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ABSTRACT

ENDURING TRADITIONS:
THE COLLARED PITHOS IN TRANSJORDAN

by

Trisha Gallimore Broy

Advisor: Randall W. Younker

ABSTRACT OF GRADUATE STUDENT RESEARCH

Dissertation

Andrews University

Seventh-day Adventist Theological Seminary

Title: ENDURING TRADITIONS: THE COLLARED PITHOS OF
TRANSJORDAN

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Date completed: May 2021

Problem

The collared pithos is a very tall, ovaloid, ceramic storage vessel peculiar to the southern Levant. Through the data that has emerged from Cisjordan a general consensus has developed that the collared pithos is part of an Iron Age 1 tradition that ended in the early years of the Iron Age 2. The data from Transjordan, however, is less familiar in discussions of the vessel, as it has only been added to the corpus within the last few decades.

Preliminary indications from excavations in Transjordan reveal a different chronological scope and evolution of form than is observed in Cisjordan.

However, a thorough and independent examination of the vessel in

Transjordan must be conducted in order to complete the overall understanding of the collared pithos.

Method

This study endeavors to bridge the research synthesis gap by analyzing all available examples of collared pithoi from every accessible Iron Age archaeological excavation in Transjordan. In an effort to be as comprehensive as possible, detailed metrics and contextual data were collected for 233 collared pithoi located at 24 sites across all regions of Transjordan. Subjective aspects of the selected vessels were classified according to their shape groups, and objective data were statistically analyzed. Each of the vessels was first categorized by form group, based primarily on neck height, and studied accordingly. Next the pithoi were evaluated according to the dates of their archaeological contexts. Chronological assignments were determined according to the deposition period of the collared pithoi, established by the associated ceramics and the stratigraphic placement of the pithoi. The latter was based largely on the stratigraphic interpretations of the excavators. Ceramic horizons were examined for each vessel and placed within the correlating phase of the Iron Age. Finally, a sample group of 46 collared pithoi from 14 sites in Cisjordan were analyzed and compared to the Transjordan vessels.

Results

The results of the analysis revealed that the development of the collared pithos began in the earliest stages of the Iron Age in Transjordan (ca. 1200 BC) and continued without interruption until its final phase (ca. 586 BC). Recent data suggests that while the collared pithos is a form which is most prolific and enduring on the Central Plateau, it is attested in every region of Transjordan. At the beginning of its development, the vessel generally had a long neck with a flaring rim that stood outside of alignment with a teardrop-shaped collar. During this stage, its piriform body concluded in a flat base. As the collared pithos continued through its development, its neck became progressively shorter and its rounder rim fell further inside of alignment with its triangular-shaped collar. Its body slimmed down and its base became narrow and rounded.

Conclusions

Although the collared pithoi of Transjordan and Cisjordan are parallel forms, indistinguishable during the majority of the Iron Age 1, a more complete evolution of the vessel type can be observed in Transjordan. According to the data currently available, the eastern collared pithoi emerge in the archaeological record earlier than their western counterparts and maintain a ceramic tradition that endures for more than six hundred years.

Andrews University
Seventh-day Adventist Theological Seminary

ENDURING TRADITIONS:
THE COLLARED PITHOS OF TRANSJORDAN

A Dissertation

Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

by

Trisha Gallimore Broy

January 2022

ENDURING TRADITIONS:
THE COLLARED PITHOS OF TRANSJORDAN

A dissertation
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of the requirements for the degree
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“In our togetherness, castles are built.” – Irish Proverb

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General Collared Pithos Description

The collared pithos is a very tall ovaloid-ceramic storage vessel peculiar to the Iron Age Levant, and particularly prevalent in the central highlands of Cisjordan. It is a closed form that typically stands about 1.0 m tall and has a gently pointed base. The pithos is roughly 50.0 cm in diameter at its widest point, making it half as wide as it is tall. The mouth is usually about 20.0 cm in diameter, although this measurement is the most variable of the vessel's proportions. When empty the collared pithos weighs between 40-65 kg, with a capacity of 110 - 200 L.¹ Thus, depending on the contents, a 115 L capacity pithos² with a weight of 52 kg would weigh anywhere between 98 to 167 kilograms when full.³ There may have been a chronological trend in the vessels' weight. There is possible evidence that the earlier pithoi were slightly heavier and larger than the later examples (Herr 2007: 140).⁴

¹ See Raban 2001: 495, 503; Wengrow 1996: 307 gives a capacity of 150-200 liters; see also Artzy 1994, 137.

² This is based on a pithos which is 1.1 m tall and 0.54 m wide (Raban 2001: 495). Hopkins estimated the capacity of the collared pithos to be roughly 150 L in his calculations, though he did not elaborate on how he arrived at this number or comment on the weight of the empty jar (Hopkins 1985: 150).

³ If filled with Emmer Wheat, with an average weight of 0.4 km/L or if holding room temperature water or another liquid of similar density, with an average weight of 1.0 km/L.

⁴ Exceptions to this would include pithoi such as the Iron Age 2-3 pithos from Um al-Hedamus which stood over 1.2 m tall and stretched beyond the usual width proportions to

The “collar” on the collared pithos refers to the ridge at the junction of the neck and the body, which characterizes the form. The relatively short concave neck and rim are wheel thrown and the body is hand built with coils. The ridge is the natural, decorative conclusion of bonding these two elements together in the manufacturing process. Most vessels have two plain vertical elliptical loop handles which run from the bottom of the shoulder to the upper body on opposing sides of the vessel. The proportions are such that these handles are placed on the widest part of the pithos’ diameter. Some handles “bore distinctive potter’s marks” (Clark 1994: 144; cf. London 2014: 458-81).

The ware is most commonly pink with a grey core.⁵ It is usually undecorated, though occasionally is found with reed marks or shallow rope decoration around the middle - between the vessel’s two handles - or on the rim. Slip, when present, is usually light. The ware is medium coarse to coarse. Inclusions of natural or added temper comprise 5% - 20% of the clay mixture. These non-plastic components sometimes include fragments of basalt, limestone, chalk, quartz, wadi sand, and other clays - such as those

nearly 0.75 m (Palumbo 1992: 31; fig. 4:06). See also, Hendrix, Drey and Storfjall 1996: 193 (Jar 264). Two examples in this study, from uncertain stratigraphic contexts, but with neck heights under 1.0 cm, are among the top 1% for overall body height. These are Pithos 51.01 (at 120.0 cm) from Umm al-Qanafid and Pithos 53.01 (at 117.0 cm) housed in the collection at the University of Jordan but disconnected from its provenance data. The tallest example in this study is a pithos from Tall Safut with a 3.0 cm neck height, Pithos 25.01, with an overall height of 122.0 cm.

⁵ Of the 233 pithoi in this study, 105 have published Munsell color readings and 51 have Munsell readings conducted by the study author. Of these 156 vessels, 37% (n = 57) were described as “pink,” 15% (n = 23) were described as “very pale brown,” and 14% (n = 22) were described as “light reddish brown.” The remaining 54 pithoi were assigned a variety of 13 other color descriptions, all within the 2.5 YR – 10 YR spectrum (Munsell Color 2019).

with high iron content to increase the durability of the clay mixture during the manufacturing process (Cohen-Weinberger and Wolff 2001: 642-47).⁶

Historical Identification and Nomenclature

The collared pithos was first described by Kjaer, the Danish excavator of Shiloh, as a vessel “with a distinctly pared-off ribbon in low relief” (Kjaer 1930: 101), and was subsequently classified as an Early Iron Age form (Kjaer 1930: 105). Four years later, Albright – the first to connect the vessel with the Israelites – referenced the same as “collared store jars” and “collared rim on store jars” (Albright 1934: 12). The latter was then shortened to simply “collared-rim store jars.” This terminology is arguably misleading, as the “ribbon” actually rests at the bottom of the neck rather than on the rim. Nevertheless, the nomenclature has persisted nearly a century.

The deliberate differentiation of this form as a pithos within this study accentuates the vessel’s very large size and distinguishes it from the contemporaneous collared store jars that were roughly half the size. However, colloquially a pithos has been understood to be a man-sized jar.⁷ Amiran distinguishes between a store jar and a pithos by defining the latter as “a very large container, reaching 1.20 m or more in height, whose shape

⁶ Cohen-Weinberger and Wolff identified eight petrographic families in the eighty collared pithoi samples they analyzed. The conclusions of this analysis were a multiple distant source paradigm for the manufacture of collared pithoi. This is supported by the neutron-activation analysis of Yellin, Gunneweg, and others examining samples from at least a dozen sites. Each site has pithoi from local and various distant sources. (See also Biran, 1989 and Yellin and Gunneweg, 1989.)

⁷ Perhaps this connotation is derived from the inhumations in pithoi known across the Mediterranean.

clearly indicates that it was used for domestic storage” (Amiran 1969: 143).⁸ Hendrix, Drey, and Storfjell define the term pithos as a very tall jar, favoring the latter designation (Hendrix, Drey, and Storfjell 1996: 317). In Gitin’s recent two volume set of Iron Age pottery forms, both of the terms “pithos” and “storage jar” are used without any definition given for either (Gitin 2015). In a discussion on Greek pithoi, Caskey explains that the Greek word *pithos* was used in antiquity to describe containers that were “large enough to be used for the transportation or storage of substances in quantity.” She further suggests that the classification of pithos be employed to describe function rather than shape or size (Caskey 1976: 79-80). It is with that connotation that the term “collared pithos” will be utilized in this study.

Ceramic Horizon

There is much to be discussed and admired in the collared pithos. Through the data that has emerged from Cisjordan, a general consensus has developed that the collared pithos is an Iron Age I form⁹ that went out of use sometime around the beginning of the Iron Age II (Mazar 1981: 29; Esse 1992: 96).¹⁰ The examples in Transjordan, however, are less familiar. There

⁸ To add confusion to the issue, Amiran later in the same volume refers to both a Late Bronze Age jar that is roughly 0.80 m tall and a collared-rim jar which is roughly 1 m tall as pithoi – though these are clearly under her minimum height of 1.20 m. (Amiran 1969: 45, 232).

⁹ In fact, the dating of the early Iron Age I *de novo* sites in the highlands is dependent on the dating of the collared pithos in lowland sites with established chronology (Faust 2006, 160).

¹⁰ It should be noted that Finkelstein’s low chronology and those holding to a Bayesian dating model slide the Iron Age 1 ending date nearly a century later than traditionally accepted, placing it around 920 B.C., a date which would fall within the Iron Age 2A/B according to more traditional dates (Finkelstein and Piasezky 2011: 51-53; Mazar 2007: 30).

has not yet been a comprehensive survey of the collared pithos in this region. The addition of the data from Transjordan into the existing paradigm has caused many scholars to expand the dates of use into (Cohen-Weinberger and Wolff 2001: 641; Daviau 2003: 470; Killebrew 2001: 383; Hendrix, Drey and Storfjell 1996: 170) and at times nearly all the way through the Iron Age II (Daviau 2003: 117, 469; Herr and Bates 2011: 22).¹¹

The collared pithos presents some typological indicators of chronological significance within the form class. Foremost among these are the rim – shape, circumference, and alignment with the collar – and the height or length of the neck. The single most datable feature of the collared pithos is the neck. The vessel’s neck is typically more elongated and upright on earlier vessels, developing from the Late Bronze Age storage jar and disappearing into the hole-mouth pithos with a horizontal shoulder to rim stance as it transitions toward the Iron Age IIC/Late Iron Age form (Daviau 2003, 469; Callaway et al. 1969, 8-9; Herr and Bates 2011, 22; Kelso 1968, 63; Rast and Glock 1978, 9).¹² Of additional chronological significance, it has been suggested that a longer neck is associated with a more angular collar and a more rounded collar correlates with a shorter neck (Daviau 2003: 469).

Other constructs include a paradigm by Wengrow, which limits the form to the 13th century B.C. only (Wengrow 1996: 312).

¹¹ It is not unknown for a popular vessel type to continue for more than a millennium. For example, the Canaanite Jar of the Middle and Late Bronze Ages persisting for nearly 2000 years (Ibrahim 1978: 124; Parr 1973: 174). Contra. Finkelstein 2011: 125.

¹² Killebrew classifies the collared-rim pithoi by neck-length into Type A, exemplified by a whole vessel from Beit Shean, and Type B represented by a pithos from Giloh. Type A includes all forms with a neck 10.0 cm or more in height and Type B those less than 10.0 cm and most typically between 5.0 and 7.5 cm (Killebrew 2001, 380).

The fold and thickness of the rim have also been identified as elements that develop over time (Callaway et al. 1969:8-9; Finkelstein and Vronwy 1986: 77-78; Finkelstein and Bunimovitz 1993: 159). Although it is argued that rim profiles are extremely variable within the same time period, and cannot be utilized in the formation of chronological typologies (Daviau 2003: 37; Finkelstein 1988: 276; Hendrix, Drey and Storfjell 1996: 170; Kelso 1968: 63; Killebrew 2001: 380; Mazar 1981: 29; Badè, McCown, and Wampler 1947: 4). It is true that there is demonstrable variability within the corpus of contemporaneous rim profiles. Herr documents six different rim styles in the Late Iron Age I assemblage from Tall al-'Umayri alone.¹³ However, Herr also notes that even though variability exists throughout the Iron Age, there is a greater tendency toward triangular rims in earlier vessels and more ovoid rims in later strata (Herr 2007: 138).

It would be beneficial to have a large enough collection of data that could be organized against a reliable chronological framework (i.e., utilizing only firmly dated or sequenced strata). Statistical frequencies of rim shape could then be used to further understand the development of this morphological aspect of the collared pithos. The greatest challenges to such an analysis would be defining objective categories for rim profile shape, and making a flexible enough database to allow for new data to be accurately

¹³ These were oval, squared oval, squared, bulbous, bulbous ridged, squared, triangular, and ridged (Herr 2007: 139).

incorporated. Compiling rim fold statistics may also serve to elucidate regional variations.

Geographic Distribution

Understanding the geographic distribution of the collared pithos is less problematic than visualizing its chronological distribution.¹⁴ This seemingly humble vessel presented more challenge to the artisan than any other form from the period (Cohen-Weinberger and Wolff 1996: 80-81; Daviau 1995: 609-12; Raban 2001: 493-94). And yet, despite its complexity, it is found at sites nearly everywhere in the southern Levant – from Dan to Beersheba and throughout Transjordan. The cities identified as Philistine and the cities of the eastern Jezreel Valley (such as Beth Shean), where Egypt had the greatest influence and control during the late 13th century B.C., are the only areas where the collared pithos is nearly unknown (Esse 1992: 101).¹⁵

¹⁴ See Appendix D for an index of Iron Age sites in Transjordan.

¹⁵ This is not universally accurate, however. High ratios of collared pithoi have been found at Megiddo, for example, which was clearly associated with Egypt in the Late Bronze Age.

This study includes pithoi from 24 sites across Transjordan. The majority of these sites are located in the highland region referred to here as the central plateau. This is the upland between Wadi Zarqa to the north and Wadi al-Mujib to the south. Thirteen of the 24 sites in this study are part of this region (Figure 1).

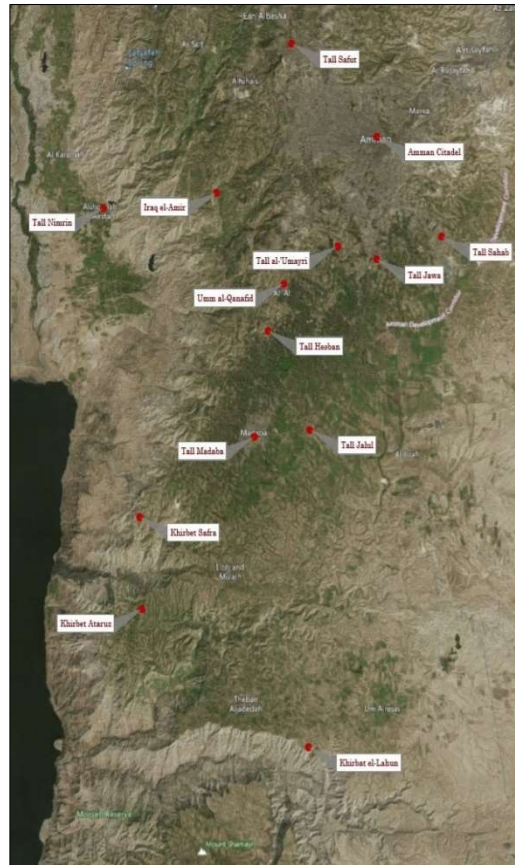


Figure 1. Thirteen Sites in Central Jordan with Collared Pithoi.

Pithoi from six sites in the Jordan Valley and the uplands north of Wadi Zarqa are included in this study (Figure 2). Four of the sites are in the Jordan Valley, two above Wadi Zarqa and two below.



FIGURE 2. Six Sites in Northern Jordan with Collared Pithoi.

There are two sites included from northern Transjordan, at Tall Johfiyeh and Um al-Hedamus. To the south of the central plateau, there are two sites on the Kerak Plateau, between Wadi al-Mujib, on the north side, and Wadi al-Hasa, on the south (Figure 3). Finally, there are three the sites included in this study that are south of Wadi al-Hasa. The most northern of

these is Busayra, in the Tafilah region. To the south-west of this site is Khirbat en-Nahas, in the Wadi Faynan. Within the Petra National Park, Umm al-Biyara is the last of the southern sites and represents the southern boundary of this form's use in Transjordan.



FIGURE 3. Five Sites on the Kerak Plateau and in Southern Jordan with Collared Pithoi.

These three sites comprise the region historically referred to as Edom. There are also two examples in this study that have become disassociated with the data of their provenance. Table 1, below, delineates the distribution of all the study samples by site.

	Archaeological Site	Geographic Region	Pithos Count	% of Total
1.	Tall al-‘Umayri	Central Plateau	81	37.5%
2.	Tall Jalul	Central Plateau	34	15.7%
3.	Tall Hisban	Central Plateau	13	6.0%
4.	Tall Sahab	Central Plateau	13	6.0%
5.	Tall Safut	Central Plateau	9	4.2%
6.	Khirbat al-Balu‘a	Kerak Plateau	8	3.7%
7.	Umm al-Qanafid	Central Plateau	7	3.2%
8.	Tall Jawa	Central Plateau	6	2.8%
9.	Tall Johfiyeh	Northern Jordan	6	2.8%
10.	Busayra	Southern Jordan	5	2.3%
11.	‘Iraq el-Emir	Central Plateau	5	2.3%
12.	Tall es-Sa‘idiyeh	Northern J. R. Valley	4	1.9%
13.	Tall Madaba	Central Plateau	3	1.4%
14.	Khirbat en-Nahas	Southern Jordan	3	1.4%
15.	Khirbat Safra	Central Plateau	3	1.4%
16.	Abu al-Kharaz	Northern J. R. Valley	2	0.9%
17.	Amman Citadel	Central Plateau	2	0.9%
18.	Umm al-Biyara	Southern Jordan	2	0.9%
19.	Tall Deir ‘Alla	Southern J. R. Valley	2	0.9%
20.	Khirbat al-Mudayna al-‘Aliya	Kerak Plateau	2	0.9%
21.	Tall Nimrin	Southern J. R. Valley	2	0.9%
--	Unknown Provenance	Unknown	2	0.9%
22.	Um al-Hedamus	Northern Jordan	1	0.5%
23.	Khirbat Ataruz	Central Plateau	1	0.5%
24.	Khirbat el-Lahun	Central Plateau	1	0.5%

Origins

The origin of the collared pithos remains rather obscure and is still a matter of some debate. Did it first appear in the North, the Highlands of Cisjordan, or even Transjordan, perhaps? Was it imported by land or sea? By whom was it originally created? The discussion is laden with ethnic implications and the present theories and conjectures are so varied as to do little to provide a substantive response. The issue is entwined with the debate regarding the historicity of the biblical account and the emergence of Israel as a cohesive culture group with a shared identity. Although the

origins of a people are not equivalent to the origins of the material goods that they employed, the issues of ethnicity and material culture can be intimately connected.

While there are variants all along the spectrum of opinion, most scholars over the years have subscribed to one of these five general theories, or combinations thereof, regarding the nature of the collared pithos' origin and its relation to the Israelites:

1. The collared pithos is a unique form introduced by Israelite immigrants.
2. The collared pithos evolved natively and was then adopted by and culturally identified with the Israelite immigrants.
3. The collared pithos is not a form exclusive to the Israelites and was used widely among many of the local culture groups, including the Israelites. Distribution patterns are only indicative of regional needs.
4. The collared pithos is an Israelite form with a native origin (i.e., the Israelites were a native group similar to or equated with the Canaanites).
5. A critical understanding of the biblical record when compared to the archaeological record reveals that there was not a people group that could be identified as Israel in the Iron Age IA. Thus the collared pithos has no ethnic associations with said group.

