period. This is, however, considerably less than the 38% cattle in the Iron Age assemblage and the 44% cattle in the Early Hellenistic assemblage. Intra-site differences between the temple (40% cattle) and non-temple (22%) must be taken into account. The caprine-to-cattle ratio is 1.42:1 for this period as a whole, but that figure is comprised of the weighted

averages of the temple (1.03:1) and non-temple (2.55:1). The overall Late Hellenistic / Early Roman ratio of caprines to cattle is consistent with an area dependent on agriculture. Redding (1981:86) discusses the caprine-to-cattle ratio and the probable causes of increases and decreases as agriculture intensifies or diminishes. When subsistence relies heavily on agriculture, the number of cattle increases, because the need for plowing, threshing and transporting field produce relies on the larger animal. He also claims that a number of other factors relate to this increase. Cattle require less labor to control and maintain than caprines, thus leaving the herder more time to devote to agricultural activities. Cattle also provide more milk and meat products per unit than the smaller sheep or goats. Although cattle require large amounts of water, that was not a problem for an area like Bethsaida with plentiful water sources nearby.

Tooth wear data is presented in Table 29. This shows a pattern of an almost equal number of younger and older animals being slaughtered. Breaking down the areas that the teeth come from shows that three younger animals and six older animals were found in the Temple area, ten younger animals and eleven older animals in 30s squares (non-temple) and three young animals come from the 50s squares (non-temple). Bone fusion of the cattle in this period indicates that a higher number of adult animals were being slaughtered in both the temple and non-temple areas (Table 30). In Zeder's (1988) study of Kaftari cattle she notes that utilization of both young and old animals contributed to the assemblage, but an emphasis can be seen on four year old cattle, the optimal age for cattle meat offtake. She attributes this to beef being distributed through indirect channels, rather than direct producer-consumer contact. Indirect channels narrow the range of selection for the consumer, and tend to focus on maximizing meat return. Cattle

of all ages are being slaughtered at Bethsaida, however, which suggests the animals were being exploited for agricultural traction, milk and by-products, as well as meat during this time. The intra-site comparisons between the temple and non-temple areas indicate that the inhabitants of Bethsaida did not share equally in cattle as part of the diet.

Broshi (1986) claims, primarily on the basis both of Talmudic sources and of comparisons of ancient and modern production capabilities, that first century CE meat consumption in Roman Period Palestine was extremely low. Most of the population ate meat only on holidays and feast days. Only the wealthy ate meat every Saturday. Exceptions to this were priests, who were reputed in the Jerusalem Talmud to have gorged themselves on great quantities of meat from sacrifices. In this period intensive cultivation left little land for pasture, and dense population provided only enough land to feed work animals that needed grazing in order to complement their silage. He adds that the meat consumed in Palestine was from caprine surpluses and from old, invalid animals, as caprine herds were mainly raised for milk and wool. In 392/3 CE. St. Jerome wrote from Bethlehem that cattle were scarce in Palestine; he relates that eating veal in Palestine was regarded as a crime, claiming that Emperor Valens (364-378 CE) forbade the consumption of calve's meat, an injunction, Broshi declares, that was intended as a means of maintaining reserves of working animals. This evidence of governmental interest in protecting the number of cattle underscores the likelihood that the temple was connected to elites with both economic and political power.

*Pigs:*

As seen earlier during the Iron Age Period, the low number of pig elements in the area can be related to intensive agriculture being practiced. This lower number of pig elements can be expected, as Redding (1991) claims that an increased reliance on cattle may further decrease any utilization of pig.

*Equids:*

The percentage of equids (4%) found in this area is the same as found in the Early Hellenistic Period, which suggests that the animals are still being used as beasts of burden and traction. Seven bones were scorched, three were charred and one had a cut mark, indicating a possibility that the equids were cooked and eaten after serving their primary usefulness.

*Wild Game:*

Wild game makes up 13% of the faunal collection of this period, which indicates that hunting and fishing provided an important food supplement. This was especially true for the non-elites; wild game comprises 16% of the non-temple assemblage. Of the wild game, the gazelle has the highest proportion of remains (6%), with catfish following (4%) and deer with 3%. Most of the gazelle and deer material is made up of offal, which indicates that slaughter and skinning took place on-site.

*Unidentifiable Bones:*

The total weight for large-mammal bones that were unidentifiable equals 7073 grams. The weight for the medium-sized mammal class totaled 4708 grams. Small-mammal unidentifiable bones weigh 561 grams, and bones that could not be identified even in the large/medium/small class equals 4273 grams.

## ***Et-Tell in Comparison to Other Late Hellenistic/Early Roman Sites***

Sepphoris is a centrally located site in the area known as the Lower Galilee. This area is the northern hill country of Israel that stretches from the border of Lebanon in the north to the east-west Jezreel Valley in the South. This region has several different agricultural areas: two valleys of Nahal Zippori and Beth Netofa. Sepphoris lies along major ancient road systems that wound through the valleys and is located in one of the richest areas in the Galilee.

Grantham looks at the dietary habits of the inhabitants of Hellenistic/Early Roman Sepphoris in his 1996 dissertation. In it, he compares his findings with known published reports from Roman sites found in Europe, including 33 Roman camps studied by Davies in 1989. His data suggest that cattle were the predominate animal at Roman army sites, with caprine remains secondary. In Jewish areas sheep and goat were the preponderant species and cattle were secondary. His study uses those patterns as ethnicity models for interpreting the faunal materials at Sepphoris. He suggests that *Ovis-Capra* body part representation would show a focus on wool and dairy production in the Jewish occupational areas. The pattern would shift to a meat/market production pattern observed

in more prominent in the Roman area. Cattle production in Jewish areas would have a focus on meat/market, whilst in Roman areas a concentration on dairy production would be observed. In one portion of Sepphoris (Area 84.1), a similarity with the Roman camp control sample is analyzed. In other areas (85.1, 84.4 and 85.3), similarities with the Jewish control sample are observed. This implies that a high proportion of cattle parts indicative of a dairy production strategy would be observed in the Roman populated areas. The areas showing a significant Jewish pattern would most likely include more sheep-goat parts that points to a focus on wool/dairy. Few pig bones are found in the Hellenistic/Early Roman Period.

Hellwing and Feig (1989) examine 348 bones from the Hasmonean and Roman Periods at Tel Michal, comparable to the designation "Late Hellenistic/Early Roman" used in this study of et-Tell/Bethsaida. Of these, 65% of the assemblage (N=225) represent the *Ovis-Capra* group, *Bos taurus* was represented by 111 fragments, comprising 32% of the assemblage. Only one fragment of *Equus caballus* and one *Camelus* element were found. From the Hasmonean Period, two pig bones were found, and four from the Roman Period. Of the caprine bones, 104 elements were attributed to adult, whilst three were from juveniles. One hundred four cattle bones were analyzed as adult and seven categorized as juvenile. Of the six pig bones, five were categorized as adult; one as juvenile. The caprine-to-cattle ratio at Tel Michal was 2:1. The pig usage at Tel Michal and et-Tell/Bethsaida during this period matches, i.e., 2% in each assemblage.

Tel Anafa is located north of Bethsaida, in the northeastern corner of modern-day Israel. Redding's (1994) HELL 2C and ROM 1A categories are comparable to this

study's designation of the "Late Hellenistic/Early Roman Period" at et-Tell/Bethsaida. The HELL 2C collection of Tel Anafa shows an uncharacteristic caprine-to-cattle ratio in this period of 0.9:1. Although he had attributed the high relative numbers of cattle in the earlier HELL 1 and HELL 2A (caprine-to-cattle frequencies of 1.2:1 and 1.1:1, respectively) to intensive agriculture, Redding here attributes the even higher relative number of cattle to a group of residents who were practicing cattle pastoralism and who had little involvement in agriculture. He further states that he knows of only two other sites, both in Anatolia, where this pattern has been observed: Early Iron Age Korucutepe and Early Bronze Age Karatas-Semayuk (Redding 1994:286). Although cattle pastoralists are rare in the Middle East, he suggests a possible analogy with cattle tactics in the Nile Delta.

Although the HELL 2C sample is small and thus of limited value, the data indicate that 92% of cattle survived to two years of age. The ROM 1A cattle survivorship data displays a bimodal consumption pattern with 54% of the animals surviving to two years of age and 41% surviving to four years of age or older. This leads Redding to conclude that younger animals, along with older surplus animals, were being imported onto the site at this time. The survival data for caprines in HELL 2C is ambiguous, due to a small sample size; ROM 1A displays a high number of animals (65%) living beyond the age of two years and 50% living beyond the age of three years. He proposes that this is evidence of the flocks' management for maximum wool production. The ratio of metapodial to radius fragments of 2.7:1 suggests to Redding that animals were butchered locally, probably throughout the site by residential units.

Tel Anafa's HELL 1-2A data resemble that from Bethsaida's Late Hellenistic/Early Roman Period more closely than the HELL 2C/ROM 1A data. In relation to that earlier assemblage, Redding suggests that the ratio found at Tel Anafa of sheep to goat (2:1 or less) along with cattle providing 20% or more of the fauna points to intensive agriculture.

Redding (1994) interprets all these data as representing a group of people that, in the HELL 2C phase, are cattle pastoralists, with cattle being kept around the site, and sheep and goats being sent out to graze for days at a time. These people have little involvement in agriculture. The high percentage of deer could indicate shepherds were leaving the village and encountering, killing, and bringing back the animals to the village to eat. Pigs may have been used as a source of meat for periods when the flocks were away from the village grazing.

By the ROM 1A Period it appears that cattle were being imported to the village from other sites with the major local animal resource being sheep/goats that were maintained around the town. The high ratio of sheep to goats indicates that intensive agriculture was not being practiced at this time. The town utilized their sheep for wool production. Redding concludes that at this time the major sources of meat were imported cattle and locally reared pigs.

Pigs found at Tel Anafa in the HELL 2C Period account for almost the same frequency as caprines with a caprines-to-pigs ratio of 1:1.1. However, in the Roman phases the pig drops to half that of caprines. Using bone fusion for aging the material, indications are that half of those remains are less than one year and half are at least two years and older. This suggests that the animals are used as dietary supplements.

Red Deer are found in the HELL 2C phase of the site represented by 17 bone fragments. Using the parameters stated above, the ratio of caprine to *Cervid* (deer) remains equals 2.7:1. Six fish bones were also discovered in this area. The ROM 1A contains 23 deer fragments and 1 gazelle element. Sixteen fish fragments were also uncovered bringing the total of wild animals to 8% of the Hellenistic/Roman Periods. Hunting supplemented the diet of the inhabitants during these phases.

Bethsaida's caprine-to-cattle ratio of 1.42:1 does not contain quite as substantial a proportion of cattle as Tel Anafa. The 33% of cattle bones in the collection, point toward a complementary comparison of the Tel Anafa HELL1-2A phase. The herds of cattle at Bethsaida were being used for intensive agriculture, and supplemented the sheep-goat herds as a meat source, but primarily for the elites.

The delineation between juvenile and adult animals at Bethsaida indicates a greater number of adult cattle in the faunal assemblage, but a greater number of juvenile caprines. The large number of goats seen in the Bethsaida fauna, along with the ratio of non-meat-bearing to meat-bearing bones and the age of slaughter (mostly adult) of the cattle at the site reflect intensive agriculture and local butchering of the animals taking place. An emphasis on meat production of sheep and goats is observed.

## ***Excursus A: The Temple Area from a Comparative Perspective***

Tzaferis (1992) researched the religious affiliations of the different peoples in the Tel Dan area in the Late Hellenistic/Early Roman Period. He remarks (Tzaferis 1992:130) that the Itureans (a group living in that region, perhaps also represented at Bethsaida-

Julias) had no religious affiliations with the cultures of the previous periods; therefore they were easily Hellenized and accepted the Greek language, culture and gods. Other religious practices in the Tel Dan region also adjusted their form of worship to respond to new devotees and followed whatever religious fashion was currently being practiced. He comments that the ancient god worshipped at Dan was later Hellenized, thus keeping his identity long after the tribe of Dan had disappeared from the region. The Dan god continued to be worshipped in the Hellenistic and Roman Periods.

During the first century BCE (ca. 19 BCE) Herod the Great was granted this region from the Romans. He erected a temple dedicated to his benefactor, Augustus, in Panias, an area near Tel Dan. This temple was in addition to a cultic area already standing, built around a natural cave that had been dedicated to the god Pan during the Hellenistic Period. This created three separate religious affinities in the region: the traditional religion of Dan (Hellenized), a Greek faction dedicated to the Greek god Pan, and an Imperial cult. It is also noted that when Philip the Tetrarch inherited the region (ca. 4 BCE) he claimed this area, now renamed Caesarea Philipi, as his royal capital, he erected magnificent public buildings and reshaped the area around the cave. He decorated the cave area with marble pavements and colonnades. This building activity brought new prestige to the area that resulted in the transformation of the rural religion into an urban religion that was practiced by the populace of the newly built city. As Philip had also inherited the area surrounding and including Bethsaida, renaming the city "Julias" after the wife of the emperor, Augustus (Strickert 2004b:95), it is reasonable to assume that he also contributed to the effort of building this temple and dedicating it to Julia-Livia, thus bringing the Imperial Cult to the people who lived here.

Berlin (1999) analyzes the numerous pottery sherds found at the site of Panias in trying to ascertain particular activities and the various forms of worship that occurred there. She proposes that, during the Hellenistic phase, the predominance of local table and kitchenware (over 90%) suggests cooking, eating, and drinking in a "picnic" setting at this rural site surrounded by natural springs. In the Roman Period, the ceramic assemblage changes from local kitchen/tableware to oil lamps and imported kitchen/ tableware. This is possibly the result of the sanctuary's new position as an urban cult. She suggests the worshippers' continue to dine at the shrine. As it is no longer in a quiet, lingering, pastoral setting, however, these were now only short visits by the residents of the city stopping on their way to the center of town. During the Middle Roman Period (end of the first-second centuries CE) the ceramic assemblage changes once again to only two categories: lamps and tableware. This collection implies that devotees were no longer cooking and dining at the shrine but were instead giving gifts and dedications to the sanctuary.

Collections from the Bethsaida -Julias Temple include a number of Hellenistic and Early Roman cooking pots, Galilean bowls, and a few oil lamps, along with a number of pieces of Hellenistic fineware. Using Berlin's criteria stated above, these artifacts perhaps indicate that the worshippers were not only dining at the temple, but also offering fineware to the deity worshipped there. As this building is situated on the top of the hill, the devotees would probably be stopping to worship and proffer offerings, whilst doing daily routines in the city.

Horwitz (1986-1987) remarks that in trying to determine whether an area is indeed a cultic place, one must first look at the context in which the artifacts are found

and assess their spatial relationship to other archaeological features. After ascertaining this, one must look at the range of animals in the faunal material found. She hypothesizes that the range of animals found in a cultic area will be more restricted than in other secular regions. Her research includes the cultic areas of Horvat Qitmit, an Iron Age II Edomite site in the eastern part of the Negev Desert, and Tel Dan, the Iron Age Israelite site describedabove. In this study, the results were mixed. The Qitmit collection contained a limited range of species, whilst the Tel Dan material held a wide range of both domestic and wild game remains found throughout the rest of the site. She asserts this is most probably due to ethnic, chronological, and environmental differences. The Bethsaida Roman temple area contains the same species as found elsewhere on the site, suggesting that the same animal types are being utilized both for public consumption and for presentation as tribute at the Temple. This pattern is the same as the one seen in the Tel Dan material, both of which speak against Horwitz's hypothesis, as does the faunal material found at et-Tell/Bethsaida's city gate complex. Although chronological and ethnic differences are noted, the wide range of animal material may be due to Bethsaida's and Tel Dan's environmental likeness, of lush greenland and riverine settings.

Another difference occurs in the faunal assemblage of the Roman temple at Bethsaida, however, when compared to the faunal assemblage of the rest of Bethsaida's Late Hellenistic/Early Roman Period. This justifies Arav's claim (1999) of the distinctiveness of this structure. Rather than having the narrower range of species predicted by Horwitz's model, there is instead a change in the proportions of certain species when compared to faunal materials discovered elsewhere on the tel from this

period. This change is most likely related to the political and economic status of the devotees.

Peters (1996) analyzes the faunal remains found at the Aphrodite sanctuary of Zeytin Tepe, in ancient Turkey. He asserts that the collection found at the sanctuary had few phalanges and cranial remains due to the slaughtering of the animals occurring in the sanctuary area, then being removed to a different area for skinning. This affords a collection that has the slaughter refuse underrepresented in the sample. He suggests that these elements were left *in situ* during the skinning and removed afterwards outside the sanctuary area. Given the high percentage of offal in the Bethsaida Roman temple, that practice did not occur here.

## ***Excursus B: A Tannery at Bethsaida?***

Freund (2004) discusses the possibility of a Roman tannery existing at the site of Bethsaida-Julias. In this research, he cites a number of tractates from the Mishna and Tosefta that deals with the numerous kosher (pure/unpure) laws surrounding Jewish tannery industries. In these tractates, Bethsaida is mentioned frequently as a city that not only maintains a tannery, but is used extensively as an example of how tanneries should be ritualized.

One of these tractates, Mishna Ohilot 18.7, recounts:

> Rabbi Shimon said: "I can make it possible for priests to be fed with ritually pure food (even) in the tannery of Bethsaida [*BeTz[a]idan*] and in the villages of Lebanon because they are near the sea or river."

In this statement, the rabbi discusses how he can make foods pure in an area that would otherwise seem to be an impossible feat. One of the bases he uses for this is the river that runs so close to the site, thereby cleaning and purifying an otherwise 'unpure' area. The Jordan River running nearby is also a prime factor in the hypothesis of a tannery located in Bethsaida-Julias since the presence of a good water source is a major factor in tanning hides.

The Bethsaida tannery is mentioned once again in another manuscript of the Mishna (Codex Kaufman A50, Ketubot 7.10). This passage references Bethsaida in a form of literature known as a "*maaseh,"* or a "once it happened…" form of literature.

