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Revisiting the Date of Stratum V at 'Araq El-'Emir, Jordan

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ABSTRACT

REVISITING THE DATE OF STRATUM V AT ‘ARAQ EL-‘EMIR, JORDAN

by

Daniel A. Ulvoczky

Chair: Randall W. Younker
Title: REVISITING THE DATE OF STRATUM V AT ‘ARAQ EL-‘EMIR, JORDAN

Problem

Paul W. Lapp excavated at ‘Araq al-‘Emir and dated Stratum V to Iron Age I with an occupation gap before later periods. Later findings by scholars suggested a later date for this stratum, but no one has reviewed the original material in order to complete this. This study revisited the date of Stratum V using Lapp’s original sherds and field notes.

Method

The original sherds and field notes were borrowed from Nancy L. Lapp at Pittsburgh Theological Seminary. The data in the field notes was cross-examined with the sherds to identify the relevant sherds. A comparative analysis was conducted on these sherds to achieve a date for the stratum.
Results

The results of the comparative analysis showed a range of sherds from Iron Age I to the Iron Age IIC/Persian Period. Since strata are dated based on the latest sherds, Stratum V should be dated to the Iron Age IIC/Persian period.

Conclusions

Lapp was wrong in dating Stratum V to Iron Age I. Ji is correct in pointing out that Lapp’s sherds represent a later time period. However, critics of Lapp should not deny that evidence exists for Iron Age I activity. Stratum V should be dated to the Iron Age IIC/Persian period.
Andrews University
Seventh-day Adventist Theological Seminary

REVISITING THE DATE OF STRATUM V
AT ‘ARAQ EL-‘EMIR, JORDAN

A Thesis
Presented in Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
Daniel A. Ulvoczky
April 2017
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AT ‘ARaq EL-‘EMIR, JORDAN

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LIST OF ABBREVIATIONS

AE ‘Araq el-‘Emir
LPB Lapp’s Pottery Book
UPR Unpublished Preliminary Report
PRB Pottery Registration Book
CHAPTER 1

INTRODUCTION

Overview

Paul W. Lapp excavated at ‘Araq el-‘Emir (AE) for three seasons in the early 1960s, and his campaigns are best known for the Hellenistic period discoveries including the feline fountain carving at the base of the Qasr al-‘Abd. Lapp also excavated on an elevated ridge to the west of the Qasr, an area he called the “Village” and “Field I” (Lapp 1961: 1).1 Here in Field I, Lapp discovered five distinct strata.2 Stratum V was designated the Iron Age stratum. It lay mostly on bedrock and was the deepest distinct stratum. Lapp dated the preliminary forms from Stratum V to Iron Age I — specifically 1050 B.C. — and suggested a large occupational gap during subsequent occupations (Lapp n.d.: 2). Although he gave this dating in the early 1960s, his forms and date from his preliminary report were only published in 1989 (Lapp and Will 1989).

Years later, C.C. Ji challenged Lapp’s date based on the few published forms. Ji argued that Lapp’s published forms indicate that Stratum should be dated to Iron Age II (920–539 B.C.) with no occupation gap before later periods (Ji 1998: 424). The later excavations in this stratum in Field I by French archaeologists seem to support this thinking also.

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1 See Fig. 1 for Lapp’s top plan of AE.  
2 See Fig. 5 for a summary of strata found in Field I at AE.
Fig. 1. Lapp’s Top Plan of AE (Lapp 1972: 17). Field I (The Village) is in the top-right, while Field II (The Qasr) is in the bottom-left. The caves with the Tobiah inscriptions are marked “Cliffs and Caves.”
Statement of the Problem

Underlying Problem

Before a comparative analysis can even begin, the underlying problem must be defined: it is not clear which Iron Age sherds came from clean, stratified contexts. Much of the Iron Age material Lapp found was mixed with material from later Hellenistic period remains. Many of the loci that contained Iron Age remains were mixed with later material. It seemed that the Hellenistic period builders dug down into the Iron Age remains when they built structures. The most accurate dating of the stratum will be based on sherds from loci where the latest type of material was Iron Age. The sherds from these clean loci must be identified before the main problem can be solved. In this study, the terms stratified, clean, and sealed loci are understood to reference areas that have been undisturbed since their last use in antiquity, and where Iron Age sherds were the latest type found.

Main Problem

The overall problem that this study aims to solve is that no one has conducted a comparative analysis on all the clean, Iron Age sherds from AE in order to 1) make clearer the Iron Age stratigraphy of Field I: 2) provide a scholarly response to Ji; and 3) suggest a clearer Iron Age history of AE based on the findings. Despite some work by a few scholars since Ji’s critique, this problem has not been solved.

Methodology and Scope of Research

In this study, the background of the problem is explained first. The history of the site is explained to see how old the literary sources suggest the site to be. Also, the
history of excavations are discussed for context regarding how Lapp’s excavations fit into the site’s exploration. Lapp himself is shown to be a scholar with trustworthy field notes that can be used for identifying stratified sherds. The scholarly conversation and recent work with Lapp’s ceramics is also summarized for the context regarding how revising Lapp’s original date will fit into the dialogue.

Next, all the available data in the Lapp’s field notes will be summarized because this is the only evidence that exists for identifying stratified sherds. The process of deriving stratified sherds is shown to go clearly back to the Lapp’s field notes. All assumptions are identified, along with any gaps, and future possibilities to improve this study. Lastly, the comparative analysis results are discussed and a date for the Iron Age stratum (Stratum V) is proposed. Nancy L. Lapp has kindly made the original sherds and field notes available to the author for this research.

This study was delimited to studying the areas of the AE excavations where Iron Age material was found. Much of the work at the site to date has been focused on the Hellenistic and Byzantine period remains at the Qasr al-Abd, but that is out of scope for this research since no Iron Age remains were found within the strata at the Qasr site. Out-of-scope excavations will be referred to briefly in the history of excavations, but will not be explored in depth unless it provides clarification for the Iron Age stratum. In addition, comparative sites were delimited to those with Iron Age occupations in Transjordan and Cisjordan.
**Purpose and Significance of Research**

The purpose of this study is to revisit the date of the Iron Age stratum of Field I at AE. This will be based solely on the dating of stratified sherds from clean, sealed loci. This study also seeks to suggest a clearer history of AE during the Iron Age.

Identifying material from clean loci before conducting an analysis is crucial because it will allow for an accurate comparative analysis, which, in turn, will provide an accurate dating of Stratum V. A correct date for the Stratum V is critical for understanding the history of the site. Possible biblical sites have been suggested for AE. With the proper Iron Age stratum date established, suggestions for possible biblical sites may be made more accurately, and the history of the site better understood. A revised date will also provide additional detail of the ceramic chronology of the Iron Age in Transjordan. The additional published sherds from Stratum V will further add to the knowledge base of ceramic parallels of Transjordan, and will be able to be used for parallels by scholars in the future. Furthermore, a revised date will allow for a scholarly response to Ji’s critique of Lapp’s dating. This is why revisiting this study to revisit Lapp’s date for Stratum V is necessary and significant.
CHAPTER 2

REVIEW OF LITERATURE

Ancient History of the Site

The archaeological site ‘Araq el-’Emir is located in Jordan, west of Amman, on the Wadi Seir and associated with modern village of ‘Iraq al-‘Emir. It is best known for the Hellenistic Qasr or fortress built by Hyrcanus in the 2nd century B.C. and the complex cave system bearing the Tobiah inscriptions above the valley. The modern village now covers the rise to the west and Lapp’s Village excavations.

Much of the history of ‘Araq el-‘Emir in the Hellenistic period is described in the records of Josephus’ (Thackeray 1926: Ant. 12.228-233). Josephus is the first author to mention the site, and most scholars begin with his descriptions when talking about the history of AE. Josephus describes the site in 90 A.D. and it is in such detail that in 1932 it was still accurate enough to identify the site unmistakably (McCown 1957: 69). Josephus describes the Hellenistic period history; Hyrcanus and the Tobiads’ building projects, including a fortress built in 185 B.C., along with many other unique structures and halls. No mention is made of Iron Age history.

The history of the site can be traced back to the Persian period through the etymology of the Tobiah inscription and records in the book of Nehemiah. In the Zenon Paypyri, there are three documents from the year 259 B.C. that possibly give more
information about the site (P. Cairo Zenon 59037: 973). Two letters from a “Tubias” are addressed to Ptolemy II Philadelphus and one of his officials, in which Tubias is an official who is responding to a request from the king (McCown 1957: 70). Another document, a deed of sale from the same year, describes Zenon’s purchase from two soldiers of the cavalry of Tubias that took place in Tubias’ Birta of Ammanitis. The Aramaic “birta” is the equivalent to Josephus’ Greek word “baris,” meaning fortress (Mazar 1957: 140). Tubias then was a military man who governed “Ammanitis” for the king and likely gathered taxes (McCown 1957: 70). This place is likely referring to the fortress at AE, and so puts a member of the Tobiad family there in the third century B.C. (McCown 1957: 71, 72). The modern name of Wadi Seir and the Qasr al-Abd also have a peculiar similarity to ancient names (McCown 1957: 73).

Tubias’ position in relationship to Ptolemy is very similar to that of Tobiah’s (of Nehemiah’s time) to the Persian king Artaxerxes I in the 5th century B.C. (McCown 1957: 70). Although called an “Ammonite slave” (Neh. 2:19), the word slave in the 5th century B.C. meant a servant or official of the king. It was not a derogatory use of the word. This can be seen in Hebrew, Aramaic, and even Akkadian (Mazar 1957: 140). Furthermore, Tobiah was not an Ammonite; he was a Jew. It is likely that he was the “Persian-appointed ‘governor’ of Ammonite territory” which makes the Tobiad family “established in Transjordan” already in the fifth century B.C. (McCown 1957: 71, 72). The Assyrians, who ruled the area earlier than the Persians, were also known for using local people as governors and official messengers for manipulative purposes (Reade 1979: 333). Literary sources suggesting the Tobiads being in power at AE in the 5th
century BCE (and possibly earlier) indicate the possibility of a significant occupation at
the site at least as early as this time period.

**Modern Explorations and Excavations**

The earliest documented visit to AE occurred in 1817 by Charles Leonard Irby and James Mangles (Irby and Mangles 1823). The French scholars included Eugène-Melchior de Vogüé and Louis Félicien de Saulcy, who came in 1864 and 1868, respectively (de Vogüé 1887; de Saulcy 1898). They were followed by Claude Reignier Conder, from Great Britain, in 1881 (Conder 1889). The Aramaic letters of the Tobiah inscriptions were what mostly interested these early explorers (McCown 1957: 67). In 1904-1905, the Princeton University Archaeological Expedition to Syria made a stop at AE and made the first complete study of the site (Butler, Norris, and Stoever 1930: 1–22, 33). Howard Crosby Butler, from the Expedition, made the first detailed map of the entire area (McCown 1957: 66, 68). At that time, the site was better preserved and did not have a modern town resting on top of it, so the map included many places and features of the site which are now gone or covered over. Butler’s 1905 map proved to be so useful, that many scholars have made use of it since, and even Paul Lapp used an adaption of it in his first publication of AE (Lapp 1962: 17).³

In 1932, C. C. McCown surveyed the area, and 25 years later, in 1957, wrote a detailed explanation in *The Biblical Archaeologist*, showing Butler’s map and several photographs. After listing the still-to-be-answered mysteries of the site, McCown urged readers that “excavation in any case is highly desirable” (McCown 1957: 74). After

³ For a convenient summary of early explorations, see McCown 1957 and Lapp and Will 1989.
McCown, Nelson Glueck surveyed the site on July 31, 1937, and published his findings in *BASOR* the same year, and also in *AASOR* in 1939 (Glueck 1937: 17). Glueck suggested dating the original construction to Early Iron Age I (Glueck 1939: 155).

**Paul Lapp**

For the next 24 years the site was left alone, until an American archaeologist and then director of the Jerusalem School started looking for sites with both Persian and Hellenistic Period stratification, to observe the transition between the two periods (Lapp 1962: 17). Paul Wilbert Lapp was an American archaeologist specializing in Near Eastern studies. Before beginning his career in archaeology, Lapp earned degrees in Theology, Education, and a doctorate in Educational Administration. He also had a strong interest in music and played the organ (N. Lapp 1975: 126). Following his interest in Semitic languages, he ended up a doctoral student of W. F. Albright at Johns Hopkins University and later of G. E. Wright at Harvard University. Lapp’s dissertation, *Palestinian Ceramic Chronology 200 B.C. – A.D. 70*, was published by ASOR, much to the delight of Albright who recognized the lack of study in this area (Albright 1961: 28). Since funding was not available through ASOR, Lapp himself financed the publishing (Albright 1961: 29).

Lapp spent much of his career in Jerusalem. He had his first field experience in 1957 at Tel Balatah and a fellowship at the W. F. Albright Institute in Jerusalem (then the Jerusalem School). In 1960, Lapp became a professor of the school and also the director of the School from 1961 until 1968 (N. Lapp 1975: 126). During this time he produced
the final publication of his excavations at Dhar Mirzbaneh, *The Dhahr Mirzbaneh Tombs*, along with many articles and reports on his findings.