In 1937 Albright interpreted the collared pithos as a distinctly Israelite form – only a few short years after its original identification in the stratigraphic record (Albright 1937: 25).¹⁶ This was likely due to the ubiquitous presence of the vessel at sites having a close historical tie to the Israelites – particularly those in Israel’s central highlands. This identification became the standard paradigm for the collared pithos over the next several decades. When the body of evidence began to suggest that the collared pithos may have evolved in the central Levant, rather than having been imported with immigrating Israelites, it stood in direct contradiction to this widely accepted model.¹⁷ Thus it became hotly contested. Some reasoned that if the collared pithos was an Israelite form, and if it was directly descended from the Canaanite jar, then it could be presumed that the Israelites must have had a native indigenous origin. This would discredit the biblical account of Israelite origins and support a theory that the exodus/conquest model was composed at a later date to validate the Israelites’ divine claim to the territory. Laden with these underlying

¹⁶ Two years later, in reference to “Philistine” pottery, Albright curiously conceded that the “movements of peoples and cultures in our region were so complex that few changes in culture can be directly associated with changes in race.” In all but a select few cases, “the employment of pottery for such a purpose [ie. ethnic identification] is usually like piling Ossa on Pelion” (Albright 1939, 62). Nevertheless, he maintained his correlation of the collared pithos with the Israelites.

¹⁷ Most scholars now view the collared pithos as a conceptual descendent of the Canaanite storage jar. According to the most common variant of this idea, the collared pithos is an enlarged Middle Bronze Age jar, having nearly doubled in size within a 400 year period – from the 16th to the 12th century B.C. (Amiran 1969, 143; Raban 1991, 506; Wengrow 1996, 308, among others).

implications the collared pithos became the focus of endless rejoinders over the ensuing decades.

The simplest conclusion, which maintains harmony with the biblical account, is that the collared pithos was either not exclusive to the Israelites, or that the cities of Israel – at least in the Iron Age 1 – were more heterogenous than was previously assumed. The prevalent paradigm at present understands the collared pithos as a vessel that is not associated solely with any single culture group or ethnicity. It is generally viewed as a form used by many different culture groups across the Levant (Bloch-Smith 2003, 408-409; Cohen-Weinberger and Wolff 1996, 654; Esse 1991, 105; Faust 2006, 194; Finkelstein 2011, 123; Ibrahim 1978, 124; London 1989a, 43; Mazar 1981, 30; Raban 1991, 507; Wengrow 1996, 307). This is largely due to the fact that the collared pithos has been found at sites and in occupation levels traditionally identified as Israelite, Ammonite, Moabite, and Edomite. There is also evidence of the collared pithos in possible Canaanite contexts before the foundation of Israelite occupation.¹⁸

The debate is still open, however, as Faust argues that the collared pithos, while not an ethnic marker, should be considered an indication of ethnic behavior (Faust 2006, 202). He suggests that viewing the collared

¹⁸ For example, this is seen in the Late Bronze Age Canaanite Laish, later known as Dan, where collared pithoi have been found in Stratum VI (dated to the 12th century B.C./Iron Age IA by the excavator) alongside “Galilean-stye” collared pithoi (Biran 1989, 73; <http://ngsba.org/en/excavations/tel-dan>). Another example is Tell Nami where collared pithoi have been found in a LB 2B context on the acropolis as well as in an industrial pit also dated to the Late Bronze Age (Artzy 1994, 128). See also examples from Late Bronze Age contexts at Aphek, Beth Shan, ‘Afula, and Megiddo.

pithos as a vessel with a general ethnic correspondence with the Israelites more adequately addresses the vessel's distribution patterns than does a function/use-based model (Faust 2006, 194-98). This theory would mean that various groups, such as the Canaanites, which shared more permeable cultural boundaries with Israel may have used the Israelite forms, whereas cultures with more impermeable boundaries, such as the Philistines, would not (Faust 2006, 205). The nature of the possible ethnic associations of the collared pithos will be explored further in the final chapter.

Problem

Due to the terra incognita nature of the Transjordanian data preceding the last few decades, the overwhelming majority of past studies on the collared pithos focus almost exclusively on the form as it is known from Cisjordan. Until a thorough and independent examination of the vessel in Transjordan can be included, the overall understanding of the collared pithos is incomplete. Excavations in Transjordan have begun to reveal a different chronological scope and evolution of form than is observed in Cisjordan. Although any hard division between the regions is somewhat artificial, they are not so interdependent as to have identical ceramic horizons. There is a viable theory that the form may have even originated in Transjordan (Cohen-Weinberger and Wolff 1996: 653).¹⁹ Thus, by setting the Cisjordan highland

¹⁹ Cohen-Weinberger and Wolff state "The earliest pithoi analyzed here, both of the long-necked and short-necked variety, grouped with several families. The majority, however,

examples as the control group for all studies of the collared pithos, an injustice may have been done to the data that has recently emerged from the east. This study will endeavor to bridge the research synthesis gap and examine all available examples of collared pithoi from all available Iron Age archaeological excavations in Transjordan before comparing and contrasting them with the similar examples from Cisjordan.

Methodology

The primary objective of this research is to define the chronology, typological development, distribution patterns, and general nature of the collared pithos in Jordan. Questions of chronological scope and variations of form within stated geographic parameters shaped the research objectives. There are 72 excavated sites in Transjordan which have been reported to have varying degrees of Iron Age material.²⁰ Three sites have publications that mention collared pithoi having been found at the site, but no useful details regarding these vessels could be located. Seven of the sites have published pottery that does not include any mention or examples of collared pithoi. Fifty-four percent (n = 39) of the excavated Iron Age sites in Jordan do not have any known publications²¹ of pottery plates and are thus inaccessible

grouped with families D and E1, whose proveniences are found in the eastern part of Cisjordan or even in Transjordan. Thus, the contention that the earliest pithoi are coastal in origin [cf. Artzy 1994, 121, 138] is put into question.”

²⁰ See Appendix D for a full site list and index of collared pithoi.

²¹ It is possible that a few of these sites are published in Arabic, but as this author does not possess mastery of this language, these publications are inaccessible.

for the purpose of inclusion in this study. Only 23 of the 72 excavated Iron Age sites have published ceramics that include collared pithoi. Of necessity, only publications of sites through 2018 were included. Pithoi from six sites²² and two examples from unknown provenance, were unpublished prior to 2019 and yet still appear in this study. Some of these were very generously provided by the excavators or their representatives, others were located in museum storage collections, and two were excavated personally by the author.

In the following chapters, examples from secure stratigraphic contexts are used for chronological inquiries as well as typological development. Those collared pithoi from unknown or questionable contexts are used solely for typological comparisons, with their potential dating discussed in the analysis of the individual pithos. The most significant methodological issue in dating the pithoi in this study was encountered in the use of the form by excavators to date the locus in which it was found. This practice presupposes a certain evolution of the collared pithos that may need to be reconsidered after viewing the data collected by this study.

²² These are 'Iraq el-Emir, Tall Jalul, Umm al-Qanafid, Khirbat Safra, Tall Safut, and Tall al-'Umayri.

There are 233 examples of collared pithoi examined in the following chapters. Whole forms are the focus of the most in-depth analysis. Though these complete pithoi provide the greatest amount of data they are a luxury in Transjordan and do not compose the bulk of research material. There are 52 examples of whole and restored collared pithoi in this study. They come from eight different sites – and two unknown locations – and are distributed as shown in Table 2.

TABLE 2. Distribution of Study Samples of Whole Form Collared Pithoi, by Site

Sites with Whole Forms	Pithos Count	% of Total
Tall al-‘Umayri	35	67%
Umm al-Qanafid	7	13%
Tall Deir ‘Alla	2	4%
Tall Jawa	2	4%
Unknown Provenance	2	4%
Khirbat Ataruz	1	2%
Um al-Hedamus	1	2%
Tall Safut	1	2%
Tall Sahab	1	2%

Because 65% (n = 15) of the sites included in this study do not have whole vessels available for analysis, partial vessels and diagnostic sherds are used to enrich our understanding of the vessel’s characteristic development, distribution, and varied archaeological contexts. For example, the length of the neck or the angle of the rim in relation to the collar can be accurately measured without the presence of any part of the body. Together, examples of whole forms, rims and other significant diagnostic sherds are given equal consideration in order to complete the form development models for each site

in as much detail as possible. Iron Age sites in Transjordan without any known examples of collared pithoi to date are noted as such in the site list given in Appendix D.

Each physically accessible pithos, or pithos fragment, underwent micro-analysis²³ in order to elucidate the nature of the form in Transjordan. The pithoi were then considered within their stratigraphic and geographic contexts to arrive at global conclusions and a working definition for the collared pithos in Transjordan. The ceramic phases are evaluated for each Iron Age site with collared pithoi. These ceramic horizons are then compared and correlated with all other Iron Age sites in Transjordan with collared pithoi. Attention is given to the possible regional component of certain phase peculiarities – both chronological and geographical – of the collared pithos. Developmental trends and chronologically significant features of the form within Transjordan are compared and discussed. The resultant evolutionary paradigm is ultimately compared with that which is known from Cisjordan.

Process of Selecting Study Samples

Research began with all of the examples of collared pithoi that were physically accessible. This search yielded eighty vessels, primarily from two

²³ Twenty-two elements of each pithos were carefully measured and recorded. This includes all possible overall dimensions (eg. height, circumference at the widest point, and circumference of mouth and external rim diameter), examination of ware, and minutia of form (eg. angles between elements of the vessel, size, shape, and location of handles, rim, and collar, neck length and shape, base angles, size, and shape).

museum and three university collections.²⁴ Once these samples were thoroughly analyzed, a search began through published excavation reports, both preliminary and final, and published pottery catalogs. In order to determine which vessels meet the qualifications of inclusion for this study, four criteria were established.

1. *The pithos must come from an Iron Age context.* This was very broadly interpreted to prevent the exclusion of transitional forms from earlier and later periods. A general dating of thirteenth through fifth century B.C. was accepted as the best definition for this standard.
2. *The pithos must be of sufficient size to distinguish it from the smaller collared-rim jar.* There was no need to set a maximum size parameter as there are no known larger vessels of similar characteristics that meet the other qualifications of this study. In determining sufficient size, the minimum standard was set at an external rim diameter of at least 11.85 cm and, in the case of whole forms, a vessel height greater than 75.0 cm. These two measurements have been mathematically correlated. The average ratio of straight heights to external rim diameter, for vessels with neck heights less than 5.0 cm,²⁵ is 5.48:1 with a standard deviation of 1.00 cm. In other words, all 75.0 cm

²⁴ These included the Madaba Archaeological Museum, Amman Citadel Museum, University of Jordan/Department of Archaeology, La Sierra University/Center for Near Eastern Archaeology, and Andrews University/Horn Archaeological Museum.

²⁵ The ratio was derived from pithoi with neck heights of less than 5.0 cm because those generally have smaller rim diameters and therefore that ratio set the minimum diameter size more precisely.

collared pithoi within one standard deviation will have a height to external rim diameter ratio of 4.48:1 – 6.48:1. Thus, for a vessel with a height of at least 75.0 cm, it must have a minimum external rim diameter of at least 11.85 cm. This principle is then applied to partial examples without a full known height. The minimum height of 75.0 cm was arbitrarily selected and based on the generally defined height for collared pithoi at about a meter and the smaller collared-rim jar at half a meter. Seventy-five centimeters is the median between these two generally accepted values.²⁶

3. *The pithos must have a visible ring at the base of the neck.* Not all of the examples in this study have a clear “ribbon of clay” around the base of the neck. Several of the shorter necked pithoi have what is better referred to as a vestigial collar. This may even be a simple groove around the base of the neck, reminiscent of the full collar. It is a matter of debate whether or not these pithoi can still be considered true collared pithoi. Nevertheless, in the spirit of a full, objective analysis of the form, they were included in this study.
4. *The pithos must not have more than two known handles.* Two pithoi were eliminated from the sample group due to the presence of four

²⁶ There is also some precedent for using this height measurement in defining the minimum limit of “very tall” jars (Hendrix, Drey, Storfjell 1996: 31).

handles. Such vessels are here considered to belong with a different form of contemporaneous pithos.²⁷

In order to be as objective as possible and prevent preconceptions of type parameters from restricting the group of potential vessels, these are the only features that were used to eliminate vessels from the study. All examples meeting these requirements were given fair consideration. While roughly 1% of the pithoi that met these standards should be classified as unorthodox collared pithos examples, none of the vessels with these basic characteristics were ultimately eliminated from the study.

Once all pithoi that were physically accessible were analyzed and measurement methods were perfected, published plates were used to continue to gather data on additional examples. In the study that follows, photographic inclusions are added to all descriptions of pithoi analyzed in person by the author. Certain characteristics, such as Munsell readings were performed, but for the sake of consistency, published readings were given preference whenever available.

The Function of Measurements

The meticulous measurement of handmade pottery may seem to some to be an exercise in futility. Nevertheless, measurements provide a largely objective tool for the description of pottery forms. Purely descriptive tools,

²⁷ Cf. Mazar 2015: 44, 45 for several examples of the four handled pithos from the Iron Age 1 in Cisjordan.

such as the terms “wide,” “rounded,” “inset,” or “flaring” are not universally defined and may be understood differently by different individuals. However, when descriptive terms are paired with measurements and visual illustrations, a much more accurate understanding can be communicated. Furthermore, accurate communication can lead to more exact comparisons and ultimately to better shared models of form development. Measurements, and their statistical analysis, also aid in the identification of common features within a form group and make anomolous features more apparent.

The primary objective of measuring the various features of the collared pithoi in this study was to quantify minutia in such a way as to enable a detailed analysis and comparison within the form class. Feature classifications had to be created and adapted to be as objective as possible. Some features, such as rim shape and neck height were selected because they are widely accepted as critically important to an understanding of the collared pithos. Others, such as interior rim diameter in addition to exterior rim diameter, were both selected to act as a touchstone to verify the rim thickness.

Definition of Terms

The following list of definitions represents the terms used in this study that most keenly require articulation. This list should not be considered either as exclusive or dogmatic. It is merely a description of how these words

are used in this study. Some of these terms are illustrated in figure 4, below. Shape definitions used for rims, collars, and bases can be found in Appendices A-C.

Body Circumference is the distance around the external surface of the pithos' body at its widest point, usually between the handles.

Collar Prominence is the rise of the collar from the surface of the pithos.

Exterior Rim Diameter is the distance from one side of the rim to the other, passing through the center of the mouth. This measurement is taken at the highest edge of the rim.

The *Mouth* is the opening of the pithos formed by the rim.

Neck Height is the distance along the surface of the pithos from the point where the neck joins the rim to the point where it joins the collar.

Profile is the shape of the pithos, or any of its parts, in cross-section.

Profiled refers to the external shaping of the rim or neck with ridges, edges, grooves, or concavities.

Rim-to-Collar Angle is the angle of the external edge of the rim to vertical, taken from the collar. This angle quantifies the combined stance of the neck and the rim. It describes the angle of this portion of the pithos “relative to the horizontal plane of the vessel’s opening” (Hendrix, Drey, and Storffjell 1996: 318).

Rim Stance is “the angle of the rim relative to the horizontal plane of the vessel opening” (Hendrix, Drey, and Storffjell 1996: 318).

Rim Height is the straight vertical distance between the bottom of the rim and its upper edge.

Rim Inflection is the angle of the rim relative to the neck. A line is formed from the point where the neck meets the collar to the point where it joins the rim. This line is taken as the inclination of the neck. Rims that lean outside of this line are said to be everted and rims that lean inside of this line are said to be inverted. Rims that continue this line are aligned.

Rim Thickness is the straight horizontal distance across the thickest part of the rim.

Vessel Height is the straight vertical distance between the top, external edge of the pithos and the external surface of its base.

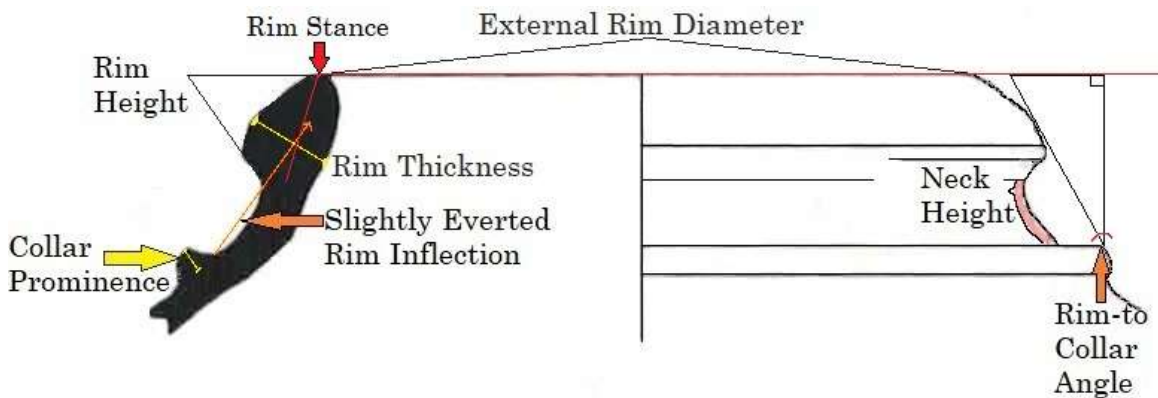


FIGURE 4. Measurements Taken of Rim Segments.

Measurement Methods

A number of different tools were employed to obtain the measurements used in this study. On the vessels that were analyzed in person by the author, rims, collars, and handles were measured using an electronic caliper (figure 5). This method was also used when measuring base fragments.



FIGURE 5. Utilization of the Electronic Caliper to Obtain Rim Height.

Straight vessel height was determined with a meter stick or a folding metric ruler. All other dimensions were taken using a fabric tape. Ensuring that all measurements were taken at the same location on each vessel was a high priority so that comparative analysis would be as accurate as possible. Some measurements were obtained from published vessel drawings. The dimensions of these pithoi were reliant on application of the scale included with the publication. To ensure the accuracy and correlation of the measurement methods utilized, 60 of the pithoi were measured in duplicate – both physically and via published plate.

Three different instruments were used in the determination of the rim to collar relationship. These are the electronic angle gauge, protractor with

swing arm, and medical goniometer (figure 6). The electronic angle gauge was utilized on all physically accessible samples. The other instruments were used to determine the angles in published drawings.



FIGURE 6. Protractor with Swing Arm (top left), Electronic Angle Gauge (lower left), and Medical Goniometer (right).

Organization of Results

In an effort to create models of form evolution which are as un-biased as possible, the studied collared pithoi will be presented in the following chapters according to groups classified by neck height alone. Namely, these are identified as Long Form (neck heights of 5.0 cm or more), Classic Form (2.0-4.9 cm), Short Form (1.0-1.9 cm), and Final Form (<1.0 cm). This organization attempts to focus on grouping the vessels by a single objective feature – one which is widely considered to be chronologically significant in collared pithos development. Despite the chronological implications of neck height, these groups are not intended to be periodizations of collared pithos

development. Indeed, there are several examples that may appear to be chronologically out of sync. These will be discussed later.

Within each chapter the pithoi will be presented alphabetically, according to the site of their provenance. Within the site section, the pithoi are arranged according to the order in which they appear in publications or the numbers given to the vessels by the excavators. Occasionally, the order of presentation within the site section is random, particularly if the vessels are unpublished.

Chronological Paradigms

Dating of the collared pithoi examples that follow relies heavily on the interpretations of the excavation director of a given site. Given the large scope of this study, it simply is not practical to conduct in-depth re-evaluations of the chronology of every site. Beyond that, it is generally fair to say that no one is more familiar with a site – and thus more qualified to evaluate its stratigraphy – than the excavation director. Unless there is an obvious interpretation issue to address, the director's dating is honored. In the few instances where there may be reason to question an assigned date, acknowledgment is made and briefly discussed within the individual descriptions of the pithos samples.

A conventional chronology dating paradigm is used for the archaeological periods discussed in this study. The period terminology and assignments, adapted from A. Mazar’s proposed chronology (Mazar 2011: 105-11; 2014: 24), are shown in Table 3. The Iron Age 2C has been split into two parts, to evaluate the earlier and later phases of the period more clearly. This division was created equitably and is not intended to be a representation of the absolute dating of the phases within the Iron Age 2C. It is also not meant to indicate that the early and later phases of the Iron Age 2C were literally equitable in time. It is an artificial construct created for the purpose of form evaluations.

Table 3. Archaeological Periods with Approximate Calendar Date Equivalentents

<i>Period</i>	<i>Corresponding Calendar Dates (B.C.)</i>	
Iron Age 1A	Late 13 th – Mid. 12 th Centuries	1200 – 1140
Iron Age 1B	Mid. 12 th – Early 10 th Centuries	1140 – 980
Iron Age 2A	Early 10 th – Late 9 th Centuries	980 – 830
Iron Age 2B	Late 9 th – Late 8 th Centuries	830 – 732
Iron Age 2C	Late 8 th Century – Mid. 7 th Centuries	732 – 650
Late Iron Age 2C/Persian	Mid. 7 th – Early 6 th Centuries	650 – 586

Consensus on the dating of the Iron Age phases in Transjordan has not yet been fully realized among scholars and excavators. In order to best harmonize the dates given in the multiple site reports represented in this study, calendar dating is thus employed. As far as possible, the phasing given by the excavation director, or publication author, was translated into

approximate calendar dates, according to their respective understanding of the periods. These dates are to be understood not as true absolute dates but a more concrete relative dating framework for the purpose of comparison between examples.

The research for this project began under the premise that certain features of the collared pithos act as chronological markers. These indicative features include neck height, body shape, base shape, and rim position and shape. While this study has confirmed that these trends are true in a statistical and general sense, the correlation is not reliable enough to be considered universally applicable. In other words, a single collared pithos cannot be dependably dated on its characteristics alone. Examples of vessels in this study belonging to chronologically limited strata have a wide variety of feature variability that cannot be explained simply by the long life of this form. While styles gradually change over time, it is clear that there is much contemporaneity between styles. After a “new” style began the “old” style continued for decades or even centuries before falling out of use.