> And these are compelled to divorce their wives: he that is afflicted with boils… a coppersmith or tanner, whether these defects were known before marriage or not. Of all these, Rabbi Meir says: Although the husband made it a condition with her [to marry him despite his defects], she may say, "I thought I could endure it, but now I cannot endure it." It once happened in Bethsaida that a tanner died and had a brother who was a tanner. The Sages said: She may say, "your brother I could endure; but you I cannot endure."

This extract seems to indicate that the tannery at Bethsaida was a well known place since the rabbi is arguing the case using a Bethsaida tanner as an example. Other tractates found in these sources talk about scribes that were writing on scrolls. Scrolls and writing material were made of animal skins during this time period; thus, this city would have been an excellent residence for scholars if the source of their writing materials were located in the area.

In addition to the written sources' evidence for a tannery at Bethsaida, artifactual evidence has been found as well. In the 1993 excavation, a half-moon knife was found, along with various other bronze and stone implements. A knife almost identical to this

one has been found to be used by tanners in other Roman leather making areas, such as Pompeii (Mellink 1992:145); the bronze and stone implements appear to be scrapers.

In 1996 a pollen analysis, performed on a round, plastered area that was thought at that time to be a granary (Shoenwetter and Geyer 2000), indicated a high percentage of oak had been present in this locale; oak by-products (e.g., tannin) are used in the manufacture of leather. Other research has found that Roman tanneries, such as those found in Pergamon, included round, plaster/stucco structures (Mellink 1992). This evidence, along with the bone finds of a high presence of offal material, suggest that Bethsaida held a thriving tanning industry. Arav (personal communication) doubts that evidence of a tannery at Bethsaida has been found; he views the "half moon" knife as used for sacrificing animals in the Roman temple, and views a tannery in the vicinity of the temple as unlikely; Freund (2004), however, views the knife as distinctive to tanning, and raises the possibility that if a tannery occurred near the Roman temple, that could well be after the temple was no longer in use, representing a subsequent use of the area.

The historical textual evidence from the Late Hellenistic / Early Roman Period is compelling in its indication of a tannery at Bethsaida. All artifacts thus far provide only circumstantial evidence, however; the actual tannery structure itself, which would require vats/pools, has not been discovered. However, the faunal evidence at Bethsaida-Julias is at least consistent with the presence of a tannery, indicating a ready source of hides. Most of the bone material from the Late Hellenistic / Early Roman Period consists primarily of "offal," i.e., foot bones (phalanges) and cranial bones, indicating close proximity of slaughtering. Where there is slaughtering, hides form an important resource that would not be discarded.

# Chapter 5
# Socio-Economic Concerns through Time

## ***Urban Animal Utilization Patterns Observed in Other Research***

The analysis so far has focused on animal usage in three separate periods at et-Tell: the Iron Age, the Early Hellenistic Period and the Late Hellenistic/Early Roman Period. This chapter will examine these periods and try to determine what patterns of meat distribution in the area can be seen as this Near Eastern urban center evolved.

The issue of spatial analysis on a site and its position throughout time has been invoked in various studies to look into an ancient culture's economy. This procedure has given archaeologists a glimpse into the different economies practiced within a site through the periods of civilization in the Old World. Chapman (1989) considers the differences on flat (unmounded) settlements and space use on mounded formations in southeastern Europe. Steadman (2000) uses this comparison in her study of Near Eastern settlements. She states (2000:165), "It seems clear that the spatial configurations of tell sites would have a significant impact on the organization of space within a settlement."

Steadman (2000) discusses the way tel inhabitants express processes (such as increasing complexity and socioeconomic change) throughout various stages of economic organization through architecture using the limited space available on the tel site. To accomplish this, she references work done by Wilk and Rathje (1982:618-621) in which

they identify four categories of household functions in defining the task of individual households within a community: the production, distribution, transmission and reproduction of goods. In subsistence economies in which those tasks were performed within the household, it was more conducive to have large households (as opposed to small ones), in which complex tasks were being performed simultaneously. Large households were better able to take advantage of a larger range of economic opportunities and build greater power bases. On the other hand, smaller households were more adept at subsistence strategies that were mobile, performing single, linear task production.

Steadman (2000) claims that the degree of partitioning and segmentation within a society is proportionate to that society's stage of complexity. This intricacy is then expressed in more activities and more areas in which to perform them. I agree with Steadman, and additionally point out that this complexity signifies a more centralized economy and a more centralized socio-political culture.

In the beginning of habitation at a site, the original inhabitants usually built their village on a naturally elevated landscape with a water source nearby. As more groups built on this natural mound, the living area became higher. When cities and towns were built during the Bronze Age, more of the populace began building their homes and shops on terraces below and at the base of the mound or tel. However, at many of these tels in Israel, the major political and religious structures remained built on the top of the tel.

Steadman (2000:182) states that at Catal Hoyuk and Hacilar, the area she investigated,

> …residents sought greater division of space, storage areas for personal items, and additional space for task performance, all resulting in partitioning walls and second-story expansion. Cues to a variety of behaviors and tasks, including ritual

> and personal areas, food-preparation and cooking areas, craft-production areas (e.g. figurines and textiles), and sleeping/eating (benches?) areas, are present at both sites. There appears to be a clear correlation between a great level of socioeconomic complexity and a concurrent adjustment in architectural needs.

At this point in the investigation of et-Tell, there have been no private homes discovered in the Iron Age Period. However, one can see this occurring in each stratum and period as the tel evolves with the inhabitants' homes progressing to the two-storied, extensively partitioned homes found in the Late Hellenistic/Early Roman Period. Although no clear area of craft specialization has as yet been found, the possibility of finding these specialty areas in the future remains high as the progress of excavation continues down the hill and to the base of the tel.

## ***Social Patterns Observed in Other Research***

Much has been written about populations in the ancient civilized world. Evans (1977) discusses the differences between villages, towns and cities in the Aegean and Italy during an 800-year span of time from approximately 1000 BCE to ca. 200 BCE. He states that most of the towns and cities in this area were relatively small with most Greek and Roman cities not exceeding 160 hectares and with populations less than 50,000. He further distinguishes the terms "village", "town", "city" by characteristics such as whether there are indications of social or economic distinctions within the communities and substantiation of the existence of large scale public works. For a locale to be considered a city, he proposes there must be a significant number of residents displaying proof of a wide range of social status. Along with this, there must be evidence of

industrial and commercial activities being conducted by highly specialized groups and public works built on a monumental scale and indications of conscious and planned zoning. Evans states that this process was brought about in the Aegean as the people living in towns developed close relationships with the peoples in the surrounding country- side supplying the town with produce and with the increase of industry and wide ranging trade networks.

Broshi (1980) speaks to this issue in his article on the population of Western Palestine during the Roman-Byzantine Periods. He claims that population data derived from ancient literary sources are entirely unreliable and usually grossly exaggerated. Due to this problem, he and others have formulated an estimation for maximum density population counts for ancient communities in built-up areas. This is accomplished by applying a coefficient of 400-500 persons per hectare. This formula has also been used to represent the population of contemporary settlements in various old cities such as Damascus, Aleppo and Jerusalem at the turn of the twentieth century CE. Applying this procedure to et-Tell with its approximate 17 acres (6.8 hectares) we can assume populations over time at a minimum of 2720 people, and a maximum of 3400. This places et-Tell, during all phases, in Broshi's category of "small city."

Faust (2000) compares the use and structures of family and family housing in rural and urban areas in the Iron Age. He states that an urban family would have consisted of a nuclear family residing in a small dwelling, whereas the rural family most likely consisted of an extended family living in a larger house. The larger family unit in the rural areas was needed as more work required more bodies for subsistence.

During the rise of the monarchy in ancient Israel, urban characteristics took over; both a centralized economy and centralized structures were coming into existence in the area. At this time many smaller settlements became cities with large numbers of workers required to build administrative centers. Additional staff was needed to oversee these centers and monumental projects. Faust builds on Yorburg's (1975) claim that the nuclear family had been the most predominant form in the urban center, whilst the extended family was the most predominant form among the rich and the land-owning peasants. Holladay (1995) and Eitan-Katz (1994) state that food processing installations in rural districts were different from those in villages, normally concentrated in a type of "industrial zone" in the latter that could sometimes be quite large.

Another structure Faust (2000) uses to differentiate urban from rural areas is the presence of boundary walls. He notes that the existence of a boundary wall indicates more than a small collection of individuals living together; rather, it points to a group of people making and executing decisions; a body responsible for the community's security and possibly in charge of economic matters that supercede a single lineage or household. He further states that, in ancient Israel, urban installations were composed of, managed and operated by nuclear families, whilst the rural communities were composed of extended families and lineages living together and organized into larger kinship groups (Faust 2000:23). This was probably true in Canaanite cities as well.

During the Iron Age Period, et-Tell exhibited the features Broshi (1980), Evans (1977) and Faust (2000) maintain were essential for the distinction of an urban center with its structures of fortification (e.g., city walls), cultic centers (e.g., stelae and high places) and public amenities (e.g., drainage systems). The archaeological evidence of the

large scale palace and gate complex at the site suggests that et-Tell played a major role for the Iron Age inhabitants in this area. The Hebrew Bible discusses the importance of lineages and kinship roles (1-2 Kings and 1-2 Chronicles) as the names of the different patriarchs are prolifically expounded upon. The written evidence, plus numerous anthropological data, would suggest that the large urban area at et-Tell was made up of nuclear families.

### *Urban and Social Patterns Observed at et-Tell/Bethsaida*

The Early Hellenistic village located on et-Tell/Bethsaida still contained wall features that were reused from the Iron Age. At this time, large, detached, segregated homes are found in Areas B and C. These homes, along with their associated artifacts, imply that the families living there were well-to -do, if not elite, members of the community. The so-called 'fisherman's house' and 'vintner's house' both contained pottery and other artifacts that evidence families who made more than a moderate living. These dwellings contained both gold jewelry and ETS (Eastern Terra Sigalata) pottery, known for its presence in elite dwellings in the region. These houses were probably two-story dwellings with courtyards in the center and various rooms located around it. The houses were separated by alley-ways and streets. At this point in the excavation, no real municipal works have been uncovered dating to this period. However, the size of the inhabited portion of the tel and the presence of the more affluent dwellings indicate that there were municipal buildings from this period that have yet to be discovered.

By the Late Hellenistic/Early Roman Period, Bethsaida can be categorized as a *polis* as evidenced by the size of the city, the Temple area and the probable issuance of

Herodian coins. It is also at this time that Josephus indicates the promotion of the town to *polis* by Philip. The Iron Age paved road appears to have been used as a burial area provided outside the city wall. Excavation reveals that the road itself was utilized as the sides of the graves for the lower class citizens. The bastion that had been used in the Iron Age and destroyed by the Assyrian conquest was used as a floor for small structures at this point (Arav; personal communication). Galor (2003) discusses the use of local material and building techniques being used throughout this period and notes that little change is seen in these procedures. She indicates that from the Hellenistic Period on, the houses were usually made from stone found in the local area. This is the case with Bethsaida, as all of the dwellings so far uncovered are made from the local black basalt. Evidence of white plastering has been found on the edifices of these buildings, but the stones are local.

## ***Meat Production and Distribution Observed in Other Research***

Zeder (1986) looks at different phases in the excavation of Tal-e Malyan in Iran in positing her hypothesis of urban meat distribution. In her study, Zeder considers the various areas of the project in determining the primary force driving the samples found in excavation. Architectural structures uncovered in each phase help define an area's role in the function of the center. The author looks at three possible explanations for the patterns found in the samples and whether they can be classified as distinct models of direct or indirect distribution of animal products by herders to consumers.

The first distribution system model occurs in areas characterized by administrative activity or craft production, which would exhibit a restricted range of species with that species providing the most and highest nutritional quality meat. This would maximize the yield per animal that was being removed from the flock.

The next model she discusses is culling the herds for the herders and those in direct/indirect contact with these herders. Direct contact consumers and herder-consumer samples should display a herd security pattern. Herd security slaughter, according to Redding (1981:204), is optimal at the ages of a half year to two years of age. Animals that had died at early ages of disease or accident will be consumed as well as older animals that have outlived their usefulness. This would display a slaughter pattern of bones with all classes represented. In culling for indirect consumers, the herd selection would favor age class patterns maximizing energy offtake, or animals in the two to three year age category, indicating a more uniform age pattern than that shown by direct provisioning.

The third model occurs when animals were selected for local consumption. These animals were probably slaughtered in close proximity to the area in which they were consumed, with all body parts being represented in the collection. However, in areas that are known as specialized non-subsistence related areas, the distribution of meat-bearing elements will be more frequent.

Wattenmaker (1986) discusses his theory of production and consumption with patterns of village production and consumption evidenced in the spatial distribution of the animal bones within and between sites in similar regions. His hypothesis states that villagers who were engaged in meat production consumed juvenile animals that died

before they could be delivered to centers and older females that were no longer viable for breeding. Moreover, the expected pattern for urban recipients of meat supplies would show a propensity for animals between the ages of nine months and two and a half years. These sets are the ages of animals that contain males not used for breeding purposes and are therefore slaughtered and consumed. Wattenmaker also discusses species variety, proposing (along with Zeder 1988) that a more limited variety will be seen in an economy that is more specialized, where animal husbandry and hunting is carried out by a small group of the population. A complex society is characterized by economic centralization, specialization and beneficial exchange. As intra-site specialized meat processing and distribution has been seen in other areas (Zeder 1988), it can be assumed that a pattern much like this will occur throughout other sites as well, with butchering areas indicated by high proportions of bones with little meat value, and the supplied areas indicated by assemblages containing high proportions of meat-bearing bone.

Wapnish and Hesse (1988a) discuss various models of animal production and consumption. They suggest that two modes of subsistence strategy exist in a community, represented by the herd being divided into two units: one group containing animals utilized for milk, labor and scheduled slaughter, and another group maintained at a distance from the community managed by men and boys as a fallow herd, exploited seasonally for products such as wool, along with female animals which are not producing milk or offspring.

The authors contend that harvest profiles can be used to determine in what way domestic stock was employed in ancient communities. The various reasons these animals were used depended on the products needed by the population. Products such as labor,

milk of dairy animals and dung of all animals were collected on a regular basis. Other products, such as meat, hides, bones and sinew, were harvested only at slaughter. Analysis of the bones found at the site can tell us the focus of the pastoral production during a certain period of occupation.

The scheme proposed by Wapnish and Hesse (1988a) contains three main groups of animal exploiters. The first group they analyzed was a self-contained production/ consumption group, which contained animals that were maintained and exploited locally. Several production means were utilized, such as meat, milk or wool. Harvest profiles show all the mortality patterns experienced by a domestic herd.

The second group displays a consuming economy where animals were acquired or purchased from pastoralists along with those raised locally. The slaughter pattern for these animals shows an abundance of market-aged animals (18-30 months) and few animals of reproductive age.

The third group has a producing economy scheme using animals raised locally both for community consumption and for outside sale. If production is focused on meat, the harvest profiles would show a scarcity of market-age animals, but the presence of a few young animals that died of natural causes and an abundance of older animals culled from the breeding stock. If production is focused on dairy, the harvest profile would show evidence of primarily young male animals and older female animals that were no longer producing milk. These animals would be weakly represented at a producer site as these animals would most likely be sold at a market source. If production is focused on wool, the harvest profile would include primarily older male and female animals.

## *Meat Production and Distribution Observed at et-Tell/Bethsaida:*

### *The Iron Age*

The Iron Age at et-Tell (1000-732 BCE) marked the emergence of et-Tell as a primary urban center. The importance of the city can be seen by the extensive building phase and construction of the gate area and *bit hilani*. A paved road led into the city through the wide cobble-stoned courtyard. A thick wall connected the outer gate to a massive bastion and the outer city wall with a second bastion located off the line of the city wall. Since the city was built near a major water source, one would expect a number of animal production and agricultural centers, and it is expected that further exploration will substantiate this. It is not possible at this time to surmise how many acres of land were used for agriculture and how many for the raising of animals. It is possible, however, to suggest what animal products the community living on the tel produced themselves or what products were supplied to them from other communities.

In the Iron Age faunal distribution pattern at et-Tell, the highest proportion of animals being exploited were cattle, sheep and goats, with all other animals comprising 22% of the assemblage; thus, a rather narrow range of species predominates. The representation of cattle and caprine body parts in the b*it hilani* area demonstrates a preference for the meatier elements represented by limb elements (Figures 8 and 9). The age patterns for both caprine and cattle were mixed, with the tooth wear and epiphyseal fusion indicating that animals of all ages were being slaughtered.

The tooth wear patterns for caprines indicates a similar number of juveniles and adults being slaughtered, with the larger pattern of epiphyseal fusion for showing a slight

predominance of younger animals (20:16). This seems to imply that the caprines were being used both for meat and for their by-products. For cattle, TWS shows more juveniles than adults, but epiphyseal fusion data tilts strongly toward adults. Thus, although cattle were being used principally for traction, and then slaughtered when they were no longer viable for this use, a number of young were being used specifically for meat.

No buildings have been excavated that can be established as belonging to any particular craft production at this time, although there are numerous areas that contained spindle whorls along with other spinning materials. The only Iron Age structures unearthed are the city walls, the large *bit hilani* and the gate area that leads into the city. It would be expected that the *bit hilani*, the residence of a chief or king, would contain body parts with meaty portions of the animal; that is indeed the case. The purpose of the gatehouse as a granary for storing taxes and a defensive stronghold for soldiers of the city during times of conflict might suggest less meaty body parts being represented there. The opposite is indicated in the Gate Area with the highest proportion of body parts being meaty and accumulated from young animals. This could be due to these animals being given as taxes and/or sacrifices and therefore being taken out of the redistribution chain. This entire area, the *bit hilani* along with the Gate Area, would be categorized as supplied, administrative/craft specialized areas, according to Zeder's criteria. The pattern of all body parts being present, however, leads to an inference that the animals were raised and slaughtered in the nearby vicinity.

Most of the game found in this area is composed of gazelle and fallow deer phalanges. It is possible that these animals were skinned and the hides were then sold.