When Lapp decided to dig at AE in 1961, his focus was on the Persian and Hellenistic periods. Lapp read McCown’s 1957 article (the same year as his first field experience) and it is plausible that it influenced him to dig at AE. Lapp was also influenced by Benjamin Mazar’s research on the history of the Tobiad family that related to the site. Lapp planned and organized a sounding of the site in April and May of 1961, with two goals: 1) to determine the stratigraphical history of the entire site, and 2) to date the construction of and shed light on the history of the Qasr. These were very similar to the questions McCown believed were still to be answered. A second excavation happened later on in the same year, and a third followed in the spring of 1962. Lapp planned to return in 1964 and continue to excavate the fortified walls in the village that were believed to be Iron Age in date, and perhaps explore the caves, but he did not return (Lapp 1963: 39). In 1968 he moved back to the U. S. and taught as a professor at the Pittsburgh Theology Seminary. Then, less than two years later while in Cyprus organizing a future excavation, Lapp unexpectedly passed away in a swimming accident.

Besides ‘Araq el-Emir, Lapp directed excavations at the sites of Wādī ed-Dāliyeh, Dhahr Mirzbaneh, Tell el-Fûl, Ta’annek, Bāb edh-Dhrâ, and Tell er-Rumeith (Hillers 1970: 1–4). He published 70 works in just 14 years. Lapp accomplished all of this before his 40th birthday. He prioritized publishing his findings, and his style was considered very popular and memorable (N. Lapp 1975: 121–124). His wife, Nancy L. Lapp, continues to

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4 Lapp references McCown’s article in footnote 1 of his 1962 publication in *BASOR* (Lapp 1962: 16).
5 Lapp references Mazar’s articles on the Tobiads in his footnote 2 of his 1962 publication in *BASOR* (Lapp 1962: 16).
publish his newsletters and some preliminary reports to this day. Paul Lapp’s legacy is summarized by the question asked by the faculty of the Pittsburgh Theological Seminary in his memoriam at the end of *The Tale of the Tell*: “Where is the one who is as rigorously honest and as completely disciplined with the mind as sharply honed as Paul Lapp, who will comprehend the work done and continue the intense search for truth?” (N. Lapp 1975: 127).

**Scholarly Conversation**

Before his death, Lapp wrote several unpublished newsletters and published reports on the seasons of excavation at AE. He also completed a preliminary report on the Iron Age stratum, but it was never published. He strongly believed that the ceramic forms indicated an Iron Age I dating in the middle of the 11th century — 1050 BCE.

From 1979 to 1985, a French expedition led by archaeologist Ernest Will and an architect, François Larché, continued excavating at AE (Larché, Villeneuve, and Zayadine 1981; Will and Larché 1991). Despite their focus on the Qasr el-Abd, they found settlements from late Iron Age II and the early Persian periods on the modern village site where Lapp excavated the stratum he called Iron Age I (Ji 1998: 425). Their work seemed to disprove Lapp’s ceramic dating and hypothesis that a large occupational gap occurred between Iron Age I and the Hellenistic period. In 1989, Nancy Lapp published the Iron Age forms with Paul Lapp’s dating (Lapp 1989: 288). C. C. Ji criticized these forms in 1998 and called them Iron Age II and transitional Persian forms (Ji 1998: 422). The more recent excavations and observations indicated that P. Lapp’s original dating may not have been entirely correct.
Most recently, Lapp’s ceramics were analyzed by Michael Zimmerman and Benjamin Wiggershaus. Zimmerman, from Brown University, completed his Ph.D. in 2007 on the Hellenistic-Roman period pottery of AE. He included, as part of his summary of the excavation, a brief description of the architecture and stratigraphy of the Iron Age stratum. In this, he compared six Iron Age sherds and suggested that they supported an 11th century B.C. dating of the Iron Age Stratum, which agrees with Lapp (Zimmerman 2007: 67–75). He did not provide any details about whether the six sherds were stratified or which baskets they came from.

Wiggershaus, from Pittsburgh Theological Seminary, completed an M. A. thesis in 2010 on the Iron Age ceramic corpus from AE. He dated the latest Iron Age sherds to the 8th century B.C. (Wiggershaus 2010: 68). His focus was on a regional typology and described many parallel forms, but only used 28 AE sherds to suggest the date. He did not provide details about the sherds’ stratification, nor did he identify them by the sherd numbers marked on the sherds. Neither of these last two authors’ work can be used for identifying sealed Iron Age sherds.
CHAPTER 3

ANALYSIS OF THE AVAILABLE DATA

Background of the Data

Lapp’s primary sources (AE sherds, field notes, and Lapp’s original manuscripts) were later made available to the author in 2015. This chapter describes the approach that was used to arrive at a definite list of stratified material for the subsequent comparative analysis. In archaeological best practices, sherds and baskets are documented with numbered loci. This shows exactly where each sherd came from inside the excavation unit. Loci are usually described in the square supervisor’s notes, and in this way each sherd can be directly identified as being stratified or not.

Unfortunately, in the AE data, details about sealed loci and stratified sherds are sparse for a number of reasons. All of Lapp’s ceramics were excavated in the 1960s, at a time when archaeological methods were just beginning to become standardized. Square supervisor records are not available. Only the diagnostic sherds were saved. Field notes and ceramics have been shuffled around in labs for the last 50 years. It is possible that not all of the documentation or sherds have survived to this day. The available field notes do not present the exact same picture about the stratified sherds. Only Lapp’s Pottery Book (LPB), an unpublished field journal, mentions locus numbers, but not enough information exists elsewhere in cross-sectioned drawings to identify which part of the square the
locus numbers refer to. Locus numbers do not seem to have been documented properly in Lapp’s primary sources about AE. Therefore, a comprehensive list of stratified material must be based on only what is available in the original field notes.

The sources that are currently available have been analyzed collectively to yield results with the greatest accuracy possible. Data for this study were collected from Lapp’s collection of 1) published, and 2) unpublished works. These sources together provide the most complete picture of the excavations and stratified sherds, and will be described separately below to distinguish their contribution to the identification of stratified material. If, in the future, any additional primary sources from AE should become available that provide more direct links between sherds and loci, a new analysis should be undertaken to verify the results of this study.

**Published Articles**

Lapp provides only an overview of his excavations in his published articles and reports. These sources mention the history of the excavation, all the architecture from the Iron Age stratum, and areas that were considered sealed loci. No locus numbers are stated or provided in charts in the published reports. Only descriptive references to sealed loci are included in these sources. However, when these descriptive references are compared to Lapp’s field notes, some basket numbers can be linked to sealed loci based on similar descriptions of the areas. The published works also provide a visual reference, by way of drawings, to where sealed loci were found.

The following summary of published articles gives evidence for the locations of sealed Iron Age loci. Only a few locations provided Iron Age potsherds from sealed loci. This is because excavation only occurred for three seasons and a limited amount of Iron
Age material was found, in comparison to the vast amount of material from the Hellenistic period onwards. In addition, the Hellenistic period builders, who constructed buildings on top of the Iron Age stratum, cleared off large portions of the Iron Age stratum as they laid their foundations.

The darker shading in the following figures indicates locations of sealed loci that Lapp describes in his reports. The lighter shading indicates the architecture and floors that are part of the Iron Age stratum. The intent is to provide a visual representation of the layout of the Iron Age stratum in the field. Table 1 describes all the strata of Field I.

Table 1. Summary of Strata in Field I (The Village), summarized from Lapp and Will 1989: 283–87.

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Date</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>VI</td>
<td>Early Bronze Age</td>
<td>Pottery in fills, small patches of occupation. One area with an Early Bronze Age 1a floor.</td>
</tr>
<tr>
<td>V</td>
<td>Iron Age</td>
<td>Two walls and some foundations. Segment of possible defensive wall. Few clean loci.</td>
</tr>
<tr>
<td>IV</td>
<td>Hellenistic Period, early 2nd century B.C.</td>
<td>Area leveled to bedrock to make space for a thick plaster floor. A drain in plaster floor. Plaster Building to the West of the mound.</td>
</tr>
<tr>
<td>II</td>
<td>Late 1st century A.D.</td>
<td>Stratum III walls reused, partition walls added.</td>
</tr>
<tr>
<td>I</td>
<td>Late 2nd century A.D.</td>
<td>Stratum II walls reused. Broken plaster floor, thresholds, ovens.</td>
</tr>
</tbody>
</table>

Season One

The first season went from April 10 – May 5th, 1961 (Lapp 1962: 16–33). There were two fields opened in the first season. The first was on the northwest corner of the small mound Lapp called the Village of ‘Araq (Field I), and the other was at the Qasr (Field II). The field of interest is Field I because this area ended up being the only place
where an Iron Age stratum was found throughout the three seasons of excavation.

However, Iron Age sherds were common on the surface and in other contexts throughout the site. Two squares were opened in the Village and dug to bedrock (Lapp 1962: 19). The average depth of material before bedrock was reached was 2-3.5 meters. In the first season, four distinct layers were seen, and the Iron Age material was first named Stratum IV.

In the first season, the team reached the Iron Age stratum only in the last few days of excavation, and it seemed that a small canal was part of the architecture of this stratum (Lapp 1962: 23). There was not enough time to complete their analysis of this layer, but they did discover a “pure Iron 1 ceramic group” inside a small canal (Lapp 1962: 23). This is the first indication of a sealed Iron Age locus. The architecture attributed to the Iron Age stratum in Square 1 included the canal, a small pit at the end of the canal, the Square N2-1 and N2-4 walls, which are shaded in the annotated version of Lapp’s map (see Fig. 2) (Lapp 1962: 23).
The Iron Age stratum was also found in Square 2, including “1.25 meters of homogeneous Iron I debris in two distinct layers lying on the bedrock” (Lapp 1962: 24). This is one other indication of a sealed Iron Age locus. The only Iron Age architecture in Square 2, Wall N2-x, is shaded in Fig. 3.

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6 Adapted from Lapp’s map (Lapp 1962: 18).
Fig. 3. Lapp’s plan of Field I, Square 2, showing Stratum I-IV features. The author has shaded the Iron Age stratum features.

Seasons Two and Three

The second season went from September 4 – October 20, 1961 (Lapp 1963: 8–39). In Season two in Field I, multiple squares were opened between the two squares from the first season, to have a full section and see if any of the structures from the two squares connected in the middle (Lapp 1963: 10). Some walls were discovered late in the season that seemed to be an Iron Age I fortress. The third season went from September

7 Adapted from Lapp’s map (Lapp 1962: 21).
10 – October 12, 1962 (Lapp 1963: 8–39). In season three, the goal was to excavate as much as possible inside two walls, N-1 and W-1, and also to investigate the area found in the last season and determine if it was indeed an Iron Age fortress (Lapp 1963: 10).

It was in this last season that an early Hellenistic period layer was found, which caused Lapp to update his stratigraphy and rename the Iron Age layer “Stratum V” (Lapp 1963: 10). The builders of Stratum IV, around 175 B.C., dug down and scraped off much of the Stratum V material, so floors of Stratum IV were often found lower than the foundations of Stratum V (Lapp 1963: 13). These Stratum V foundations were made of stone, and much mudbrick debris was found which indicated that these foundations had mudbrick superstructures on them. Only one clear occupation surface of the Iron Age stratum was found, and that was by Walls W-2b and N-3, which had a tabun preserved in it (Lapp 1963: 13). Lapp does not specifically call this area “sealed,” but the way he describes it as a clear occupational surface with no interruption makes it plausible that it is a sealed loci.

Two walls were found in Stratum V, in the squares between Squares 1 and 2, which were wide enough to be fortification walls. These are NW-1 (N2-1 in the first season) and SW-1, which were both one and a half meters wide (Lapp 1963: 13). The other Stratum V walls were narrower: NW-2, NW-3, NW-4, NW-5, NW-6 (N2-x in the first season), NW-5, and SW-2. These are lightly shaded in Figure 4.

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8 Figure 5 summarizes the strata of Field I.
Fig. 4. Plan of Strata IIIa-VI in the Village, with Stratum V (Iron Age) shaded by the author.\(^9\)

**Unpublished Field Notes**

Lapp left much more information in his unpublished field notes. There are three sources in this category that contain enough data about stratified sherds to identify the

\(^9\) Adapted from Lapp’s map (Lapp 1963: 9).
actual sherds. The first is a personal journal where he recorded each day’s baskets per square. The next source is an unpublished preliminary report, which Lapp wrote about the Iron Age stratum (Lapp n.d.: 1). Third, a pottery registration book was compiled after the excavation from notes in Lapp’s book and the square supervisors’ records. These will be described in greater detail in the following chapter.

The Sherds

The sherds themselves also provided data through the unique registration numbers written on them. The existing AE ceramic material from Lapp’s campaigns total to 647 diagnostic sherds. All are marked with at least the Year, Field, Square, and Basket number. There are 435 sherds that are further assigned a sherd number, mostly because they are diagnostic sherds. The completely unique registration number includes Year, Field, Square, Basket, and Sherd number (if available).

Basket numbers were reused in each square, so the Square, Basket and Sherd designations are needed collectively to identify a single sherd. The three sources of unpublished field notes have varying amounts of sherd designations (square, basket, number information), sometimes only allowing one to identify a basket instead of a sherd.