The following chapters will explore these style variants across time, with consideration of the regional discrepancies of the collared pithos’ development, in order to arrive at more global theories regarding the role of the collared pithos within the southern Levant. When comparing the implications of the continued use of the collared pithos in Transjordan beyond the period it is known in Cisjordan, possible social factors contributing to this

difference will be considered in theory formulation. Given the wider chronological window of the use of the collared pithos in Transjordan than the form enjoyed in Cisjordan, there should be a corresponding social²⁸ or economic need that the pithos met in Transjordan which was not present in the west. New form traits were not selected in Transjordan because the collared pithos continued to fit the patterns of use (Hodder 2011:183). These questions will be explored in the following chapters, beginning with the longest-necked collared pithos, described in this study as the Long Form.

²⁸ A conservatism perhaps, or a sense of heritage and cultural continuity.

Chapter 2: The Long Form Collared Pithos

A typical Long Form collared pithos, within the collection studied,²⁹ originates from a large cache of similar vessels found in the central Transjordanian plateau.³⁰ It originates in the transitional period at the beginning of the Iron Age 1A, and was found in an archaeological context statistically dating to 1193 B.C.³¹ This pithos stands just over one meter tall³² and has a flat base³³ that is 2.0 cm³⁴ thick at its center. Its neck height measures 7.0 cm³⁵ and slopes inward³⁶ from the collar to the kidney-shaped,

²⁹ The following description does not belong to any actual vessel but is rather a conglomerate portrayal, based upon the mean dimensions and characteristics of the Long Form group study samples.

³⁰ The greatest majority, nearly 86% (n = 67), of the 77 Long Form examples in this study are from the extensive cache found in the Field B, North House at Tall al-'Umayri. Furthermore, with the exception of two pithoi from Tall es-Saidiyeh in the north and one from Tall Deir 'Alla in the central Jordan Valley, all of the Long Form examples are from sites on the central Transjordanian plateau. 4% (n = 3) originated from Tall Safut and 3% (n = 2) from Tall Jawa. Khirbat Safra and Umm al-Qanafid each represent one Long Form example as well, comprising 3% of the total vessels in this group.

³¹ This date is a statistical mean of all the known dates given to Long Form vessels in this study. The mean range within one standard deviation is ca. 1221 – 1165 B.C. All of the Long Form pithoi are dated to the 12th through the 10th centuries. 69 (91%) belong to the mid-late 12th century B.C., 6 (8%) belong to the 11th century B.C., and 1 (1%) belongs to the mid-tenth century B.C. One pithos has become separated from its context and a reliable date could not be determined.

³² More precisely, the mean pithos height is 102.36 cm tall, with a standard deviation of 6.82 cm.

³³ 64% (n = 50) of the 77 Long Form vessels studied have bases. Therefore, 36% (n = 27) are partial forms that do not have bases available for study. Of the available bases, 74% (n = 37) are flat, 20% (n = 10) are rounded, and 6% (n = 3) are pointed.

³⁴ The mean base thickness is 2.13 cm with a standard deviation of 1.18 cm.

³⁵ The mean neck height is 7.02 cm with a standard deviation of 1.64 cm.

³⁶ Of the 76 collar-to-rim angles obtained, 73% (n = 55) of the rims are inside the collar-line at average inclination of 9.41° with a standard deviation of 5.59°. About 10% (n = 8) of the

profiled,³⁷ rim at about 9° from vertical. This rim is everted³⁸ and has an external rim diameter of 26.0 cm.³⁹ The rim is 3.0 cm⁴⁰ tall and nearly 2.0 cm⁴¹ thick, having a ratio⁴² of about 1.7:1. Its teardrop-shaped collar protrudes almost 9.0 mm⁴³ from the outer surface of the pithos where the neck meets the vessel's body. The shoulder slopes down to a vertical elliptical loop handle on each side that is 4.0 cm wide at its narrowest and 14.0 cm⁴⁴ tall. The body of this pithos is at its widest where these handles are fixed, having a circumference of about 1.77 meters⁴⁵ and a corresponding diameter of about 56.0 cm.⁴⁶ The ratio of overall vessel height to width is 1:1.73, making it almost, but not quite, twice as wide as it is tall. The exterior

vessels have rims and collars that are aligned. The remaining 17% (n = 13) have rims that are outside the collar-line an average of 7.08° with a standard deviation of 3.88°. One of the rims had insufficient data available to satisfactorily determine the rim-to-collar angle.

³⁷ From the 77 Long Form rims studied, 46% (n = 34) are thickened, 35% (n = 27) are profiled, 10% (n = 8) are rectangular, 8% (n = 6) are triangular, and 1% (n = 2) are simple. There are no square or round rims represented in the Long Form group. If the sub-categories of thickened and profiled rims are taken into account individually, then the most common profile is the kidney-shaped profiled rim (Profiled: Type 1), accounting for 22% (n = 17) of the total Long Form group.

³⁸ This describes the rim's angle in relation to the line of the neck. In this collection of Long Form pithoi 74% (n = 58) of the rims are everted. Of the 216 examples in the collared-pithos group as a whole, including all rim forms, 56% (n = 121) are everted. This indicates that an Long Form rim is 18% more likely to be everted.

³⁹ The mean external rim diameter is 25.92 cm with a standard deviation of 2.54 cm.

⁴⁰ The mean rim height is 3.07 cm with a standard deviation of 0.66 cm.

⁴¹ The mean rim thickness is 1.82 cm with a standard deviation of 0.32 cm.

⁴² The ratios of rim thickness to rim height have a standard deviation of 0.45 cm.

⁴³ The mean collar prominence is 8.84 mm with a standard deviation of 2.72 mm. The Long Form collar shapes were categorized as teardrop (52%, n = 40), triangular (35%, n = 27), double (4%, n = 3), round (5%, n = 4), and square (4%, n = 3). None of the Long Form pithoi display vestigial collars.

⁴⁴ The average distance from the upper, external side of the handle, where it attaches to the shoulder, to the lower, exterior portion that attaches to the body is 13.73 cm with a standard deviation of 2.23. At its narrowest the mean handle is 4.30 cm wide with a standard deviation of 0.55 cm. This measurement is taken with electronic calipers and does not account for the curve or shape of the handle itself.

⁴⁵ The mean body circumference is 177.01 cm with a standard deviation of 16.57 cm.

⁴⁶ The mean diameter is 56.34 cm with a standard deviation of 5.27 cm.

surface of this pithos is generally plain, but occasionally it has a light-colored slip. Its best color description is “brown.”⁴⁷ The ware is underfired, with a core present.⁴⁸

While the pithos described above does not actually exist, it represents a compilation of the most commonly observed characteristics of Long Form vessels. There are 50 whole pithoi and 28 rims or partial pithoi, for a total of 78 vessels, from which data were obtained. These study samples originated from six different sites where they were consistently found in a transitional ceramic context that dates from the final stages of the Late Bronze Age through the end of the Iron Age 1.

All 78 of the pithoi in this study group are largely similar in their archaeological contexts, features, and dimensions – the characteristics which have classified them as Long Form examples. Simply put, for the purpose of this study, an Long Form pithos is one with a neck height of 5.0 cm or greater. The following examples are presented by site – arranged alphabetically.

⁴⁷ Munsell color readings were obtained for 73 of the 77 Long Form pithoi in this study. 30% (n = 22) of the vessels were read equally as “Light Brown” (7.5 YR 6/4) or “Very Pale Brown” (10 YR 7/4). Six other vessels had readings of other shades of brown, bringing the total to 38%. Another 20 pithoi were described as various shades of “Pink” – 7.5 YR (n = 12) and 5 YR (n = 8). All of the vessels were described with colors between 2.5 YR and 10 YR on the Munsell Soil Color Chart.

⁴⁸ 63% (n = 49) of the Long Form group are underfired. In 26% (n = 20) oxidation is observed and in 3% (n = 2) reduction. In six pithoi the ware analysis could not be made.

Tall Deir 'Alla, Central Jordan Valley



FIGURE 7. Aerial View of Tall Deir 'Alla.

Tall Deir 'Alla is located in the central Jordan Valley approximately one mile north of the Zarqa River. It was excavated during five, three-month seasons from 1960 – 1967, under the direction of H. Franken with Leiden University, with the bulk of the Iron Age excavations undertaken during the 1961 and 1962 seasons. From 1994-2009, excavations at the site continued under the leadership of Gerrit van der Kooij with Zeidan Kafafi as the co-director. Yarmouk University has supported the project since 1980 (Franken 1969: xv; Kafafi and van der Kooij 2013: 121-22).

The excavations showed the site to have almost continual occupation

from the 16th through the 5th century B.C. It was the first site from this period excavated in Transjordan. It is most widely known for its Late Bronze Age sanctuary and the Tall Deir ‘Alla or “Balaam” Inscription mentioning the Old Testament prophet (Hoftijzer 1976). Although no textual evidence has provided this site with an historical identification, it is most often correlated with the biblical cities of Pethor or Succoth. The site’s excavator, H. J. Franken, preferred an association with Gilgal (Franken 1969: 7).

Pithos 1.01: Tall Deir ‘Alla, ca.1140 B.C.

The Late Bronze Age settlement of Tall Deir ‘Alla ended in a great conflagration. Pithos 1.01 (figure 9) was found in Field F, Locus 506. This is a part of the earliest Iron Age stratum, Phase A, of Tall Deir ‘Alla in an area directly above the level of the burned Late Bronze Age sanctuary. A radiocarbon test was conducted on one of the burned beams from the sanctuary. The calibrated date of its destruction was placed at 1180 B.C. ±60 (Franken 1969: 244-45). Among the ceramics discovered in this phase, are a number of painted pieces of decorated “Philistine” ware. One of these is a strainer jug with parallels only in the Iron Age 1B (figure 8). This would date Phase A no earlier than the beginning of that period.

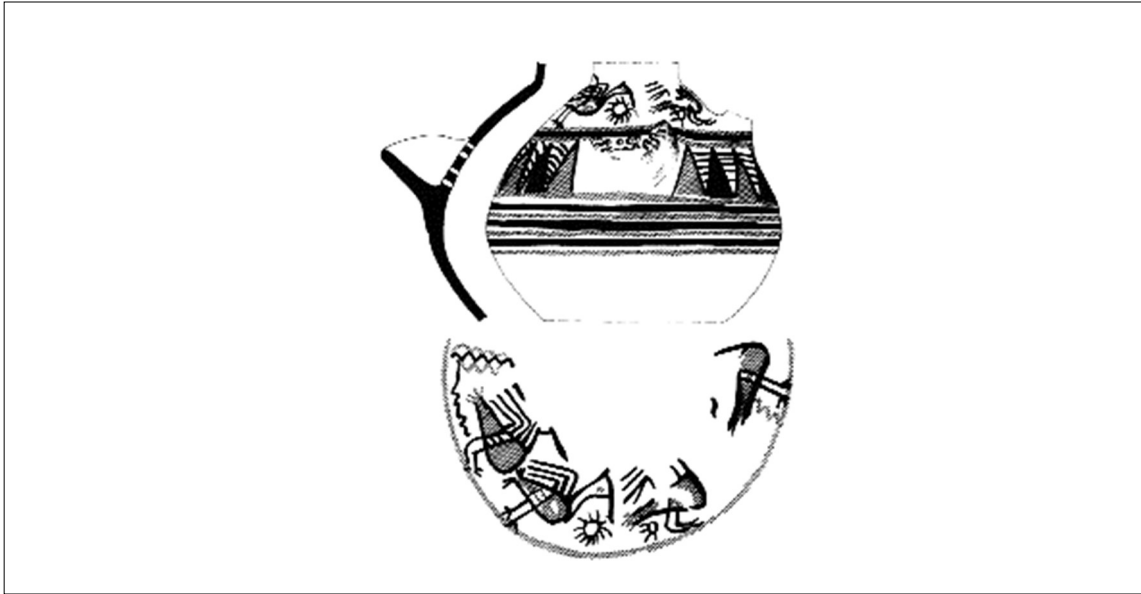


FIGURE 8. Philistine Strainer Jug from Tall Deir Alla, Phase A (Franken 1969: 180; adapted from fig. 47.4).

Pithos 1.01 is easily the smallest example in this study. It is the shortest pithos with the narrowest body circumference. This circumference is 15.94 cm smaller than one standard deviation from the mean and is nearly 18% narrower than average. Only two other vessels share this diminutive body circumference, Pithos 5.01 and Pithos 7.63, both of which also happen to be Long Form vessels. At only 5.0 cm tall, this pithos' neck is among the shortest in the Long Form group. The rim is thinner and shorter than expected. In fact, the only features of this vessel that are standard are the height of its handles and the thickness of its base. Beyond that everything is unusual. This extends to the triangular rim,⁴⁹ which is only seen in five other Long Form pithoi. This uncommon rim is fixed at a straight inflection, a

⁴⁹ See Appendix A for a detailed description of the rim shapes and their descriptive titles as used in this study.

feature which only 10% of the rims in this group possess and has a rim circumference that is nearly half the usual size! It is 29.46 cm smaller than one standard deviation from the mean. The exterior rim diameter is likewise half of average. The triangular collar, while not the most common, is still present in 35% of Long Form pithoi, making it the second most common collar shape in that group. The base's round shape is likewise unusual, but is still present in 14% of vessels in this form group. Dimensions for this vessel were obtained solely from a published plate.

TABLE 4. Comparable Data for Tall Deir 'Alla Long Form Pithos 1.01.

	Pithos 1.01	μ Pithos in Group (σ)
Neck Height in cm	<i>4.00 (43%)⁵⁰</i>	7.02 (1.64)
Rim Thickness in cm	<i>1.00 (45%)</i>	1.82 (0.32)
Rim Inflection	Straight	Everted
Rim Shape	Triangular, OT	Profiled T1: Kidney, OT
Rim Height in cm	<i>1.50 (51%)</i>	3.07 (0.66)
Rim Circumference in cm	<i>44.00 (46%)</i>	81.42 (7.96)
Exterior Rim Diameter in cm	<i>14.00 (46%)</i>	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	<i>18.00° Inside (48%)</i>	9.41° Inside (5.59°)
Collar Prominence in mm	<i>1.00 (89%)</i>	8.84 (2.72)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Light Brown
Full Vessel Height in cm	<i>75.00 (27%)</i>	102.36 (6.82)
Body Circumference in cm	<i>144.50 (18%)</i>	177.01 (16.57)
Handle Width in cm	<i>3.50 (19%)</i>	4.30 (0.55)
Handle Height in cm	15.00	13.73 (2.23)
Base Shape	Rounded	Flat
Base Thickness in cm	2.00	2.10 (1.19)

⁵⁰ All of the italicized numbers in the data tables represent dimensions that lie outside of one standard deviation from the mean for the Long Form group. The percentages in parentheses indicate how far from the mean the feature lies.

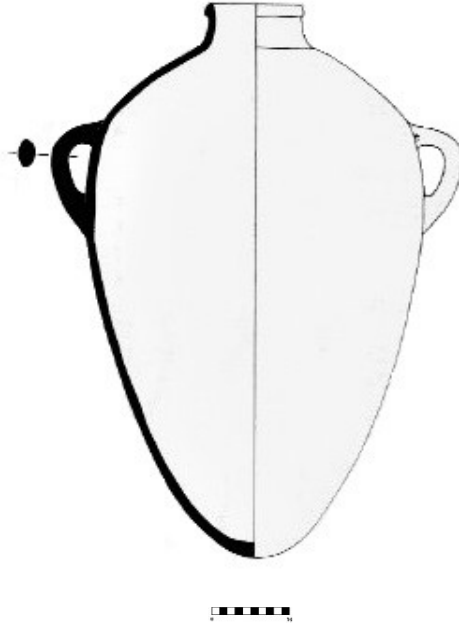


FIGURE 9. Pithos 1.01, Tall Deir ‘Alla #1189 (Franken 1969: 180-81; fig. 47.2) Scale 1:10.

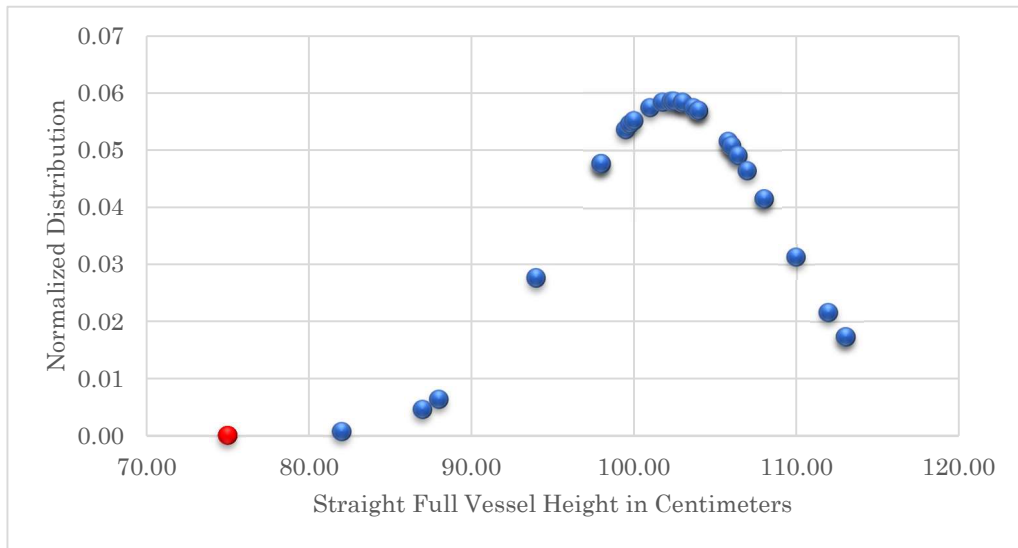


FIGURE 10. Normalized Distribution of Long Form Vessel Heights, Pithos 1.01.

Tall Jawa, Central Plateau



FIGURE 11. Aerial view of Tall Jawa.

Apart from an Umayyad period building in Area D, on the south-central section of the mound, Tall Jawa has thus yielded only Iron Age material. It is a five-acre site situated south of Amman on a hill overlooking the Madaba Plains. First constructed during the transitional period from the Late Bronze Age into the Early Iron Age, the site was finally abandoned in the Iron Age 2, around the early ninth century B.C.⁵¹

Discussed below are two examples of Long Form rims from Tall Jawa. The excavator, P. Michèle Daviau, identifies these pithoi as those with “tall necks and pointed collars,” and places them in the Iron Age 1 phase of the

⁵¹ In addition to Daviau 1992, 1995, and 2003, cf. Stern 1993-2008: 1843, 1845, 1875, 1887 for good site summaries and bibliographic resources.

site (Daviau 2003: 469). Daviau dates this phase to the late 12th/early 11th centuries B.C.,⁵² so the vessels will here be placed at the beginning of the Iron Age 1B. Daviau's dating of these pithoi is largely attributed to the fact that shorter necked collared pithoi are also present at the site and would of necessity be placed at the Iron Age 1B – Iron Age 2A transition, or the early tenth century B.C.

It seems possible from the preliminary excavation report that these vessels, both short and long necked, were found in the same archaeological context. This conclusion is drawn from Daviau's reference to the long-lived nature of the collared form. (Daviau 2003: 469). The presupposition that the longer-necked pithoi occur more frequently in the earlier periods than their shorter-necked counterparts is not without some precedent. After the tenth century B.C., for example, pithoi with neck heights of 5.0 cm or greater are unattested. Nevertheless, there are several examples, such as Pithos 27.10 from Tall al-'Umayri – with its 2.0 cm neck height – in a 12th century B.C. context.⁵³ These vessels and their stratigraphic associations challenge the universality of the principle of longer-necked vessels preceding those with shorter necks. In fact, as shown in figure 12, pithoi with neck heights in the Classic Form range of 2.0 – 4.9 cm are nearly evenly distributed throughout

⁵² Daviau further notes that this stands in contradiction to Larry Herr's dating of the Tall al-'Umayri pithoi to the late 13th century B.C. (Daviau 2003: 469; cf. Herr 2001: 241).

⁵³ Other examples include, though not exclusively, Pithoi 22.02, 26.09, 43.01, 43.02, and 45.01 – all with Iron Age 1 dates and neck heights of 2.0 cm or less. In fact, pithoi with neck heights under 2.0 cm comprise approximately 10% of the Iron Age 1 pithoi in this study.

the Iron Age 1 and comprise approximately 80% of the total vessels. The ceramics of Tall Jawa, however, were published only very recently, so any conclusions drawn here relating directly to the vessels from this site are naturally preliminary and of necessity must await further in-depth analysis.