Wapnish/Hesse (1991:39) state that in the absence of meat-bearing bones or teeth, the most probable conclusion is that only skins of the animal were used. The highest percentage of catfish remains was found in this period, which indicates that fishing was an important resource during this time.

### *The Early Hellenistic Period*

The Early Hellenistic Period at et-Tell follows a hiatus of activity as the Persian Period, which left little in the way of cultural material at the site, wound down. The Persian Period left a largely uninhabited tel, but with many valuable resources in its vicinity and a large assortment of building materials in the area suitable for rebuilding the city. In the Early Hellenistic Period, stones from the thick Iron Age wall and collapsed buildings were reused to create and re-establish private houses on the tel. Also during this time there was a dramatic increase in structures as the population reorganized and rebuilt the large monarchical city into a large village. This rebuilt community, organized into large courtyard style houses, was probably still inhabited by nuclear families, such as those who had dwelt there in the Iron Age. Steadman (2000:188) claims the detached family houses may have come about from the desire for increased privacy. The buildings were interconnected through streets and alleyways. The large, so-called "fisherman's house" indicates that the area on top of the tel was still inhabited by the wealthier inhabitants of the village.

The ratio of caprines to cattle changes dramatically in this period. The relative increase in the number of cattle indicates a more intensive agricultural emphasis and a need for draughting animals, as the inhabitants endeavor to rebuild the city. A larger

quantity of equids is seen at this time as well (Table 31), and probably for the same reason. In other areas of Palestine one of the main drawbacks of raising cattle was the lack of water. With the water sources of the Kinneret, the Jordan River and the spring at the bottom of the tel, it was easy for the inhabitants of the village to pursue husbandry in cattle, thus having easy access to draughting and dairy products.

Epiphyseal fusion data indicates that the number of juvenile cattle elements compared to adult ones is low: six juveniles to twenty adults, whilst TWS indicates seven teeth were from younger cattle and four from older. This shows that younger cattle were also eaten, but they were probably the animals that died due to disease.

The ageing of the caprine material in the Early Hellenistic Period shows a mixed finding: epiphyseal fusion data includes 11 juvenile elements and 8 adult ones, whilst TWS indicates 11 juveniles and 16 adults. It is possible that the area being excavated in Area B North was a kitchen area, as most of the bones found were from loci which also contained various cooking ware. All ages of caprines were being consumed by this household. The body parts representation indicates that all of the animal was being used, but a higher portion of offal and a higher proportion of juveniles to adults (2:1) may indicate that this area was a provision area for caprines. Cattle were also used in this area, but the ratio of juvenile to adult indicates that the cattle were not slaughtered until old age. All body parts are represented, with a high percentage of offal (88%), indicating that the cattle were presumably slaughtered in the same area.

Area A had the same slaughter and utilization pattern for cattle as Area B North, but a different one for caprines. Caprines in this area show a higher percentage of meaty portions (54%), as opposed to offal (46%). These numbers indicate that inhabitants of

Area A are getting their mutton and chevon from elsewhere – perhaps from Area B North.

Thus, a clear distinction in faunal usage is apparent between Area A and Area B North during the Early Hellenistic Period (Table 19). The caprine-to-cattle ratio in Area A is 1.33:1, whilst it is 0.77:1 in Area B North; the sheep-to-goat ratio in Area A is 0.75:1, whilst it is 0.36:1 in Area B North. Although the percentage of cattle offal in the two areas is virtually the same (88%), the percentage of caprine offal differs drastically (46% for A; 81% for B North). Different foodways and different economic strategies are being employed by inhabitants of these two areas. Perhaps this is related to a differentiation in the ethnic make-up of the site; this will be examined in the next chapter.

The representation of all body parts in the gazelle material indicates that the animals hunted were being slaughtered and fully utilized at the site. However, the presence of primarily phalanges from fallow deer suggests that this animal was slaughtered and consumed elsewhere, and the hide (with feet attached) was brought to this location (Wapnish and Hesse 1991).

### *The Late Hellenistic / Early Roman Period*

A major shift during this period is indicated since the number of caprines increases to a ratio far above that of cattle, i.e., the caprine-to-cattle ratio increases to 1.42:1 from 0.88:1 in the Early Hellenistic Period (Table 31). Another important change is seen in the kill-off age of the caprine material. In this period, the emphasis on juvenile animals is indicated by both the TWS and epiphyseal fusion. Using epiphyseal fusion, 64 juveniles were noted along with 37 adult animals. TWS displayed 27 animals slaughtered before

three years and 16 animals that were slaughtered in later life. This indicates the animals were being used primarily for meat. Body part representation shows about the same number of meaty parts as non-meaty parts present.

The cattle epiphyseal fusion data shows four juvenile bones and twenty-five adult bones; TWS indicates ten younger animals and nineteen older animals. The animals in this area were probably used for draughting and dairy, and then consumed once their usefulness was over. The younger animals that died of disease would be consumed upon death (Payne 1973). All body parts are roughly equal, implying that the animals were slaughtered and consumed on-site.

Both gazelle and fallow deer were present in this period, contributing about the same proportion of the faunal assemblage as in previous periods. Both animals' faunal material consists of a preponderance of phalanges, which points to an emphasis on their hides. Catfish has the same percentage (4%) as the Early Hellenistic Period. This indicates that it continued to be a strategic resource.

The non-temple materials from the Late Hellenistic / Early Roman Period present a similar animal utilization profile, regardless of whether those materials come from near the temple (Area A) or more distant from the temple (Area B); compare Figures 24 and 25, which present data from the two sections from which most of the non-temple faunal material came. The sheep-to-goat ratio is approximately the same for both (0.79:1 and 0.82:1, respectively); the caprine-to-cattle ratio is skewed heavily toward caprines (2.40:1 and 3.05:1, respectively) in both; at least twice as many juvenile elements to adult ones are present in both areas. The cattle material from both exhibits the same patterns as in the other periods and zones of the site, i.e., older animals used for traction, then

slaughtered and consumed in later years. The only apparent differences is that the faunal assemblage from the B squares (I-30s) contains no pig bones, whilst both catfish and fallow deer elements are somewhat more numerous.

The temple itself presents a completely different pattern, however. The ratio of sheep to goats is considerably lower (0.45:1). The caprine-to-cattle ratio is 0.98:1. There is still a higher number of offal to meaty portions for both caprines and cattle, but the proportion of caprine juveniles to adults is about equal. Data from the ageing of cattle remains continue to reflect cattle being kept until old age diminishes their usefulness, at which point they are slaughtered and consumed.

The patterns of animal utilization reflect direct contact between herders and consumers all over the site during this period, as reflected by the body part distribution that includes all parts. The prominence of offal on all parts of the site in this period also attests to this. This indicates that, apart from the temple as a slaughter area for the benefit of its elite patrons and its leaders, there was not a central, specialized butchering location, but that slaughter and butchering probably occurred in household units.

### *Species Distribution and Body Part Representation through Time*

During the Iron Age, there was little species diversification at et-Tell. Caprine and cattle were the major animals consumed. 78% of the assemblage consisted of bones from these animals; there are slightly more caprine elements than cattle. Hunting and fishing were highly important, with 17% of the assemblage consisting of gazelle, fallow deer and catfish. If the pig elements in the assemblage were from wild pigs, another 3% of the faunal material derived from wild game. Only 2% of the assemblage consisted of equid

elements, suggesting that this animal was not commonly used during this period at et-Tell.

The Early Hellenistic Period emphasized the same narrow range of species, with caprines and cattle constituting 83% of the assemblage. During this period, however, cattle predominated in the consumption pattern. These animals were slaughtered during all phases of life, thereby indicating that the animals were maintained and used locally. Several production strategies are evident: traction, dairy, dung and, at the end of their life, meat and hide. Differences in caprine body part proportions between Areas A and B North in this period indicate that inhabitants of Area A procured their mutton and chevon from elsewhere, perhaps from those in Area B North. All body parts are represented as well as all ages. The proportion of wild game in the faunal assemblage dropped by 4% from its level in the Iron Age. A decrease in pig usage also occurred in this period (from 5% to 3%), whilst the number of equid elements rose (from 1% to 4%).

The Late Hellenistic/Early Roman faunal material shows that this period still used a narrow range of fauna; caprines and cattle account for 81% of the assemblage. The occupants continued using mainly sheep, goats and cattle, along with the few game species seen earlier. A major shift is indicated in the caprine usage, as more juvenile animals can be observed in the slaughter pattern; this pattern shows a focus on meat production. The number of young caprines slaughtered indicates that the animals were being raised locally; the fact that all body parts are represented, with a preponderance of offal, indicates on-site slaughter. The age profile and body part representation of the caprines and cattle indicate direct contact between the herders and consumers; herd security was still a prime factor in the herding strategy. Slaughter patterns for cattle in

the Late Hellenistic/Early Roman Period indicate that older animals were being killed. This agrees with the other periods in that the animals were being consumed after they have outlived their usefulness. All body parts are represented, which suggests that slaughter was taking place nearby.

The use of wild game continued, as in the Iron Age and Early Hellenistic Period (Table 31). The same species occur in assemblage as in the earlier periods, with an increase of gazelle and fallow deer (from 5% to 6%, and from 2% to 3%, respectively. Pig consumption decreased from the Iron Age (5%) through the Early Hellenistic Period (3%) into the Late Hellenistic/Early Roman Period (2%). The equid materials remain at the same percentage as in the Early Hellenistic collection (4%).

# Chapter 6
# Ethnicity

Ethnicity has been researched and discussed by various anthropologists and archaeologists through the years as they endeavor to find a definite 'clue' or 'marker' in the artifacts recovered that can be used for evidence of clearly defining a group of people in time and space. No other group of people has received more attention than Israelites/Jews, especially the people of Israel's emergence in the land of Canaan. There are nearly as many theories of this emergence as there are researchers examining this issue. Although a comprehensive investigation of this quest goes beyond the focus and scope of this dissertation, it is hoped that observations related to ethnicity at et-Tell/Bethsaida may be able to further the work in this arena.

## ***Trying to Discern "Ethnicity"***

Zelinsky (1993:116) describes ethnicity as a "social construct, and one that happens to be time-specific." He categorizes it as one member of a larger family of social identities by which a group classifies itself to others, which can be subdivided into intimate clusters, such as the family, clan, village, urban neighborhood, or social club, each giving its members a feeling of belonging. Those who claim an ethnicity believe they share an

inherited set of cultural attributes and traditions that set them apart from other communities. These groups possess a special nucleus of sociocultural traits, whether the specific individuals recognize them or not. These characteristics are contained in groups of any size and may or may not be contained within nation-state boundaries; Zelinsky (1993:117) states, "We can set no quantitative ceiling and draw no valid boundary between nationality and ethnicity." Ethnic groups may be found at the national level, subject to political considerations and capable of being changeable over time, yet not necessarily being the same from one nation-state to another.

Shennan (1989:5) looks at ethnicity from an archaeological perspective and classifies the patterns of spatial variation into separate "cultures". These cultures can be distinguished by well-defined diagnostic types found repeatedly and exclusively associated with one another. They exhibit a recognizable distribution pattern when plotted on a map. These "cultures" can then be regarded as indicators of ethnicity as these artifacts are regarded as a self-conscious identification with a particular social group. This self-identification further allows the group to assume its political role as it coalesces into an entity as a result of external pressure from more-complex societies. Without these traits these groups are simply temporary and fluctuating patterns of federations and alliances.

Cultural activities can also be used as elements in defining ethnicity. Stahl (1991) discusses an African ethnic group, the Nafana. This group is organized in a matrilineal kinship group defined by language and puberty rites that girls undergo to become a part of the lineage. The identity of a man is tied to that of his mother. Another group, the Ligby, is defined by its religion (Islam), patrilineal descent, and vernacular use of the

Ligby language. Stahl describes a number of families who identified themselves with the Nafana ethnic group. They were derived from various ethno-linguistic backgrounds through intermarriage or had fled their homelands, seeking refuge with the Nafana, adopting the Nafana language and customs. They changed their kin relations from patrilineal to matrilineal, thus completely assimilating themselves into an ethnic identity other than their own. Rather than focusing on "ethnic tradition," which implies "persistence" and stability, Stahl (1991) relies on Royce's (1982) more dynamic concept of "ethnic style," i.e., "a complex of symbols, forms and value orientations that, when applied to ethnic groups, signals both the cultural contents and the underlying subjective values and standards by which performance is judged" ( Stahl 1991:269).

All these concepts construe different implications to "ethnicity." In looking for an ethnic sign in the archaeological record, one must look at all these schemes and apply them to ascertain what kind of population lived in the area under investigation.

David Small (1997) maintains there are three issues of archaeological importance in pursuit of an Israelite identity. The first issue is the appropriate use of the term "ethnicity" in the early dynamics of the formation of the Israelite state. In addressing this, he relies on the works of Shennan and Cohen to determine a number of core concepts which must be considered when trying to identify an Israelite 'ethnicity' (Small 1997:273).

1. Ethnicity is a relationally born definition, coming from a primordial we/they distinction.
2. Ethnicity has two identifying faces: how groups define themselves, and how others define them.
3. Many of the definitional labels used in ethnic marking are descent-conscious, indicating an identity that was inherited.

4. Unlike totemism, which refers to identity born from symmetrical relation between groups, ethnicity is the historical product of asymmetrical relations, opening up investigation to issues of resource competition, and social evolution from simple to complex societies.

Small (1997):views as inadequate all attempts to identify an Israelite ethnicity by isolating certain groups according to limited early self-identification at the inception of the formation of the Israelite state. These deal only with identifications that do not fit a defining criterion for ethnicity. It would be best to remove the term "ethnicity" altogether from such investigations and refer to these pursuits as that of searching for group identity, or more correctly, a term close to totemism.

The second issue Small (1997) identifies is a search for appropriate methodology for inferring an identification of the group in this early formative period. Studies of different artifacts, such as ceramics, textiles and food items, have been used to ascertain if a group identity can be seen, labeling these items as ethnic markers. The relative frequency or presence/absence of an artifact found on-site has sometimes been used as the key to identify a population as part of a specific ethnic group. Small insists that investigators must go beyond such activity. One must look at the wider social contexts in which the artifact might have been used for self-identification, including its use, its manufacture and its distribution which led to its contribution to group identity. These items are part of wider social negotiations above the level of village or family. Social status and class are complicating factors which must be addressed when trying to consider such social negotiations.

Lastly, Small (1997) considers the impact of this research into Israelite ethnicity and the developing kingdom of Israel to a larger study of ethnicity and state formation

and its contribution to the archaeology of complex societies in general. Small views the formation of the ancient state of Israel as strikingly different in a number of respects from the relation of ethnicity and state formation in New World archaeological studies, even though both ancient Israel and New World states were both an amalgamation of corporate groups with pre-state identities. In contrast to New World states, Small claims that ethnicity in Israel was not used for socioeconomic control or political domination. He cautions against assuming that the relation between ethnicity and state-formation occurs in only one pattern. This has consequences for a more carefully defined understanding of ethnicity.

### *Utilizing Material Culture as Ethnic Markers*

Dever (1995:203) looks at the corpus of ceramics found at archaeological sites and declares that pottery must be used in seeking information on:

(1) shifts in settlement type and distribution;
(2) continuity and change in local cultures;
(3) the degree of isolation or contact with other cultures;
(4) the level of technology:
(5) social structure; stratification in particular:
(6) subsistence, including adaptation to the environment and trade:
(7) shared aesthetic and religious traditions.

In looking at these traits, Dever asserts that the twelfth century BCE saw a transition from the Bronze Age Canaanite tradition to a 'true' Iron Age. This reflected a period of assimilation with the disappearance of Egyptian hegemony, the assimilation of the Canaanite population groups in the area, the acculturation of the coastal "Sea Peoples", and 'proto-urban' trends in the hill country that would eventually emerge as the Israelite

state. Within two centuries new petty states, including new ethnic groups, replaced the socio-economic structures and political affiliations found in Bronze Age Canaan.

In contrast, Finkelstein (1996) argues that it is almost impossible to distinguish the ethnic identity of the highlands (Canaan) peoples from the people who settled the Iron Age I sites in the highlands of Transjordan using archaeological methods. He claims that pottery traditions of the Iron Age I show only peripheral influence from Iron Age I lowlands centers. These traits of discontinuity instead reflect highland peoples living in small, isolated, rural, "almost autocratic" communities. Finkelstein claims that group identity, when influenced by complex sociological and psychological factors and processes of acculturation and assimilation, tends to blur ethnic lines. This makes it difficult to distinguish between signs of status or ethnicity, and thus makes it impossible to distinguish between "styles" and "ethnicity" in material culture.

Herr (1997) analyzes a large portion of the Iron Age II corpus of materials that have been found in Israel. He claims that Iron Age II should begin ca. 1000 BCE, since at this time techniques of burnishing ceramics replaces the old styles found in Iron Age I. It is also at this time that territorial monarchies, or centralized chiefdoms, appear in the region. Herr contends that a change in political and historical structure in an area is of more substance for basing periodization than mere changes in material culture. He adds, that a significant change seen in material culture or site history between two subsequent strata may signal a change in the site's national or cultural orientation. Whilst one may not presume this assumption entirely, it may point to the site's being politically controlled by leaders of another nation. The original "ethnic" group had not changed, however, as ethnic affiliation could be very fluid and depended on whether the political control was

strong or weak. A factor to consider when trying to allocate a site to a particular ethnic group is the material culture found on the site or the region it is located in, along with the material culture found in surrounding and neighboring sites should also. In this scheme, he admits that it is difficult to declare a national designation, as insufficient material has been discovered (Herr 1997:119).