The ceramic material available only has sherds from Squares 1, 2, 4, 5, 6, 7, 9, and 10. However, there were at least 16 squares in Field I. This means that either there was no Iron Age material in the unrepresented squares, or those sherds have been lost.

The data of all 647 available pieces were added to a database for analysis.

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10 LPB provides information for sherds from the following squares in Field I (The Village): Square 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 14, 16. The physical sherds provided by N. Lapp are only from Squares 1, 2, 4–7, 9, 10, and 13.
CHAPTER 4

THE STATIFIED SHERDS

Introduction

This chapter describes the approach for interpreting Lapp’s primary sources about AE, and the assumptions made to arrive at the list of stratified sherds. Data from the three unpublished field note sources were combined in a database alongside the registration numbers of every available sherd in order to analyze all available data against each other and derive the actual stratified sherds.

Lapp’s Pottery Book (LPB)

In this first source, Lapp personally scribbled short, general descriptions of the pottery baskets and the location in the square from which the sherds came from. Only Field, Square, and Basket number designations are provided. Lapp also provided an important piece of information in these descriptions — whether the basket of sherds represents a pure, stratified locus, or whether it was mixed. Locus numbers are also sometimes included here, but there is not enough information to understand what part of the square each locus is. The baskets for which Lapp wrote “pure,” “all,” or “only” Iron Age were assumed as being stratified per this source. There were 245 corresponding sherds that were identified in this ceramic material.
Unpublished Preliminary Report (UPR)

This source is an unpublished manuscript written by Lapp that was meant to be a preliminary report for the Iron Age stratum. In this report, he conducted a comparative analysis and drew 52 sherds from the Iron Age stratum, however the report was never published. These 52 forms are those that were later published by N. Lapp in 1989 (without P. Lapp’s comments) and which elicited a response by C. C. Ji challenging Lapp’s 11th century B.C. dating. Since this was only meant to be a preliminary report, Lapp only used sherds from Squares 1 and 2. It is likely that this report was written shortly after the first excavation season in 1962.

In the introduction, Lapp states that the forms he drew and discussed are from a stratified context. The only exceptions are when there was a better-preserved version of that form from mixed loci. Lapp explains:

All of the identifiable forms of the strata from which the groups come are included in the drawings of each group. The forms are either from strata containing homogeneous groups, like the first and last groups, or they have been isolated as belonging to the latest horizon of an imported fill, as in the case of the Hellenistic and Roman groups. In some instances the actual forms under discussion are not from chronologically significant contexts, but in these instances, they are merely better preserved parallels of stratified material (Lapp n.d.: 1–2).

Lapp’s statement means that all 52 sherds he documented were either: 1) stratified, or 2) unstratified, but better versions of actual stratified sherds. Since Lapp provided Field, Square, Basket, and Sherd designations, fifty of these exact sherds were found and

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N. Lapp published only P. Lapp’s plates and forms, and not his actual comments in his preliminary report (Lapp and Will 1989).
identified as stratified per this source. Lapp’s statement indicates that other sherds with the same basket numbers are not necessarily stratified, so these sherds were not included in this study unless other sources included them.

**Pottery Registration Book (PRB)**

The Pottery Registration book provides data about the sherds like the designation of ceramic type and diagnostic type, the stratum in which it was found, a field dating (given in terms of stratum, e.g., Stratum V), whether it has been drawn, and the plate and item number of the drawing. If a basket was found in Stratum V (Iron Age Stratum) and contained Stratum V pieces, the basket was assumed to contain stratified sherds. The PRB identified 208 stratified sherds in the ceramic material.

**Total Stratified Sherds**

Individually, LPB identified 245 stratified sherds, the UPR identified 50 stratified sherds, and the PRB identified 208 stratified sherds. Some of these numbers overlapped across each source, so all together there were 331 unique stratified sherds identified. The sherds which were not diagnostic types (e.g., handles, plain body sherds, etc.) did not have enough features to find parallels in the analysis, so these were set aside, reducing the number to 224 stratified sherds.

The assumption was made by this author that if a sherd was featured in multiple data sources, indicating its stratification, it would be assigned to a higher level of confidence, that it is a stratified sherd. This was done in case the comparative analysis showed a variation in dating, so that more weight could be given to those sherds with more sources. Nine sherds appeared in all three sources, and these were assigned the
“Primary” confidence level. The sherds with only one primary source supporting stratification were considered not reliable because they were not featured in the other two sources. These sherds were removed from the list. However, the 32 sherds uniquely identified by the UPR were still considered because Lapp acknowledges that those forms may not be stratified, but confirms that they represent stratified forms. These 32 sherds were given the “Secondary” confidence level. One hundred sherds were agreed upon by at least two sources. Ninety-nine of these agreements were between the PRB and LPB sources, showing a high correlation between these two sources. These were given the “Tertiary” confidence level. The final number of stratified sherds was 141. The details in this section are summarized in Table 2.

The 141 sherds described above and listed in Appendix A are the focus of the following comparative analysis to determine the date of the Iron Age Stratum, because it would seem that these are the sherds that have original sources stating they are from sealed loci. All of Lapp’s original work has been analyzed and condensed. If there is any variance in sherd dates, the date of the sherds with more original sources are given a greater importance. These 141 sherds should be accepted as the best representatives of Stratum V (Iron Age Stratum) at ‘Araq al-‘Emir as excavated by Paul W. Lapp.
Table 2. Stratified Sherd Count and Assumptions

<table>
<thead>
<tr>
<th>Confidence Level (of Stratification)</th>
<th>Description</th>
<th>Assumption</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>Stratification verified by ALL THREE sources:</td>
<td>Best candidate for a stratified sherd</td>
<td>9 sherds</td>
</tr>
<tr>
<td></td>
<td>1. Lapp’s Pottery Book (LPB)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Unpublished Preliminary Report (UPR)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Pottery Registration Book (PRB)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td>Stratification verified by UPR only:</td>
<td>Probably a stratified sherd</td>
<td>32 sherds</td>
</tr>
<tr>
<td></td>
<td>- LPB only (49 sherds)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- UPR only (32 sherds)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- PRB only (34 sherds)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tertiary</td>
<td>Stratification verified by any TWO of the THREE sources:</td>
<td>Might be a stratified sherd</td>
<td>100 sherds</td>
</tr>
<tr>
<td></td>
<td>- LPB &amp; PRB only (99 sherds)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- LPB &amp; UPR only (1 sherd)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- PRB &amp; UPR only (0 sherds)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total:</strong></td>
<td></td>
<td>141 sherds</td>
</tr>
</tbody>
</table>


CHAPTER 5

COMPARATIVE ANALYSIS

Introduction

Since Nancy Lapp has kindly made all of Paul Lapp’s AE ceramics available to the author, the stratified forms were identified, drawn, and compared to published forms. Interestingly, P. Lapp was not entirely mistaken in dating some forms to Iron Age I. While there is limited Iron Age I material, the majority is Iron Age II. Since Iron Age II is the later date, this dates the whole stratum to Iron Age II. More specifically, the latest forms are from the Iron Age IIC and Persian period, dating the entire Stratum to the 6th – 4th centuries B.C. (539-332 B.C.). There are even some representative sherds of each of the earlier phases through Iron Age I, suggesting a possibility of occupation going back to 1200-920 B.C. These have been noted in the plates.

A few sherds were also identified as possible Hellenistic or Roman, with even one possible Islamic sherd, and these were removed from the study as contamination. All three confidence levels of stratified sherds had a similar representation of Iron Age sherds from Iron I through Iron IIC/Persian.

When Lapp wrote his preliminary report, he often bemoaned the little ceramic material that existed for comparison, and the insufficient stratigraphic evidence of typological development (Lapp n.d.: 2,10,12–13). Lapp said, “Stratified evidence of the ceramics of Transjordan is almost entirely lacking” (Lapp n.d.: 1). Today, more than 50
years later, the ceramic chronology of Transjordan and the surrounding areas is much better known and documented. The Iron Age sherds from AE have now been assessed in a comparative analysis to determine their date using publications of excavations in the region. When there were identical sherds in the AE material, they have been listed together in the table with its corresponding plate. In this case, the bolded sherd numbers are those that are shown on the plates. For each form, the earlier material is shown first, followed by later material.

The following sections are ordered by form and date. After each form subheading, there are plates that show each drawing. The plates are separated by time period within their respective section, beginning with the earliest. For example, in the Cooking Pots section below, Plate 1 has the Iron Age IIA–B sherds, and Plate 2 has Iron Age IIC/Persian rims. Sometimes, as in the case of jars and jugs, there are so many sherds that multiple plates are necessary to showcase all the drawings of the rims in one period. Following the plates, each sherd is described with its parallels.

**Cooking Pots**

The following cooking pots are organized by date. The Iron Age IIA–B cooking pots are on Plate 1, and the Iron Age IIC cooking pots are on Plate 2.
Plate 1: Cooking Pots, Iron Age IIA–B
Plate 2: Cooking Pots, Iron Age IIC/Persian Period
Plate 1:1 Details

The rim is inverted in a holemouth style similar to Iron Age IIC forms, but it is not bulbous. The closest parallels are only in Iron Age IIB, and this one seems to lean inward slightly more than its parallels. Table 3 provides additional information and relevant parallels.

Table 3. Plate 1:1 Description

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Rim Form, Color</th>
<th>Parallels</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.1.53.17</td>
<td>Holemouth, thickened Light reddish brown</td>
<td>• 7-5th:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Samaria (Crowfoot, Crowfoot, and Kenyon 1957: fig. 1:21; Tappy 2015: 201, pl. 2.3.4: 6)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Far’ah (Chambon 1984: pl. 52:8; Tappy 2015: 201, pl. 2.3.4:7)</td>
</tr>
</tbody>
</table>

Plate 1:2 Details

This sherd is an Iron Age IIA-B sample with a rounded rim top and a small rounded ridge around the neck. Table 4 provides additional information and relevant parallels.

Table 4. Plate 1:2 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Rim Form, Color</th>
<th>Parallels</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.2.109.332</td>
<td>Thickened, with lower ridge. Slightly inverted. Light reddish brown</td>
<td>• Iron IIA-B:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Rehov (Mazar 1999: 39, fig. 24:8; Ben-Tor, A., and Zarzecki-Peleg, A. 2015: 163, pl. 2.2.7:12)</td>
</tr>
</tbody>
</table>
Plate 1:3 Details

This sherd belongs to an Iron Age IIA cooking pot rim. It has a thickened rim with a slight concavity on the exterior to make two slight ridges. Table 5 provides additional information and relevant parallels.

Table 5. Plate 1:3 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Rim Form, Color</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.2.89.331     | Thickened rim, with slight concavity between two ridges. Light reddish brown | **Iron IIA:**
|  I.1.67.5      |                 | • Hisban (Ray 2001: 55, fig. 3.8:13; Sauer and Herr 2012: 97, fig. 2.22:6)
|                |                 | • 11th – 10th:
|                |                 | • Shiloh (Finkelstein 1993: fig. 6.57:12)
|                |                 | • Jarash (Braemer 1987: fig. 2:7)
|                |                 | • Mevorakh (Stern 1978: fig. 14:12; 20:7)
|                |                 | • Mudayna Mu’arraja (Olavarri 1978: fig. 2:1–3)
|                |                 | • Sa’idiya (Tubb 1990: fig. 14:6)
|                |                 | • Dayr ʿAlla (Franken and Kalsbeek 1969: fig. 64:8–9)
|                |                 | • Beer Sheba (Brandfon 1984: fig. 22:5, 7; 28:4)
|                |                 | • Amal (Levy and Edelstein 1972: fig. 10:5)
|                |                 | • Ashdod (Dothan and Porath 1982: fig. 10:15)
|                |                 | • Gezer (Gitin 1990: pl. 9:17–18)
|                |                 | • Haliqim (Cohen 1976: fig. 10:7)
|                |                 | • Hazor (Yadin et al. 1959: pl. 45:21; 1961: pl. 210:16)
|                |                 | • Taanach (Rast 1978: fig. 23:10)
|                |                 | • Qasile (Mazar 1985: fig. 54:16–18)
|                |                 | • Ritma (Meshel 1977: fig. 6:9)
Plate 1:4 Details

This Iron Age IIA cooking pot also has a thickened rim but is multi-grooved (with three ridges instead of two). A parallel below (Hisban) has a similar shape, but two ridges. An exact parallel with three ridges has not been found. Two parallels, from Dhiban and Dayr ‘Alla, with a triple ridge (multi-groove) in a slightly different shape is also given. Table 6 provides additional information and relevant parallels.