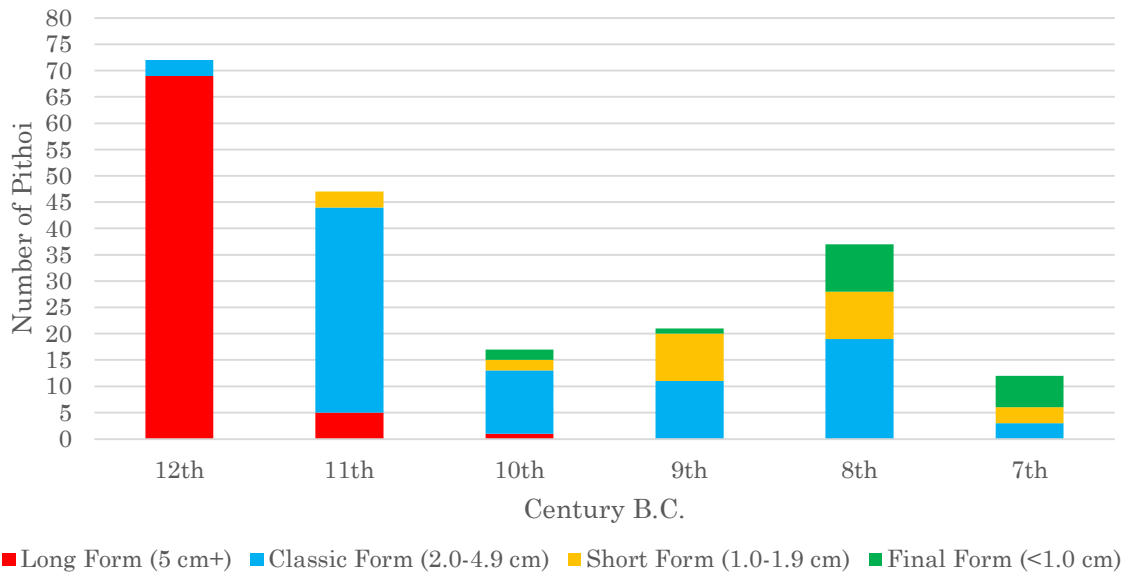


FIGURE 12. Distribution of Pithos Neck Heights, by Century B.C.

Pithos 2.01: Tall Jawa, ca.1140 B.C.

Pithos 2.01 (figure 13) was discovered in Field E, Square 54, Locus 172. Nearly all of the features of this pithos are more diminutive than average. It has a shorter neck, a smaller rim circumference, a narrower external rim diameter, and a shorter rim height than the average Long Form pithos. It does, however, have a typical everted rim inflection and a relatively common triangular collar shape. The collar is slightly more prominent than

usual but is still within one standard deviation from the mean. The angle of the rim to the collar leans inward about 10° further in from the line of the collar than most and is only 5° from the deepest set rim in the Long Form group. Dimensions for this vessel were obtained solely from a published plate.

TABLE 5. Comparable Data for Tall Jawa Long Form Pithos 2.01.

	Pithos 2.01	μ Pithos in Group (σ)
Neck Height in cm	5.20 (26%)	7.02 (1.64)
Rim Thickness in cm	1.50	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.00 (35%)	3.07 (0.66)
Rim Circumference in cm	70.70 (13%)	81.42 (7.96)
Exterior Rim Diameter in cm	22.50 (13%)	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-Collar Angle	19.00° Inside (50%)	9.41° Inside (5.59°)
Collar Prominence in mm	11.00	8.84 (2.72)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Light Brown

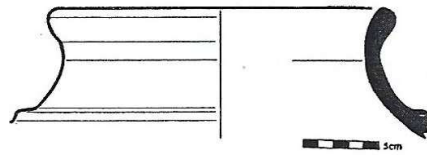


FIGURE 13. Pithos 2.01, Tall Jawa, V16 E54/172.20; Scale is 1:5 (Daviau 2003: 39; fig. 4.7.3).

Pithos 2.02: Tall Jawa, ca. 1140 B.C.

Pithos 2.02 (figure 14) originated in Field A, Square 14, Locus 36. Like the previous pithos from Tall Jawa, this example also has a shorter than average neck for this group. However, its exterior rim diameter, rim circumference, thickness, and shape are much more typical. Even its rim-to-

collar angle and collar prominence are closer to average. This pithos has a triangular collar shape, which is the second most common shape of this group. The rim inflection is standard and the profiled: ridged rim is a shape shared with five other vessels, together comprising 22% of the Long Form profiled rim group. None of the dimensions of this pithos are outside of one standard deviation from the mean, making this a common example of the Long Form. Dimensions for this vessel were obtained solely from a published plate.

TABLE 6. Comparable Data for Tall Jawa Long Form Pithos 2.02.

	Pithos 2.02	μ Pithos in Group (σ)
Neck Height in cm	5.50	7.02 (1.64)
Rim Thickness in cm	1.70	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T2: Ridged, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.20	3.07 (0.66)
Rim Circumference in cm	78.50	81.42 (7.96)
Exterior Rim Diameter in cm	25.00	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-Collar Angle	11.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	10.00	8.84 (2.72)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Light Brown

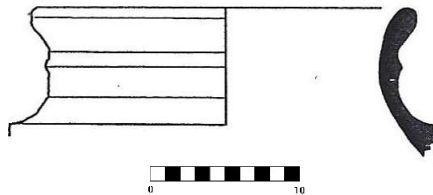


FIGURE 14. Pithos 2.02 Tall Jawa, V10 A14/36.1; Scale is 1:5 (Daviau 2003: 39; Fig. 4.7.2).

Umm al-Qanafid, Central Plateau



FIGURE 15. Aerial view of Umm al-Qanafid.

In 2017 there was a single Long Form pithos residing in the Madaba Archaeological Museum Collection, in Madaba, Jordan, with a recorded provenance of Umm al-Qanafid. However, beyond the excavation year of 1971 in the museum records, little else is known about the site, its excavation, or the original archaeological context of this vessel. The site was surveyed by the Hisban team in 1973, 1974, and 1976, but there was no mention in the survey report of excavations having recently occurred.⁵⁴ Perhaps it was a salvage excavation conducted during a construction project, as a mosque now

⁵⁴ For further mentions of Khirbat Umm al-Qanafid, see Waterhouse and Ibach 1975: 222 and Younker 1997a: 220.

occupies the area. The site is located south of Amman, in the Madaba Plains about a quarter of a mile (0.4 kilometers) north-west of Tall Hisban.

Pithos 3.01: Khirbat Umm al-Qanafid, Unknown Context

This Long Form example (figure 16)⁵⁵ is characteristic of the group in a few important ways and unique in several others. It has an average neck height, rim thickness, and body circumference. Its rim circumference and related exterior rim diameter, however, are 25% smaller than average. The rim is simple and straight, the only one of its kind⁵⁶ in the Long Form group, and rests further inside of its low triangular collar than most rims do. The collar is 43% less prominent than usual for the Long Form. This vessel's rounded, rather than flat, base and 9% taller than average overall height give this pithos a more slender appearance than most. At 113.0 cm, this vessel's height is matched only by one other Long Form vessel, Pithos 7.07.

⁵⁵ All photographic representations of collared pithoi in this study were taken by the author, unless otherwise stated.

⁵⁶ Pithos 6.02 from Tall es-Saidiyeh also has a rim with a straight shape, although that rim has inner thickening that is not seen here.

TABLE 7. Comparable Data for Khirbat Umm al-Qanafid Long Form Pithos 3.01.

	Pithos 3.01	μ Pithos in Group (σ)
Neck Height in cm	7.00	7.02 (1.64)
Rim Thickness in cm	2.00	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Simple, Straight	Profiled T1: Kidney, OT
Rim Height in cm	<i>1.00 (67%)</i>	3.07 (0.66)
Rim Circumference in cm	<i>61.30 (25%)</i>	81.42 (7.96)
Exterior Rim Diameter in cm	<i>19.50 (25%)</i>	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-Collar Angle	11.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	<i>5.00 (43%)</i>	8.84 (2.72)
Firing	Oxidation	Underfired
Exterior Munsell Reading	10 YR 7/3, Very Pale Brown	Light Brown
Full Vessel Height in cm	<i>113.00 (9%)</i>	102.36 (6.82)
Body Circumference in cm	164.00	177.01 (16.57)
Handle Width in cm	<i>5.00 (14%)</i>	4.30 (0.55)
Handle Height in cm	<i>16.00 (14%)</i>	13.73 (2.23)
Base Shape	Rounded	Flat
Base Thickness in cm	unknown	2.10 (1.19)



FIGURE 16. Pithos 3.01, Khirbat Umm al-Qanafid # A25.292PP2.7.4, unpublished (Photos taken by the author on May 31, 2016 at the Madaba Archaeological Museum in Madaba, Jordan).

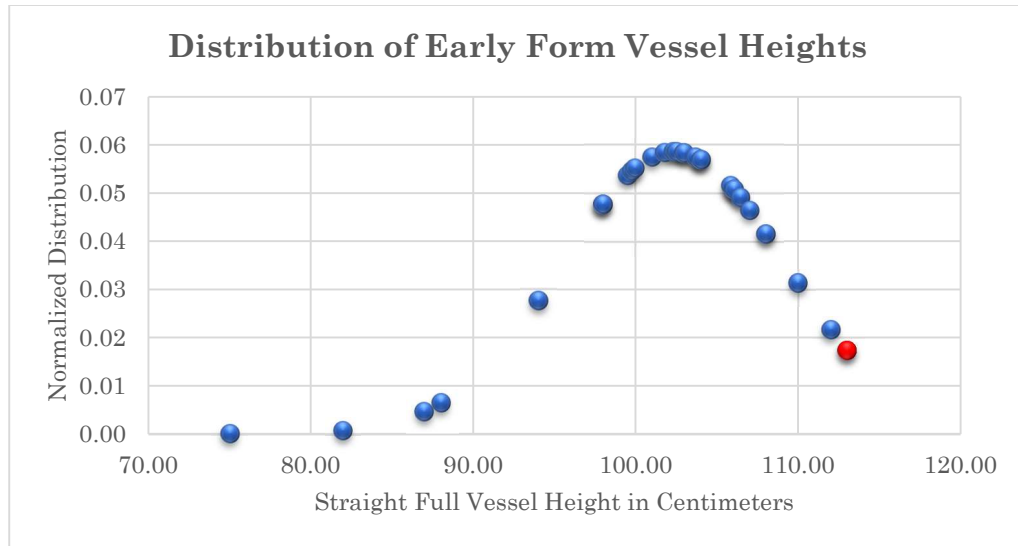


FIGURE 17. Distribution of Long Form Vessel Heights, Pithos 3.01.

Khirbat Safra, Central Plateau



FIGURE 18. Aerial view of Khirbat Safra.

Khirbat Safra is located on the road between Madaba and the hot springs at Zerqa Main. It has a view of the Dead Sea to the west. Khirbat Safra, roughly triangular in shape, is more than 2.5 acres (1 ha.) in size and is surrounded by a casemate wall. The depth of the site ranges from about 10.0 cm to two meters from the surface to the bedrock. A modern Bedouin road has been cut through the north-eastern edge of the site. A city gate was recently revealed in Field D. Excavations, directed by Dr. Paul Gregor, began in June 2018 and are currently ongoing.

With the exception of a small late Byzantine farmstead on the north-west side of the site, the material produced from the first two seasons of excavation was exclusively Iron Age. The preliminary assessment is of the foundation of the site at the beginning of the Iron Age 1A and an

abandonment during the Iron Age 2. Corroborated by the architectural and stratigraphic evidence, the ceramic horizon thus far produced by Khirbat Safra indicates two main occupation phases. It was first inhabited during the transition into the Iron Age, as is evidenced in Field C by the LB 2B forms intermingled with the early Iron Age 1A examples.⁵⁷ Its final phase occurred during the subsequent period and the site was abandoned before the start of the Iron Age 2B. This is indicated by the Iron Age 2A forms which begin appearing in small numbers in the final phase.

Pithos 4.01: Khirbat Safra, ca. 980 B.C.

Pithos 4.01 (figure 21) was unearthed during the 2018 excavation season at Khirbat Safra. It was located in a structure attached to the inner casemate wall on the southern side of the site. The ceramics of the associated locus⁵⁸ date primarily to the Iron Age 2A. This pithos was just under one meter below the surface, among the destruction debris of the final occupational phase in Field C. The associated diagnostic ceramics include one storage jar, three jars, and five bowls. The locus also contained a spindle whorl, a jar stopper, and a possible potter's wheel, indicating a variety of domestic activities.

Pithos 4.01 was found next to a wall, near a doorway leading from a large room – with a hard-packed earthen surface – into the smaller room

⁵⁷ For example, see cooking pots in fig. 19.

⁵⁸ This pithos originated in Field C, Square 2, Locus 5, which was located in the southwestern corner of the square.

between the adjacent casemate walls. The nature of this structure, connected to the wall system, is not yet wholly understood and will require further excavation to interpret fully. The surface⁵⁹ beneath Locus 5 contained ceramics that dated to the Iron Age 1A through the Iron Age 1B. Included among these vessels was a cooking pot with a distinctly Iron Age 1 profile – having an upright triangular rim (fig. 20). While this phase is placed in the Iron Age 1B, it is best understood as transitional, or belonging early in the period. While the direct ceramic context of Pithos 4.01 indicates an Iron Age 2A date, the early Iron Age 1B has been selected as the more probable date of origin for this long-necked vessel. It is, however, to be understood as a conjecture.



FIGURE 19. Khirbat Safra, Field C, Early Phase Cooking pots (Square C2).

⁵⁹ Locus 14.



FIGURE 20. Iron Age 1 Cooking Pot (left) from Locus 14 and Selected Diagnostic Sherds (right) from Locus 5.

Pithos 4.01 has a neck height that is slightly taller than average. This may be partially due to the low placement of this vessel's collar, which is more on the upper shoulder than the actual base of the neck. This low-set collar has one of the most diminutive prominences in this group and could be considered vestigial. Two other Long Form vessels⁶⁰ in this study have collars as low in prominence as this example.

Much like the previous vessel, this pithos has a significantly smaller than expected rim circumference that is closer in size to the shorter-necked Classic Form. The average rim circumference of the Classic Form is 68.18 cm with a standard deviation of 13.41 cm. This rim is nearly 5.0 cm smaller than the average Classic Form rim and approximately 19.0 cm smaller than the usual Long Form rim. However, the profiled, ridged-rim shape of this pithos

⁶⁰ Pithos 7.01, from Tall al-'Umayri, similarly has a 2.0 mm collar prominence and Pithos 1.01, from Deir Alla, has a 1.0 mm collar prominence. These three examples display the least prominent collars in the Long Form group.

is seen in 8% of Long Form rims and only 3% of Classic Form examples.

There is also subtle neck profiling on this pithos, more typical of the Long Form. This pithos provides an interesting blend of Long Form and Classic Form characteristics.

TABLE 8. Comparable Data for Khirbat Safra Long Form Pithos 4.01.

	Pithos 4.01	μ Pithos in Group (σ)
Neck Height in cm	7.50	7.02 (1.64)
Rim Thickness in cm	2.00	1.82 (0.32)
Rim Inflection	Straight	Everted
Rim Shape	Profiled T2: Ridged, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.00 (35%)	3.07 (0.66)
Rim Circumference in cm	62.83 (23%)	81.42 (7.96)
Exterior Rim Diameter in cm	20.00 (23%)	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-Collar Angle	15.00° Inside (37%)	9.41° Inside (5.59°)
Collar Prominence in mm	2.00 (77%)	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	2.5 YR 7/4, Light Reddish-Brown	Light Brown



FIGURE 21. Pithos 4.01, Khirbat Safra, Field C Square 2, Locus 5 (Excavated June 2018).

Tall Safut, Central Plateau



FIGURE 22. Aerial view of Tall Safut.

Tall Safut has material remains from the Middle Bronze Age through the Byzantine Period but it is primarily thought of as a Bronze and Iron Age site, due to the limited extent of post-Iron Age activity. It is situated a little over fifteen kilometers north-west of the Amman citadel. Excavation of the site began as a salvage project during the construction of the Amman-Jerash highway and developed into ten seasons of excavation led by David Wimmer, between 1982 and 2001 (Chesnut 2019: 1-2; Stern 1993: 144; Stern 2008: 1847). Three Long Form collared pithoi are included here from the excavations at Tall Safut. These three are each from a different field and represent the various Long Form examples yielded by this site.

Pithos 5.01: Tall Safut, ca. 1140 B.C.

The first of these vessels (figure 23) is from a small cache of four to six collared pithoi⁶¹ from Field B. These jars were found *in situ* within a dedicated section of the room against the perimeter wall. Although this pithos is the only preserved example of the ceramics unearthed in this locus, it was described as the only purely Iron Age 1 stratum excavated on the site (Chesnut 2019: 64).

This pithos has an average neck height, rim thickness and inflection. The rectangular rim profile that this vessel possesses is unusual in the Long Form group, possessed by only 10% of the pithoi (n=8), but its height is well within one standard deviation from the mean. Many dimensions of this pithos are smaller than expected. The exterior rim diameter is more than 5.0 cm smaller than average and consequently the rim circumference is nearly 20.0 cm less than most. There are only two other Long Form pithoi with square collar shapes⁶² – one of which is also peculiarly prominent. Nevertheless, these features do not detract from the familiarity of the overall impression of this pithos within the Long Form group.

⁶¹ The notes on the exact number of vessels vary, as noted by Chesnut 2019: 64, footnote 9. These pithoi were found in Field B, Square 6, Locus 5.

⁶² These are Pithos 7.08 with an 11.0 mm prominence and Pithos 7.46 with a more typical 7.0 mm prominence.

TABLE 9. Comparable Data for Tall Safut Long Form Pithos 5.01.

	Pithos 5.01	μ Pithos in Group (σ)
Neck Height in cm	7.00	7.02 (1.64)
Rim Thickness in cm	1.80	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Rectangular, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.50	3.07 (0.66)
Rim Circumference in cm	<i>62.80 (23%)</i>	81.42 (7.96)
Exterior Rim Diameter in cm	<i>20.00 (23%)</i>	25.92 (2.54)
Collar Shape	Square	Teardrop
Rim-to-Collar Angle	5.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	<i>12.00 (26%)</i>	8.84 (2.72)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	<i>144.50 (18%)</i>	177.01 (16.57)
Handle Width in cm	4.00	4.30 (0.55)
Handle Height in cm	unknown	13.73 (2.23)
Base Shape	unknown	Flat
Base Thickness in cm	unknown	2.10 (1.19)

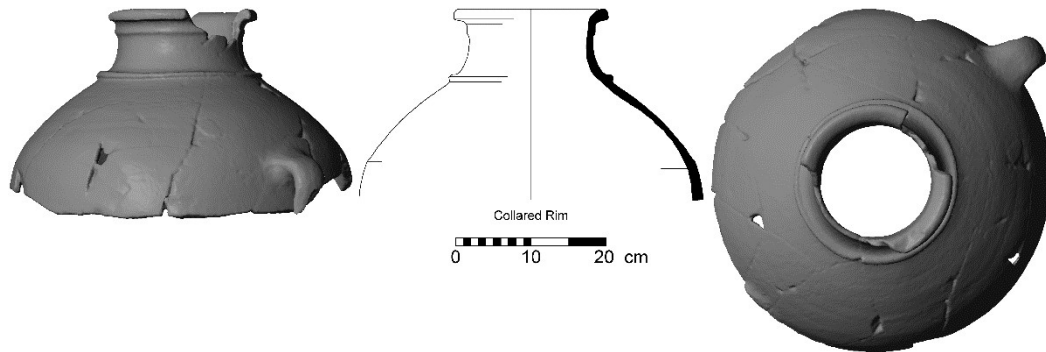


FIGURE 23. Pithos 5.01, Tall Safut. B6.L5. (Chesnut 2019: Pl.14.1.4.).

Pithos 5.02: Tall Safut, ca. 1140 B.C.

This pithos (figure 24) originated from Field B, Locus 3, and was unearthed in a locus defined by debris near the perimeter wall. This locus, described as “red-brown soil with some small stones and pottery” primarily contained Iron Age 1 sherds, but earlier and later ceramic material was

present as well (Chesnut 2019: 65). This pithos represents the only sherd that was retained from this locus by the excavators (Chesnut 2019: 65), therefore the specific nature of the context cannot be evaluated. It was given an Iron Age 1A date (Chesnut 2019: 559), presumably based on the dating of the majority of the sherds in the associated locus. As the context of this pithos appears to have been somewhat mixed, an Iron Age 1B date will be used here as a working date, as it better represents a central Iron Age 1 date, with the recognition that it is not clearly substantiated by the record.

The dimensions of this pithos are largely standard for the Long Form group. Its neck height, rim height, thickness and profile, as well as its teardrop-shaped collar are all typical. This vessel does portray some dissimilarity with the average pithos in the exaggerated prominence of its collar,⁶³ and the degree to which the rim is set inside the collar. This latter feature may be a contributing factor to the pithos' reduced exterior rim diameter and rim circumference, making this example of the form more closed than most.⁶⁴ The vessel also shares its triangular-shaped rim with only 6% of the other pithoi in this group, adding to its overall unique profile. Dimensions for this vessel were obtained solely from a published plate.

⁶³ In the Long Form group this pithos, together with Pithos 7.64, have the most prominent collars. Both are teardrop shaped and 15.0 mm.

⁶⁴ Within the Long Form group, only Pithos 1.01 has a smaller rim circumference and associated rim diameter.

TABLE 10. Comparable Data for Tall Safut Long Form Pithos 5.02.

	Pithos 5.02	μ Pithos in Group (σ)
Neck Height in cm	7.00	7.02 (1.64)
Rim Thickness in cm	1.50	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Triangular, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.70	3.07 (0.66)
Rim Circumference in cm	56.50 (31%)	81.42 (7.96)
Exterior Rim Diameter in cm	18.00 (31%)	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-Collar Angle	18.00° Inside (48%)	9.41° Inside (5.59°)
Collar Prominence in mm	15.00 (41%)	8.84 (2.72)
Firing	Oxidation	Underfired
Exterior Munsell Reading	7.5 YR 7/4, Pink	Light Brown

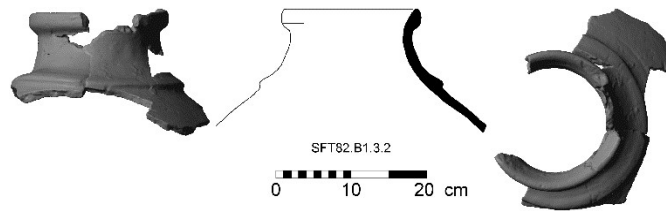


FIGURE 24. Pithos 5.02, Tall Safut, SFT82.B1.3.2. (Chesnut 2019: Pl. 14.2.5).