A number of researchers have tried to determine ethnicity of a site by analyzing the faunal assemblage found at the site and relating this to the foodway system of known ethnic groups. Hesse and Wapnish (1997) look at the faunal material found in various sites throughout time and ascertain whether a marked difference can be seen in intra-site loci. Hesse (1995) also looks at food taboos in written sources and applies these prohibited/acceptable species into groups containing a "presence/absence" of species found. The foremost animal used to answer this question is the pig. Problems arise, however, when trying to associate the presence/absence of pig found in Ancient Near Eastern sites to ethnic identities. Studies have revealed that many of the peoples of this region abstained from pork consumption. Herodotus discusses this issue in declaring that Egyptian swineherds were forbidden to enter into any of the temples. They were regarded as impure. He also stated that no one would take a wife from a swineherd or give their daughter in marriage to one. In his excavation of Amarna in ancient Egypt, Hecker (1982) has found pig bones only in the workmen's section of the site. Further, in southern Mesopotamia at the site of al-Hiba (Lagash), and Tell el-Hayyat in the Jordan Valley this same scenario is seen (Hesse 1995b:228). Although pig may not be a good "ethnic" marker, it may be used as a "class" marker.

Grantham (1996) suggests that a difference in species distribution can be used as a marker for intra-site ethnic expectations. He compared the data from Sepphoris with information from known Roman and Jewish sites. He found that areas inhabited by a Jewish population exhibit a higher caprine-to-cattle ratio. Caprines were the predominate mammals present in these areas. Cattle remains predominated in the Roman areas. Along with this information, Grantham claims (1996:95) species distribution can also be used to infer whether a new culture or ethnic group moved into the area by looking at changes in consumption behavior over time.

Finkelstein (1996:206) also uses this approach, stating that "dietary patterns tend to be conservative symbols of ethnicity." Food taboos have been a main subject of his research as the presence or absence of a certain food is hoped to predict the religion or laws of the people found on a site.

Pig husbandry was practiced in the lowlands and highlands of the land of Canaan during the Bronze Age. This changed with time and with known ethnic groups. While the Philistine settlements researched by Hesse and Wapnish (1994) indicate a high proportion of pig utilization, the percentage of pig decreases over time as an "Israelite/Jewish" presence takes over in the region.

## ***Ethnicity at Iron Age et-Tell***

The search for an ethnic identity at et-Tell has been undertaken for the past fifteen years. In the first few years, attention was confined to the Late Hellenistic/Early Roman Period, as this was the first layer uncovered and, it was thought, would be the most informative

stratum. However, as the excavation progressed, the impressive amount of Iron Age material raised the possibility that light might be shed on the emergence of the Iron Age state of Israel and of Israelite culture. Analysis of the site's structures and artifacts from the Iron Age indicate that this site was not an early Israelite site, but was, in fact, more closely identified with the Geshurite culture. Little has been known about the Geshurites, apart from a few mentions of them in ancient written sources. The possibility is now raised of using archaeology to find identification markers to discern how this population lived, to learn when and if the culture changed, as well as its ultimate fate, i.e., whether it was assimilated or absorbed into a conquering culture, or simply extinguished. In this process, much has to be borrowed with caution from ethnic/cultural studies that have already been done on the early Israelite culture. This will be attempted by looking at earlier ethnicity studies of the emerging Israelite state for analogies in relation to the artifacts from et-Tell.

Iron Age II brought changes in political and material culture throughout the region of modern-day Israel. As the Canaanite culture began to recede, a new ethos began to crop up in the various areas that had previously been thriving metropolises of Canaan. Hazor was home to a diminished population as a result of a catastrophic end in the Late Bronze Age, evidenced by a layer of fallen mud brick, ash, debris and burnt wood. In this stratum, Areas C and H testify to a deliberate mutilation and desecration of cult objects that Yadin (1972) has dated to the last quarter of the thirteenth century BCE. A rebuilding effort was undertaken in Iron Age II (tenth century BCE) as a six-chambered city gate and casemate walls were built. The city flourished once again under the reign of the Israelite King Ahab and was expanded eastward and encircled by a three

meter thick defensive wall. A water system, storage facilities and a palace was built on the western tip of the city at this time.

Megiddo, another large Canaanite city-state located on the western side of the Jezreel Valley, was also destroyed during the end of the Late Bronze Age (twelfth century BCE). An unfortified, poor settlement was built on the remains (stratum VIB) and was subsequently replaced by larger, richer structures in stratum VIA. During the reign of the Israelite king, Solomon, the city once again became a central location with monumental structures built. This included three palaces, large domestic buildings, a sanctuary, a small gatehouse and a casemate wall. Although settlement in this area was continuous, the population of this region cannot be definitely identified using material culture alone. Fritz (1987) maintains the possibility of continuity in the population that could have consisted of surviving Canaanites.

Dan, in the northeast end of the Hula Valley, was never completely destroyed at the end of the Bronze Age as were Hazor and Megiddo, but continued as a major cultic center for the Israelite kingdom built of gate complexes, fortified walls and cultic structures. Three major building phases of the cultic areas and successive augmentation to the gate complexes in the Iron II Period have been attributed to Israelite kings. In these instances we can see that Canaanites and Israelite cultures co-existed in the region, with Israelites living in the area of Dan and Canaanites in the area of Bethsaida.

Trade at this point in the history of the site was accomplished by using an overland route that traveled up the Great Rift Valley, then branched to the east towards Aram or towards the north and west in the direction of Phoenicia. Et-Tell was located on the crossroad of the branch that went west to Phoenician Acco, northeast to Damascus

and on to the Great Rift Valley. Arav (1997) speculated that the large public structures associated with et-Tell may have been involved with this trade, along with the Israelite cities of Dan and Hazor. This major trade route, with et-Tell at its apex, would have afforded the inhabitants of the city a chance to intermingle with many different cultures. Herr (1997) asserts that sites in the area of the Aramean kingdom of Damascus, probably wavered in their allegiance between Damascus and Israel as each one gained and lost power. He states that Damascus needed trade centers along the eastern shore of Lake Kinneret in order to ship goods across the lake to caravans that waited on the other side, then transported these goods to Acco or Abu Hawam located on the coast.

Herr (1997) maintains that each Iron Age royal city contained an organized city plan which consisted of city walls and gates (especially necessary to the Israelite towns following the demise of the United Monarchy), a palace compound, and numerous other public buildings used for administering the surrounding area. Many of these cities also contained large, impressive water systems.

It has already been seen in this dissertation that the Iron Age city at et-Tell was organized in much the same way as these other major royal cities from this period. The city possessed the four-chambered city gate complex, a paved entranceway and the aforementioned *bit hilani.*

Epigraphic evidence found in the Mesopotamian royal city of Mari (third millennium to the beginning of the second millennium BCE) shows close connections between this Syro-Mesopotamian city (Mari) and Hazor. Hazor's Late Bronze Age temple and palace supports the strong influence of this relationship. The *bit hilani* located at et-Tell is similar to the large public buildings at Mari, suggesting Assyrian affiliations

with the population housed there. The palace located at et-Tell is similar in plan to these and also to Megiddo's two palaces. Using Herr's (1997:119) criterion to determin a particular nationality by the similarity of its material culture with that of its surrounding and neighboring sites, this would indicate that the main inhabitants of et-Tell during the Iron Age Period were also from the same culture as Megiddo's population. Arav (1999) discusses the similarities of the gatehouse structure found at et-Tell to those found in Dan, Megiddo and Lachish. Although not yet completely excavated at the time, he surmised that et-Tell's city gatehouse had been protected by watchtowers and an external gate; these have subsequently been identified.

A number of artifacts have been found that may be used to try to determine an ethnic group of the inhabitants of et-Tell. A number of large stelae have been found in the city gate complex area. One of these stelae was discovered toppled over the basin in the stepped high place in front of the city gate. This stele was incised with a bull-headed deity with large horns and a stylized human-like body. Bernett and Keel (1998:42) have interpreted this as a Luwian hieroglyph and identified it as a representation of a moon god. Two similar stelae were found in southern Syria. Herr (1997) discusses the use of bull iconography in the worship of El, a god mentioned in Ugaritic texts, and as a representation of Yahweh, the god of Israel. The fluidity of symbols among ancient cultures makes a one-for-one correlation of a symbol with a culture or ethnicity immensely difficult.

In his work on a bulla, i.e., a seal used to secure a document, found in locus 302 at et-Tell, Brandl (1995:141) describes the artifact as "an Israelite bulla in Phoenician style". He dates this seal to the ninth century BCE and argues that, although the style is

Phoenician, the recumbent griffin is more typical of Israelite seals than those of Phoenicia (1995:146-7). The cultural borrowing present in this artifact typifies the problems of trying to put ethnicity labels on an artifact. In addition, should one interpret this bulla as originating at et-Tell, or as being attached to a document received at et-Tell?

The possibility that Israelites might be included at et-Tell or may have influenced Geshurite culture is a feasible premise, as the king of Geshur gave his daughter in marriage to the Israelite king, David (2 Sam 3:3). This made any issue of the union an Israelite in a patrilineal society. Absalom was such a child. The Hebrew Bible gives an account of Absalom's revolt against his father's rule (2 Sam. 13:23-18:33) in an attempt to wrest the kingdom from David's grasp. In his failed first attempt, Absalom fled to his grandfather's kingdom in the land of Geshur. It may be presumed that in this banishment, Absalom brought numerous Israelites with him to reside in this kingdom, either as freemen or attendants in the royal retinue.

Brandl (1999) also identifies other seals found at et-Tell as being a style found in workshops within the Neo-Assyrian Empire. This suggests a new ethnic group had moved onto the site during the later Iron Age Period, or at least a group associated with the Assyrian governor after the Assyrian conquest.

A figurine found in locus 588 is that of a head, wearing an *atef* crown. This crown, adorned with two feathers flanking the head, is associated with Ammonite deities. The identification with this kingdom comes from 2 Sam. 12:30 in the Hebrew Bible. This passage states: "The crown, which weighed a talent of gold and was set with a precious stone, was taken from the head of [the Ammonite god, or Malkom, their king], and placed on David's head." The potential reasons for this find may be that the

community was polytheistic and worshipped many gods. Residents originally from Ammon might have been among the residents of et-Tell, or the Geshurite culture borrowed this motif from Ammon. Thus far, no residences of commoners have been unearthed in Iron Age et-Tell. No conjectures may be made as to spatial variance of the Iron Age city in terms of ethnicity.

### *The Iron Age Faunal Material as an Indicator of Ethnicity*

The majority of Iron Age material found at et-Tell was found in the loci comprising the stepped high place, gate complex (including the pavement and chamber four), the *bit hilani* and an inconclusive area in Area B. The primary animals utilized for Iron Age et-Tell as a whole were caprines (40% of the assemblage). Cattle remains were the second most abundant with 38%, followed by 8% catfish, 6% gazelle, 5% pig, 3% fallow deer and 1% equid (Table 10).

In the process of breaking these numbers down into separate areas, it can be seen that in all areas except the *bit hilani*, caprines outnumber cattle. Although no clear indication is given of ethnicity in the faunal material, it is likely that a class distinction can be made with this group. The prominence of cattle in the *bit hilani* is reasonable as it is posited that the royal family maintained residence here. This elite class would have favored beef over mutton or chevon, the meats of the lower classes. The palace area is the only portion of the Iron Age stratum where pig has been found. Many researchers (Grigson 1987, among others) discuss the possibility of the prohibition against pig in Palestine as due to the arid conditions, citing that pigs are not tolerant of hot, dry conditions. This cannot be true of the et-Tell habitat, however, as this region was well

watered and heavily forested in the Iron Age. The lack of pig in all areas but the *bit hilani* would seem to indicate, as Hesse (1990) suggests, that pig was a hunted animal brought into the presence of the king as a gift, along with other wild game such as deer.

The assemblage from the stepped high place consisted mostly of animals that were regarded as "pure" to Israelites, and were probably considered likewise by other cultures in the area during this period. The discovery of fallow deer in this assemblage, however, suggests the worshippers were of Canaanite heritage, as deer were not an acceptable offering to sacrifice to Yahweh. It was, however, a suitable sacrifice for Ba'al and other deities worshipped by Canaanites. Catfish was also found in the area, another unacceptable offering to Yahweh.

## ***Ethnicity at Early Hellenistic et-Tell/Bethsaida***

According to Meyers (1992), local cultures accepted Hellenism as the residents absorbed elements of the Greek culture. This made Hellenism compatible to the indigenous culture. Whilst a number of areas in Palestine remained largely unaffected by major characteristics of Hellenism in the beginning of the Period (332 BCE), Meyers states that cities along the main roads, alongside coastal port cities, many parts of the Lower Galilee and the Rift Valley were deeply influenced by Greek culture.

Berlin (1997) contends that as a result of Alexander the Great's military campaigns, the region was largely abandoned or depopulated. Many of the ancient cities had been depopulated as a consequence of the exile of thousands of people to other parts of the kingdom. This left Jerusalem and the cities along the coastal plain the most

heavily occupied areas in the land. The third century BCE found northern Palestine, including the Galilee, the Golan, the Hula Valley and the Jezreel and Beth Shean valleys, sparsely populated. These lands were deemed as "King's Land," as they were extremely prolific in agricultural and horticultural exploitation, and were thus owned and farmed for the crown. Tcherikover (1979) asserts that kings often compelled the peoples of ancient cities to settle into new villages, abandoning their native towns against their wills and moving far from their homes and families. This established a foreign presence in the land that was subject to the king. Although a large population was not found at et-Tell during this time, it is reasonable to assume that, as in other areas of the country, this region was being utilized for 'royal' lands, as it was a fertile land good for crops and herding animals.

Tcherikover (1979:29) discusses the resettling of the land during the Hellenistic Period and states that every Hellenistic town in eastern lands was built on, or in the vicinity of, some ancient town. In addition to this, convenient trade routes ran across the entire country. This made easy passage for Greek officials, merchants and tourists as they traveled throughout the land, helping to usher in the Hellenistic culture. Along with the Greek towns scattered along the Coastal Plain and Transjordan, isolated Greek cities were found in the Galilee, Samaria and Idumaea. During this time the ancient city of Beth Shean was refounded by the Ptolemies in the second half of the third century BCE and renamed Scythopolis. Finds of Rhodian and Knidos wine amphorae at these locations indicate the people who lived here had the wealth to invest in and trade with markets that were readily accessible through the port of Akko-Ptolemais by means of the Jezreel Valley (Meyers 1976). As the area came under the control of the Seleucids as a

result of the battle of Panion in 200 BCE, a population increase in the upper Galilee and the Hula Valley can be seen.

Assimilation into Greek culture took place as Hellenism swept across the region. Tcherikover (1979) maintains that the major force behind this acculturation lay in the practice of mixed marriages as the Greeks married the local women of the area. Hall (1997:19) contends that three main fields normally looked at in defining ethnic groups are genetics, language and religion. Already in the third century BCE Judea, Samaria and the Galilee were bilingual or trilingual areas speaking Aramaic and Hebrew. The Greek language became established for use in trade, commerce and administration. Harrison (1994) indicates that even the Jewish heartland of the earlier third century BCE began to have a cultural crisis in this period and incorporated some Hellenistic aspects into its traditional beliefs and practices. Thus, within the area, Hellenism was already well established in the region by the time the town of Bethsaida was rebuilt.

Berlin (1997:14) contends that the ceramic and faunal material uncovered at Tel Anafa during this period suggests a "small, poor community" which subsisted on intensive agriculture and the herding of cattle and goats. These people were "pagans," not Jews. The buildings found here display walls of large undressed boulders and floors of pebbles and tamped earth. This implies an "unsophisticated, insular, and self-sufficient" group of people.

In contrast, et-Tell/Bethsaida's renaissance in the Early Hellenistic Period can be seen in the large buildings of the so-called Vintner's House and the Fisherman's House, which indicate substantial wealth. According to Arav (1999), the settlement had the status of a large village, rather than a town at this time. It was composed of large houses

connected by alleyways and streets. Many of the dwellings reused the stones and walls of the Iron Age Period. The discovery of fishing implements and viticulture equipment in these buildings indicate the presence of fishing activity and the raising of grapes, although this dissertation has argued that agriculture was a dominant economic force. This agrees with Tcherikover (1979) in his contention that the population in most Greek towns found in Palestine during this time was chiefly engaged in agriculture and commerce. In the Vintner's House, a strigilis, a skin scraper used by athletes during Greek times, was found. Thus far no gymnasium or stadium has been found at et-Tell/Bethsaida. The presence of the strigilis, however, indicates that at least one prominent household in the village was Hellenized and participated in Hellenistic culture. It is virtually unimaginable to consider this renaissance of Bethsaida as something that occurred without outside support and approval of Hellenistic regimes, rather than something done merely at the initiative of indigenous peoples in the area.

Harrison (1994) and Berlin (1997) speak of the importance of using coins found at archaeological sites to identify different cultures that dwelled within them. Up through the 1996 excavation, approximately 220 coins had been found at et-Tell/Bethsaida (Kindler 1999a). The coin assemblage includes those issued under the Hellenistic rule of both Ptolemies and Seleucids, starting about 260 BCE. These Hellenistic coins constitute about 40% of the coin finds, and give a good indication of both the date and the dominant cultural influence at the point of Bethsaida's reconstruction.

Trade patterns can be seen at et-Tell by applying criteria cited by Berlin (1997) to the ceramic collection found in Areas A and B at et-Tell. The presence of Rhodian amphora sherds, along with Eastern Terra Sigilata (ETS), Athenian ware and Apeulian

ware found in the excavation attest to this trade. Fineware is found in both Areas A and B. Berlin states that ETS fineware is found at almost every later second century site that was serviced by Phoenician merchants. It is "noticeably" missing in Judea and Samaria at this time, and thus serves as a useful indicator of the Hellenized character of et-Tell/Bethsaida during this period.

### *Early Hellenistic Faunal Material as an Indicator of Ethnicity*

The faunal assemblage contained from this period consists of only 315 pieces, a smaller number than from the other periods. This Early Hellenistic Period is also the only one that contains more cattle than caprine material. This is the basis for the theory put forth earlier, that cattle were being used for their draughting power both in the physical rebuilding of the village and in agriculture. The caprine analysis shows that more young animals were butchered, with all body parts represented. This indicates the animals were being utilized for meat. The number of limb bones present in this assemblage is larger than any other assemblage in the survey, which points to an emphasis on the consumption of meaty portions.