Table 6. Plate 1:4 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Rim Form, Color</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.4.58.493 I. 5.30.494 | Thickened rim, multi-grooved Light reddish brown | • **Iron IIA:**  
  - Hisban (Sauer and Herr 2012: 97, fig. 2.22:6)  
  - 11\textsuperscript{th} – 10\textsuperscript{th}:  
    - Shiloh (Finkelstein 1993: fig. 6.57:12)  
    - Jarash (Braemer 1987: fig. 2:7)  
    - Mevorakh (Stern 1978: fig. 14:12; 20:7)  
    - Mudayna Mu’arraja (Olavarri 1978: fig. 2:1–3)  
    - Sa’idiya (Tubb 1990: fig. 14:6)  
    - Dayr ‘Alla (Franken and Kalsbeek 1969: fig. 64:8–9)  
    - Beer Sheba (Brandfon 1984: fig. 22:5, 7; 28:4)  
    - Amal (Levy and Edelstein 1972: fig. 10:5)  
    - Ashdod (Dothan and Porath 1982: fig. 10:15)  
    - Haluqim (Cohen 1976: fig. 10:7)  
    - Qasile (Mazar 1985: fig. 54:16–18)  
    - Ritma (Meshel 1977: fig. 6:9)  

  Multi-groove cooking pot rim in different shape:  
  • **Iron II:**  
    - Dhiban (Tushingham 1972: fig. 1:29, 32)  
    - 10\textsuperscript{th}.9\textsuperscript{th}:  
      - Dayr ‘Alla (Franken and Kalsbeek 1969: fig. 75:55) |
Plate 1:5, 6 Details

This Iron IIA type has a double ridge as well, but the lower ridge is sharp pointed and triangular. Table 7 provides additional information and relevant parallels.

Table 7. Plate 1:5, 6 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Rim Type, Color</th>
<th>Parallels</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.9.70.284</td>
<td>Rounded rim with sharp pointed lower ridge below. Upright stance.</td>
<td>• Hisban (Herr and Sauer 2012: 97, fig. 2.22:7)</td>
</tr>
<tr>
<td>I.4.52.484</td>
<td>Light reddish brown</td>
<td>• 11th – 10th:</td>
</tr>
<tr>
<td>I.9.77.36</td>
<td></td>
<td>• Shiloh (Finkelstein 1993: fig. 6.57:12)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Jerash (Braemer 1987: fig. 2:7)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Mevorakh (Stern 1978: fig. 14:12; 20:7)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Mudayna Mu’arraja (Olavarri 1978: fig. 2:1–3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Sa’idiya (Tubb 1990: fig. 14:6)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Dayr ‘Alla (Franken and Kalsbeek 1969: fig. 64:8–9)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Beer Sheba (Brandfon 1984: fig. 22:5, 7; 28:4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Amal (Levy and Edelstein 1972: fig. 10:5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ashdod (Dothan and Porath 1982: fig. 10:15)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Gezer (Gitin 1990: pl. 9:17–18)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Haluqim (Cohen 1976: fig. 10:7)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Hazor (Yadin et al. 1959: pl. 45:21; 1961: pl. 210:16)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Taanach (Rast 1978: fig. 23:10)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Qasile (Mazar 1985: fig. 54:16–18)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ritma (Meshel 1977: fig. 6:9)</td>
</tr>
</tbody>
</table>

Plate 1:7 Details

This sherd is a triangular-shaped cooking pot rim, but it is slightly more rounded than the usual sharp triangular forms, and there exists a slightly, almost invisible groove in the middle of the exterior side. It could be a transitional form between the triangular
shape of the Iron Age I type and the double-ridged form found in Iron Age II (Sauer and Herr 2012: 80). Table 8 provides additional information and relevant parallels.

**Table 8. Plate 1:7 Details**

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Rim Type, Color</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| 1.5.18.487     | Triangular but rounded. Slight groove on exterior. Upright stance. Light reddish brown | • **Iron IIA:**  
• Hisban (Herr and Sauer 2012: 77, fig. 2.17:14)  
• ‘Umayri (Herr *et al.* 2000: 70, fig. 4.14:27-8)  
• **12th – 11th:**  
• Bethel (Kelso and Albright 1968: pl. 57:21)  
• Beth Shan (James 1966: fig. 50:12)  
• Beth Shemesh (Grant and Wright 1938: pl. 62:29)  
• Gezer (Dever *et al.* 1986: pls. 25:5, 14; 34:10; 35:3, 15; 39:7; 40:18; 41:27) |

Plate 2:1 Details

This sherd is a Persian cooking pot with parallels only on the Carmel coast (Gitin 2015: 569). It has a highly profiled neck to fit a stopper-type lid, and the body is globular. Table 9 provides additional information and relevant parallels.

**Table 9. Plate 2:1 Details**

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Rim Form, Color</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| 5.62.547       | Profiled. Flaring from body but curves back in at the top. Light reddish brown | • **6th-4th:**  
• Dor (Stern *et al.* 1995: fig. 2.4:16; Stern 2015: 587, pl. 5.1.6:9)  
• ‘Atlit (Johns 1933: 51, fig. 4:g; Stern 2015: 587, pl. 5.1.6:10) |
Plate 2:2 Details

This double ridged sherd is an Iron IIC/Persian type that is typically identified with Edom but also appears in large quantities at ‘Umayri (Herr and Sauer 2012: 148). In Cisjordan, this form is largely found in Iron Age IIA-B, but most parallels come from Transjordan. They are also found later at Hisban and ‘Umayri. The rim is highly inverted. Table 10 provides additional information and relevant parallels.

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Rim Form, Color</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| 5.65, 5.46, 5.30, 495 | Double ridged, slightly thickened, leaning inverted stance. Light reddish brown | • **Iron II/Persian:**
|                |                 | • Hisban (Sauer and Herr 2012: 149, fig. 2.37:1)
|                |                 | • ‘Umayri (Herr et al. 2000: 51, fig. 3.30:11; 57, fig. 3.33:17; 167, fig. 6.16:20)
|                |                 | • 7th-6th:
|                |                 | • Ba’ja (Lindner and Farajat 1987: fig. 4:10)
|                |                 | • Khalifa (Vandiver and Pratico 1993: pls. 16:1-6; 17:1-10, 18:3, 6, 10)
|                |                 | • Mukhaysat (Alliata 1988: fig. 1:4)
|                |                 | • Qseir (Lindner, Farajat, and Zeitler 1996: fig. 23:7-10)
|                |                 | • Tawilan (Hart 1995: figs. 6.33:1-4; 6.35.6)
|                |                 | • **Iron II:**
|                |                 | • Dhiban (Tushingham 1972: fig. 1:17-18)
|                |                 | • Jericho (Kenyon and Holland 1982: figs. 216:6, 217:27; 1983: figs. 25:8; 29:30)
|                |                 | • Megiddo (Lamon and Shipton 1938: pl. 39:7)

Plate 2:3 Details

This sherd is a type of Ammonite cooking pot dating to the Iron IIC/Persian period. The rim curves in like a holemouth. The handle comes up higher than the rim of the pot. Table 11 provides additional information and relevant parallels.
Table 11. Plate 2:3 Details

<table>
<thead>
<tr>
<th>AE Sherd #:s</th>
<th>Rim Form, Color</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| 4.52.486    | Holemouth, bulbous. Inverted stance. Red | - 6th-4th:
  - Hisban (Sauer and Herr 2012: 149, fig. 2.37:2)
  - ‘Umayri (Herr et al. 2000: 57, fig. 3.33:19)
- 7-6th:
  - Mukhayyat (Alliata 1988: fig 7:3)
  - Rujm al-Henu (Clark 1983: fig. 4-49-50)
- Iron II:
  - Balu’a (Worschech et al. 1986: fig 13:24,26)
  - Dhiban (Reed 1964: pl. 72.5; Tushingham 1972: fig. 1:36) |

Plate 2:4 Details

This double-ridged rim form from Iron Age IIC has an almost vertical stance. Both ridges are rounded and approximately the same size. This rim type has no parallels at Hisban or Umayri in the Iron IIC/Persian period. This type should not be confused with earlier Iron Age IIA examples that are also vertical and double-ridged, because earlier examples have a pointy lower ridge (see pl. 2:5, 6). Table 12 provides additional information and relevant parallels.

Table 12. Plate 2:4 Details

<table>
<thead>
<tr>
<th>AE Sherd #:s</th>
<th>Rim Form, Color</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| 1.5.30.496  | Double ridge, vertical stance Light reddish brown | - Iron IIC:
  - Pella (McNicoll, A.; Smith, R. H.; and Hennessy, B. 1982: pl. 124.8; Bienkowski 2015: 427, pl. 3.6.2:4) |
Plate 2:5 Details

This rim has a rounded top that has been thickened much more than the body. It also has a smaller ridge below the rim, which is still thicker than the body. Table 13 provides additional information and relevant parallels.

Table 13. Plate 2:5 Details

<table>
<thead>
<tr>
<th>AE Sherd #</th>
<th>Rim Form, Color</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.5.65.541  | Thickened, with smaller ridge below. Slightly inverted. Light reddish brown | • 6-4th:  
• Tall Jawa (Bienkowski 2015: 427, pl. 3.6.2:3) |
| I.5.65.149  |                 |           |

Pithoi

The following pithoi are organized by date. The Iron Age I pithoi are on plate 3, and the Iron Age IIC/Persian Period pithoi are on Plate 4.
Plate 3: Pithoi, Iron Age I
Plate 4: Pithoi, Iron Age IIC/Persian Period
Plate 3:1 Details

Sherd 4:1 is an Iron Age I collared-rim pithos with a bulbous rim. The collar is triangular. Table 14 provides additional information and relevant parallels.

Table 14. Plate 3:1 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Rim Type, Color</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.4.61.427     | Bulbous, triangular collar on neck. Everted rim. | • **Iron I:**  
• Hisban (Sauer and Herr 2012: fig. 2.4:7)  
  o But with more triangular collar like fig. 2.4:8  
• ‘Umayri (Herr *et al.* 1997: fig. 4.25:1)  
• L 13th-E 12th:  
• Ebal (Zertal 1987: fig. 12:3, 6, 9)  
• E 12th:  
• Tell el-Ful (N. Lapp 1981: pl. 47:5)  
• Izbet Sartah (Finkelstein 1986: fig. 13:19)  
• L 12th:  
• Ebal (Zertal 1987: fig. 16:9)  
• 12th-11th:  
• Ai (Callaway 1980: fig. 154:22)  
• Bethel (Kelso and Albright 1968: pl. 56:6)  
• Gibeon (Pritchard 1964: fig. 36:10)  
• Shiloh (Buhl and Nielsen 1969: pls. 1:8; 16:190)  
• 11th:  
• Mudayna Mu’arraja (Olavarri 1983: fig. 6:8) |

Plate 3:2 Details

This sherd is an Iron Age I pithos rim. It flares out with an oval-thickened rim. Table 15 provides additional information and relevant parallels.
Table 15. Plate 3:2 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Rim Type, Color</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.9.38.292     | Flaring, oval thickened        | • Iron I:  
• Hisban (Sauer and Herr 2012: fig. 2.4:4)  
• ‘Umayri (Herr et al. 2000: fig. 4.14:4)  
• 12th-11th:  
• Ai (Callaway 1980: fig. 154:13)  
• Bethel (Kelso and Albright 1968: pl.56:13)  
• Dan (Biran 1989: fig. 4.1:1)  
• Tell el-Ful (Sinclair 1960: pl. 20:9)  
• Shiloh (Buhl and Nielsen 1969: pl. 16:190)  
• 11th-10th  
• Kinneret (Fritz 1990: pl. 58:5)  
• 10th:  
• Gezer (Dever et al. 1970: pl. 35:17)  
• Izbet-Sartah (Finkelstein 1986: fig. 23:17) |

Plate 3:3 Details

This sherd is a transitional Late Bronze/Early Iron Age I pithos rim. It has a small collar below the neck, which almost looks like a strand of thread. Table 16 provides additional information and relevant parallels.

Plate 4:1 Details

This pithos rim is bulbous without any ridges on the neck. It leans in like a holemouth. It is a typical late Iron Age II style pithos rim. Table 17 provides additional information and relevant parallels.
Table 16. Plate 3:3 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Rim Type, Color</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.1.10.24    | Thickened on exterior, groove on exterior     | • **LB/Iron I:**  
• Hisban (Sauer and Herr 2012: fig. 2.1:2)  
• ‘Umayri (Herr *et al.* 2000: figs. 4.14:1, 3)  
• **13th:**  
• Aphek (Beck and Kochavi 1985: fig. 5:2)  
• Gezer (Dever *et al.* 1974: pl. 23:3; Seger 1988: pls. 25:1; 29:1)  
• **L 13th-E 12th:**  
• Ebal (Zertal 1987: Figs 12:1; 13:1, 8; 14:2)  
• **E 12th:**  
• Giloh (Mazar 1981: figs. 8:1; 9:2)  
• **12th:**  
• Izbet Sartah (Finkelstein 1986: fig. 13:22)  
• Shechem (Boraas 1986: fig. 5:10)  
• Taanach (Rast 1978: fig. 4:1)  
• **L 12th:**  
• Ebal (Zertal 1987: fig. 16:13) |

Table 17. Plate 4:1 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Rim Type, Color</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.4.59.346   | Bulbous, no ridges or waves on neck.           | • **Iron IIC/Persian:**  
• Hisban (Sauer and Herr 2012: fig. 2.28:1)  
• ‘Umayri (Herr *et al.* 1991: fig. 8.6:13; fig. 8.13:1-2)  
• **Iron II:**  
• Balu’a (Worschech *et al.* 1986: fig. 12:20)  
• Nasbeh (McCown 1947: pl. 3:44) |
| I.4.52.428   |                                                |                                                                                                                                          |
| I.2.28.47    |                                                |                                                                                                                                          |

Plate 4:2 Details

This Iron Age IIC/Persian period pithos has a wave or ridge immediately below the bottom of the rim. Table 18 provides additional information and relevant parallels.
### Table 18. Plate 4:2 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Rim Type, Color</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| **I.1.42.10**  | Bulbous, one ridge/wave on neck. | • **Iron IIC/Persian:**  
  - Hisban (Sauer and Herr 2012: fig. 2.28:2)  
  - ‘Umayri (Herr *et al.* 2000: fig. 3.32:1-3; fig. 4.36:5)  
  - **7-6th:**  
    - Amman (Abu Dayyah *et al.* 1991: fig. 5:10)  
    - Nimrin (Dornemann 1990: fig. 5:2)  
    - Rujm al-Henu (Clark 1983: fig. 1:24)  
  • **Iron II:**  
    - Balu’a (Crowfoot 1934: pl. 3:1)  
    - Nasbeh (McCown 1947: pl. 4:49-50) |
| **I.1.35.46**  |                |           |

### Plate 4:3 Details

This Age Iron IIC/Persian period pithos has a two-ridged neck and is bulbous.