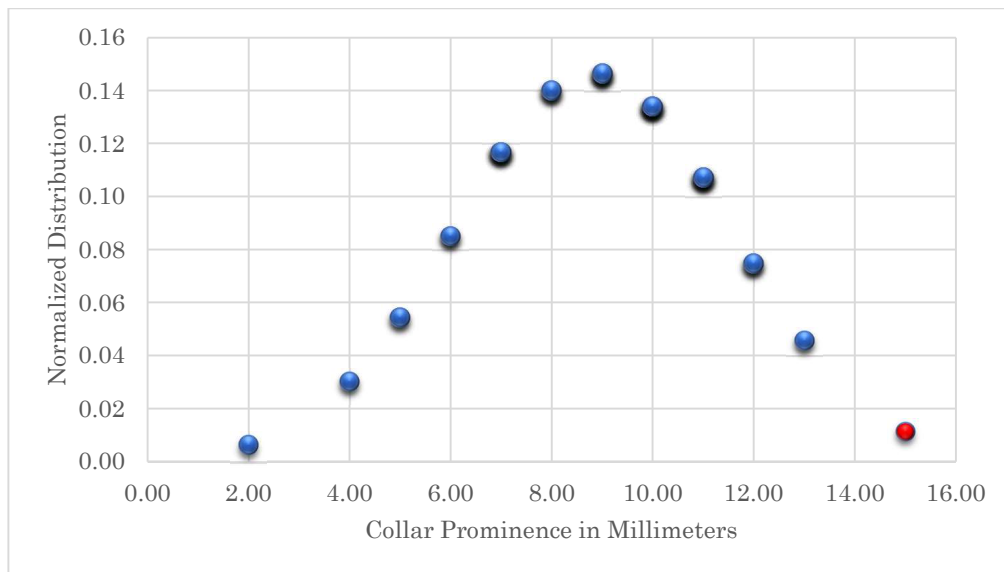


FIGURE 25. Distribution of Early Form Collar Prominences, Pithos 5.02.

Pithos 5.03: Tall Safut, Unstratified

Pithos 5.03 (figure 26), from Field C was excavated in 2001 from the southern part of Square 7, within Locus 406. This locus was described as an ashy layer intertwining with “bricky” Locus 408. An Iron Age 2C wall, Locus 405, was built directly on top of these loci⁶⁵ (Chesnut 2019: 67-68). The ceramic remains of Locus 406 included two bowls, three jugs, one cooking pot, two storage jars, and one krater. These sherds have dates ranging from the Late Bronze Age through the Iron Age 2C/Persian period.⁶⁶ Given the very late nature of this locus and its mixed ceramic inclusions, it is difficult to give a narrow chronological framework for this pithos. It is therefore considered unstratified for the purposes of this study.

All three of the studied Long Form examples from Tall Safut share a very prominent collar and a neatly-constructed 7.0 cm neck. Pithos 5.03 shares a further similarity with Pithos 5.02 in its teardrop-shaped collar. It is dissimilar to the other Tall Safut pithoi in its exterior rim diameter and related rim circumference, which are both greater than average. It also possesses a nearly aligned rim-to-collar angle with an inverted, thickened-edged rim. Dimensions for this vessel were obtained solely from a published plate.

⁶⁵ The only sherd retained from this intertwining Locus 408 was a jug assigned to the Iron Age 1A, see Chesnut 2019: 554, Pl. 13.7. Regarding the dating of Wall 405, see Chesnut 2019: 215 and Pl. 46.8.21.

⁶⁶ Chesnut 2019: 524-951. Among these vessels, two are described as dating as early as the Late Bronze Age, three are Iron Age 1A, one is Iron Age 1A-1B, one is Iron Age 2, one is Iron Age 2 B-C, and one is Iron Age 2C/Persian.

TABLE 11. Comparable Data for Tall Safut Long Form Pithos 5.03.

	Pithos 5.03	μ Pithos in Group (σ)
Neck Height in cm	7.00	7.02 (1.64)
Rim Thickness in cm	1.40 (33%)	1.82 (0.32)
Rim Inflection	Inverted	Everted
Rim Shape	Thickened T1: Edged, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.70	3.07 (0.66)
Rim Circumference in cm	86.40	81.42 (7.96)
Exterior Rim Diameter in cm	27.50	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-Collar Angle	2.00° Outside (72%)	9.41° Inside (5.59°)
Collar Prominence in mm	12.00 (26%)	8.84 (2.72)
Firing	Oxidation	Underfired
Exterior Munsell Reading	10 YR 7/4, Very Pale Brown	Light Brown

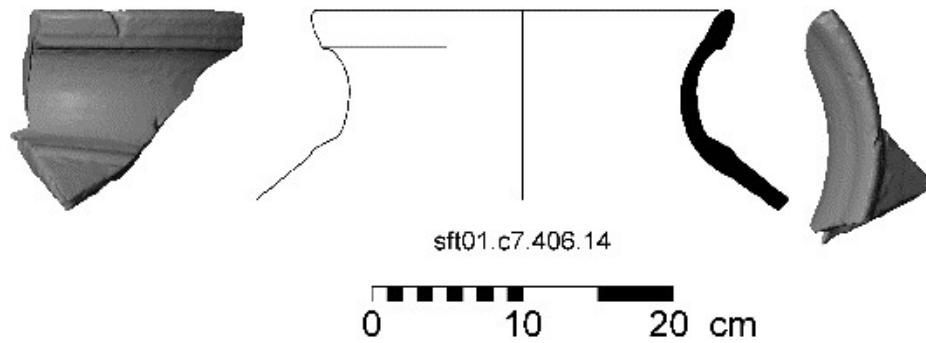


FIGURE 26. Pithos 5.03, Tall Safut, SFT01.C7.406.14 (Chesnut 2019, 558-59; Pl. 14.3.2).

The Cemetery at Tall es-Sa'idiyeh, Northern Jordan Valley



FIGURE 27. Aerial view of Tall es-Sa'idiyeh.

Tall es-Sa'idiyeh is located in the Jordan Valley, north of the Zarqa River. Occupation of the site began in the Early Bronze Age and continued in the Late Bronze Age, Iron Age, and saw limited use during later periods. The material revealed through excavations of the site indicates a strong Twentieth Dynasty Egyptian influence, if not outright control, into the Iron Age 1. In 1964 excavation of the late 13th/early 12th century B.C. cemetery on the lower mound began under the direction of James Pritchard, in association with the University of Pennsylvania. Forty-five tombs from the Late Bronze Age through the Iron Age 1 were excavated (Pritchard 1980: 1985 and Stern 1993-2008: 1295-1300).

Pithos 6.01: Tall es-Sa'idiyeh, ca. 1200 B.C.

One Long Form collared pithos (figure 28) was discovered in Tomb 117 of the cemetery at Tall es-Sa'idiyeh. This tomb contained a bitumen-encased burial of what is presumed to be an adult female based only on the presence of a number of beads, as the bones were crushed from a cave-in and too deteriorated to be adequately analyzed. Aligned beside this tomb is the only other burial, Tomb 102, in the cemetery containing bitumen. Because of the contents and orientation of the two burials, they are considered contemporaneous. Tomb 102 contains three vessels indigenous to Transjordan that can be dated to the transitional LB 2B – Iron Age 1A period (Pritchard 2008: 21, 29).⁶⁷

The ceramics included in Tomb 117 are almost entirely imports and local imitations. These ceramics include imported stirrup jars, dating to the Late Helladic 3B, 13th – 12th centuries B.C. (Green 2006: 419). They also include Egyptian, Cypriot, and Mycenaean forms, also dating from the Late Bronze Age through Iron Age 1 transition (Pritchard 1980: 21).⁶⁸ Also found in this tomb was a scarab bearing the name of Amenhotep II, from the end of the 15th century B.C. As this object predates the majority of the items in the tomb by more than a century, it is best understood as an heirloom piece (Pritchard 1980: 21).

⁶⁷ These vessels include a lamp, a storage jar, and a juglet.

⁶⁸ For a descriptive list of the sixteen vessels in Tomb 117, as well as the numerous beads, scaraboid beads, a scaraboid ring and the scarab bearing the name of Amenhotep II, please see Pritchard 2008: 21.

Pithos 6.01 was empty, but the interior was coated with a thin layer of bitumen. This caused the excavator to conjecture that the bitumen used in the burial process, and indeed found throughout the tomb, may have been heated in this container (Pritchard 1980: 21). Pithos 6.01, together with the following vessel, Pithos 6.02, are unique in their context. They are the only vessels in this study that were discovered in a burial setting.

The base is missing from this pithos, but the majority of the body and the full rim are present. The handles are complete as well. It has a prominent, triangular collar at the base of an extraordinarily tall neck. It is one of three pithoi with 10.0 cm necks. Only two vessels in this study have taller necks. This pithos is therefore in the top 6% of vessels for neck height. Contrarily, nearly all of the other major dimensions of this pithos are below average. The tall neck on this jar creates the visual illusion of alignment between the rim and collar. In fact, the rim rests about 15° inside of alignment with the collar. The unusually large handles and the sharper angle of the bottom of the shoulder give this vessel its unique profile. Dimensions for this vessel were obtained solely from a published plate.

TABLE 12. Comparable Data for Tall es-Sa'idiyeh Long Form Pithos 6.01.

	Pithos 6.01	μ Pithos in Group (σ)
Neck Height in cm	10.00 (30%)	7.02 (1.64)
Rim Thickness in cm	2.00	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Triangular, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.50	3.07 (0.66)
Rim Circumference in cm	77.00	81.42 (7.96)
Exterior Rim Diameter in cm	24.50	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	15.00° Inside (37%)	9.41° Inside (5.59°)
Collar Prominence in mm	11.00	8.84 (2.72)
Firing	unknown	Underfired
Exterior Munsell Reading	Red-brown with Buff Slip	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	162.00	177.01 (16.57)
Handle Width in cm	5.00 (14%)	4.30 (0.55)
Handle Height in cm	22.00 (38%)	13.73 (2.23)
Base Shape	unknown	Flat
Base Thickness in cm	unknown	2.10 (1.19)

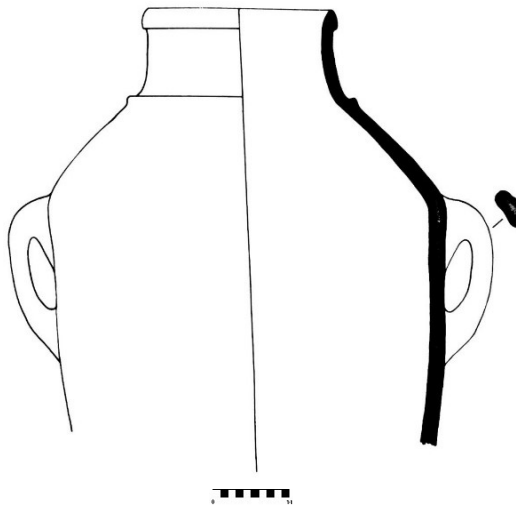


FIGURE 28. Pithos 6.01, Tall es-Sa'idiyeh, #117.5 (Pritchard 1980: 60-61; fig. 22).

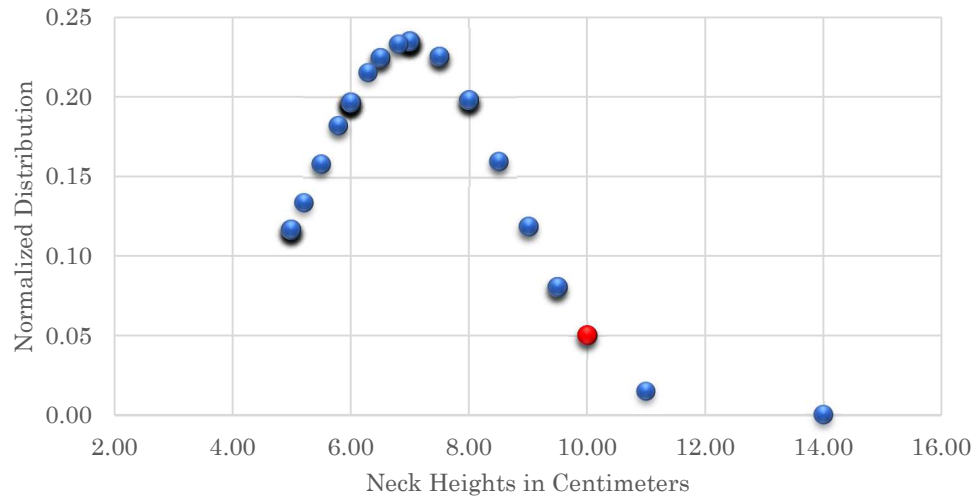


FIGURE 29. Distribution of Long Form Neck Heights, Pithos 6.01.

Pithos 6.02: Tall es-Sa'idiyeh, ca.1140 B.C.

This pithos originated in Tomb 120 of the cemetery at Tall es-Saidiyeh. This grave, containing Pithos 6.02 (figure 31), was located about half a meter below the surface. The mouth of the pithos was pointing west and inside were the disarticulated remains, primarily skull fragments, of at least three small children (Pritchard 1980: 23). The burial is considered a poor one due to the presence of only one vessel, Pithos 6.02. Two bronze bracelets and four cowrie shells were also associated with this burial. There is nothing to give a chronological context to this tomb. However, there are approximately nine other similarly lightly-endowed burials in the cemetery which the excavator hypothesized may represent a chronological group in which the cultural trend tended toward placing fewer items with the dead. If this is true, then the

presence of an Iron Age 1 juglet (Figure 30) in four of these burials would point toward that date for these tombs (Pritchard 1980: 29). In his reanalysis of the cemetery data, Green has classified Tomb 120 as having an indeterminate date (Green 2006: 414). However, based upon certain criteria he outlines in his study, such as orientation, this tomb is classified as belonging to the Late Bronze Age – Early Iron Age group (Green 2006: 50-51). As it is likely to post-date Tomb 117 and the context of Pithos 6.01, this vessel has been assigned an Iron Age 1B date. This assignment is considered a working estimate only, with the acknowledgment that this example may be older than this assignment.



FIGURE 30. Iron Age 1 juglet from Tall es-Sa'idiyeh Tomb 113 (Pritchard 1980: fig. 16.3).

As an example among the Long Form group, Pithos 6.02 is one of the smaller vessels. Its body circumference is 11% smaller than average for the Long Form group and its rim circumference and related exterior rim diameter are both 15% smaller than expected. This pithos has a neck height shared by nine other pithoi in the Long Form group but its simple rim shape

is only seen here and on Pithos 3.01. The other aspects of this vessel are fairly standard. Dimensions for this vessel were obtained solely from a published plate.

TABLE 13. Comparable Data for Tall es-Sa'idiyeh Long Form Pithos 6.02.

	Pithos 6.02	μ Pithos in Group (o)
Neck Height in cm	5.00 (29%)	7.02 (1.64)
Rim Thickness in cm	2.00	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Simple, IT	Profiled T1: Kidney, OT
Rim Height in cm	1.50 (51%)	3.07 (0.66)
Rim Circumference in cm	69.10 (15%)	81.42 (7.96)
Exterior Rim Diameter in cm	22.00 (15%)	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-Collar Angle	13.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	11.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	Brown with buff slip	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	157.10 (11%)	177.01 (16.57)
Handle Width in cm	4.00	4.30 (0.55)
Handle Height in cm	15.00	13.73 (2.23)
Base Shape	unknown	Flat

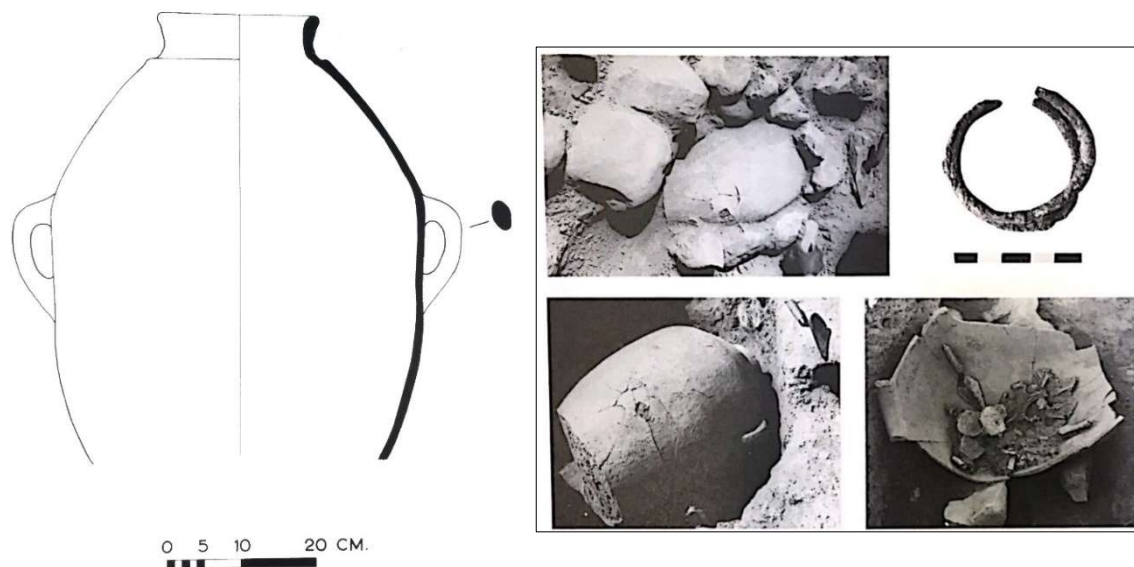


FIGURE 31. Pithos 6.02, Tall es-Sa'idiyeh, Tomb 120.5 (Pritchard 1980: 64-65, fig. T 120.1; in situ photographs [not to scale], Pritchard 1980: 97, fig. 60).

Tall al-‘Umayri, Central Plateau



FIGURE 32. Aerial view of Tall al-‘Umayri.

Tall al-‘Umayri is situated south-west of Amman in the Madaba Plains region of central Transjordan. Excavations began at the site in 1984 and has continued for eleven seasons, directed by Lawrence Geraty, Larry Herr, and Douglas Clark (Clark et al. 2011: 30). It is one of the most extensively excavated archaeological sites in Transjordan (Stern 2008: 1848). The use of the site was widespread in the Early Bronze Age, but material remains from nearly every archaeological period have been recovered. The site underwent major reconstruction at the beginning of the Iron Age 1.⁶⁹ During this process

⁶⁹ For a thorough discussion of the dating of these structures, see Clark 2014: 77-185, as well as preceding Madaba Plains Project publications.

a typical four-room house was built along the perimeter wall. This house, known informally as Building B and the adjacent building to the south referred to as Building A (fig.33), contained whole vessels and parts of approximately 100 collared pithoi. Sixty-seven of these vessels are presented below. This corpus has thus far proven to be the richest collection of Long Form collared pithoi in existence and represents 86% of the Long Form pithoi and 29% of the total number of pithoi in this study. This extraordinary repertoire of vessels collectively exhibits the features that characterize the earliest phase of the collared pithos in Transjordan.

Building B was built at the very beginning or slightly before the beginning of the Iron Age 1A, after a significant hiatus.⁷⁰ The building was later violently destroyed near the end of the Iron Age 1A, giving clear relative foundation and *terminus* dates for the building and its contents. The conflagration is evidenced by approximately two meters of ash, charred building materials, and burned limestone. Several ballistic stones and a few lance heads found in the destruction layer, point to a military conflict. Soil samples also revealed at least a dozen different kinds of seeds including beans, grains, and grapes complete with skins (Herr et al. 1997: 64). Above

⁷⁰ The construction of this building is a part of Tall al-'Umayri Stratum 13 (Field Phase 12). Cf. Clark 2002: 48-116. Special notice given to the fig. 4.27.12 cooking pot found among this locus. Also, Clark 1997: 53-98. Special notice given to the fig. 4.25 cooking pots found in the rampart that is contemporaneous to the construction of the casemate wall inside which these pithoi were found.

the substantial destruction layer was a stratum containing early Iron Age 2A material.

The Iron Age 1 is represented by five distinct phases in Fields A and B at Tall al-‘Umayri, namely Strata 9 – 13 (Herr et al. 2014: 80). The pithoi presented below are all from Stratum 12. While each of them was unearthed in the same complex, from the same stratum, a few different loci are represented in this collection. Pithoi 7.01 through 7.44 and Pithoi 7.63 through 7.67 originated in Square 7J99, Locus 3. This locus is described as an “earth layer east of the perimeter wall” (Herr et al. 2002: 52). Pithoi 7.45 through 7.60 were discovered in Square 7J89, Loci 30-31. Pithos 7.62 was found in Square 7K80, adjacent east to Square 7J89, Locus 37. This locus is classified as “mudbrick tumble” (Herr et al. 2002: 53).