No definitive archaeological or textual data indicate a Jewish presence at et-Tell/Bethsaida during the Early Hellenistic Period. According to Tcherikover (1979), developing commerce about the year 300 BCE would have required Jews to have representatives in different areas of Syria. As a result, many Jews began to settle in different areas of Palestine and created footholds in the Syrian and Greek areas of settlement. Whether this led to a Jewish presence at et-Tell/Bethsaida is unknown. The faunal assemblage includes both pig and catfish, items that are known taboos in Jewish

dietary laws. The percentage represented by each of these species decreases in the Early Hellenistic Period, compared to the Iron Age (from 5% to 3%, and from 8% to 4%, respectively). It is unclear, however, whether that decrease can be attributed to a Jewish segment of the population. As noted previously, Jews were not alone in their aversion to eating pork. Factors other than religious ideology are often involved. In contrast to some studies previously noted which linked swine consumption with lower economic classes that is certainly not true in Early Hellenistic et-Tell/Bethsaida, just as it had not been in the Iron Age at this site. All Early Hellenistic loci that contained pig or catfish also included fineware such as ETS, Athenian ware or Rhodian amphora sherds. Although not an "ethnic" marker, these sherds, along with the indicators that the meaty portions of bones were found in these loci, do indicate that these consumers of pigs were relatively wealthy.

At first glance, the contrast in animal usage between Area A and Area B North is an attractive candidate for postulating ethnic differences within the community in the Early Hellenistic Period – perhaps one Jewish and the other a Hellenized population. However, catfish and pig elements are present in both areas. Any insistence by an investigator that one area was "Jewish, but not very ritually observant," merely indicates the emptiness of such a claim of ethnicity. The more immediate and compelling explanation for the differences in the faunal evidence in Areas A and B North would seem to be one based on economics, in which Area B North inhabitants are recognized as more wealthy and politically powerful, and thus able to control the resources.

Unfortunately, the largest assemblage of faunal material from Early Hellenistic Areas B and C, with their large villas, has not been included in this study because the

sieving procedure differed during the seasons those remains were collected. Perhaps in a later study these bones will be incorporated into the research.

## ***Ethnicity at Late Hellenistic / Early Roman Bethsaida-Julias***

The Late Hellenistic Period reflected the rise of the Hasmonean Dynasty as John Hyrcanus died in 104 BCE and was succeeded by his son Aristobulus. Aristobulus reigned for one year. The Hasmonean government succeeded in extending its geographical territory at this time. Meyers (1992) contends that the Hasmonean Dynasty governed much as its tyrannical non-Jewish counterparts, rather than as a benevolent governing agent, thus alienating most of the general public. The main difference between the Hasmoneans and the Hellenistic rulers lay in the Hasmoneans' attachment to the Hebrew traditions. The Hellenistic practice of integrating the cultures of the conquered peoples into its own practices helped to unify the region without compromising its native characteristics.

Berlin (1997) discusses the movement of the Itureans into the region in the second half of the second century BCE by peaceful, rather than military, means. Although most of the previous construction of this period consisted of walls and towers, no sign of destruction has been found in the area. This is also true of et-Tell/Bethsaida. Sturdy walls were found from this period, and finds indicate a continuity of peaceful habitation into the Early Roman Period. Golan ware, produced by Itureans, has been found in et-Tell/Bethsaida, primarily in Area A outside the so-called Fisherman's House. This suggests an Iturean faction in the village, or at least trade relationships with Itureans.

Josephus (*Ant.* 13:318) states that Aristobulus, during his short-lived reign, added territories to Judea by making war with the Itureans, allowing the Itureans to stay in the country if they lived according to the Jewish laws. However, Berlin (1997) notes that no sites identified as Iturean, on the basis of the presence of Golan ware, show signs of destruction, nor is there any archaeological evidence, e.g., *miqva'ot* (Jewish ritual baths), indicating a practice of Jewish religion at these sites. Instead, local cultic traditions continued to be observed. Aristobulus's successor, Alexander Janneus (103-76 BCE), attempted a forced conversion of the populations of the Galilee and the Golan. Many people preferred to leave, rather than convert.

In 63 BCE Rome took control of Palestine. Tcherikover (1979:122) states that "by late antiquity nearly every area of Palestine was included in some city established by Roman fiat." It is into this climate that Bethsaida emerged as a major player in the Late Hellenistic/Early Roman world. Rome ruled its provinces by employing a self-governing system that used client-kings. These kings kept the cities under Roman control by means of organizing and administering the districts. Herod the Great (reigned 37-4 BCE) was one such client-king. Although Herod was responsible for building/rebuilding cities and naming/renaming them after Roman emperors, his sons Antipas and Philip were the ones who finally brought the imperial presence into the northern area of Palestine. It was during Philip's reign that he raised the city of Bethsaida to a *polis* and renamed it Julias. The (Greek) *polis* was more of a political-social concept, not a geographical entity (Tcherikover 1979). It was not a city in today's term, but more of a petty state. Once a city obtained the status of a *polis*, it was then granted privileges to strike coins for the local market and to take part in Hellenistic events such as athletic contests, etc.

The findings at Tel Anafa show extensive renovation from its previous Hellenistic society to the Late Hellenistic/Early Roman population. Although in the previous period only a few small, poor structures were found, this period exhibits construction of a large, elaborate, two-storied building from the last of the second century BCE. The ceramic collection found inside reflects the opulence of this home with its set of cast glass bowls, ETS, bronze vessels, etc. (Berlin 1997:26-27). Along with the prosperity of the city came the affluence of the nearby cultic precincts of Pan and Tel Dan, with an enlargement of the holy areas and rich articles dedicated to both places.

Gamla, a site situated a few miles from et-Tell, reflects a more practical Jewish settlement. Its finds included few pieces of fine ware or imported wine amphorae. Most artifacts consisted of household products made in Jewish areas and Judea, along with stepped pools and tubs, suggesting possible *miqva'ot* (Jewish ritual baths). Berlin (1997) states that artifactual remains found at Jewish sites consist exclusively of Judean-produced household pottery. The uniformity of these household ceramics insinuates an intentional policy of economic independence, pointing to a uniform populace.

Material culture discovered at Bethsaida-Julias is similar to those of the mixed population of Tel Anafa. Due to structural intrusion (by Bedouins, Syrians, etc), it has not been possible for extensive work to be carried out on the Late Hellenistic/Early Roman Period, contrary to early expectations. Material markers which would indicate the presence of Jews practicing traditional Jewish rituals have not been discovered thus far, although stone vessels preferred by Jews have been found. Coins that have been found from this period include both Hasmonean (Jewish) and Palestinian city coin groups. Berlin (1997) asserts that the appearance of Alexander Jannaeus coins indicates

an economic "redirection". Such coins have been found at Bethsaida, suggesting a Jewish faction living on the site. In addition, textual evidence from Jewish rabbinic sources strongly points to a Jewish presence at Bethsaida.

The artifacts found in the vicinity of the Roman temple at Bethsaida imply that the population also included a Hellenized faction that participated in the Roman imperial cult. The findings of a possible "Julia" figurine, a female figurine with a chiton, or veil, and the right side of a female figurine wearing a traditional "toga"-fashion dress attest to this.

Thus, the tel appears to have been inhabited by various groups; Bethsaida was not a homogeneous community. Meyers (1976:95) describes the Rift Valley region and Lower Galilee as a "cosmopolitan atmosphere of the great southern Galilean urban centers situated along the major trade routes. Bethsaida-Julias reflects this.

### *The Late Hellenistic/Early Roman Faunal Material as an Indicator of Ethnicity*

The presence of the Early Roman temple and its decidedly different faunal usage profile, compared to the non-temple areas, forms the single most prominent ethnicity clue for the Late Hellenistic / Early Roman Period. Grantham (1996) claims that the difference between a primarily Jewish area and a primarily Romanized area can be identified by differences in cattle utilization. If the area was inhabited by a Romanized citizenry, more cattle would be present in the diet than caprines, and the slaughter pattern would emphasize older animals; this would indicate their use for secondary products. Although Jewish areas would rely less on cattle as a total proportion of the diet, they would use cattle primarily for meat, rather than for by-products; thus, the cattle slaughter pattern in a

predominantly Jewish area would contain animals killed between the ages of newborn and 30 months. The temple contains a high percentage of cattle elements. Both TWS and epiphyseal fusion data indicates a higher proportion of older cattle in the temple. On the basis of Grantham's claims, this would be expected, since the people who consumed or offered the animals in the temple would identify with Roman culture.

If Grantham's criteria are applied to the non-temple areas, the predominance of caprine over cattle might be considered an indication of a Jewish presence. The bi-modal age distribution of caprines also fits this, indicating a preference for both caprine meat and caprine by-products. The cattle age profile, however, does not fit; in a Jewish area, Grantham's model leads one to expect primarily juvenile cattle, whereas a relatively high number of older cattle are present. This may, of course, be due to the demands of the agricultural economy, which would favor older cattle.

The key problem for any claim that the faunal distinctiveness of the non-temple areas is an indicator of Jewish ethnicity is that both catfish and pig elements are found in these areas. Although the Area B non-temple squares in the I-30s do not contain pig bones, they do contain catfish. Pig elements account for only 1% of the non-temple assemblage, compared to 3% for the temple. However, catfish bones are 5% of the non-temple assemblage, compared to 2% for the temple. Thus, no argument for Jewish ethnicity on the basis of faunal remains is without problems.

## ***Ethnicity Summary***

Some sort of intra-site difference in faunal usage at et-Tell / Bethsaida is apparent in each of the periods investigated in this dissertation: the difference between the *bit hilani* and the gate complex in the Iron Age, between Area A and Area B North in the Early Hellenistic Period and between the temple and the non-temple sections in the Late Hellenistic / Early Roman Period. For none of these periods can ethnic differences be identified as the basis for the faunal evidence variations, even when other written sources and material culture objects point to the presence of particular ethnic groups at et-Tell / Bethsaida.

Although the faunal materials found on-site cannot be used as ethnic markers, they can connote status on the tel. It has been seen in the Iron Age that the elite lived atop the tel. The royal family dined on beef, pig and caprine, whilst the more common people consumed mostly caprine products. Once again, in the Early Hellenistic Period the wealthier families resided on the top of the tel, with a probable propensity towards agriculture pointed to by the high number of cattle in the collection; the faunal differences between Area A and Area B North point to economic differences. The Late Hellenistic/Early Roman Period material seems to imply the same, with the temple versus non-temple distinction tightly linked to economic and political power considerations. No excavation has thus far been undertaken further down the sides of the tel to assess how far the homesites continued, or to be able to compare the dwellings of poorer residents with those of the elite.

# Chapter 7
# Conclusion

Other studies demonstrate that in all societies, regardless of period, domesticated animals served more than one production purpose. Although the major reason for domestication may have been for meat, herders soon discovered the value of utilizing animals for their secondary products as well, thus making animal husbandry a more attractive method of subsistence.

In the Iron Age, et-Tell was a prosperous urban center, apparently the capital city of the Geshurite kingdom. Its material culture displays the wealth of its citizens, and the royal structures and impressive city wall underscore its significance. The faunal materials found in the *bit hilani* area shows that an abundance of meaty portions from cattle, sheep, goats, pigs and wild game were consumed. The city gate complex, however, with its decidedly different faunal evidence, gives a glimpse of more common life. A centralized distribution system for meat supplies was not used in this period. With the exception of the *bit hilani* itself, the high percentage of offal indicates on-site slaughter across the tel, which suggests direct contact between herders and consumers. Wild game figured prominently as a supplemental food resource for the Iron Age inhabitants.

In the rebuilding of the city in the Early Hellenistic Period, after an extended period of sparse habitation, the tel was modified from its Iron Age form of a large urban center to a smaller village-type community. The high number of cattle bones found is consistent with the massive movement of materials entailed in the rebuilding effort that occurred at this time, and underscores agriculture as the primary economic activity. The older age of the animals indicates that slaughter took place after they had served their primary usage as a draft animal.

The material culture of this period at et-Tell confirms the presence of a wealthy district, as evidenced by the two large villa-type homes excavated in Areas B and C. Another smaller house in Area A provides evidence for a less auspicious standard of living for a populace that lived on the outskirts of the village and the lower elevations of the tel. As no faunal material was found in this smaller structure, and the material found in the two villas was not used in this study, direct conclusions of distinctions in animal usage at et-Tell based on class or status in this period cannot be drawn. Indirect conclusions can be drawn, however, particularly on the basis of the major faunal usage differences between the portions of Area A and Area B North that were sampled. Since cattle were so important to the rebuilding program and to the agricultural core of et-Tell's economy, the prominence of cattle remains in Area B North in close proximity to the large villas suggests that the inhabitants of Area B North controlled the community's economy. Three observations combine to indicate that this area contained inhabitants of lower economic status: 1) the relative scarcity of cattle remains in Area A; 2) the indications that Area A was largely dependent for its supply of its major meat resources (mutton and chevon) on sources outside that area (perhaps from Area B North); 3) the

modest, unimpressive structures in Area A. The caprine slaughter patterns indicate that a wool economy was active at et-Tell/Bethsaida during this period.

The Late Hellenistic/Early Roman Period began with more movement into the area by different peoples and rulers. The inhabitants of Bethsaida-Julias seem to have been a mixed population according to written sources. This is particularly evidenced at the site by the Roman temple, combined with small finds that attest to a Hellenized/Romanized faction living in the city. The distinction between temple and non-temple areas provides the most noticeable difference in faunal usage. The temple contains a much higher percentage of cattle remains than the non-temple areas, which suggests a connection between the temple and those who controlled the agricultural resources of the community. The proportion of cattle bones in the total faunal assemblage for this period (33%) indicates that agriculture was at the core of the community's economy. However, this percentage is lower than earlier periods (38% in the Iron Age and 44% in the Early Hellenistic Period), which indicates that the community's economy had become more diversified.

The 1.42:1 caprine-to-cattle ratio is the highest in this period, compared to 1.06:1 in the Iron Age and 0.88:1 in the Early Hellenistic Period. The evidence of on-site slaughter across the tel points to direct contact with the herders. This represents a reversion to a less complex and less externally controlled system of meat procurement than was present in the Early Hellenistic Period, when Area A inhabitants were dependent upon others for procurement of mutton and chevon resources. Such direct herder-consumer relationships may represent a by-passing of the temple patrons' control of agricultural resources. Compared to the Early Hellenistic Period, an increase in the

use of wild game occurs in this period, especially in the non-temple areas. This would be consistent with a strategy in the non-temple areas of avoiding control by the temple patrons. Such resistance would contribute to the diversification of the economy.

Each period of occupation used the same relatively limited range of species as their primary source of nutrition, particularly sheep, goats and cattle. In all but the Early Hellenistic Period, caprines were the primary source of meat, but cattle drove the agriculture-based economy. Compared to other sites for each period, et-Tell/Bethsaida had one of the highest proportions of cattle, made possible by its abundant water sources. In all periods, goats strongly outnumber sheep, which is consistent with both an agricultural focus (in which goats are used to avoid direct competition with cattle for foraging resources) and a herd security strategy (in which goats represent a hardier and more readily renewable resource than sheep). Harvest profiles indicate that the utilization of caprines evolved or changed through time, from meat and dairy in the Iron Age Period, to wool and meat in the Early Hellenistic Period, and back to an emphasis on meat during the Late Hellenistic/Early Roman Period.

Equids were utilized to a small extent during all periods, but cattle provided the main draughting power. Wild game was a significant dietary component in all periods, comprising 11-17% of the faunal assemblage. Iit was least important in the Early Hellenistic Period, during which the faunal evidence indicates the greatest control by one group of the economy. Pigs were present in each period investigated, although the percentage drops for each, from 5% in the Iron Age (where the pig remains were found solely in the *bit hilani*), to 3% in the Early Hellenistic Period, to 2% in the Late Hellenistic / Early Roman Period. Unfortunately, no faunal elements were found that

could be measured to indicate conclusively whether the pigs were wild or domestic animals, nor were any structures found that would point to domestication. This study has hypothesized that the pigs present in all periods are wild, rather than domestic, which is more consistent with et-Tell's agricultural economy; domestic pigs would be in direct competition with agriculture – a counter-productive strategy. In addition, hunting pigs would provide a means to control the damage to crops which wild pigs would otherwise cause. The percentage of pig remains within the faunal assemblage for each period is similar to that recorded for gazelles and fallow deer – both hunted species. As Harris' (1985) study shows, the high reproduction rate of pigs would propose that the percentage of the remains of these animals would be equal to or surpass the percentage of caprines if the pigs were domesticated.

From the name "Bethsaida," which means "house of the fisherman," a primarily fishing economy for et-Tell/Bethsaida was anticipated at the outset of this investigation. The faunal evidence has not confirmed that expectation, however, although the presence of fishing hooks and net weights among the small finds of the Bethsaida Excavations Project indicate that at least some of the community's inhabitants did indeed fish, as would be expected from the site's proximity to Lake Kinneret. However, the primary faunal evidence for fishing comes almost exclusively from catfish remains, particularly their pectoral spines and the large, sturdy supraethmoid of their skulls. Those remains, which constitute 4-8% (depending on period) of the faunal assemblage, hint at a still larger role for fishing in the foodways and economy of et-Tell/Bethsaida. The paucity of other fish elements is certainly related to the recovery methods used (e.g., 1/8"-screening, no flotation or wet sieving, reliance on non-specialist volunteers), as well as the post-

depositional forces which reduced much of the faunal assemblage to fragments. However, one must reckon with the reality that the prominence of cattle bones indicates that et-Tell's economy in the three periods examined always was primarily based on agriculture, not fishing. The lower proportion of cattle bones in the Late Hellenistic / Early Roman Period, which indicates a greater diversification in the economy beyond agriculture, provides the most likely period for fishing to have become somewhat more prominent. The lack of any increase in fish elements in the faunal assemblage for this period, though, may indicate that any fishing industry was for purposes of export rather than local consumption. In the absence of more direct evidence, however, such a proposal remains largely speculation.