Table 19 provides additional information and relevant parallels.

### Table 19. Plate 4:3 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Rim Type, Color</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| **I.5.35.497** | Bulbous, two ridges or waves on neck. | • **Iron IIC/Persian:**  
  - Hisban (Sauer and Herr 2012: fig. 2.28:6)  
  - ‘Umayri (Herr *et al.* 2000: fig. 3.29:1)  
  - **7th-6th:**  
    - Amman (Abu Dayyah *et al.* 1001: fig. 5:11)  
    - Nimrin (Dornemann 1990: fig. 5:1)  
    - Rujm al-Henu (Clark 1983: fig. 6:72)  
    - Tawilan (Hart 1995: fig. 6.24:7) |
Plate 4:4 Details

This sherd is a collared-rim pithos with almost no neck, and with a much smoother angle in which the body slopes down. The area between the bottom of the rim and the beginning of the collar is rounded. The body slopes almost like a storage jar and is unlike the earlier Iron Age I pithoi. There is a Moabite parallel from Iron Age IIC in Transjordan that is very similar. This parallel agrees with Ji’s observation that collared-rim pithoi survived into the late Iron Age II at several Transjordan sites (Ji 1998: 422). Table 20 provides additional information and relevant parallels.

Table 20. Plate 4:4 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Rim Type, Color</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.1.67.1      | Thickened upright rim, collar below the rim. | • Iron IIC:  
• Balu’ (Worschech 1992: fig. 2:1; Bienkowski 2015: pl. 3.6.4:10) |
|               | Cream slip on red |           |

Kraters

The following kraters are organized by date. The Iron Age IIA–B kraters are on Plate 5, and the Iron Age IIC/Persian Period kraters are on Plate 6.
Plate 6: Kraters, Iron Age IIC/Persian Period
Plate 5: Kraters, Iron Age IIA–B
Plate 5:1 Details

This sherd is an Iron Age IIA-B holemouth krater with the rim not as long as later Iron Age IIC/Persian period forms. It is a standard form of krater, most popular in the second half of Iron II (Sauer and Herr 2012: 104). Table 21 provides additional information and relevant parallels.

Table 21. Plate 5:1 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I.4.53.422</strong></td>
<td>In-turned, slightly thickened</td>
<td>• <strong>Iron IIA-B:</strong></td>
</tr>
<tr>
<td>I.1.38.44</td>
<td></td>
<td>• Hisban (Sauer and Herr 2012: fig. 2.24:2)</td>
</tr>
<tr>
<td>I.2.71.58</td>
<td>Moderate reddish orange</td>
<td>• Gezer (Gitin 1990: pl. 11:1, 2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Dhiban (Reed 1964: pl. 72:2; Tushingham 1972: fig. 1:66)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Iraq al-Amir (Lapp and Will 1989: fig. 9a-b:27, 29)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 9th-7th:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Jarash (Braemer 1987: fig. 2:9)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 8th:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Samaria (Crowfoot, Crowfoot, and Kenyon 1957: fig. 9:13)</td>
</tr>
</tbody>
</table>

Plate 5:2 Details

This Iron Age IIA-B form resembles rims from Philistia from Iron Age IIA-B, although the ware is much cruder without any slip or decoration. Lapp thought it could be a local imitation and included it in his analysis (Lapp n.d.: 12). Table 22 provides additional information and relevant parallels.
Table 22. Plate 5:2 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.1.66.9       | Hammerhead with flat top and rounded ridges on interior and exterior, Pale yellowish brown | • **Iron IIA-B:**  
• Safi/Gath I (Maeir 2012: pl. 14.17:8; Gitin 2015: pl. 2.5.5.7)  
• Ashdod (Dothan and Freedman 1967: fig. 36:13; Gitin 2015: pl. 2.5.5:8) |

Plate 5:3 Details

This Iron Age IIA-B form is also a hammerhead rim but has more pointy ridges on the exterior and interior. Table 23 provides additional information and relevant parallels.

Table 23. Plate 5:3 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.2.109.458    | Hammerhead, pointy ridges, Pale yellowish brown | • **Iron IIA-B:**  
• Far’ah (Chambon 1984: pl. 47:7; Tappy 2015: pl. 2.3.3:2) |
Plate 5:4 Details

This sherd is an Iron Age IIA-B holemouth krater that could also be a holemouth jar based on how straight the body is. Table 24 provides additional information and relevant parallels.

Table 24. Plate 5:4 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.6.79.314     | Triangular inverted with ridge on exterior | • Iron IIA-B:  
• Halif (Blakely and Hardin 2002: fig. 10:5; Herzog and Singer-Avitz 2015: pl. 2.4.13:3) |
|                | Light brown |           |

Plate 6:1–4 Details

Eleven krater rims have a similar form, with three sub-varieties. They are all of the holemouth variety with long inverted rims. Sherd 5:1 has a slight groove below the rim, Sherd 5:2 has a smooth transition between rim and body, and Sherd 5:3 has a ridge between the rim and body. Herr and Sauer indicate that there are several sub-varieties with grooves as well (Sauer and Herr 2012: 130). It seems to be a very frequent type of krater at AE. Sherd 5:4 is a smaller version of Sherd 5:1. Table 25 provides additional information and relevant parallels.
### Table 25. Plate 6:1–4 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.4.39.411</td>
<td>Holemouth, long thickened</td>
<td>• <strong>Iron IIC/Persian:</strong></td>
</tr>
<tr>
<td>I.4.56.153</td>
<td>Moderate reddish orange</td>
<td>• Hisban (Sauer and Herr 2012: figs. 2.30:1, 2, 6, 7)</td>
</tr>
<tr>
<td>I.5.62.20</td>
<td></td>
<td>• ‘Umayri (Herr <em>et al.</em> 2000: figs. 3.29:15–16; figs. 3.32:13–15; figs. 6.16:6–10)</td>
</tr>
<tr>
<td>I.4.53.152</td>
<td></td>
<td>• Abu Twein (Mazar 1982: fig. 13:20)</td>
</tr>
<tr>
<td>I.4.52.488</td>
<td></td>
<td>• Fifa (N. Lapp 1994: fig. 13–2:3–5)</td>
</tr>
<tr>
<td>I.2.19.63</td>
<td></td>
<td>• Jerusalem (Tushingham 1985: fig. 3:3, 16)</td>
</tr>
<tr>
<td>I.1.25.37</td>
<td></td>
<td>• Khalifa (Vandiver and Pratico 1993: pls. 22:1-5; 23:1-6; 24:1-5)</td>
</tr>
<tr>
<td>I.2.89.338</td>
<td></td>
<td>• Mukhayyat (Alliata 1988: figs. 10:1-2; 14:1)</td>
</tr>
<tr>
<td>I.2.89.370</td>
<td></td>
<td>• Nimrin (Dornemann 1990: fig. 5:6),</td>
</tr>
<tr>
<td>I.1.15.20</td>
<td></td>
<td>• Qseir (Lindner, Farajat, and Zeitler 1996: fig. 25:1-3)</td>
</tr>
<tr>
<td>I.4.61.420</td>
<td></td>
<td>• Rujm al-Henu (Clark 1983: figs. 1:18-21; 5:56, 59-60, 63, 66-70; 6:71)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Safut (Wimmer 1987: fig. 6:15-16)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Tawian (Hart 1995: fig. 6.15:2-3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Umm ar-Rasas (Piccirillo 1991: figs. 21:12-13, 22:17)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 'Ira (Beit-Arieh 1999: fig. 6.70:15)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• <strong>Persian:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Beth Zur (Funk 1968: fig. 20:8)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Jerusalem (Tushingham 1985: fig. 15:19-21)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Kedesh (Stern and Beit-Arieh 1979: fig. 8:11)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Keisan (Briend and Humbert 1980: pl. 21:6-7)</td>
</tr>
</tbody>
</table>

**Plate 6:5 Details**

This sherd is a large holemouth krater rim that has a close parallel in Edom (Bienkowksi 2015: 433). It has slight grooves on the rim and body, and two rows of triangles incised into the clay around the lower part of the rim, and also around the top of the body. This decoration is common in the Persian period. Table 26 provides additional information and relevant parallels.
Table 26. Plate 6:5 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.6.80.null   | Triangle incisions around rim and body | • **Iron IIC/Persian:**  
• Busayra (Bienkowski 2002: fig 9.22:2; Bienkowski 2015: pl. 3.6.7:1) |
|               | Moderate reddish orange               |           |

Bowls

The following bowls are organized by date. The Iron Age IIA–B bowls are on Plate 7, and the Iron Age IIC/Persian Period bowls are on Plate 8.

Plate 7:1 Details

Sherd 8:1 is a double-ridged rim, with the top of the rim curving in like a krater. Below the second ridge, the body of the bowl starts to curve inward. It has a grey and orange slip on it. Table 27 provides additional information and relevant parallels.

Plate 7:2 Details

This bowl rim is rounded, and curves inward like a krater, and has a shallow groove right below the rim. Table 28 provides additional information and relevant parallels.
Plate 7: Bowls, Iron Age IIA–B
Plate 8: Bowls, Iron Age IIC/Persian Period
### Table 27. Plate 7:1 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.1.33.21     | Krater-like inward curve, with double ridge on exterior Grey and orange slip | • **Iron IIB**  
• Sa’idiyya (Pritchard 1985: fig. 10:18; Herr 2015: pl. 2.6.2:9)                                    |

### Table 28. Plate 7:2 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.4.57.160    | Thickened, curving inward, rounded Light red Pink                            | • **Iron IIA-B:**  
• Hisban (Sauer and Herr 2012: fig. 2.24:4)  
• ‘Umayri (Herr et al. 2000: fig. 3.23.19)  
• **Iron II:**  
• Aphek (Eitan 1969: fig. 6:18)  
• Dhiban (Reed 1964 pl. 78:15; Tushingham 1972: fig. 2:66)  
• Jericho (Kenyon and Holland 1982: figs. 200:6, 9; 203:6, 8; 1983: fig. 23:24)  
• **9th:**  
• Gezer (Gitin 1990: pl. 13:4)  
• Hazor (Yadin 1960: pl. 53:28)  
• **9th-8th:**  
• Ashdod (Dothan and Freedman 1967: fig. 37:11)  
• **9th-7th:**  
• Beth Shemesh (Grant and Wright 1938: pl. 63:15)  
• **8th:**  
• Hazor (Yadin et al. 1961: pl. 226:2, 5)  
• Lachish (Tufnell 1953: pl. 99:592)  

Plate 7:3 Details

This Iron Age IIA bowl rim leans slightly outward and is burnished on both the inside and outside. Table 29 provides additional information and relevant parallels.

Table 29. Plate 7:3 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.1.56.40</td>
<td>Hemispherical, simple rim</td>
<td>• Iron IIA</td>
</tr>
<tr>
<td></td>
<td>Light brown burnish</td>
<td>• Hisban (Sauer and Herr 2012: fig. 2.21:11)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 10th:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Gezer (Gitin 1990: pl. 10:2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Hazor (Yadin et al. 1961: pl. 175:6)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Mevorakh (Stern 1978: fig. 12:5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Taanach (Rast 1978: figs. 23:1, 25:12-13)</td>
</tr>
</tbody>
</table>

Plate 7:4 Details

This sherd is another rim from a hemispherical bowl, and it tapers at the top of the rim. Table 30 provides additional information and relevant parallels.