The excavators, understandably, did not attempt to apply an absolute chronology to these strata. However, as explained earlier, the artificial construct of calendar dates will allow clearer parallel comparisons for the purposes of this study. For the purpose of this study, the strata of the Iron Age 1 at Tall al-‘Umayri have thus been arbitrarily divided into calendar dates, as follows (in B.C. dates):

Stratum 13	Transitional Iron Age 1A	1280 – 1200
Stratum 12	Early Iron Age 1A	1200 – 1170
Stratum 11	Iron Age 1A	1170 – 1140
Stratum 10	Iron Age 1B	1140 – 1000

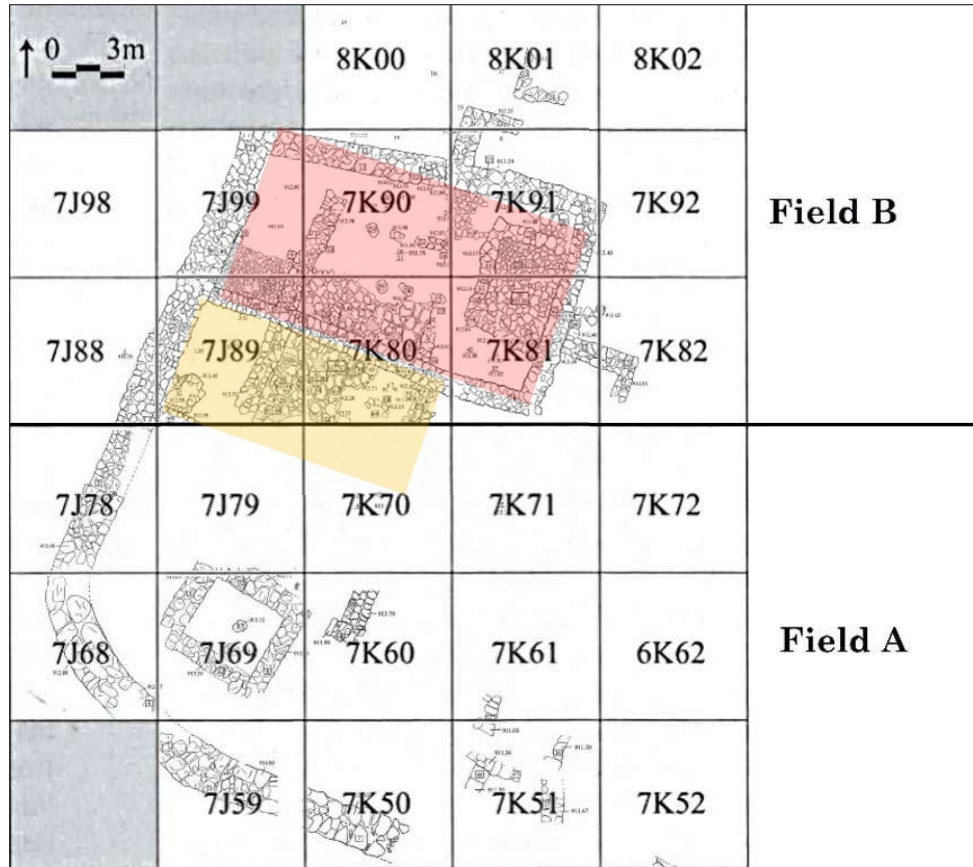


FIGURE 33. Top plan with Layout of Fields A and B at Tall al-'Umayri, Field Phase 11. (Building B is highlighted in red and Building A is shown in gold; Adapted from Herr et al. 2014: 11, Fig. 2.2; 51, Fig.3.25; 104, Fig. 4.21).

Pithos 7.01: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.01 (figure 34) was unearthed in Field B, Square 7J99, Locus 3.

There is only one pithos⁷¹ out of the 233 collared pithoi in this study that has a longer neck than this example. This extraordinary characteristic is paired

⁷¹ Pithos 7.45.

with a collar that only rises about 2.0 mm from the surface of the body, giving it the second lowest prominence of any Long Form collar. In fact, this prominence is extremely low for any phase of the collared pithos, nearing the point of the vestigial collars seen in many of the Short Form and Final Form examples. The height of this pithos is also unusual. It is 13.54 cm below one standard deviation from the mean, making it the second shortest vessel in this study.⁷² The simple multi-grooved, profiled rim is a shape that is unique to this pithos. This vessel also has one of only two bases in the Long Form group that is classified as pointed.⁷³

Despite the remarkable nature of these features, the rest of the dimensions of this vessel are within one standard deviation of the mean for an Long Form pithos, making it an average pithos in many regards. It has an everted rim inflection and an expected rim thickness. The exterior rim diameter is very near average. The triangular collar shape is the second most common in the Long Form and the position of the rim, only slightly inside the line of the collar, is exactly what is expected, according to the mean rim-to-collar angle for the Long Form group.

⁷² Pithos 4.01 from Tall Deir 'Alla is the only Long Form vessel that is shorter than this one, measuring at only 75.0 cm in height. It also has the lowest Long Form collar at only 1.0 mm.

⁷³ The other pointed base is Pithos 7.64.

TABLE 14. Comparable Data for Tall al-'Umayri Long Form Pithos 7.01.

	Pithos 7.01	μ Pithos in Group (σ)
Neck Height in cm	11.00 (36%)	7.02 (1.64)
Rim Thickness in cm	1.97	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T5: Multi-Groove, OT	Profiled T1: Kidney, OT
Rim Height in cm	1.92 (top ring of rim) (37%)	3.07 (0.66)
Rim Circumference in cm	78.50	81.42 (7.96)
Ext. Rim Diameter in cm	25.00	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	4.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	2.00 (77%)	8.84 (2.72)
Firing	Oxidation	Underfired
Exterior Munsell Reading	5 YR 7/4, Pink	Light Brown
Full Vessel Height in cm	82.00 (20%)	102.36 (6.82)
Body Circumference in cm	175.90	177.01 (16.57)
Handle Width in cm	4.74	4.30 (0.55)
Handle Height in cm	14.80	13.73 (2.23)
Base Shape	Pointed	Flat
Base Thickness in cm	2.00	2.10 (1.19)

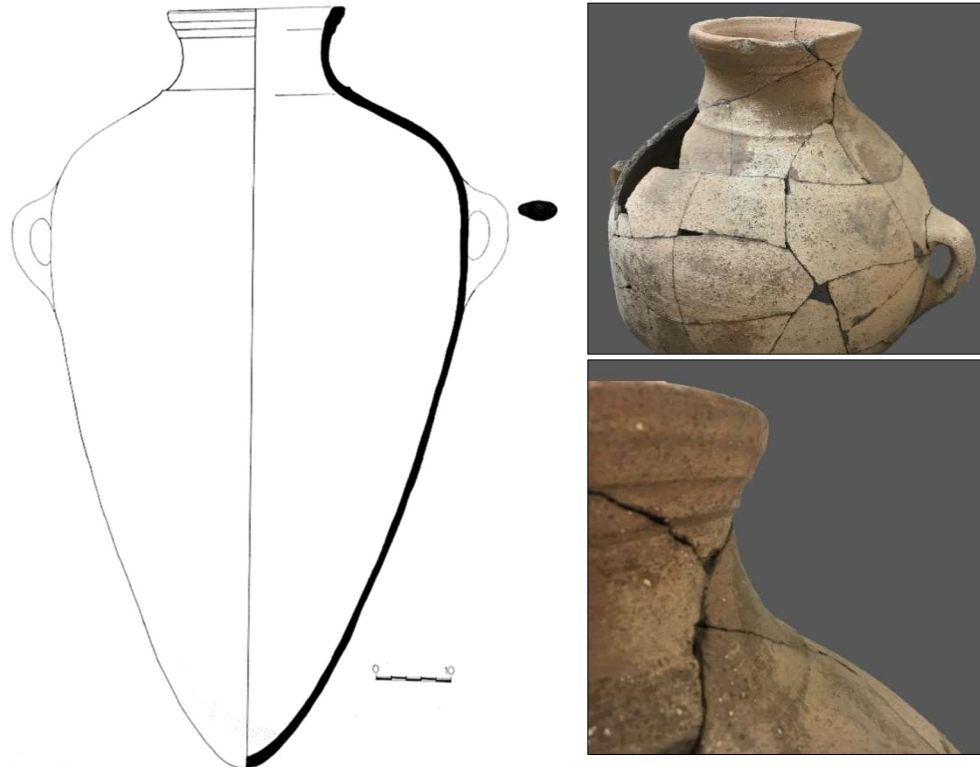


FIGURE 34. Pithos 7.01, Tall al-'Umayri, #1 (Herr et al. 2002: 84).

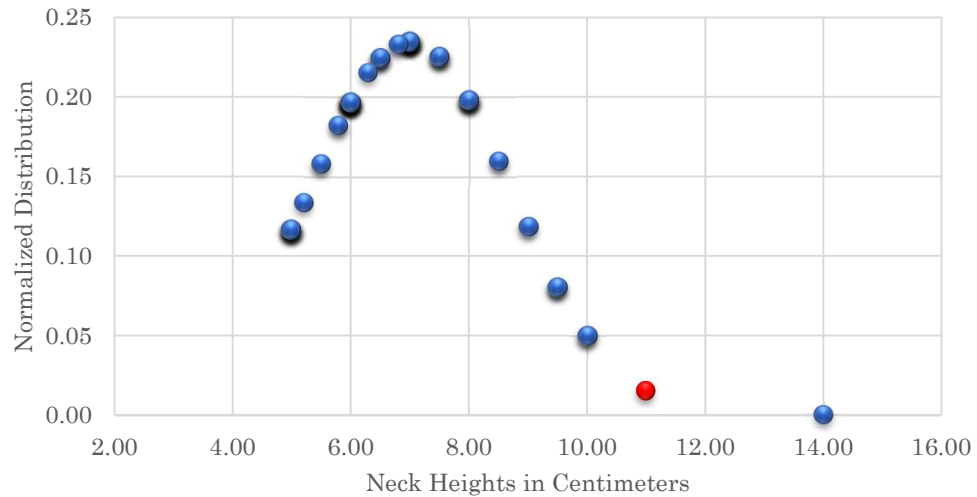


FIGURE 35. Distribution of Long Form Neck Heights, Pithos 7.01.

Pithos 7.02: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.02 (figure 36) was discovered in Field B, Square 7J99, Locus 3. In most ways, this vessel is typical for a Long Form pithos. All of the dimensions of its rim are near enough to average to fall within one standard deviation of the mean. It possesses the expected everted rim inflection, the most frequent profiled rim with a kidney shape, and the typical teardrop-shaped collar. The rim rests comfortably right inside the line of the collar, the ware is underfired, and the external slip is pink – the second most common color.

The most unusual feature of this vessel is the thinness of its base. At 0.70 cm, this pithos has the thinnest base in the Long Form collection. Other remarkable characteristics are its height – 7.54 cm below one standard deviation – and its body circumference – 3.34 cm smaller than one standard deviation from the mean. Although the rim section of this pithos is typical, the body is quite a bit smaller than usual. This characteristic may also be connected to the thinner than usual base present in this vessel.

TABLE 15. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.02.

	Pithos 7.02	μ Pithos in Group (σ)
Neck Height in cm	6.00	7.02 (1.64)
Rim Thickness in cm	1.97	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T1: Kidney, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.75	3.07 (0.66)
Rim Circumference in cm	88.00	81.42 (7.96)
Exterior Rim Diameter in cm	28.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	11.00° Outside (36%)	9.41° Inside (5.59°)
Collar Prominence in mm	10.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 7/4, Pink	Light Brown
Full Vessel Height in cm	88.00 (14%)	102.36 (6.82)
Body Circumference in cm	157.10 (11%)	177.01 (16.57)
Handle Width in cm	3.71 (14%)	4.30 (0.55)
Handle Height in cm	12.72	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	0.70 (67%)	2.10 (1.19)



FIGURE 36. Pithos 7.02, Tall al-'Umayri #2 (Herr et al. 2014: 338, 357).

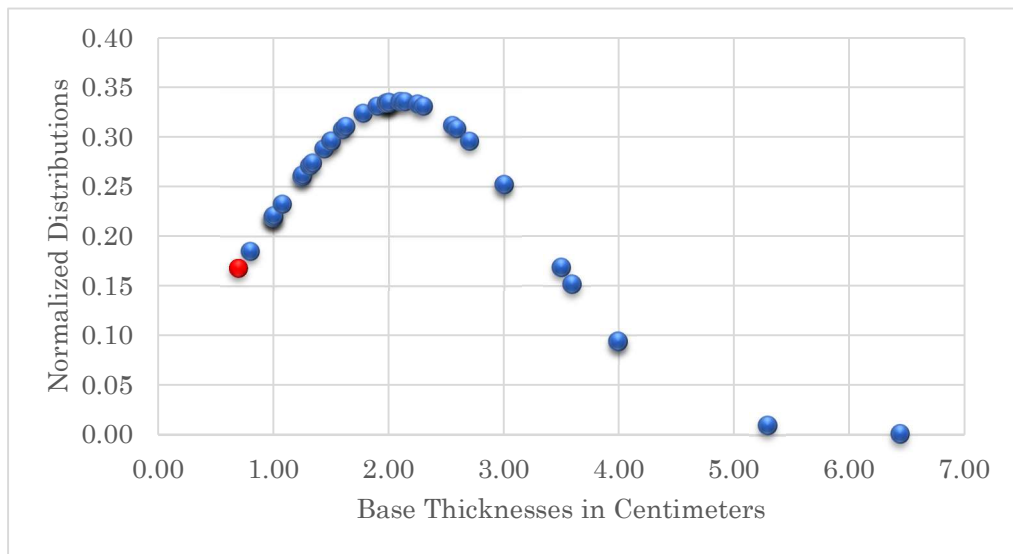


FIGURE 37. Distribution of Long Form Base Thicknesses, Pithos 7.02.

Pithos 7.03: Tall al-'Umayri, ca. 1200 B.C.

This pithos (figure 38) was found in Field B, Square 7J99, Locus 3. It has a kidney-shaped, profiled rim that is 27% thinner than the average rim. The vessel is slightly taller than usual and has handles that are slightly thicker than expected, according to the group mean. In all of its other characteristics, this vessel is nearly average, with the usual teardrop-shaped collar resting at the bottom of a slightly shorter than average 6.0 cm neck. The rim-to-collar angle is close to standard and the base is flat. This pithos is a good example of the Long Form type.

TABLE 16. Comparable Data for Tall al-'Umayri Long Form Pithos 7.03.

	Pithos 7.03	μ Pithos in Group (σ)
Neck Height in cm	6.00	7.02 (1.64)
Rim Thickness in cm	1.32 (27%)	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T1: Kidney, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.48	3.07 (0.66)
Rim Circumference in cm	81.70	81.42 (7.96)
Exterior Rim Diameter in cm	26.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	4.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	9.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 7/2, Pinkish Gray	Light Brown
Full Vessel Height in cm	110.00 (7%)	102.36 (6.82)
Body Circumference in cm	182.20	177.01 (16.57)
Handle Width in cm	5.30 (19%)	4.30 (0.55)
Handle Height in cm	15.00	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	1.01	2.10 (1.19)

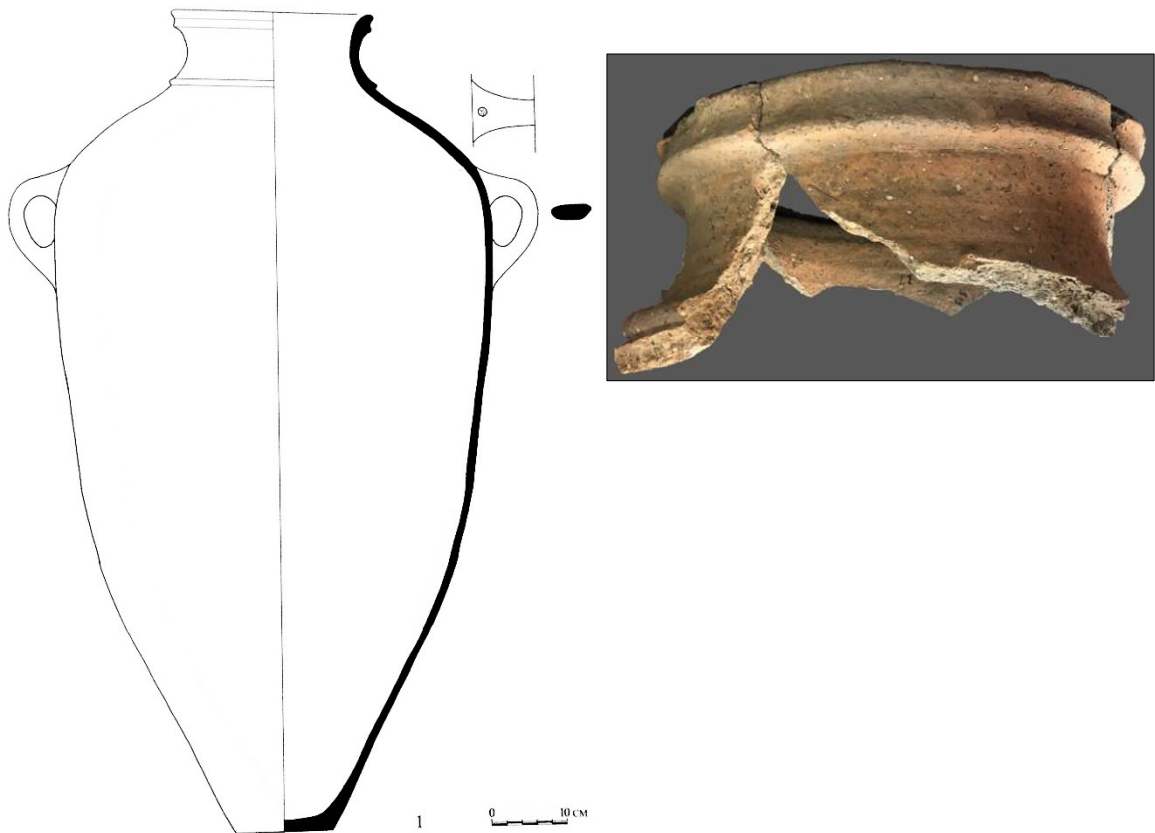


FIGURE 38. Pithos 7.03, Tall al-'Umayri, #3 (Herr et al. 2014: 339, 357).

Pithos 7.04: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.04 (figure 39) was unearthed in Field B, Square 7J99, Locus 3. The most uncommon feature of this pithos is its rounded base. Of the 50 vessels in the Long Form group that have bases, only eleven (22%) are classified as rounded. This pithos has a rim thickness that is 33% thinner than average, giving it one of the thinnest rims in the Long Form group. It also has a rim circumference that is 14% larger than average and consequently, an exterior rim diameter that is 1.54 cm greater than one standard deviation from the mean. This rim has the greatest rim

circumference in the Long Form group, and is 10th widest in the study at large, a distinction shared with Pithos 7.28. The other dimensions of this pithos are typical of the Long Form. The inverted rim inflection is as expected and the rectangular-shaped rim is relatively common as well. Finally, this vessel displays subtle neck profiling, which is most common in the Long Form, possibly due to the taller neck heights which require the potter to build them up more.

TABLE 17. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.04.

	Pithos 7.04	μ Pithos in Group (σ)
Neck Height in cm	8.00	7.02 (1.64)
Rim Thickness in cm	<i>1.21 (33%)</i>	1.82 (0.32)
Rim Inflection	Inverted	Everted
Rim Shape	Thickened T4: Offset, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.89	3.07 (0.66)
Rim Circumference in cm	<i>94.25 (14%)</i>	81.42 (7.96)
Exterior Rim Diameter in cm	<i>30.00 (14%)</i>	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	12.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	<i>6.00 (32%)</i>	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 7/4, Pink	Light Brown
Full Vessel Height in cm	101.00	102.36 (6.82)
Body Circumference in cm	169.60	177.01 (16.57)
Handle Width in cm	4.46	4.30 (0.55)
Handle Height in cm	14.00	13.73 (2.23)
Base Shape	Rounded	Flat
Base Thickness in cm	2.14	2.10 (1.19)

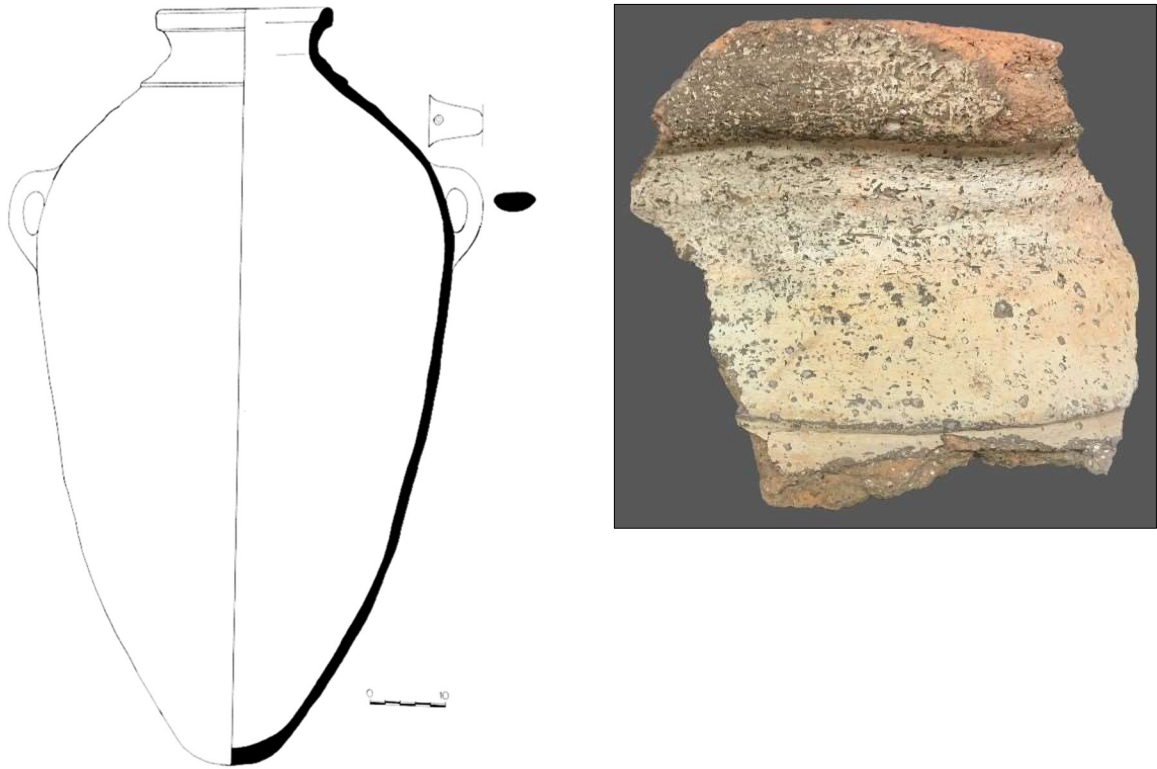


FIGURE 39. Pithos 7.04, Tall al-'Umayri #4 (Herr et al. 2002: 82, 90).