Although the same few species were used over et-Tell/Bethsaida's 1200-year history, their proportions and utilization changed to best suit the unique requirements of the tel's inhabitants. The palimpsest of faunal material affords the archaeologist a glimpse into past lifeways of different periods, as well as into intra-site dynamics and relationships. The analysis of faunal remains does not provide an effective, unambiguous way to distinguish between particular "ethnic" groupings that inhabited et-Tell. It does, however, provide important clues related to socio-economic class which correlate well with other material cultural evidence from the site. As excavation continues on and around the tel, recovery of additional faunal remains should afford further insight into the lifeways of the ancient societies who occupied et-Tell/Bethsaida.

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# Appendices

# Appendix A

# Tables

**Table 1: Faunal species at et-Tell / Bethsaida included in this study***

| Scientific Name | Common Name |
|---|---|
| *Bos taurus* | Cattle |
| *Ovis aries* | Sheep |
| *Capra hircus* | Goat |
| *Sus scrofa* | Pig |
| *Equus* | Equid sp** |
| *Gazella gazella* | Gazelle |
| *Dama mesopotamicus* | Fallow deer |
| *Clarius lazara* | Catfish |

* Small mammals, birds and fish (other than catfish) were not included in this study.
** Equids were identifiable only to the genus level, not species.

**Table 2: *Bit hilani* faunal body parts**

| | Cran | Ax | Fore | Hind | Ft | Total |
|---|---|---|---|---|---|---|
| Caprine (total)* | 19 | 10 | 15 | 16 | 30 | 90 |
| *Sheep* | *3* | *0* | *2* | *2* | *2* | *9* |
| *Goat* | *6* | *0* | *9* | *3* | *9* | *27* |
| *Indisting. cap* | *10* | *10* | *4* | *11* | *19* | *54* |
| Cattle | 21 | 16 | 22 | 11 | 64 | 134 |
| Pig | 8 | 2 | 3 | 2 | 12 | 27 |
| Equid | 1 | 1 | 0 | 0 | 0 | 2 |
| Gazelle | 0 | 0 | 1 | 0 | 7 | 8 |
| Deer | 0 | 0 | 0 | 1 | 1 | 2 |
| Catfish | – | – 0 | – | – | – | 14 |
| | | | | | Total | 277 |

* Caprine:Cattle = 0.67:1 Sheep:Goat = 0.33:1

"Caprine" in this and subsequent tables refers only to domestic caprines, e.g., to sheep and goats. "Indisting. cap" refers to bones from domestic caprines which were indistinguishable between sheep and goat.
Abbreviations in column headings refer, respectively, to "Cranial" (head, including teeth), "Axial" (vertebrae and ribs), "Forelimb" (shoulder and front legs), "Hind limb" (pelvis and back legs) and "Feet" (ankles and feet).

**Table 3: Gate courtyard faunal body parts**

| | Cran | Ax | Fore | Hind | Ft | Total |
|---|---|---|---|---|---|---|
| Caprine | 23 | 2 | 5 | 9 | 12 | 51 |
| Cattle | 2 | 0 | 3 | 2 | 22 | 29 |
| Pig | 0 | 0 | 0 | 0 | 0 | 0 |
| Equid | 1 | 0 | 0 | 0 | 0 | 1 |
| Gazelle | 1 | 0 | 0 | 0 | 5 | 6 |
| Deer | 0 | 0 | 0 | 0 | 5 | 5 |
| Catfish | – | – | – | – | – | 8 |
| | | | | | Total | 100 |

**Table 4: Stepped high place faunal body parts**

| | Cran | Ax | Fore | Hind | Ft | Total |
|---|---|---|---|---|---|---|
| Caprine | 1 | 0 | 3 | 0 | 4 | 8 |
| Cattle | 1 | 0 | 0 | 1 | 4 | 6 |
| Pig | 0 | 0 | 0 | 0 | 0 | 0 |
| Equid | 0 | 0 | 0 | 0 | 0 | 0 |
| Gazelle | 0 | 0 | 0 | 0 | 3 | 3 |
| Deer | 4 | 0 | 0 | 0 | 1 | 5 |
| Catfish | – | – | – | – | – | 4 |
| | | | | | Total | 26 |

**Table 5: Gatehouse pavement faunal body parts**

| | Cran | Ax | Fore | Hind | Ft | Total |
|---|---|---|---|---|---|---|
| Caprine | 14 | 4 | 5 | 4 | 17 | 44 |
| Cattle | 3 | 1 | 3 | | 5 | 12 |
| Pig | 0 | 0 | 0 | 0 | 0 | 0 |
| Equid | 1 | 0 | 1 | 0 | 0 | 2 |
| Gazelle | 1 | 0 | 0 | 0 | 3 | 4 |
| Deer | 0 | 0 | 0 | 0 | 2 | 2 |
| Catfish | – | – | – | – | – | 3 |
| | | | | | Total | 67 |

**Table 6: Gatehouse chamber four faunal body parts**

| | Cran | Ax | Fore | Hind | Ft | Total |
|---|---|---|---|---|---|---|
| Caprine | 1 | 1 | 2 | 3 | 12 | 19 |
| Cattle | 0 | 0 | 1 | 0 | 11 | 12 |
| Pig | 0 | 0 | 0 | 0 | 0 | 0 |
| Equid | 0 | 0 | 0 | 0 | 0 | 0 |
| Gazelle | 0 | 0 | 0 | 0 | 1 | 1 |
| Deer | 0 | 0 | 0 | 0 | 3 | 3 |
| Catfish | – | – | – | – | – | 7 |
| | | | | | Total | 42 |

**Table 7: Total gate complex faunal body parts**

| | Cran | Ax | Fore | Hind | Ft | Total |
|---|---|---|---|---|---|---|
| Caprine (total)* | 39 | 7 | 15 | 16 | 45 | 122 |
| *Sheep* | *3* | *0* | *3* | *4* | *7* | *17* |
| *Goat* | *6* | *0* | *10* | *6* | *19* | *41* |
| *Indisting. cap* | *30* | *7* | *2* | *6* | *19* | *64* |
| Cattle | 6 | 1 | 7 | 3 | 42 | 59 |
| Pig | 0 | 0 | 0 | 0 | 0 | 0 |
| Equid | 2 | 0 | 1 | 0 | 0 | 3 |
| Gazelle | 2 | 0 | 0 | 0 | 12 | 14 |
| Deer | 4 | 0 | 0 | 0 | 11 | 15 |
| Catfish | – | – | – | – | – | 22 |
| | | | | | Total | 235 |

* Caprine:Cattle = 2.07:1 Sheep:Goat = 0.41:1

**Table 8: Gate complex cattle TWS (Tooth Wear Stages)**

| Stage | $M_{1,2}$ | $M_3$ |
|---|---|---|
| B | 1 | |
| C | 1 | |
| E | 1 | |
| G | 1 | |
| K | 1 | |
| L | 1 | |

**Table 9: Iron Age Area B faunal body parts**

| | Cran | Ax | Fore | Hind | Ft | Total |
|---|---|---|---|---|---|---|
| Caprine (total)* | 5 | 0 | 2 | 1 | 1 | 9 |
| *Sheep* | *1* | *0* | *0* | *0* | *1* | *2* |
| *Goat* | *0* | *0* | *2* | *1* | *0* | *3* |
| *Indisting. cap* | *4* | *0* | *0* | *0* | *0* | *4* |
| Cattle | 2 | 0 | 0 | 3 | 11 | 16 |
| Pig | 0 | 0 | 0 | 0 | 0 | 0 |
| Gazelle | 4 | 0 | 1 | 2 | 3 | 10 |
| Deer | 0 | 0 | 0 | 0 | 0 | 0 |
| Equid | 0 | 0 | 0 | 0 | 0 | 0 |
| Catfish | – | – | – | – | – | 6 |
| | | | | | Total | 41 |

* Caprine:Cattle = 0.56:1 Sheep:Goat = 0.67:1

**Table 10: All Iron Age faunal material**

| | *Gate Crtyrd* | *Stepped High Place* | *Gatehs Pvmnt* | *Gatehs Cham. 4* | **Total Gate Cmplx** | ***Bit hilani*** | **Area B** | **Total** |
|---|---|---|---|---|---|---|---|---|
| Caprine (tot.) | *51* | *8* | *44* | *19* | 122 | 90 | 9 | 221 |
| *Sheep* | *4* | *2* | *8* | *3* | *17* | *9* | *2* | *28* |
| *Goat* | *16* | *5* | *16* | *4* | *41* | *27* | *3* | *71* |
| *Indis. cap* | *31* | *1* | *20* | *12* | *64* | *54* | *4* | *122* |
| Cattle | *29* | *6* | *12* | *12* | 59 | 134 | 16 | 209 |
| Pig | *0* | *0* | *0* | *0* | 0 | 27 | 0 | 27 |
| Equid | *1* | *0* | *2* | *0* | 3 | 2 | 0 | 5 |
| Gazelle | *6* | *3* | *4* | *1* | 14 | 8 | 10 | 32 |
| Deer | *5* | *5* | *2* | *3* | 15 | 2 | 0 | 17 |
| Catfish | *8* | *4* | *3* | *7* | 22 | 14 | 6 | 42 |
| Total | *100* | *26* | *67* | *42* | 235 | 277 | 41 | 553 |
| Caprine:Cattle | | | | | 2.07:1 | 0.67:1 | 0.56:1 | 1.06:1 |
| Sheep:Goat | | | | | 0.41:1 | 0.33:1 | 0.67:1 | 0.40:1 |

**Table 11: Iron Age caprine age determination by epiphyseal fusion**

| | *Bit hilani* | | Gate complex | | Area B | | Total | |
|---|---|---|---|---|---|---|---|---|
| **Age category** | **N** | ***%*** | **N** | ***%*** | **N** | ***%*** | **N** | ***%*** |
| Juvenile | 4 | *57* | 14 | *56* | 0 | *0* | 18 | *55* |
| Young Adult | 0 | *0* | 0 | *0* | 0 | *0* | 0 | *0* |
| Adult | 3 | *43* | 11 | *44* | 1 | *100* | 15 | *45* |

**Table 12: Total Iron Age caprine body parts**

| | **Cran** | **Ax** | **Fore** | **Hind** | **Ft** | **Total** |
|---|---|---|---|---|---|---|
| Caprine (total)* | 63 | 17 | 32 | 33 | 76 | 221 |
| *Sheep* | *7* | *0* | *5* | *6* | *10* | *28* |
| *Goat* | *12* | *0* | *21* | *10* | *28* | *71* |
| *Indisting. cap* | *44* | *17* | *6* | *17* | *38* | *122* |

* Sheep:Goat = 0.39:1

**Table 13: Iron Age cattle body parts**

| **Cran** | **Ax** | **Fore** | **Hind** | **Ft** | **Total** |
|---|---|---|---|---|---|
| 39 | 12 | 32 | 13 | 113 | 209 |

**Table 14: Iron Age cattle TWS**

| **Stage** | **$M_{1,2}$** | **$M_3$** |
|---|---|---|
| A | 3 | 1 |
| B | 3 | |
| C | 5 | 2 |
| D | 1 | |
| G | 3 | 1 |
| J | 1 | |
| K | 2 | 1 |
| L | 2 | |

**Table 15: Iron Age cattle age determination by epiphyseal fusion**

| **Age category** | **N** | **%** |
|---|---|---|
| Juvenile | 14 | 30 |
| Young Adult | 2 | 4 |
| Adult | 31 | 66 |

**Table 16: Early Hellenistic Area A caprine body parts**

| | Cran | Ax | Fore | Hind | Ft | Total |
|---|---|---|---|---|---|---|
| Caprine (total)* | 12 | 9 | 12 | 9 | 14 | 56 |
| *Sheep* | *2* | *0* | *3* | *5* | *2* | *12* |
| *Goat* | *4* | *0* | *4* | *3* | *5* | *16* |
| *Indisting. cap* | *6* | *10* | *5* | *1* | *7* | *28* |

* Sheep:Goat = 0.75:1

**Table 17: Early Hellenistic Area B North caprine body parts**

| | Cran | Ax | Fore | Hind | Ft | Total |
|---|---|---|---|---|---|---|
| Caprine (total)* | 41 | 2 | 8 | 4 | 17 | 72 |
| *Sheep* | *2* | *0* | *0* | *2* | *1* | *5* |
| *Goat* | *0* | *0* | *5* | *1* | *8* | *14* |
| *Indisting. cap* | *39* | *2* | *3* | *1* | *8* | *53* |

* Sheep:Goat = 0.36:1

**Table 18: Early Hellenistic Areas A & B North cattle body parts**

| | Cran | Ax | Fore | Hind | Ft | Total |
|---|---|---|---|---|---|---|
| Area A | 16 | 0 | 2 | 3 | 21 | 42 |
| Area B North | 48 | 2 | 4 | 5 | 35 | 94 |

**Table 19: All Early Hellenistic fauna**

| | Area A | Area B South | Area B North | Total |
|---|---|---|---|---|
| Caprine (total)* | 56 | 0 | 72 | 128 |
| *Sheep* | *12* | *0* | *5* | *17* |
| *Goat* | *16* | *0* | *14* | *30* |
| *Indisting. cap* | *28* | *0* | *53* | *81* |
| Cattle | 42 | 9 | 94 | 145 |
| Pig | 3 | 0 | 6 | 9 |
| Equid | 2 | 0 | 10 | 12 |
| Gazelle | 3 | 2 | 10 | 15 |
| Deer | 5 | 0 | 2 | 7 |
| Catfish | 4 | 0 | 10 | 14 |
| Total | 115 | 11 | 204 | 330 |
| Caprine:Cattle | 1.33:1 | | 0.77:1 | 0.88:1 |
| Sheep:Goat | 0.75:1 | | 0.36:1 | 0.57:1 |

**Table 20: Early Hellenistic Area A cattle TWS**

| Stage | $M_{1,2}$ | $M_3$ |
|---|---|---|
| A | 2 | 1 |
| H | 1 | |
| K | 1 | |

**Table 21: Early Hellenistic Area B North cattle TWS**

| Stage | $M_{1,2}$ | $M_3$ |
|---|---|---|
| A | | 1 |
| C | 1 | 1 |
| D | 2 | |
| E | 1 | |

**Table 22: Early Hellenistic cattle age determination by epiphyseal fusion**

| Age category | N | % |
|---|---|---|
| Juvenile | ..6 | 23 |
| Adult | 20 | 77 |

**Table 23: All Early Hellenistic cattle body parts**

| | Cran | Ax | Fore | Hind | Ft | Total |
|---|---|---|---|---|---|---|
| Area A | 16 | 0 | 2 | 3 | 21 | 42 |
| Area B South | 1 | 0 | 1 | 1 | 6 | 9 |
| Area B North | 48 | 2 | 4 | 5 | 35 | 94 |
| Total | 65 | 2 | 7 | 9 | 62 | 145 |

**Table 24: All Early Roman temple faunal body parts**

| | Cran | Ax | Fore | Hind | Ft | Total |
|---|---|---|---|---|---|---|
| Caprine (total)* | 96 | 21 | 32 | 25 | 84 | 258 |
| *Sheep* | *14* | *1* | *3* | *5* | *12* | *35* |
| *Goat* | *17* | *0* | *16* | *11* | *34* | *78* |
| *Indisting. cap* | *65* | *20* | *13* | *9* | *38* | *145* |
| Cattle | 87 | 16 | 11 | 12 | 125 | 251 |
| Pig | 5 | 0 | 0 | 1 | 14 | 20 |
| Equid | 11 | 11 | 1 | 2 | 4 | 29 |
| Gazelle | 0 | 0 | 1 | 1 | 22 | 24 |
| Deer | 5 | 0 | 0 | 2 | 17 | 24 |
| Catfish | – | – | – | – | – | 15 |
| | | | | | Total | 621 |

* Caprine:Cattle = 1.03:1 Sheep:Goat = 0.45:1

**Table 25: All Late Hellenistic / Early Roman non-temple faunal body parts**

| | Cran | Ax | Fore | Hind | Ft | Total |
|---|---|---|---|---|---|---|
| Caprine (total)* | 74 | 22 | 34 | 25 | 69 | 224 |
| *Sheep* | *13* | *0* | *14* | *2* | *13* | *42* |
| *Goat* | *11* | *2* | *16* | *4* | *22* | *55* |
| *Indisting. cap* | *50* | *20* | *4* | *19* | *34* | *127* |
| Cattle | 26 | 0 | 6 | 3 | 53 | 88 |
| Pig | 0 | 0 | 1 | 0 | 4 | 5 |
| Equid | 6 | 2 | 0 | 0 | 3 | 11 |
| Gazelle | 1 | 0 | 5 | 2 | 24 | 32 |
| Deer | 3 | 0 | 1 | 1 | 6 | 11 |
| Catfish | – | – | – | – | – | 21 |
| | | | | | Total | 392 |

* Caprine:Cattle = 2.55:1 Sheep:Goat = 0.76:1

**Table 26: Late Hellenistic / Early Roman Area A caprine body parts (non-temple)**

| | Cran | Ax | Fore | Hind | Ft | Total |
|---|---|---|---|---|---|---|
| Caprine (total)* | 24 | 16 | 9 | 9 | 49 | 107 |
| *Sheep* | *3* | *0* | *5* | *0* | *11* | *19* |
| *Goat* | *4* | *0* | *3* | *1* | *16* | *24* |
| *Indisting. cap* | *17* | *16* | *1* | *8* | *22* | *64* |

* Sheep:Goat = 0.79:1

**Table 27: Late Hellenistic / Early Roman Area C caprine body parts (I-30s squares, non-temple)**

| | Cran | Ax | Fore | Hind | Ft | Total |
|---|---|---|---|---|---|---|
| Caprine (total)* | 49 | 4 | 25 | 16 | 20 | 114 |
| *Sheep* | *10* | *0* | *9* | *2* | *2* | *23* |
| *Goat* | *6* | *0* | *13* | *3* | *6* | *28* |
| *Indisting. cap* | *33* | *4* | *3* | *11* | *12* | *63* |