Plate 7:5 Details

This type of rim slopes downward towards the inside of the vessel and has a relatively straight stance. Table 31 provides additional information and relevant parallels.
Table 30. Plate 7:4 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.2.88.366</td>
<td>Hemispherical, simple rim Light red</td>
<td><strong>Iron IIB</strong>&lt;br&gt;• Hisban (Sauer and Herr 2012: fig. 2.27:6)&lt;br&gt;• 'Umayri (Herr et al. 2000: fig. 3.33:1-3)&lt;br&gt;<strong>Iron II:</strong>&lt;br&gt;• Dhiban (Tushingham 1972: fig. 1:75)&lt;br&gt;• Jericho (Kenyon 1965: fig. 256:7; Kenyon and Holland 1982: fig. 196:5)&lt;br&gt;• 9th:&lt;br&gt;• Jerusalem (Franken and Steiner 1990: fig. 2-15:7)&lt;br&gt;• 9th-8th:&lt;br&gt;• Gezer (Dever 1985: fig. 7:1)&lt;br&gt;• Hazor (Yadin et al. 1961: pl. 214:21)&lt;br&gt;• 8th-7th:&lt;br&gt;• Beth Zur (Sellers 1933: pl. 9:9)</td>
</tr>
</tbody>
</table>

Table 31. Plate 7:5 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.5.46.550 I.1.5.26</td>
<td>Downward sloping rim with thickening on interior Light brown</td>
<td><strong>Iron IIB</strong>&lt;br&gt;• Rosh Zayit (Gal and Alexandre 2000: fig. III.121:1; Lehmann 2015: pl. 2.1.4:13)&lt;br&gt;• Abu Hawam (Herrera Gonzáles 1990: pl. 72:164; Lehmann 2015: pl. 2.1.4:17)</td>
</tr>
</tbody>
</table>

Plate 7:6 Details

The body of this bowl slopes outward but the rim curves inward, and has a roughly square shape. Table 32 provides additional information and relevant parallels.
Table 32. Plate 7:6 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.9.76.29      | Square shape, curves back inward | • Iron IIB  
• Kabri (Kempinski 2002: fig. 5.69:12; Lehmann 2015: fig. 2.1.4:8) |
|                | Light brown |           |

Plate 7:7 Details

The rim of this bowl curves outward significantly, almost turning around completely. Table 33 provides additional information and relevant parallels.

Table 33. Plate 7:7 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.1.53.15      | Flat top, curves back inward | • Iron IIB  
• Keisan (Briend and Humbert 1980a: pl. 52:10; Lehmann 2015: fig. 2.1.4:6) |
|                | Light brown |           |

Plate 7:8 Details

This bowl rim is slightly triangular in shape, with the interior side sloping downward into the vessel. Table 34 provides additional information and relevant parallels.
Table 34. Plate 7:8 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.4.56.159   | Triangular shape. Top of rim on interior side slopes down Light red | • **Iron IIA-B**  
• Samaria (Crowfoot, Crowfoot, and Kenyon 1957: fig. 1:3; Tappy 2015: fig. 2.3.1:9) |

Plate 7:9 Details

This sherd belongs to an Iron Age I bowl rim. It is bulbous and stands straight.

Table 35 provides additional information and relevant parallels.

Table 35. Plate 7:9 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.4.56.165   | Bulbous, thickened Yellowish-gray | • **Iron I**  
• Madaba (Harding and Isserlin 1953: fig. 12:16; Herr 2015: pl. 1.3.1:14) |

Plate 7:10 Details

This transitional Late Bronze Age/Iron Age I bowl rim leans inward and is rounded on top. Table 36 provides additional information and relevant parallels.
Table 36. Plate 7:10 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.4.52.154</td>
<td>In-turned, simple</td>
<td>• <strong>Iron I</strong></td>
</tr>
<tr>
<td></td>
<td>Pink</td>
<td>• Hisban (Sauer and Herr 2012: fig. 2.2:2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ‘Umayri (Herr <em>et al.</em> 2000: figs. 6.8:14–16)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 13<strong>th</strong>:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Amman Airport (Kafafi 1983: fig. 21:52)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Lachish (Tufnell <em>et al.</em> 1940: pl. 42B:146)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 12<strong>th</strong>:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Baq’a (McGovern 1986: fig. 49:3-4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Taanach (Rast 1978: fig 1:13, 3:8)</td>
</tr>
</tbody>
</table>

Plate 8:1 Details

Many bowls of Stratum V have inverted rims, making them almost kraters. The rim of this Iron IIC/Persian period bowl is inverted but slopes down and out. Table 37 provides additional information and relevant parallels.

Table 37. Plate 8:1 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.5.65.554</td>
<td>Ridged, sloping outward</td>
<td>• <strong>Iron IIC</strong></td>
</tr>
<tr>
<td></td>
<td>Light red</td>
<td>• Shechem (Holladay 1966: fig. 32:A; Tappy 2015: pl. 3.2.1:1)</td>
</tr>
</tbody>
</table>
Plate 8:2 Details

The rim of bowl 7:2 is almost T-shaped, with the rim flaring inward and outward. It has a thickened ridge that extends into a rib, typical of some bowls of this period. Table 38 provides additional information and relevant parallels.

Plate 8:3 Details

This rim curves inward but also has a small outward ridge. Table 39 provides additional information and relevant parallels.

**Table 38. Plate 8:2 Details**

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.2.88.358     | T-shaped rim, ridges extending inward and outward, more pointy on inside. Part of ridge handle on rim, in line with top of rim. Light red | - **Iron IIC**  
- Hazor (Yadin et al. 1960: pl. XCVIII:23; Gilboa 2015: pl. 3.1.7:1)  
- **Ridge handle example (from Iron IIB):**  
  - Dayr ‘Alla (Franken 1969: fig. 76:3; Herr 2015: pl. 2.6.2:8) |

**Table 39. Plate 8:3 Details**

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.2.70.53      | T-shaped, with inward part of rim longer than outward Light red | - **Iron IIC**  
- Dor (Gilboa 1992: pl. IV:6; Gilboa 2015: pl. 3.1.6:19) |
Plate 8:4 Details

Three bowl rims have this shape, and are also burnished with a light-brown color. They each have sharp angles turning the rim inwards. Table 40 provides additional information and relevant parallels.

Table 40. Plate 8:4 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.1.24.38    | T-shaped, with inward part of rim longer than outward | • Iron IIC  
• Dor (Gilboa 1996: 124, Fig. 1:16; Gilboa 2015: pl. 3.1.6:18) |
| I.1.15.25    | Light brown |           |
| I.1.28.42    | Light brown |           |

Plate 8:5 Details

This very thin bowl has an almost upright stance, with two thin grooves running parallel to each other near the top of the rim. Table 41 provides additional information and relevant parallels.

Table 41. Plate 8:5 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.2.89.368     | Thin, almost upright, with two grooves parallel near top | • Iron IIC  
• ‘Uza (Beit-Arieh 2007: fig. 3.26:1; Beit-Arieh and Freud 2015: pl. 3.4.1:10) |
|                | Light brown |           |
Plate 8:6 Details

This rim is from a cup with a light brown burnish on interior and exterior. The very top flares outward slightly and narrows. Table 42 provides additional information and relevant parallels.

Table 42. Plate 8:6 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.2.129.303   | Upright stance, with very top flaring slightly outward and getting narrower Light brown burnish inside and out | • **Iron IIC/Persian**  
• Ekron (Gitin, Dothan, and Garfinkel in press: fig. 4A.7:18; Gitin 2015: pl. 3.5.13:8) |

Plate 8:7 Details

This rim is likely from a chalice due to its very slight curve down from the rim. This author’s observation is that most bowls have a sharper turn when they have a horizontal standing rim like this one. Table 43 provides additional information and relevant parallels.
Table 43. Plate 8:7 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.5.18.490    | Rim stands almost horizontal. Very slight curve down to body. Light brown | • **Iron IIC**  
• Ramat Rahel (Freud 2011: pl. 24:28; Gitin 2015: pl. 3.3.1:19) |

Plate 8:8 Details

Two bowls have this shape. The rim curves inward like a krater and is flat-topped.

This is a frequent Ammonite form (Sauer and Herr 140). Table 44 provides additional information and relevant parallels.

Table 44. Plate 8:8 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| **1.2.89.365**<br>1.1.92.297 | Sharp angle at top of rim, curving inwards. Flat topped. Light red Pink | • **Iron IIC/Persian:**  
• Hisban (Sauer and Herr 2012: fig. 2.34:22)  
• ‘Umayri (Herr *et al.* 2000: fig. 3.29:31)  
• 7th-6th:  
• Rujm al-Henu (Clark 1983: fig. 8:21)  
• Tawilan (Hart 1995: fig. 6.5:9) |
Jars and Jugs

The following jars and jugs are organized by date. The Iron Age I jars and jugs are on Plate 9, the Iron Age IIA–B jars and jugs are on Plates 10 and 11, and the Iron Age IIC/Persian Period jars and jugs are on Plates 12 and 13.

Plate 9:1 Details

This sherd belongs to a juglet with a thickened rim, which is slightly wider than the neck. It is not perfectly round, so it is possible that there was a spout pinched into the rim, causing an imperfect circle. Table 45 provides additional information and relevant parallels.

Table 45. Plate 9:1 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.5.62.381   | Thickened rounded rim that leans out and sits wider than neck. Probably had a pinched spout. Buff | • Iron I:  
• Baq’ah (McGovern 1986: fig. 53.46; Herr 2015: pl. 1.3.7:11) |

Plate 9:2 Details

This jug rim leans outward, and is slightly thickened and rounded. It has a sharp turn going into the body that slopes down and away from the center. Table 46 provides additional information and relevant parallels.
Plate 9: Jars and Jugs, Iron Age I
Plate 10: Jars and Jugs, Iron Age IIA–B
Plate 11: Jars and Jugs, Iron Age IIA–B
Plate 12: Jars and Jugs, Iron Age IIC/Persian Period
Plate 13: Jars and Jugs, Iron Age IIC/Persian Period
Table 46. Plate 9:2 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.1.19.45      | Slightly thickened, rounded everted rim. Reddish brown | • **Iron I:**  
• Madaba (Harding and Isserlin 1953: fig. 14:61; Herr 2015: pl. 1.3.7:9) |

Plate 9:3 Details

This large jar/amphora rim is oval and thickened, and leans slightly outward.

Table 47 provides additional information and relevant parallels.

Table 47. Plate 9:3 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.4.58.166     | Oval, thickened, leaning outward Cream slip on light red | • **Iron I:**  
• Megiddo (Loud 1948: pl. 73:11; Mazar 2015: pl. 1.1.19:4) |

Plate 10:1 Details

This thickened rim has a simple rounded top and leans slightly outward. Ben-Tor and Zarzecki-Peleg list its parallel as a holemouth jar from 9th century B.C. (Ben-Tor and Zarzecki-Peleg 2015: 174–75). Table 48 provides additional information and relevant parallels.
Table 48. Plate 10:1 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.9.77.39      | Simple, slightly everted thickened rim. Red | • Iron IIA-B:  
• Hazor (Yadin et al. 1961: pl. CCXVIII:13; Ben-Tor and Zarzecki-Peleg 2015: pl. 2.2.13:7) |

Plate 10:2 Details

This storage jar has triangular rim, with a flat top and a sharp curve, connecting it to the body. Table 49 provides additional information and relevant parallels.

Table 49. Plate 10:2 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.6.79.182     | Triangular with flat top. Sharp curve connects rim to body. Light reddish-brown | • Iron IIA-B:  
• Rosh Zayit (Gal and Alexandre 2000: fig. III.92:4; Ben-Tor and Zarzecki-Peleg 2015: pl. 2.2.12:11) |

Plate 10:3 Details

This jug has a very simple rim and long, upright neck. Ben-Tor and Zarzecki-Peleg place the parallel in the 10th century B.C. (Ben-Tor and Zarzecki-Peleg 2015: 180). It also resembles the rim on a cooking jug (Tappy 2015: 208, pl. 2.3.9:6). However, the ware doesn’t seem to be like a cooking pot. Table 50 provides additional information and relevant parallels.
Table 50. Plate 10:3 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.5.35.391</td>
<td>Simple rim, long upright neck. Buff</td>
<td>• <strong>Iron IIA-B:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Yoqne’am (Ben-Tor, Zarzecki-Peleg, and Choen-Anidjar 2005: fig. II.39:1; Ben-Tor and Zarzecki-Peleg 2015: pl. 2.2.16:1)</td>
</tr>
</tbody>
</table>

Plate 10:4 Details

This rim is from a small jug or large juglet. It has a rounded top that begins to slope inward and then back out, forming a slightly thickened ridge on the exterior. Table 51 provides additional information and relevant parallels.

Table 51. Plate 10:4 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.4.57.536</td>
<td>Rounded, slightly triangular on exterior Buff</td>
<td>• <strong>Iron IIA-B:</strong></td>
</tr>
<tr>
<td>I.4.53.167</td>
<td></td>
<td>• Rosh Zayit (Gal and Alexandre 2000: fig. III.90:14; Ben-Tor and Zarzecki-Peleg 2015: pl. 2.2.18:6)</td>
</tr>
</tbody>
</table>

Plate 10:5 Details

This rim belongs to a jug with a pointy, triangular rim, and a ridge on the neck. Table 52 provides additional information and relevant parallels.
Table 52. Plate 10:5 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.4.61.189   | Pointed triangular rim with slight ridge on neck. Upright stance. Light pinkish-brown | • **Iron IIA-B:**  
• Beersheba (Herzog and Singer-Avitz 2016: fig. 11.17:8; Herzog and Singer-Avitz 2015: pl. 2.4.7:7) |

Plate 10:6 Details

This jug has a rounded top that is folded over completely, forming a horseshoe-type of rim. There also seems to be the beginning of a slight ridge on the neck. Table 53 provides additional information and relevant parallels.