Pithos 7.05: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.05 (figure 40) was discovered in Field B, Square 7J99, Locus 3. While the whole vessel is likely present, this pithos has not yet been restored. Therefore, the full height and body circumference of this vessel are not currently available. The dimensions that are obtainable indicate that this Long Form example is typical. The rim thickness, measuring about 24% thicker than usual, and the position of the rim outside of the line of the collar,⁷⁴ are the only notable aberrations from the norm. The kidney-shaped,

⁷⁴ Approximately 17% (n = 13) of the Long Form pithoi have rims that are outside of the line of the collar. Of these, the average angle of neck eversion is 7.08° with a standard deviation of 3.88°. This pithos, at 9.0°, is well within one standard deviation of the mean.

profiled rim is well within one standard deviation of the average height. The rim inflection is everted, as expected, and the rim circumference and the exterior rim diameter are both typical. This pithos has the usual teardrop-shaped collar that is only slightly less prominent than average. The coloring of the ware is slightly more golden in tone than the majority of Long Form pithoi in this study group.

TABLE 18. Comparable Data for Tall al-'Umayri Long Form Pithos 7.05.

	Pithos 7.05	μ Pithos in Group (o)
Neck Height in cm	6.00	7.02 (1.64)
Rim Thickness in cm	2.40 (24%)	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T1: Kidney, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.10	3.07 (0.66)
Rim Circumference in cm	78.50	81.42 (7.96)
Exterior Rim Diameter in cm	25.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	9.00° Outside	9.41° Inside (5.59°)
Collar Prominence in mm	7.00	8.84 (2.72)
Firing	Oxidation	Underfired
Exterior Munsell Reading	7.5 YR 6/6, Reddish Yellow	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	unknown	177.01 (16.57)
Handle Width in cm	4.70	4.30 (0.55)
Handle Height in cm	unknown	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	unknown	2.10 (1.19)



FIGURE 40. Pithos 7.05, Tall al-‘Umayri #5, unpublished.

Pithos 7.06: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.06 (figure 41) was found in Field B, Square 7J99, Locus 3. With one exception, all of the dimensions of this pithos are within one standard deviation of the mean. It has an inverted, offset rim that flares outside the line of the collar, with a 10° angle that is still within one standard deviation from the mean for vessels with rims outside of the collar-line. The base is this pithos’ most unique feature. It is flat-bottomed, as expected, but it is three times thicker than the average base. Of the 68 bases in this study, this one is by far the thickest.

TABLE 19. Comparable Data for Tall al-'Umayri Long Form Pithos 7.06.

	Pithos 7.06	μ Pithos in Group (σ)
Neck Height in cm	6.00	7.02 (1.64)
Rim Thickness in cm	2.01	1.82 (0.32)
Rim Inflection	Inverted	Everted
Rim Shape	Thickened T4: Offset, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.00	3.07 (0.66)
Rim Circumference in cm	84.80	81.42 (7.96)
Exterior Rim Diameter in cm	27.00	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	10.00° Outside	9.41° Inside (5.59°)
Collar Prominence in mm	8.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	10 YR 7/4, Very Pale Brown	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	unknown	177.01 (16.57)
Handle Width in cm	4.00	4.30 (0.55)
Handle Height in cm	11.49	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	6.44 (67%)	2.10 (1.19)



FIGURE 41. Pithos 7.06, Tall al-'Umayri #6, unpublished.

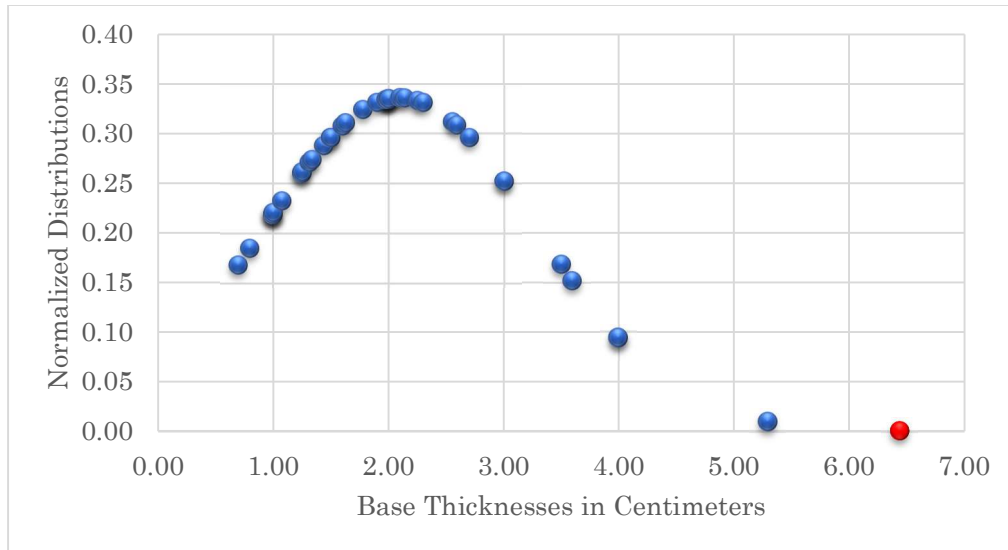


FIGURE 42. Distribution of Long Form Base Thicknesses, Pithos 7.06.

Pithos 7.07: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.07 (figure 43) came from Field B, Square 7J99, Locus 3. This pithos displays a nice balance of uncommon attributes and standard dimensions. While its kidney-shaped, profiled rim is nearly average in height, thickness, and alignment with the collar, its neck height is about 29% shorter than average, or 0.38 cm below one standard deviation from the mean. Its collar has the most common teardrop shape, but is 26% more prominent than average, or 0.44 mm more prominent than one standard deviation from the mean. This pithos has a rounded base present in only 22% (n = 11) of the Long Form base examples, but it is of average thickness. The full height of this vessel is over 10.5 cm taller than usual, making it one of the two tallest⁷⁵

⁷⁵ The other is Pithos 3.01, from Umm al-Qanafid, which also has a full height of 113.0 cm.

in the Long Form group. Meanwhile, the body circumference is 1.1 cm smaller than usual, though it is still within one standard deviation of the mean. These final two dimensions give this pithos a slenderer profile than most Long Form pithoi.

TABLE 20. Comparable Data for Tall al-'Umayri Long Form Pithos 7.07.

	Pithos 7.07	μ Pithos in Group (σ)
Neck Height in cm	<i>5.00 (29%)</i>	7.02 (1.64)
Rim Thickness in cm	1.78	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T1: Kidney, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.95	3.07 (0.66)
Rim Circumference in cm	88.00	81.42 (7.96)
Exterior Rim Diameter in cm	28.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	6.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	<i>12.00 (26%)</i>	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 6/4, Light Brown	Light Brown
Full Vessel Height in cm	<i>113.00 (9%)</i>	102.36 (6.82)
Body Circumference in cm	175.90	177.01 (16.57)
Handle Width in cm	3.84	4.30 (0.55)
Handle Height in cm	14.40	13.73 (2.23)
Base Shape	Rounded	Flat
Base Thickness in cm	2.00	2.10 (1.19)

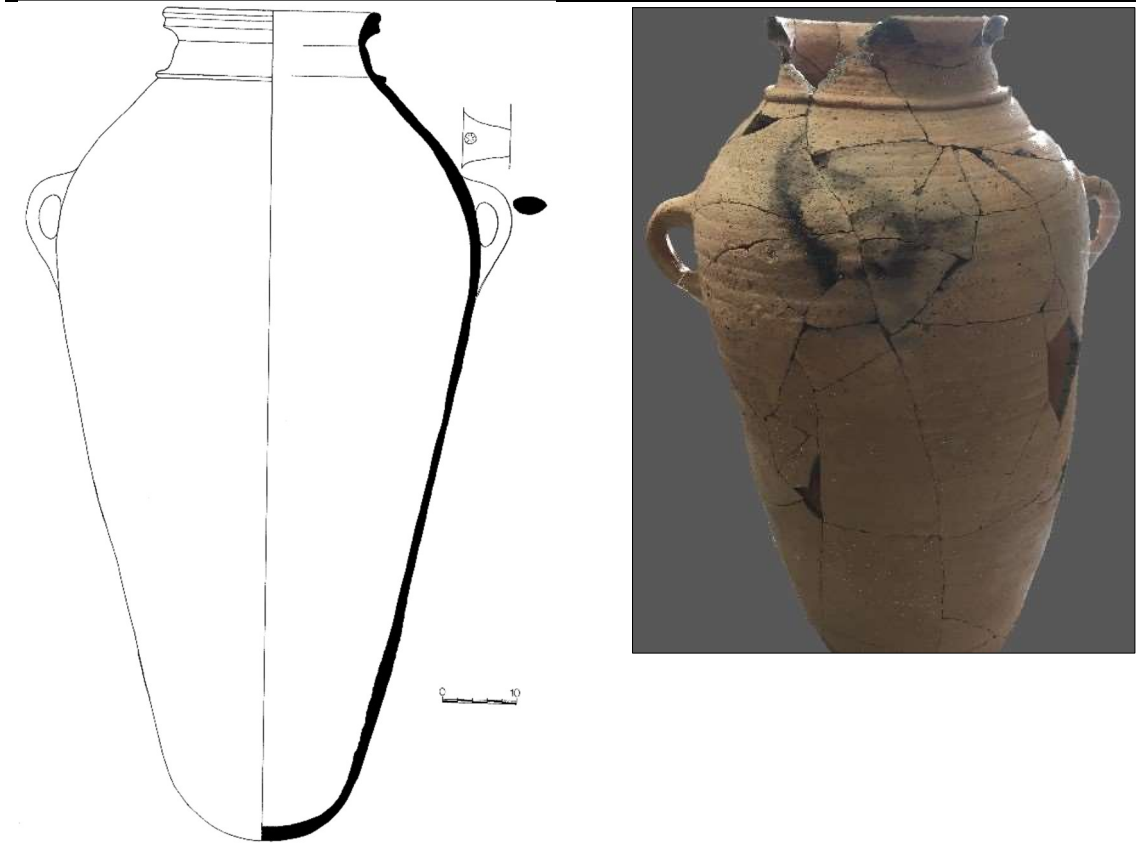


FIGURE 43. Pithos 7.07, Tall al-'Umayri #7 (Herr et al. 2002: 79, 86).

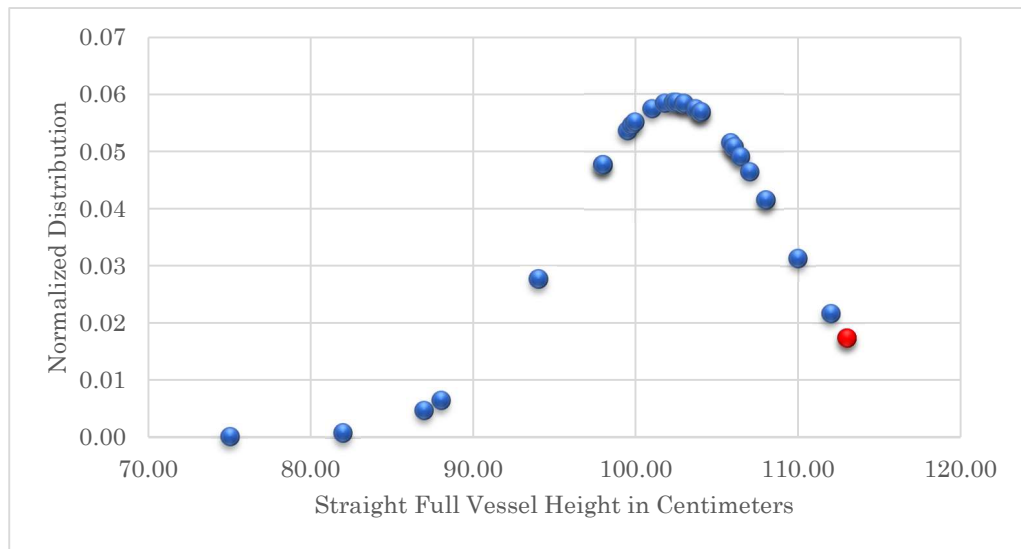


FIGURE 44. Distribution of Long Form Vessel Heights, Pithos 7.07.

Pithos 7.08: Tall al-'Umayri, c. 1200 B.C.

Pithos 7.08 (figure 45) was unearthed in Field B, Square 7J99, Locus 3. This pithos' rounded base is slightly thicker than average, though it is still well within one standard deviation of the mean. This characteristic of normality could be said of nearly all of this vessel's dimensions. The most remarkable quality of this pithos is the alignment of its collar to its relatively common rectangular rim. Only 10% (n = 8) of the pithoi in the Long Form group possess rims that stand in perfect alignment to the line of their collar. The square shape of this collar is also somewhat unusual. Only seven examples (3%) of pithoi with square collars are present in this study.⁷⁶ Finally, this collar is also 22% more prominent than average, although it is still within one standard deviation from the mean. Another notable feature of this vessel is its narrow body circumference, which is nearly 17 cm (9%) slenderer than the typical Long Form example. This combined with the taller than average height, gives this pithos a similar appearance of slenderness to the previous vessel (Pithos 7.07).

⁷⁶ The only other Long Form example of a square collar is seen on Pithos 7.46.

TABLE 21. Comparable Data for Tall al-'Umayri Long Form Pithos 7.08.

	Pithos 7.08	μ Pithos in Group (σ)
Neck Height in cm	6.00	7.02 (1.64)
Rim Thickness in cm	2.00	1.82 (0.32)
Rim Inflection	Straight	Everted
Rim Shape	Profiled T1: Kidney, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.73	3.07 (0.66)
Rim Circumference in cm	88.00	81.42 (7.96)
Exterior Rim Diameter in cm	28.00	25.92 (2.54)
Collar Shape	Square	Teardrop
Rim-to-collar Angle	Aligned	9.41° Inside (5.59°)
Collar Prominence in mm	11.31	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 6/4, Light Reddish Brown	Light Brown
Full Vessel Height in cm	106.00	102.36 (6.82)
Body Circumference in cm	160.20 (9%)	177.01 (16.57)
Handle Width in cm	4.24	4.30 (0.55)
Handle Height in cm	12.01	13.73 (2.23)
Base Shape	Rounded	Flat
Base Thickness in cm	2.70	2.10 (1.19)

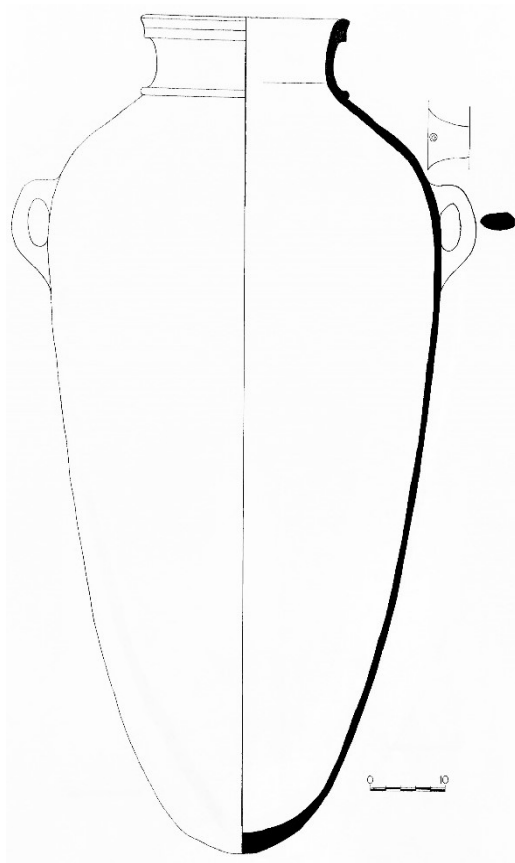


FIGURE 45. Pithos 7.08, Tall al-'Umayri #8 (Herr et al. 2002: 81); It should be noted that a different pithos is published with identifying #8 in Herr et al. 2014: 340.

Pithos 7.09: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.09 (figure 46) was found in Field B, Square 7J99, Locus 3. The height and body circumference of this pithos are not yet known, as this vessel is awaiting full reconstruction. With the exception of neck height, however, all of the other known dimensions for this pithos fall within one standard deviation of the mean. It is, therefore, among the vessels considered standard examples of the Long Form collared pithos. The rim has the most common shape – a kidney profile. The 5.0 cm neck height is seen in nine other pithoi, comprising about 12% of the total neck heights. These 5.0 cm necked pithoi represent the shortest-necked examples here and are at the lowest threshold of inclusion in the Long Form group.

TABLE 22. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.09.

	Pithos 7.09	μ Pithos in Group (σ)
Neck Height in cm	5.00 (29%)	7.02 (1.64)
Rim Thickness in cm	1.89	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T1: Kidney, IT/OT	Profiled T1: Kidney, OT
Rim Height in cm	2.58	3.07 (0.66)
Rim Circumference in cm	84.80	81.42 (7.96)
Exterior Rim Diameter in cm	27.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	10.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	7.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 8/3, Pink	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	unknown	177.01 (16.57)
Handle Width in cm	3.76	4.30 (0.55)
Handle Height in cm	12.56	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	1.32	2.10 (1.19)



FIGURE 46. Pithos 7.09, Tall al-‘Umayri #9, unpublished.

Pithos 7.10: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.10 (figure 47) was discovered in Field B, Square 7J99, Locus 3. This pithos is most unique in the shape of its collar. While there are a few examples of Long Form vessels with neck profiling, there are only three vessels⁷⁷ in this group with a fully developed double collar. In this example, each rise of the collar takes a drooping triangular shape which is reminiscent of the most common teardrop shape. Though more prominent than most, these collars still stand within one standard deviation of the average collar prominence. Another peculiar feature of this vessel is its rim circumference and related exterior rim diameter. The rim circumference is 1.72 cm larger than one standard deviation, or 11% wider than average.

⁷⁷ In addition to this vessel, Pithoi 7.45 and 7.58 both have rounded double collars.

This pithos appears to have experienced damage during the manufacturing process as a portion of the rim seems to have been mistakenly pressed down. This defect may have contributed to the unusual dimensions of the rim. Beyond these features, this vessel is a standard Long Form collared pithos.

TABLE 23. Comparable Data for Tall al-'Umayri Long Form Pithos 7.10.