* Sheep:Goat = 0.82:1

**Table 28: All Late Hellenistic / Early Roman fauna**

| | Temple | | Non-Temple | | Total | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| Caprine (total) | 258 | 42 | 224 | 57 | 482 | 48 |
| *Sheep* | *35* | | *42* | | *77* | |
| *Goat* | *78* | | *55* | | *133* | |
| *Indisting. cap* | *145* | | *127* | | *272* | |
| Cattle | 251 | 40 | 88 | 22 | 339 | 33 |
| Pig | 20 | 3 | 5 | 1 | 25 | 2 |
| Equid | 29 | 5 | 11 | 3 | 40 | 4 |
| Gazelle | 24 | 4 | 32 | 8 | 56 | 6 |
| Deer | 24 | 4 | 11 | 3 | 35 | 3 |
| Catfish | 15 | 2 | 21 | 5 | 36 | 4 |
| Total | 621 | | 392 | | 1013 | |
| Caprine:Cattle | 1.03:1 | | 2.55:1 | | 1.42:1 | |
| Sheep:Goat | 0.45:1 | | 0.76:1 | | 0.58:1 | |

**Table 29: Late Hellenistic / Early Roman cattle TWS**

| | Temple | | Non-temple | | Total | |
|---|---|---|---|---|---|---|
| **Stage** | **$M_{1,2}$** | **$M_3$** | **$M_{1,2}$** | **$M_3$** | **$M_{1,2}$** | **$M_3$** |
| A | | | 3 | | 3 | |
| B | 1 | 1 | 2 | | 3 | 1 |
| C | 1 | | 2 | | 3 | |
| D | | | 2 | 1 | 2 | 1 |
| E | | | 1 | | 1 | |
| G | 1 | | 3 | 1 | 4 | 1 |
| H | 1 | | | | 1 | |
| J | 1 | | | | 1 | |
| K | 2 | | 3 | | 5 | |
| L | 1 | | 1 | 1 | 2 | 1 |

**Table 30: Late Hellenistic / Early Roman cattle age determination by epiphyseal fusion**

| | Temple | | Non-temple | | Total | |
|---|---|---|---|---|---|---|
| **Age category** | **N** | ***%*** | **N** | ***%*** | **N** | ***%*** |
| Juvenile | 2 | *12* | 6 | *21* | 8 | *18* |
| Young Adult | 1 | *6* | 0 | *0* | 1 | *2* |
| Adult | 14 | *82* | 22 | *79* | 36 | *80* |

**Table 31: Fauna distribution through time at et-Tell / Bethsaida**

| | Iron Age | | Early Hellenistic | | Late Hellenistic/ Early Roman | | |
|---|---|---|---|---|---|---|---|
| | **N** | ***%*** | **N** | ***%*** | **N** | ***%*** | **Totals** |
| Caprine (total) | 221 | *40* | 128 | *39* | 482 | *48* | 831 |
| *Sheep* | *28* | | *17* | | *77* | | *119* |
| *Goat* | *71* | | *30* | | *133* | | *226* |
| *Indisting. cap* | *122* | | *81* | | *272* | | *486* |
| Cattle | 209 | *38* | 145 | *44* | 339 | *33* | 693 |
| Pig | 27 | *5* | 9 | *3* | 25 | *2* | 61 |
| Equid | 5 | *1* | 12 | *4* | 40 | *4* | 57 |
| Gazelle | 32 | *6* | 15 | *5* | 56 | *6* | 103 |
| Deer | 17 | *3* | 7 | *2* | 35 | *3* | 59 |
| Catfish | 42 | *8* | 14 | *4* | 36 | *4* | 92 |
| Total | 553 | | 330 | | 1013 | | 1896 |
| Caprine:Cattle | 1.06:1 | | 0.88:1 | | 1.42:1 | | |
| Sheep:Goat | 0.39:1 | | 0.57:1 | | 0.58:1 | | |

# Appendix B

# Figures

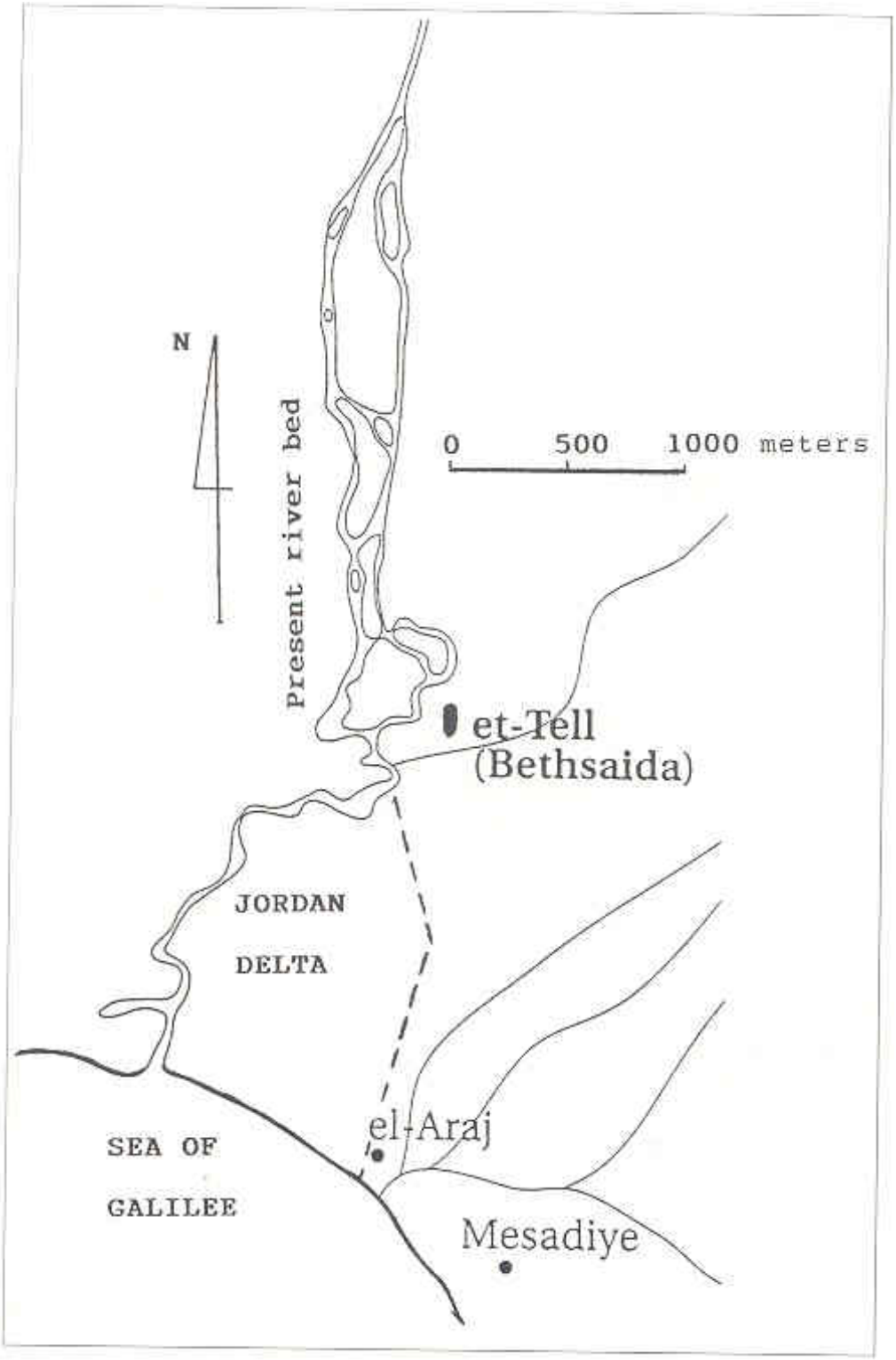


Figure 1: Three sites proposed for Bethsaida in the early twentieth century CE.
Source: Rami Arav, Bethsaida Excavations Project, University of Nebraska at Omaha

Figure 2: Aerial view of et-Tell / Bethsaida. North is to the upper right.
Source: Rami Arav, Bethsaida Excavations Project, University of Nebraska at Omaha

Figure 3: Fallow deer antler (repaired). From Early Hellenistic Period, found at et-Tell.
Source: Photo by author

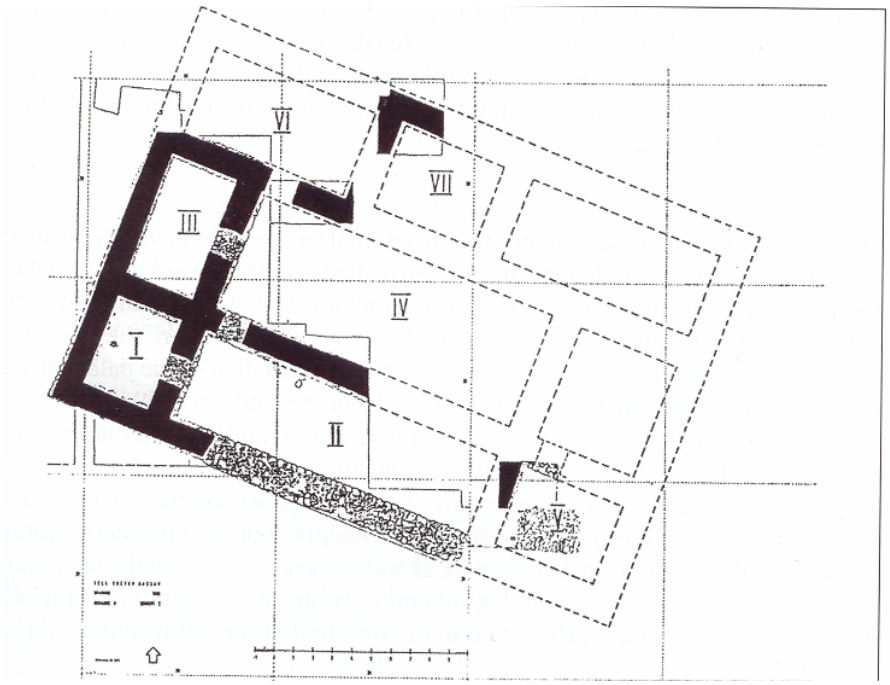


Figure 4: The *bit hilani* at Tell Sheikh Hassan, stratum III.
Source: Arav and Bernett 2000:51.

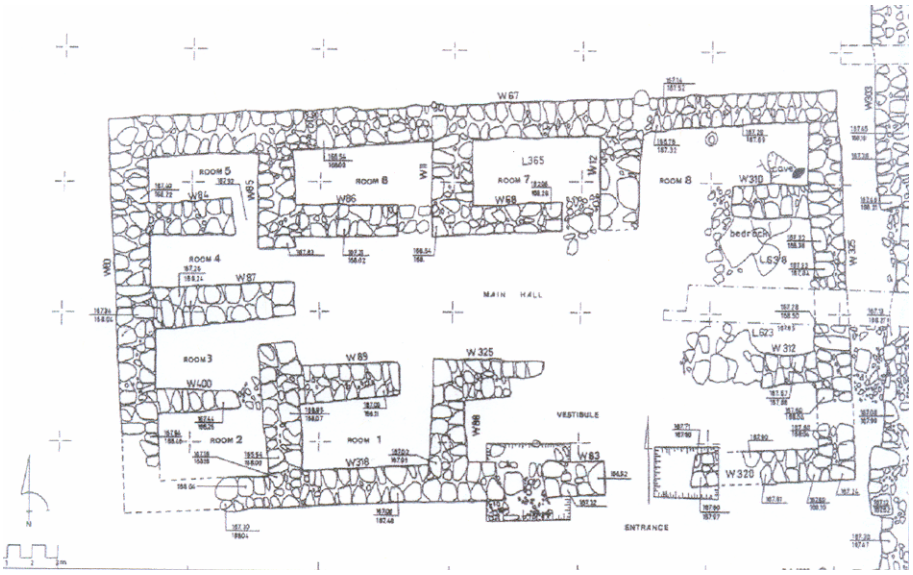


Figure 5: Et-Tell's *bit hilani.*
Source: Arav and Bernett 2000:49.

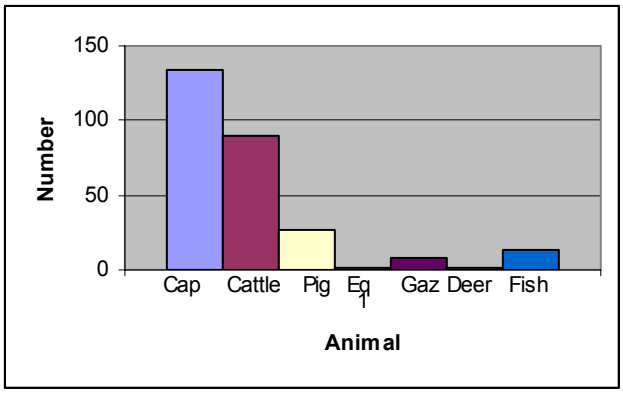

Figure 6: Iron Age *bit hilani* fauna.

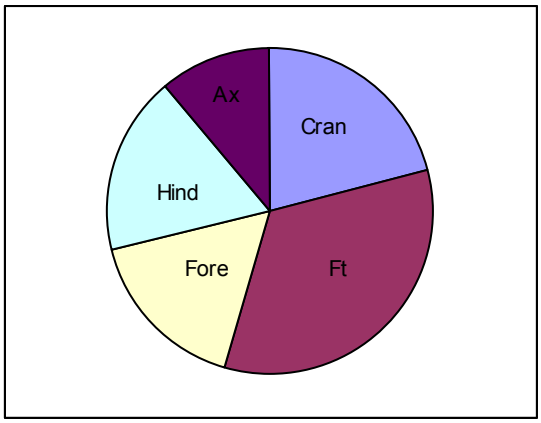

Figure 7: Iron Age *bit hilani* caprine body parts. (N = 90).

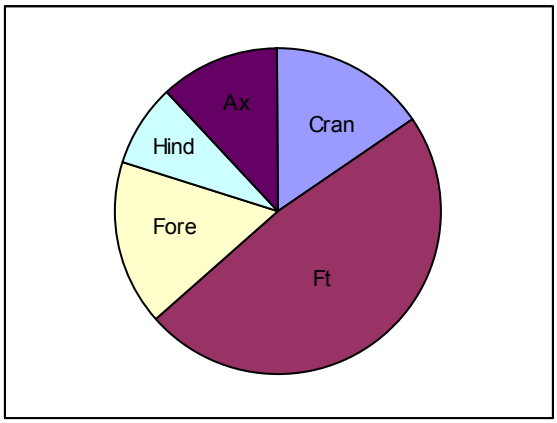

Figure 8: Iron Age *bit hilani* cattle body parts. (N = 134).

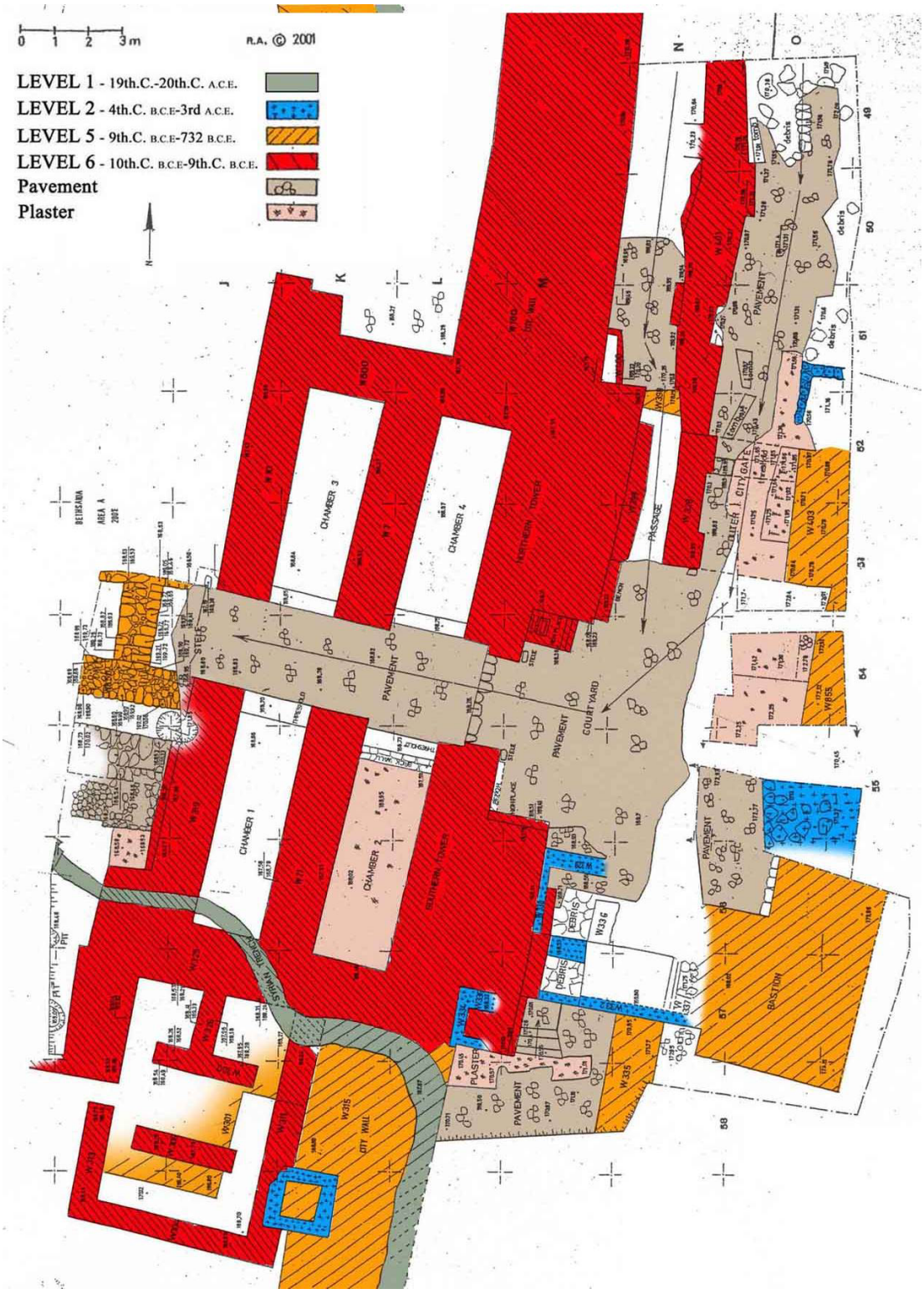


Figure 9: Diagram of Et-Tell's Iron Age gate complex.
Source: Rami Arav, Bethsaida Excavations Project, University of Nebraska at Omaha

Figure 10: Iron Age gate entrance. This view is to the west, looking through the gatehouse; the gate threshold is in the picture's center, running behind and between the two stelae.
Source: Photo by author

Figure 11: Iron Age stepped high place in the city gate complex. Note the rectangular offering basin at top of steps; the gate entrance is to the left of the stele.
Source: Photo by author

Figure 12: Stele with image of bull-headed deity. This stood behind the offering basin in stepped high place, as part of the Iron Age gate complex.
Source: Arav 2004:30

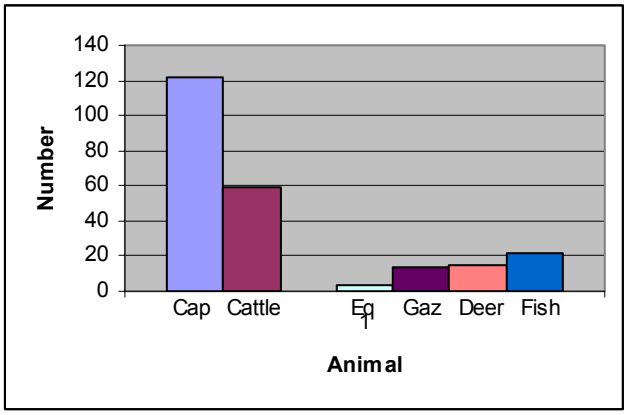


Figure 13: Iron Age gate complex fauna. (N = 235).