Table 53. Plate 10:6 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.4.56.158   | Rounded, folded over rim, slight ridge on neck Buff | • **Iron IIA-B:**  
• Beersheba (Herzog and Singer-Avitz 2016: fig. 11.42:6; Herzog and Singer-Avitz 2015: pl. 2.4:5) |

Plate 11:1 Details

This rim is likely a storage jar. It has a rounded and slightly thickened rim standing upright. The neck is also upright, and the body begins to slope downward. Table 54 provides additional information and relevant parallels.
Table 54. Plate 11:1 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| 1.5.65.553     | Rounded, slightly thickened, on a tall straight neck Buff | • **Iron IIA-B:**  
|                |                                                  | • Safi/Gath (Maeir 2012: pl. 14.4:9; Gitin 2015: pl. 2.5:8:8) |

Plate 11:2 Details

This sherd is an Iron Age IIB storage jar, with an oval-shaped, rounded rim. The neck stands relatively straight up. Table 55 provides additional information and relevant parallels.

Table 55. Plate 11:2 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| 1.4.39.498     | Rounded, oval rim on a straight neck Buff         | • **Iron IIB:**  
|                |                                                  | • Pella (McNicoll, Smith, and Hennessy 1982: pl. 125:4; Herr 2015: pl. 2.6.9:4) |

Plate 11:3 Details

This style of jug/amphora has a triangular rim that is sloping down and out from the top, and is similar to Iron Age IIC styles, but the difference here is the straight neck. Table 56 provides additional information and relevant parallels.
Table 56. Plate 11:3 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.5.65.384     | Triangular rim sloping down Buff | • Iron IIB:  
• Sa’idiyya (Pritchard 1985: fig. 5:4; Herr 2015: pl. 2.6.11:1) |

Plate 11:4 Details

This sherd is from a juglet that has a simple rim that leans out slightly from the body, and then stands straight up. It has a thin groove going around the exterior near the top of the rim. Table 57 provides additional information and relevant parallels.

Table 57. Plate 11:4 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.5.30.395     | Simple rim with upright stance. The neck curves inward slightly before straightening out again. Light red | • Iron IIB:  
• Sa’idiyya (Pritchard 1985: fig. 7:5; Herr 2015: pl. 2.6.11:10) |

Plate 11:5 Details

This rim is likely from a storage jar. It is rounded and slightly triangular on the exterior, with a sharper triangular ridge on the neck. It leans in slightly. Ben-Tor and Zarzecki-Peleg place its parallel in the 10th century B.C. (Ben-Tor and Zarzecki-Peleg 2015: 168). Table 58 provides additional information and relevant parallels.
Table 58. Plate 11:5 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.4.58.157     | Rounded but triangular on outside, with sharper triangle ridge on neck Buff | • **Iron IIA-B:**  
  • Megiddo (Zarzecki-Peleg 2005: fig. 29:2; Ben-Tor and Zarzecki-Peleg 2015: pl. 2.2.10.2) |

Plate 11:6 Details

This sherd is perforated with many round holes about a 0.5 centimeter in diameter. Five sherds were found that fit together and make up a larger piece. It is likely a tripod-base jar that is common throughout Iron Age II, with these kinds of holes. The rim and top part of the body lean slightly inward. This shape finds a parallel in Iron Age IIA-B. However there are examples of this type of perforation into Iron Age IIC as well (Beit-Arieh and Freud 2015: 373; Bienkowski 2015: 434). Table 59 provides additional information and relevant parallels.

Table 59. Plate 11:6 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.5.47.997     | Simple rim, slightly thickened and slightly leaning inward. Perforated body. Pinkish gray | • **Iron IIA-B:**  
  • Munshara (Zayadine 1968: fig. 4:3; Tappy 2015: pl. 2.3.2:10)  
  • Rosh Zayit (Gal and Alexandre 2000: Fig. VII.6:18; Ben-Tor and Zarzecki-Peleg pl. 2.2.3:4) |
Plate 12:1 Details

This Iron IIC/Persian period jug has an upright stance with a triangular rim that is sloping down and out, with a ridge on the neck about 2 cm from the top. This style is said to be Ammonite (Bienkowski 2015: 426; Herr and Sauer 2012: 122). Table 60 provides additional information and relevant parallels.

Table 60. Plate 12:1 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.2.88.334 I.1.30.23 | Triangular rim sloping down, straight up stance Pinkish-gray | • **Iron IIC/Persian:**
  • Hisban (Sauer and Herr 2012: fig. 2.29:2; fig. 15:2.39:1)
  • **Iron IIC:**
    • ‘Umayri (Geraty et al. 1989: fig. 19.6:8; Bienkowski 2015: pl. 3.6.3:6)
  • **Persian:**
    • Daliya (Lapp and Lapp 1974: pl. 18:1)
    • Dor (Stern 1995: fig. 2.11:7)
    • Taanach (Rast 1978: fig. 79:1)
    • 7th-6th:
      • Gezer (Gitin 1990: pl. 26:25)
      • Jerusalem (Tushingham 1985: fig. 3:23)
      • Umm ar-Rasas (Piccirillo 1991: fig. 21:5-9) |

Plate 12:2 Details

This sherd belongs to a jug/decanter with a triangular rim that is everted and concave on the inside. There is a very close parallel from Tel ‘Ira. Table 61 provides additional information and relevant parallels.
Table 61. Plate 12:2 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.5.46.47      | Triangular rim, everted. Concave on the inside. Light red | • **Iron IIC:**  
• ‘Ira (Beit-Arieh 1999: fig. 6.61:7; Beit-Arieh and Freud 2015: pl. 3.4.8:2) |

Plate 12:3 Details

This sherd belongs to either a jar or small storage jar, with a triangular rim and two slight ridges on the neck. This style is Ammonite (Bienkowski 2015: 426). Sauer and Herr found a similar form at Hisban, but they state that they did not find any parallels for their sherd (Sauer and Herr 2012: 126). Herr et al. do not list a parallel for their form either (Herr et al. 1991: 191, 209). This form seems to be unique to AE, Hisban, and ‘Umayri. This could indicate a connection between the sites. Table 62 provides additional information and relevant parallels.

Table 62. Plate 12:3 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.5.18.393     | Triangular sloping rim with ridges on neck Light brown | • **Iron IIC:**  
• Hisban (Sauer and Herr 2012: fig. 2.29:4)  
• ‘Umayri (Herr *et al.* 1991: fig. 8.13:7; fig. 8.19:5; Bienkowski 2015: fig. 3.6.3:5) |
Plate 12:4, 5 Details

Four jars have this same style of triangular sloping rim, with a ridged neck. The first sherd has a sharp triangular ridge, while the second one has a smoother triangular ridge. An example of each is drawn. Table 63 provides additional information and relevant parallels.

Table 63. Plate 12:4, 5 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.4.52.491 I.4.56.492 I.4.52.155 I.4.53.156</td>
<td>Triangular sloping rim with sharp single ridge on neck</td>
<td>• Iron IIC:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Samaria (Crowfoot, Crowfoot, and Kenyon 1957: fig. 6:14; Tappy 2015: fig. 3.2.4:2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Hisban (Sauer and Herr 2012: fig. 2.29:9)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ‘Umayri (Herr et al. 2000: fig. 3.29:9)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 7th-6th:</td>
</tr>
<tr>
<td></td>
<td>Light reddish-brown</td>
<td>• Khilde (Yassine 1988: fig. 4:2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Rujm al-Henu (Clark 1983: fig. 6:77)</td>
</tr>
</tbody>
</table>

Plate 12:6 Details

This jar is very similar to the previous one except the rim is rounded instead of triangular. It has a triangular ridge on the neck. Table 64 provides additional information and relevant parallels.

Plate 12:7 Details

This jar sherd’s parallel is from an amphora from Philistia. It has a straight stance with a ridge. Table 65 provides additional information and relevant parallels.
Table 64. Plate 12:6 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I.1.71.32</strong></td>
<td>Rounded rim with sharp single ridge on neck</td>
<td>• Iron IIC:</td>
</tr>
<tr>
<td><strong>I.1.53.12</strong></td>
<td>Light reddish-brown</td>
<td>• Hisban (Sauer and Herr 2012: fig. 2.29:11)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ‘Umayri (Herr et al. 2000: fig. 3.29:9)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 7th-6th:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Khilde (Yassine 1988: fig. 4:2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Rujm al-Henu (Clark 1983: fig. 6:77)</td>
</tr>
</tbody>
</table>

Table 65. Plate 12:7 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I.1.8.28</strong></td>
<td>Simple rim standing upright, with rounded ridge</td>
<td>• Iron IIC:</td>
</tr>
<tr>
<td><strong>I.1.17.39</strong></td>
<td>about 1 cm below the rim.</td>
<td>• Ekron (Gitin, Dothan, and Garfinkel in press: fig. 4A.24:6; Gitin 2015: pl. 3.5.9:3)</td>
</tr>
<tr>
<td></td>
<td>Yellowish-gray</td>
<td></td>
</tr>
</tbody>
</table>

Plate 12:8 Details

This sherd is a likely from a Persian period jug/decanter. It has a flaring simple rim. Table 66 provides additional information and relevant parallels.

Table 66. Plate 12:8 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I.1.19.43</strong></td>
<td>Flaring, simple rim</td>
<td>• Persian:</td>
</tr>
<tr>
<td></td>
<td>Red</td>
<td>• Mevorakh (Stern 1978: fig. 9:4; Stern 2015: pl. 5.1.15:4)</td>
</tr>
</tbody>
</table>
Plate 12:9 Details

This sherd is a holemouth jar that is almost like a krater. The transition from the rim to the body turns rather sharply. Table 67 provides additional information and relevant parallels.

Table 67. Plate 12:9 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.2.69.52    | Slightly thickened leaning inward, sharp curve from body | • **Iron IIC/Persian:**  
• Hisban (Sauer and Herr 2012: fig. 2.28:9)  
• 'Umayri (Herr *et al.* 1997: fig. 3.15:3; figs. 3.22:2–3; figs. 6.9:1–2; fig. 7.15:3)  
• L 8th – E 6th:  
• Lachish (Tufnell 1953: pl. 94:465)  
• 7th-6th:  
• Amman (Abu Dayyah *et al.* 1991: fig 5:17, 19)  
• Gezer (Gitin 1990: pl. 26:23–28)  
• Jerusalem (Tushingham 1985: fig. 11:9)  
• Rujm al-Henu (Clark 1983: figs. 1:22, 5:57–60, 67)  
• L 7th – E 6th:  
• Jerusalem (Shiloh 1986: fig. 6:19) |
| Orange       |             |           |

Plate 13:1 Details

This jar has a rounded and thickened rim, with a ridge on the neck. Three jars have this form. Table 68 provides additional information and relevant parallels.

Plate 13:2 Details

This jar has an upright stance but the rim turns sharply outward and is almost square. It has a single groove on the top running around the rim. Table 69 provides additional information and relevant parallels.
Table 68. Plate 13:1 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.9.36.290</td>
<td>Slightly rounded thickened rim with ridged neck. Light red</td>
<td>• <strong>Iron IIC:</strong></td>
</tr>
<tr>
<td>I.2.53.61</td>
<td></td>
<td>• Hisban (Sauer and Herr 2012: 2.28:18, 19)</td>
</tr>
<tr>
<td>I.4.53.413</td>
<td></td>
<td>• ‘Umayri (Herr <em>et al.</em> 1991: fig. 17)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 7th:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Samaria (Crowfoot, Crowfoot, and Kenyon 1957: fig. 11:24)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Taanach (Rast 1978: fig. 75:3)</td>
</tr>
</tbody>
</table>

Table 69. Plate 13:2 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.1.54.16</td>
<td>Sharply everted and square rim with a groove on the top. Straight stance. Yellowish-gray</td>
<td>• <strong>Iron IIC/Persian:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Hisban (Sauer and Herr 2012: fig. 2.28:13)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ‘Umayri (Herr <em>et al.</em> 1997: fig. 3.22:7)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• <strong>Persian:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Daliya (N. Lapp and P. Lapp 1974: pl. 20:1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Dor (Stern 1995: fig. 2.9:1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Qiri (Ben-Tor and Portugali 1987: fig. 4:6)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Taanach (Rast 1978: fig. 85:1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 7th-6th:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Abu Twein (Mazar 1982: fig. 14:28)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Jerusalem (Tushingham 1985: fig. 6:1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Khubtha (Lindner, Farajat, and Zeitler 1997: fig. 20:1–4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Rujm al-Henu (Clark 1983: fig. 1:26)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Tawilan (Hart 1995: figs. 6.25:3; 6.30:1)</td>
</tr>
</tbody>
</table>

Plate 13:3 Details

This Iron IIC/Persian jug has a triangular rim, sloping outward. Table 70 provides additional information and relevant parallels.
Table 70. Plate 13:3 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.6.79.308    | Triangular, sloping rim. Light red with buff slip | • Iron IIC/Persian:  
• Samaria (Crowfoot, Crowfoot, and Kenyon 1957: Fig. 22:6; Tappy 2015: pl. 3.2.6:1)  
• Hisban (Sauer and Herr 2012: fig. 2.29:2)  
• ‘Umayri (Herr et al. 1991: 42, fig. 3.25:4)  
• Persian:  
• Mevorakh (Stern 1978: fig. 7:7) |

Plate 13:4 Details

This small Iron Age IIC/Persian period storage jar has an inward-leaning neck and a rounded rim that is slightly flattened on the top and has a slight groove on the inside of the rim. Table 71 provides additional information and relevant parallels.