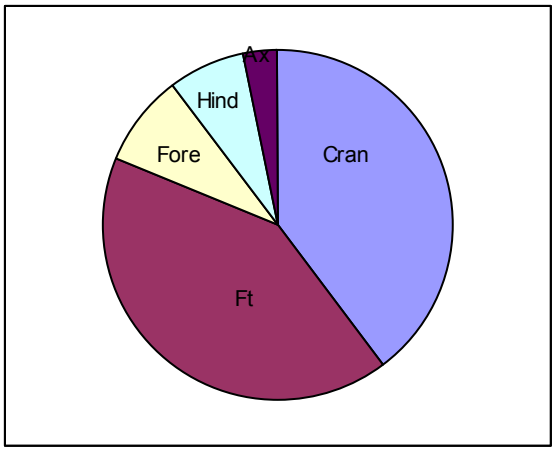


Figure 14: All Iron Age gate complex fauna body parts. (N = 213, excluding catfish).

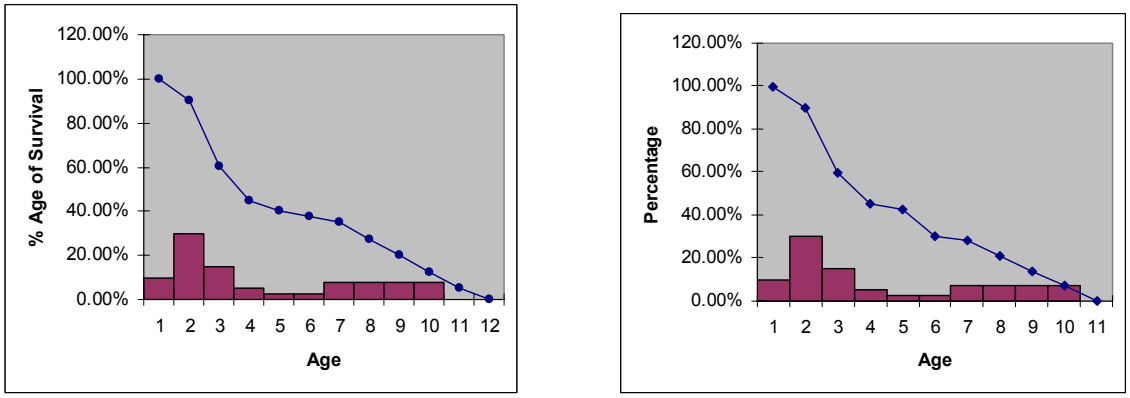


Figure 15: Iron Age caprine survival graph. Et-Tell's caprine survival graph (left), compared to Payne's meat production model (right, adapted from Payne 1973:282)

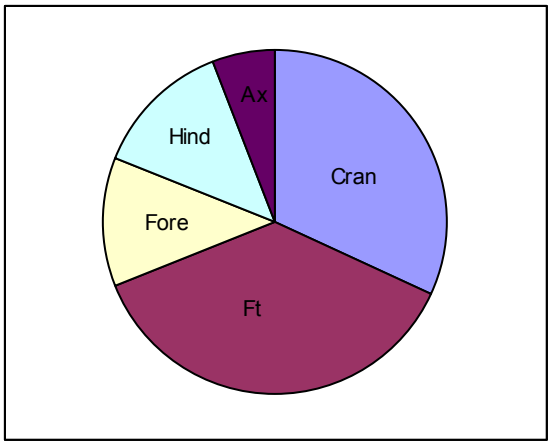

Figure 16: Iron Age gate complex caprine body parts. (N = 122).

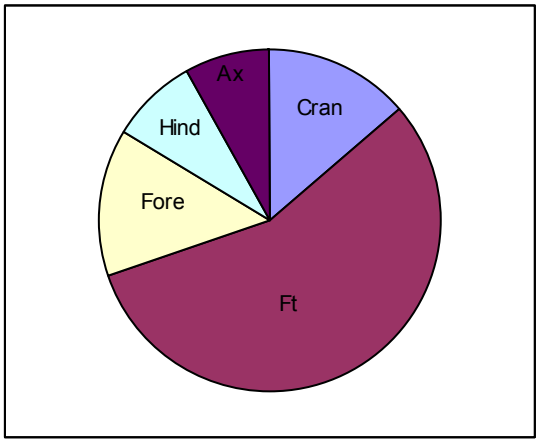

Figure 17: All Iron Age et-Tell cattle body parts. (N = 209).

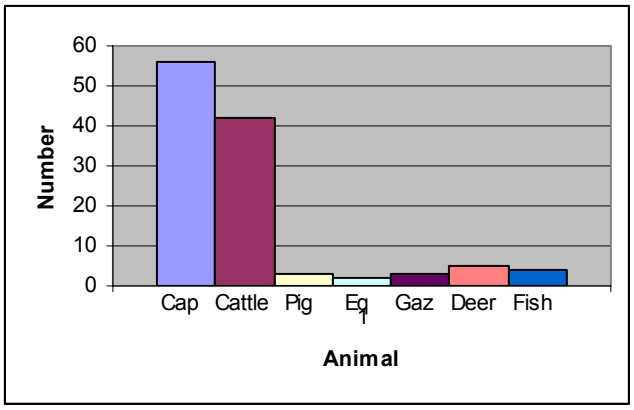


Figure 18: Early Hellenistic fauna, Area A. (N = 115).

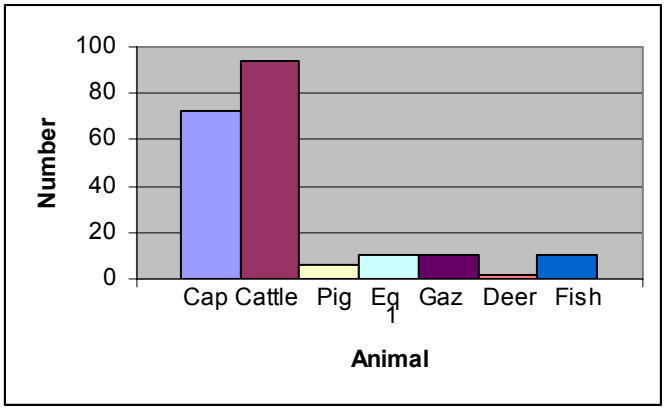


Figure 19: Early Hellenistic fauna, Area B North. (N = 204).

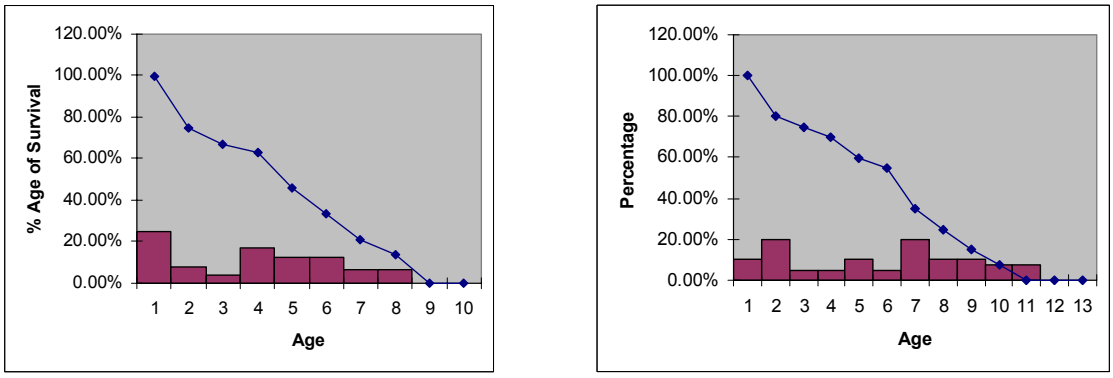


Figure 20: Early Hellenistic caprine survival graph. Et-Tell caprine survival graph (left), compared to Payne's wool production model (right, adapted from Payne 1973:284)

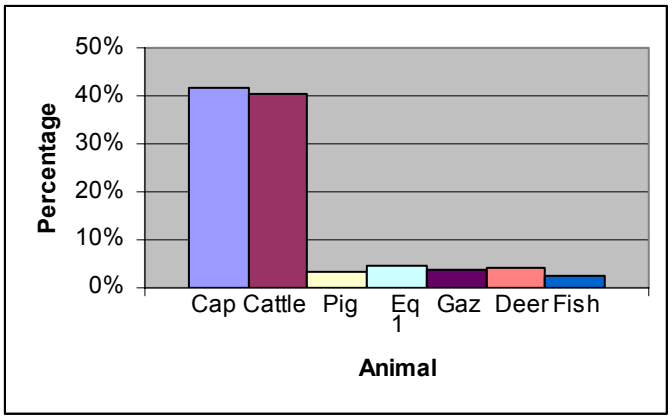


Figure 21: All Early Roman temple fauna. (N = 621).

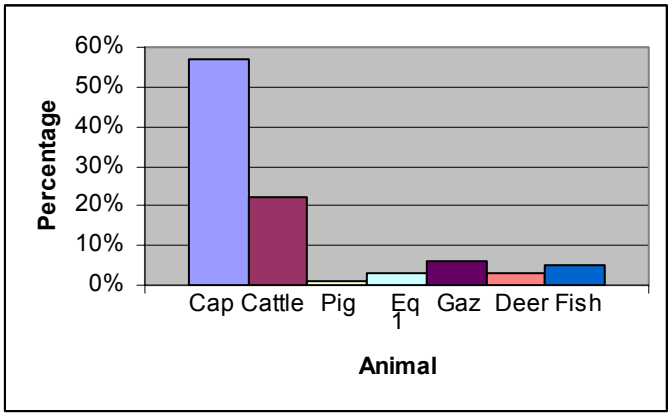


Figure 22: All Late Hellenistic / Early Roman non-temple fauna. (N = 392).

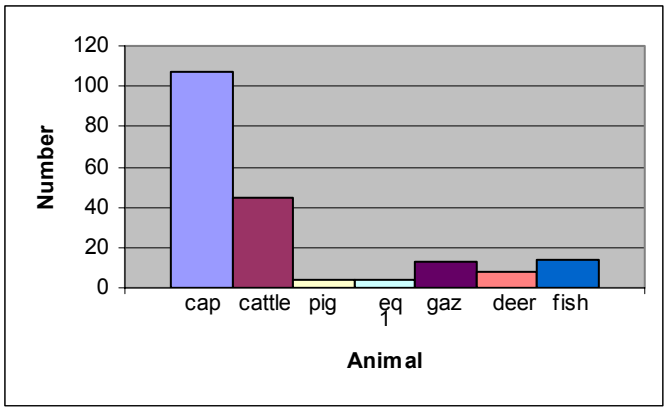

Figure 23: Non-temple fauna, Area A, 50s-squares

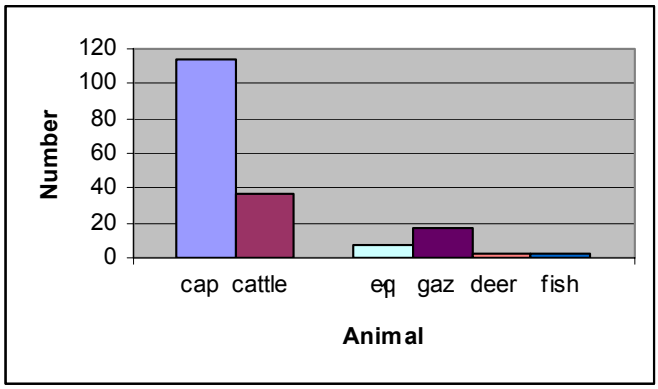

Figure 24: Non-temple fauna, Area B, 30s-squares

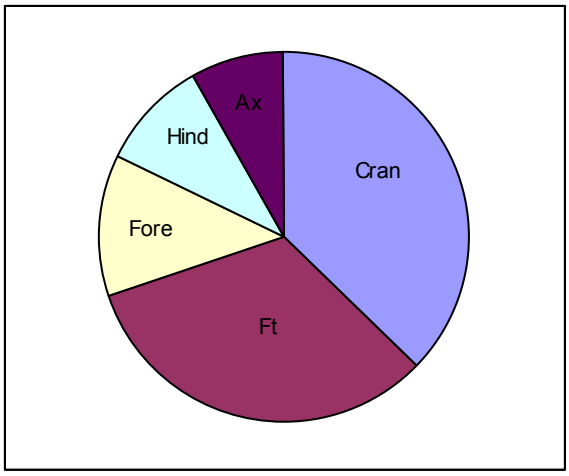

Figure 25: Early Roman temple caprine body parts. (N = 258).

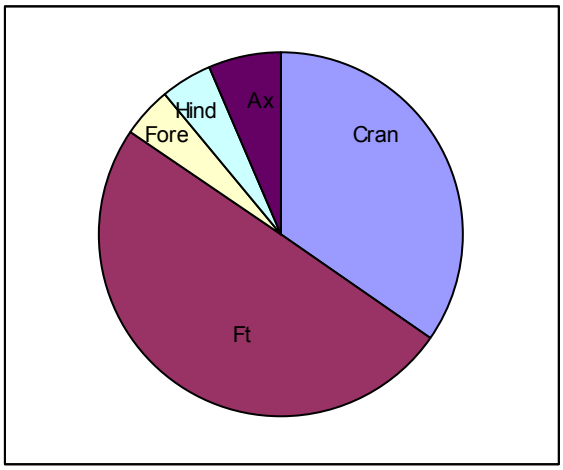

Figure 26: Early Roman temple cattle body parts. (N = 251).

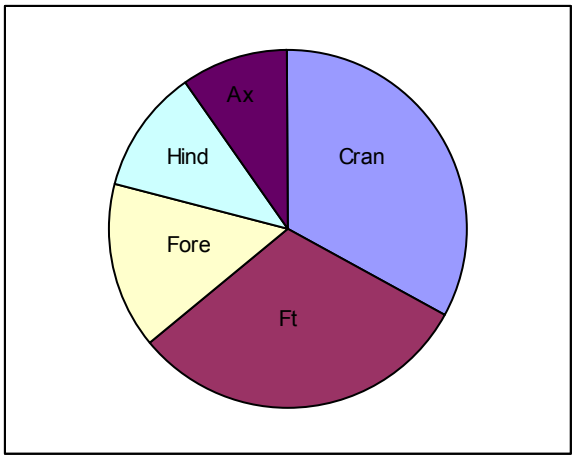


Figure 27: Late Hellenistic / Early Roman non-temple caprine body parts. (N = 224).

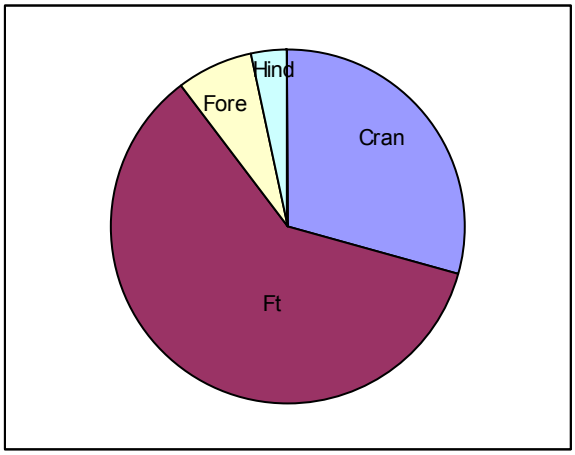


Figure 28: Late Hellenistic / Early Roman non-temple cattle body parts. (N = 88).

# Vita

Toni Gayle Fisher was born in Greenway, Arkansas, and was raised in and around St. Louis, Missouri. After marriage, raising a family and living all over the United States, in Germany and in England, she began her scholarly life as a non-traditional student at the University of Nebraska at Omaha in 1989. She graduated *summa cum laude* in 1992 with a B.A. in Religious Studies and a minor in Anthropology, and was honored as the Religious Studies Department Student of the Year. During her undergraduate education she participated in the University's first excavation at the archaeological site of Bethsaida in Israel. She was hired as the Bethsaida Excavation Project's American Coordinator, making all arrangements for the next year's excavation and supervising excavation volunteers.

In 1995 she earned her M.A. in Anthropology with a minor in Classical Art from the University of Nebraska at Lincoln. She continued to excavate at Bethsaida during the summer months each year as an area excavation supervisor.

Upon her entrance into the doctoral program at the University of Tennessee in Knoxville to study zooarchaeology under the supervision of Dr. Walter Klippel, she became the Staff Zooarchaeologist for the Bethsaida Excavation Project. Her analysis of the animal bones excavated at Bethsaida became the topic of her doctoral dissertation. She received her Ph.D. in Anthropology in 2005.