Table 71. Plate 13:4 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.1.92.null   | Rounded rim with flattened top and slight groove on inside of rim. Sloping neck. Light red | • Iron IIC:  
• Dor (Gilboa 2015: pl. 3.1.10:13) |

Plate 13:5 Details

This jug rim has a thick, rounded everted rim. The body begins to slope outward immediately below the neck. Table 72 provides additional information and relevant parallels.
Table 72. Plate 13:5 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.1.77.1      | Rounded everted rim with straight neck. Light brown | • **Iron IIC/Persian:**  
• Jerusalem (Mazar and Mazar 1989: pl. 4:1; Gitin 2015: pl. 3.3.5:3)  
• Hisban (Sauer and Herr 2012: fig. 2.28:14)  
• ‘Umayri (Herr *et al.* 1997: fig. 3.22:7)  
• 7th-6th:  
• Abu Twein (Mazar 1982: fig. 14:28)  
• Jerusalem (Tushingham 1985: fig. 6:1)  
• Khubtha (Lindner, Farajat, and Zeitler 1997: fig. 20:1–4)  
• Rujm al-Henu (Clark 1983: fig. 1:26)  
• Tawilan (Hart 1995: figs. 6.25:3; 6.30:1)  
• **Persian:**  
• Daliya (N. Lapp and P. Lapp 1974: pl. 20:1)  
• Dor (Stern 1995: fig. 2.9:1)  
• Qiri (Ben-Tor and Portugali 1987: fig. 4:6)  
• Taanach (Rast 1978: fig. 85:1) |

Plate 13:6 Details

This sherd belongs to a large storage jar, with rounded rim and a very short upright neck, before the slope begins to the body. Table 73 provides additional information and relevant parallels.

Plate 13:7 Details

This storage jar has a small rounded rim that is slightly flaring, and a tall neck. The neck bows inward so it has a slope, but there is a distinct harder angle where the body begins. Table 74 provides additional information and relevant parallels.
Table 73. Plate 13:6 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.5.18.426     | Rounded everted rim with straight neck. Light red | **Iron IIC/Persian:**
|                |             | • Hisban (Sauer and Herr 2012: fig. 2.28:11) |
|                |             | • ʿUmayri (Herr et al. 1997: fig. 3.22:7) |
|                |             | • 7th-6th:
|                |             | • Abu Twein (Mazar 1982: fig. 14:28) |
|                |             | • Jerusalem (Tushingham 1985: fig. 6:1) |
|                |             | • Khubtha (Lindner, Farajat, and Zeitler 1997: fig. 20:1–4) |
|                |             | • Rujm al-Henu (Clark 1983: fig. 1:26) |
|                |             | • Tawilan (Hart 1995: figs. 6.25:3; 6.30:1) |
|                |             | • **Persian:**
|                |             | • Daliya (Lapp and Lapp 1974: pl. 20:1) |
|                |             | • Dor (Stern 1995: fig. 2.9:1) |
|                |             | • Qiri (Ben-Tor and Portugali 1987: fig. 4:6) |
|                |             | • Taanach (Rast 1978: fig. 85:1) |

Table 74. Plate 13:7 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.2.89.329     | Rounded, slightly flaring rim on tall neck that bows inward. Light red | **Iron IIC:**
|                |             | • Jerusalem (De Groot and Bernick-Greenberg 2012: fig. 4.12:5; Gitin 2015: pl. 3.3.5.2; Beit-Arieh and Freud 2015: pl. 3.4.6:2) |
|                |             | • Malhata (Ben-Arieh and Freud 2015: fig. 4.133:5; Gitin 2015: pl. 3.3.5.2; Beit-Arieh and Freud 2015: pl. 3.4.6:2) |

Plate 13:8 Details

This rim style is thickened and folded over so the top is slightly triangular, and there is a groove on the underside of the rim, where it connects to the neck. It is probably a large jug. Table 75 provides additional information and relevant parallels.
Table 75. Plate 13:8 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.1.71.2 I.1.77.4 | Folded over, slightly triangular, with a groove left in between the bottom of the rim and the neck | • **Persian:**  
• Mevorakh (Stern 1978: fig. 9:5; Stern 2015: pl. 5.1.17:6) |
|               | Red         |           |

Plate 13:9 Details

This sherd likely belongs to a large bottle or jug due to the flaring-oval rim and straight stance of the neck. Table 76 provides additional information and relevant parallels.

Table 76. Plate 13:9 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| I.2.10.64     | Thin oval rim, leaning outward. Straight neck. Light orange | • **Iron IIC:**  
• Jerusalem (De Groot and Bernick-Greenberg 2012: fig. 4.12:2; Gitin 2015: pl. 3.3.8:10) |

Decorated Sherds and Lamp

The following decorated sherds are organized by date on Plate 14. The first sherd on is from the Iron Age I. The next sherd and the lamp piece is from the Iron Age IIC/Persian Period.
Plate 14:1 Details

This vessel could be a jar or a large bowl, or even a large straight-sided cooking pot. It has a slightly-everted tapering, simple rim, that stands straight up, with a decoration of a half-moon or wedge shapes pressed into and around the body. This is a likely a Persian period decoration. The vessel seems to be crudely made because the exterior is not smooth and flat; it has depressions and imperfections. The Persian period parallels are only for the decoration and not the type of vessel. The Iron Age IIA-B parallel is a large, crude, cooking pot with a similar shape rim. Table 77 provides additional information and relevant parallels.

Table 77. Plate 14:1 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| 1.2.70.54      | Slightly everted tapering simple rim with wedge decorations in a pattern around the body. Buff | • **Iron IIA-B (rim shape parallel):**  
  • Ramat Matred (Aharoni et al. 1960: fig. 12:6; Herzog and Singer-Avitz 2015: pl. 2.4.19:5)  
  • **Persian (decoration parallel):**  
  • Bethany (Saller 1957: fig. 33:1; Stern 2015: pl. 5.1.25:1–7)  
  • En-Gedi (Stern 2007: fig. 5.2.11:4; 5.2.12:7, 12; Stern 2015: pl. 5.1.25:1–7)  
  • Jerusalem (Ben-Arieh 2000: 9 fig. 8:1; Stern 2015: pl. 5.1.25:1–7)  
  • Nasbeh (Wampler 1947: pl. 67:1510; Stern 2015: pl. 5.1.25:1–7)  
  • Gibeon (Pritchard 1964: fig. 48:17; Stern 2015: pl. 5.1.25:1–7) |
Plate 14: Decorations and Lamp, Iron Age I to Iron Age IIC/Persian Period
Plate 14:2 Details

This sherd is a large portion of a late Iron Age II lamp. Half the spout and body, and almost all of the base are present in two pieces. The spout is pinched so both sides would have been parallel. As the spout turns into the body, the elevation of the top of the lamp drops, and becomes shallower towards the rounded back of the lamp. The base is slightly convex, and becomes a slight dome on the inside of the lamp’s floor. The rim of the lamp flares out. Table 78 provides additional information and relevant parallels.

Table 78. Plate 14:2 Details

<table>
<thead>
<tr>
<th>AE Sherd #(#s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| 1.2.68.60     | Lamp with straight spout and everted rim sloping towards back Gray | • **Iron IIC:**  
• Megiddo (Lamon and Shipton 1939: pl. 37:11, 15; Gilboa 2015: pl. 3.1.12:10; Amiran 1969: pl. 100:16) |

Plate 14:3 Details

This body sherd is from an Iron Age I vessel that has an orange-brown slip and dark reddish brown lines painted on it. The black areas in the drawing represent the painted lines. The wheel lines on the inside of the vessel show that the lines stand vertically, similar to LB/Iron I decoration in the parallel below. Table 79 provides additional information and relevant parallels.
Table 79. Plate 14:3 Details

<table>
<thead>
<tr>
<th>AE Sherd #(s)</th>
<th>Description</th>
<th>Parallels</th>
</tr>
</thead>
</table>
| 1.2.72.57     | Body sherd with orange-brown slip and dark reddish brown lines painted vertically | • **Iron I:**  
• Hisban (Sauer and Herr 2012: fig. 2.1:15) |


CHAPTER 6

SUMMARY AND CONCLUSIONS

Summary

The purpose of this study was to analyze Lapp’s field notes and the ceramic material from his three seasons at AE in order to first determine specific stratified sherds that could be used for dating the Iron Age stratum, and then to conduct a comparative analysis to date the stratified material and therefore the Iron Age stratum. First, the history of the site, excavations, and scholarly conversations were summarized for context. The literary sources showed that it is possible that the site was occupied by at least the 5th century B.C. There was no evidence in the literary sources to suggest occupation as early as the 11th century B.C. date that Lapp suggested. The excavations after Lapp seemed to agree with a later dating too.

Lapp’s background was then discussed to defend his credibility as a scholar whose field notes are reliable sources for this study. Then the scholarly conversation was summarized to show how past studies did not solve the problem, and how this study serves as the next part of the discussion. When Lapp’s preliminary drawings were published, his Iron Age I description was criticized, and it was suggested that the ceramic material was much later, based on the typology available at that time. The scholars who worked on Lapp’s material more recently did not provide stratification information on the Iron Age sherds they analyzed, and also arrived at various dates.
An analysis of all the available data followed has been provided. Lapp’s published works were helpful for an overview of excavations, but they did not provide enough detail to identify stratified sherds by themselves. The actual sherds, field notes, and unpublished manuscripts have proved to be more helpful. Many of the available sherds were numbered with square and basket information. The LPB source provided short descriptions of the sherds in each basket number and identified several baskets as containing stratified Iron Age material. Lapp in his UPR source provided details about the stratification of 52 sherds. The PRB source also confirmed the stratification of more of the sherds.

Next, the methodology, assumptions, and results were described. When the data from these unpublished sources were compared in a database, 141 sherds were found that had at least one primary source, stating it was from a clean, sealed locus. They were grouped by importance, with nine sherds having all three original field note sources confirming their stratification. Another 100 sherds were found in at least two sources confirming their stratification. There were another 32 sherds that were found in only one source, confirming their stratification. The assumption was made that sherds from multiple primary sources backing up their stratification had a greater likelihood of stratification. The analysis suggested that 141 sherds are the best candidates for stratified sherds based on all the available data. These are the best representatives of the Iron Age stratum at AE.

The above-mentioned sherds were used for the comparative analysis, which dated Stratum V to the Iron Age IIC/Persian period; more specifically the 6\textsuperscript{th}–4\textsuperscript{th} centuries B.C.
This study has identified all the available sherds from clean loci, revisited Lapp’s date for Stratum V, and provided a response to Ji’s critique of Lapp’s dating.

**Conclusions**

Lapp’s field notes have been analyzed and the stratified sherds have been identified. This material has been compared to published material from other sites, and the results suggest the date of Stratum V to be Iron Age IIC/Persian (539-332 BC). Ji is correct in his observation that Stratum V should be dated to the later part of Iron Age II; later than what Lapp thought in his preliminary report. However, Lapp was not entirely wrong in dating some forms to Iron Age I, like the collared-rim pithoi. Ji should not dismiss the fact Iron Age I material has been found in Stratum V, indicating some earlier activity.

The few Iron Age I sherds show a possibility that there was some activity at AE during Iron Age I. Since there is evidence for Hellenistic period builders clearing Iron Age II remains, it is possible that peoples of Iron Age II did the same with Iron Age I remains. An alternative possibility is that the people who first settled at AE brought some Iron Age I material with them. The fact that Iron I material exists is significant because no other evidence is available that suggests an Iron Age I presence. Literary sources that describe AE only go back to the 5th century B.C.

In this study, I have discovered that there is good evidence for Iron Age I activity at AE. Iron Age I sherds are the only currently existing evidence that allows for the possibility of an occupation at AE in the 11th century B.C. However, because the Iron Age I material was mixed with Iron Age II material, Stratum V needs to be dated to a later period, specifically the sixth to fourth centuries B.C. Those who claimed that the
material is all Iron Age I are wrong, but anyone who claims that there is no Iron Age I material is wrong too.

The evidence I have uncovered in this study also supports the literary sources in the Zenon Papyri and biblical texts about Tobaids being in the area, by confirming that the Stratum V occupation existed at AE during the time that the Persian Empire conquered Babylon and released the exiled Jews to return to Jerusalem.

I have also provided drawings of many more Iron Age sherds than Lapp and later scholars have provided. These drawings will serve as definitive Iron Age I and II parallels for future analyses. I have also found a possible unique connection between AE and Hisban.\(^\text{12}\) I have also described the dating of Stratum V in much greater detail than what Ji offered through Lapp’s old drawings. I have narrowed the date of Stratum V not only to Iron Age II, but specifically the sixth to fourth centuries B.C. based on evidence from the ceramics. The date of the Stratum V occupation in Field I at ‘Araq el-‘Emir can be confidently dated to the Iron Age IIC/Persian Period.

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\(^{12}\) See the description of Sherd 9:3.
APPENDIX A

SHERDS FROM CLEAN LOCI
### Primary Stratified Sherds: Square, Basket, Sherd No.
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