	Pithos 7.10	μ Pithos in Group (σ)
Neck Height in cm	8.00	7.02 (1.64)
Rim Thickness in cm	1.56	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T1: Kidney, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.60	3.07 (0.66)
Rim Circumference in cm	<i>91.10 (11%)</i>	81.42 (7.96)
Exterior Rim Diameter in cm	<i>29.00 (11%)</i>	25.92 (2.54)
Collar Shape	Double	Teardrop
Rim-to-collar Angle	<i>2.00° Inside (79%)</i>	9.41° Inside (5.59°)
Collar Prominence in mm	11.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 7/4, Pink	Light Brown
Full Vessel Height in cm	107.00	102.36 (6.82)
Body Circumference in cm	171.20	177.01 (16.57)
Handle Width in cm	4.42	4.30 (0.55)
Handle Height in cm	<i>11.35 (17%)</i>	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	1.00	2.10 (1.19)

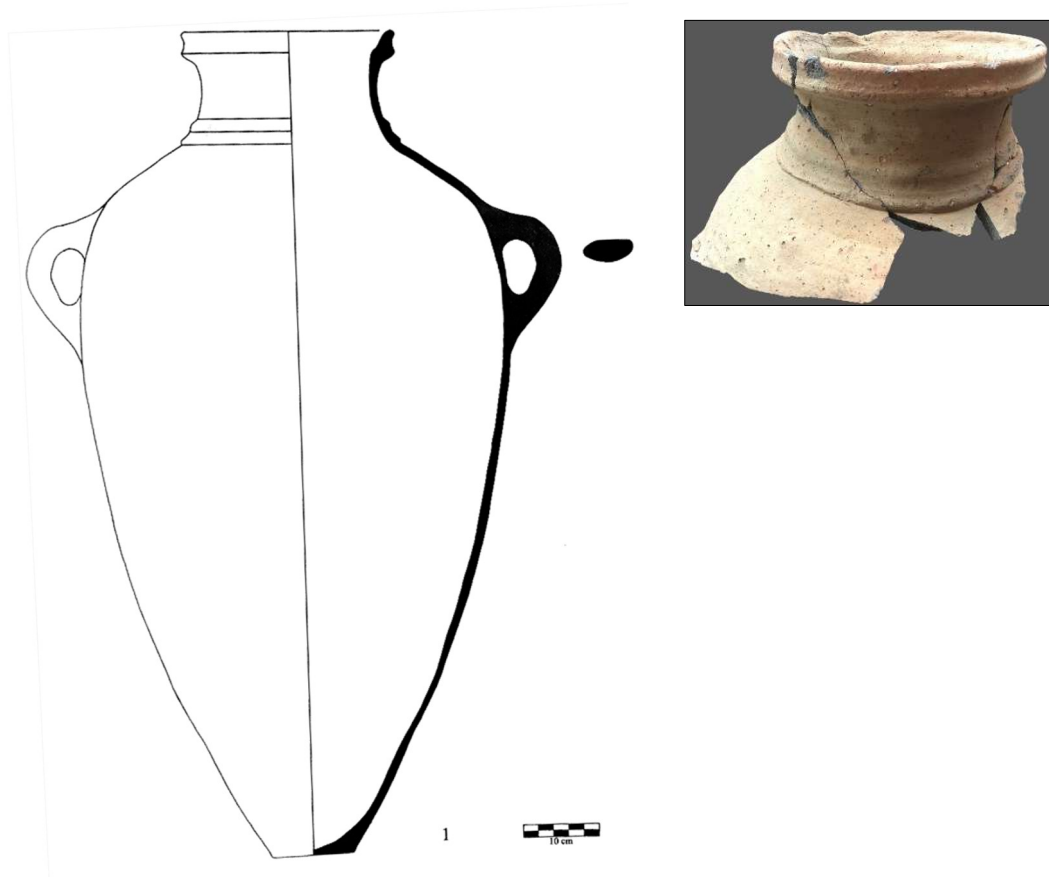


FIGURE 47. Pithos 7.10, Tall al-'Umayri #10 (Herr et al. 2014: 341, 357).

Pithos 7.11: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.11 (figure 48) was located in Field B, Square 7J99, Locus 3. This vessel is a nearly standard Long Form pithos. It has a teardrop-shaped collar and a rim that is 23% thinner than most, falling just below one standard deviation from the mean. The rim is profiled in the common kidney-shaped style. The handles on this vessel are 22% narrower than expected. All of the other dimensions are typical of a pithos in this group.

TABLE 24. Comparable Data for Tall al-'Umayri Long Form Pithos 7.11.

	Pithos 7.11	μ Pithos in Group (σ)
Neck Height in cm	6.50	7.02 (1.64)
Rim Thickness in cm	1.40 (23%)	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T1: Kidney, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.63	3.07 (0.66)
Rim Circumference in cm	88.00	81.42 (7.96)
Exterior Rim Diameter in cm	28.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	8.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	9.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 6/4, Very Light Brown	Light Brown
Full Vessel Height in cm	103.70	102.36 (6.82)
Body Circumference in cm	188.50	177.01 (16.57)
Handle Width in cm	3.35 (22%)	4.30 (0.55)
Handle Height in cm	14.61	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	1.00	2.10 (1.19)

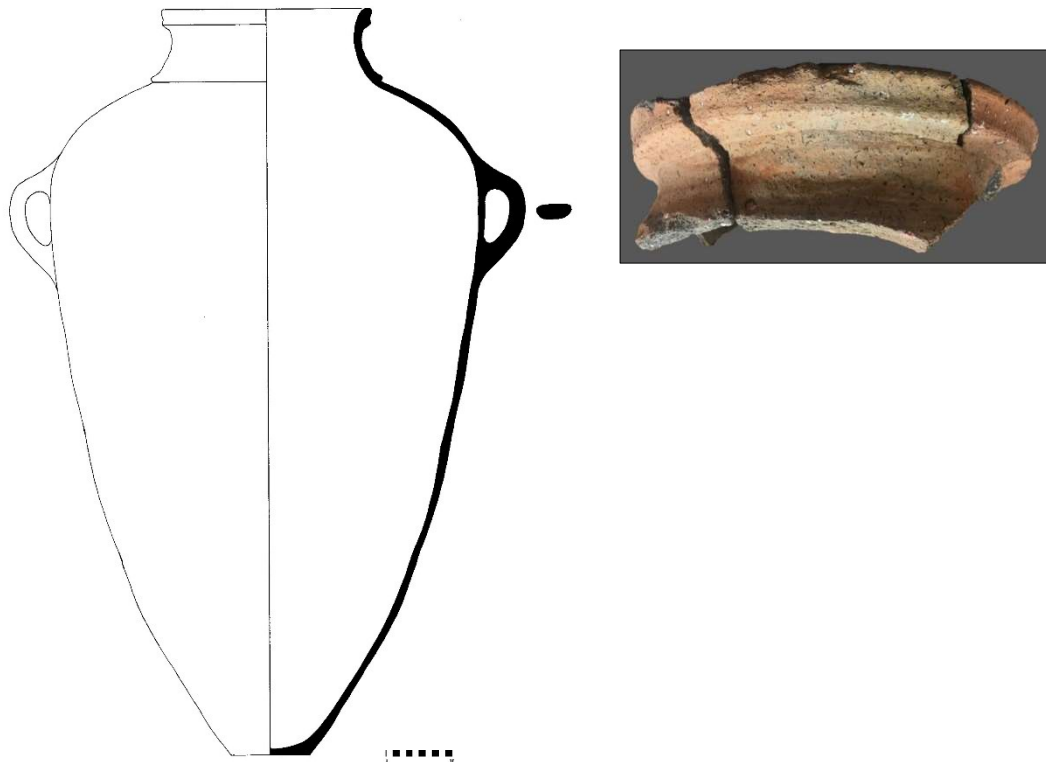


FIGURE 48. Pithos 7.11, Tall al-'Umayri # 12 (Herr et al. 2014: 342, 357).

Pithos 7.12: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.12 (figure 49) was found in Field B, Square 7J99, Locus 3.

This pithos has a few distinguishing characteristics. It displays a rim that is outside of the line of the collar by 7°. About 17% (n = 13) of the Long Form vessels in this study have rims outside of the collar-line. The standard teardrop-shaped collar on this pithos is also 26% more prominent than average. The rounded base on this vessel is found in 22% of the Long Form base samples. As seen in the previous pithos, among others, this vessel also has traces of subtle neck profiling. All of the other dimensions of this pithos are well within one standard deviation from the mean.

TABLE 25. Comparable Data for Tall al-'Umayri Long Form Pithos 7.12.

	Pithos 7.12	μ Pithos in Group (σ)
Neck Height in cm	6.50	7.02 (1.64)
Rim Thickness in cm	1.82	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T1: Kidney, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.67	3.07 (0.66)
Rim Circumference in cm	81.70	81.42 (7.96)
Exterior Rim Diameter in cm	26.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	7.00° Outside	9.41° Inside (5.59°)
Collar Prominence in mm	12.00 (26%)	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 6/4, Light Brown	Light Brown
Full Vessel Height in cm	108.00	102.36 (6.82)
Body Circumference in cm	160.20 (9%)	177.01 (16.57)
Handle Width in cm	3.88	4.30 (0.55)
Handle Height in cm	11.94	13.73 (2.23)
Base Shape	Pointed	Flat
Base Thickness in cm	1.25	2.10 (1.19)

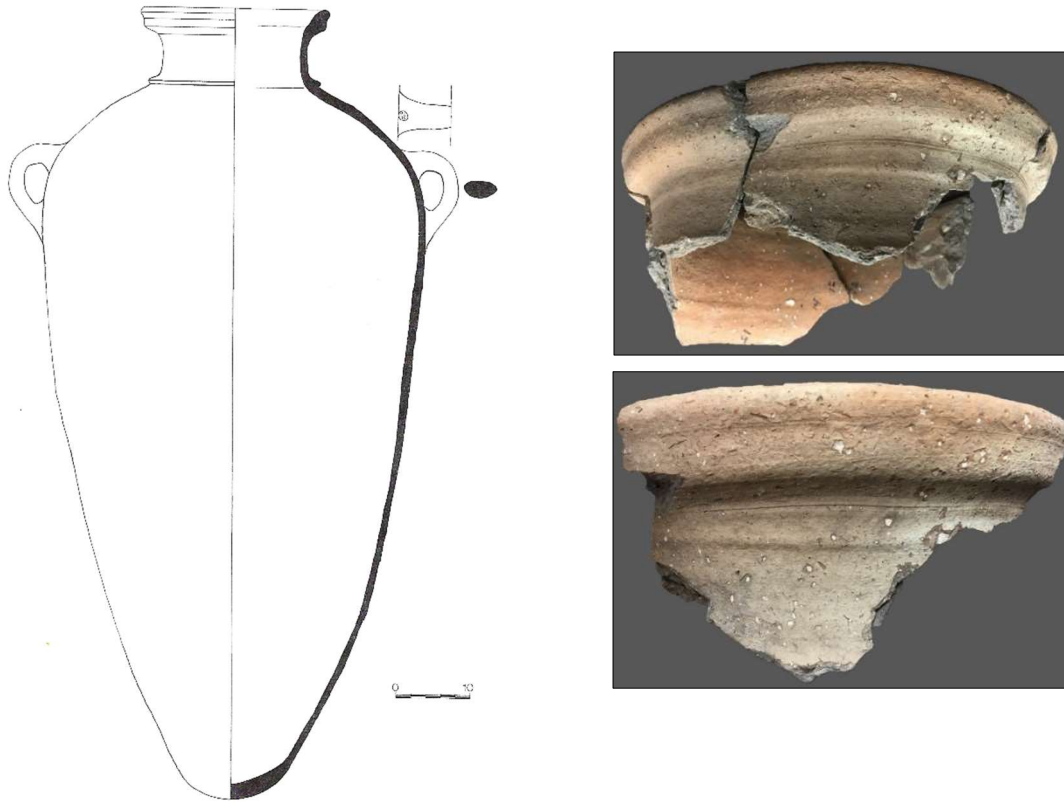


FIGURE 49. Pithos 7.12, Tall al-'Umayri #13 (Herr et al. 2002: 80, 86).

Pithos 7.13: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.13 (figure 50) was unearthed in Field B, Square 7J99, Locus 3.

This vessel has many features that are typical of Long Form pithoi. It has a kidney-shaped, profiled rim, resting on a 6.0 cm neck, slightly inside of the line of the teardrop-shaped collar. Its collar is slightly more prominent than most, but is still within one standard deviation of the mean. Its rim, second in thickness only to Pithos 1.01 from Tall Deir ‘Alla, is about 37% thinner than average. Decreased rim thickness is a characteristic that is more common with profiled rims.⁷⁸ The vessel’s height and circumference are both within one standard deviation of the mean for the form group. The base of this pithos is rounded and of standard thickness.

TABLE 26. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.13.

	Pithos 7.13	μ Pithos in Group (σ)
Neck Height in cm	6.00	7.02 (1.64)
Rim Thickness in cm	1.15 (37%)	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T1: Kidney, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.57	3.07 (0.66)
Rim Circumference in cm	78.50	81.42 (7.96)
Exterior Rim Diameter in cm	25.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	8.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	10.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 7/4, Pink	Light Brown
Full Vessel Height in cm	104.00	102.36 (6.82)
Body Circumference in cm	166.50	177.01 (16.57)
Handle Width in cm	3.71 (14%)	4.30 (0.55)
Handle Height in cm	13.74	13.73 (2.23)
Base Shape	Pointed	Flat
Base Thickness in cm	1.98 cm	2.10 (1.19)

⁷⁸ Profiled rims in the Long Form group have an average thickness of 1.80 cm, with a standard deviation of 0.33 cm, compared to an average 1.82 cm in the study as a whole.

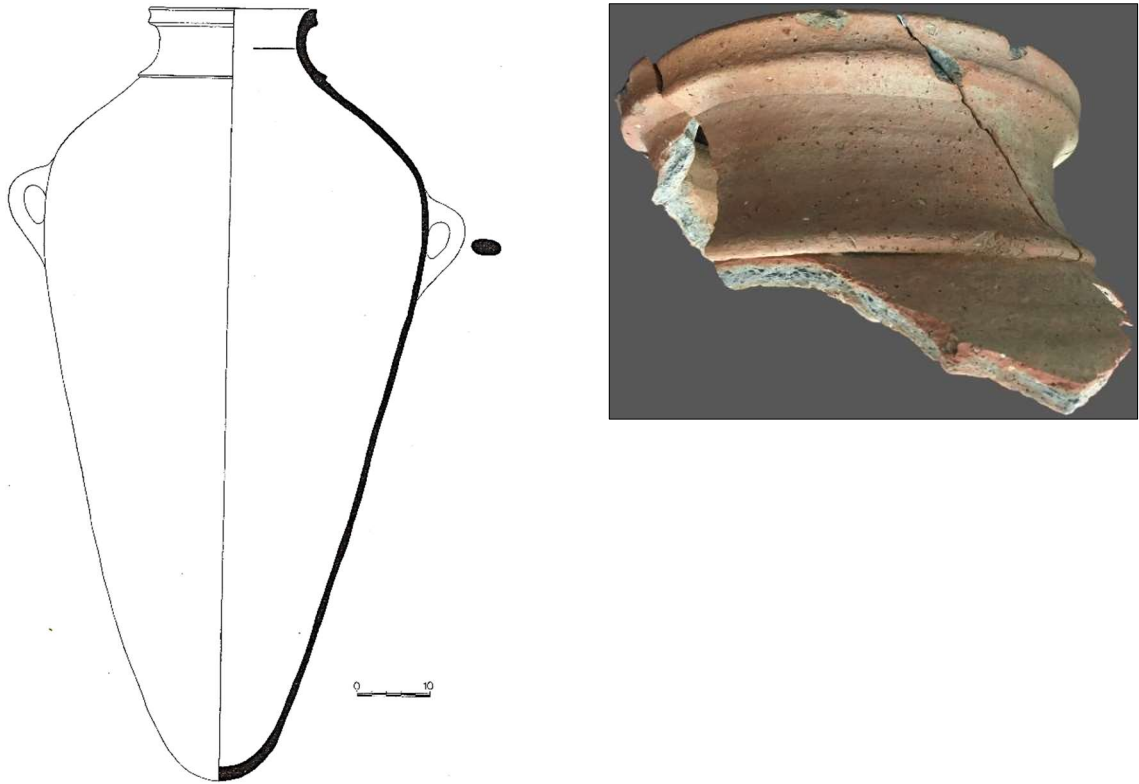


FIGURE 50. Pithos 7.13, Tall al-'Umayri #14 (Herr et al. 2002: 78, 86).

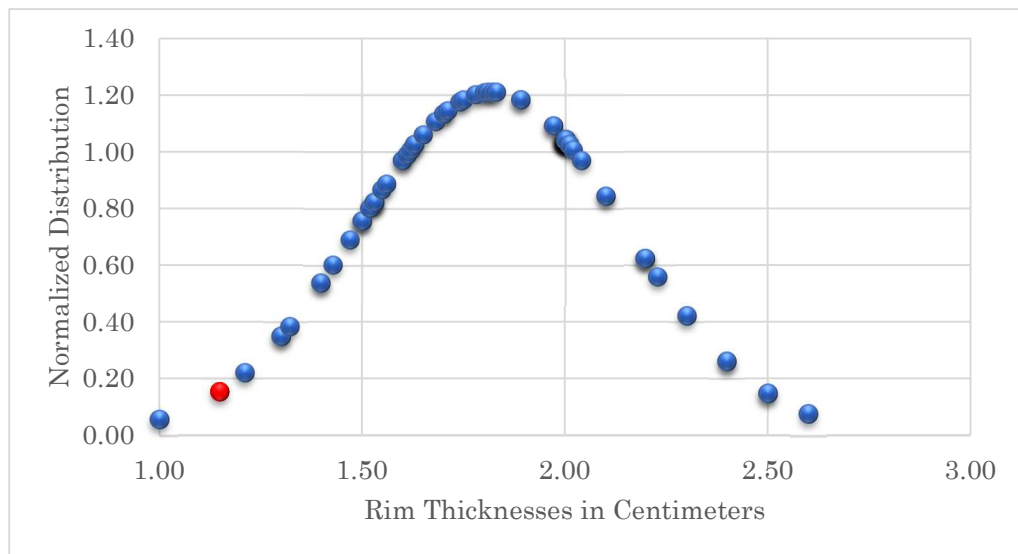


FIGURE 51. Distribution of Long Form Rim Thicknesses, Pithos 7.13.

Pithos 7.14: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.14 (figure 52) was discovered in Field B, Square 7J99, Locus 3. Nearly all of the dimensions of this pithos are typical.⁷⁹ The handles are the only features that are outside of one standard deviation from the mean. They are 18% narrower and 21% shorter than expected. The neck is slightly shorter than average, but still falls within the range. The typically-sized thickened rim has no inflection and leans within the line of the collar at an angle that is 1° within one standard deviation. The overall height of the pithos is slightly taller than usual and corresponds to a slightly larger body circumference, giving the vessel a standard ratio of its major proportions.

TABLE 27. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.14.

	Pithos 7.14	μ Pithos in Group (σ)
Neck Height in cm	6.00	7.02 (1.64)
Rim Thickness in cm	1.61	1.82 (0.32)
Rim Inflection	Straight	Everted
Rim Shape	Thickened T1: Edged, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.08	3.07 (0.66)
Rim Circumference in cm	78.50	81.42 (7.96)
Exterior Rim Diameter in cm	25.00	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	14.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	10.00	8.84 (2.72)
Firing	Underfired	Underfired

⁷⁹ Important Note: Two possible anomalous features are present in the published plate that are not represented in the physical material. These are the base shape and the presence/absence of handles. While the handles were not included in the original publication of this pithos (likely because they had not yet been reconstructed), they are associated with the material now identified as vessel #15 (here, Pithos 7.14). It is possible that they were considered suspect and thus excluded from the drawing of the plate. However, judging from the difference in base shape, another possibility is that the identification numbers have been disassociated. The measurements of overall height and body circumference were gathered from the published plate. The remaining dimensions and characteristics, however, came from the physical material, with which the plate may possibly not be associated.

Exterior Munsell Reading	5 YR 6/4, Light Reddish Brown	Light Brown
Full Vessel Height in cm	106.00	102.36 (6.82)
Body Circumference in cm	182.20	177.01 (16.57)
Handle Width in cm	3.52 (18%)	4.30 (0.55)
Handle Height in cm	10.82 (21%)	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	2.30	2.10 (1.19)

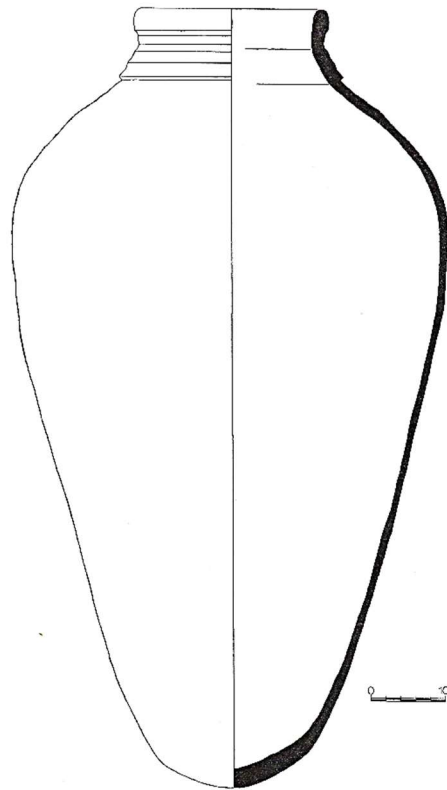


FIGURE 52. Pithos 7.14, Tall al-‘Umayri #15 (Herr et al. 2002: 83, 90).

Pithos 7.15: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.15 (figure 53) was found in Field B, Square 7J99, Locus 3.

This pithos has dimensions that all fall within the range of one standard deviation from the mean. It has an inverted, rectangular rim that is 15% thinner than average. The rectangular shape of this rim is a feature shared by 10% (n = 8) of the Long Form pithoi. The rectangular rim shape is characterized particularly by the angular profile of the outer bottom edge of the rim and the flattened shape of the rim’s lip. The neck height of this pithos is slightly taller than usual. The base is flat and is only 1.02 cm thinner than average. This pithos has a somewhat squatter appearance due to the fact that its height is less than 1% taller than average, but its body circumference is 4% wider than usual.

TABLE 28. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.15.

	Pithos 7.15	μ Pithos in Group (σ)
Neck Height in cm	8.00	7.02 (1.64)
Rim Thickness in cm	1.55	1.82 (0.32)
Rim Inflection	Inverted	Everted
Rim Shape	Rectangular, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.47	3.07 (0.66)
Rim Circumference in cm	81.70	81.42 (7.96)
Exterior Rim Diameter in cm	26.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	10.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	10.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 7/4, Pink	Light Brown
Full Vessel Height in cm	103.00	102.36 (6.82)
Body Circumference in cm	185.00	177.01 (16.57)
Handle Width in cm	4.07	4.30 (0.55)
Handle Height in cm	13.54	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	1.08	2.10 (1.19)

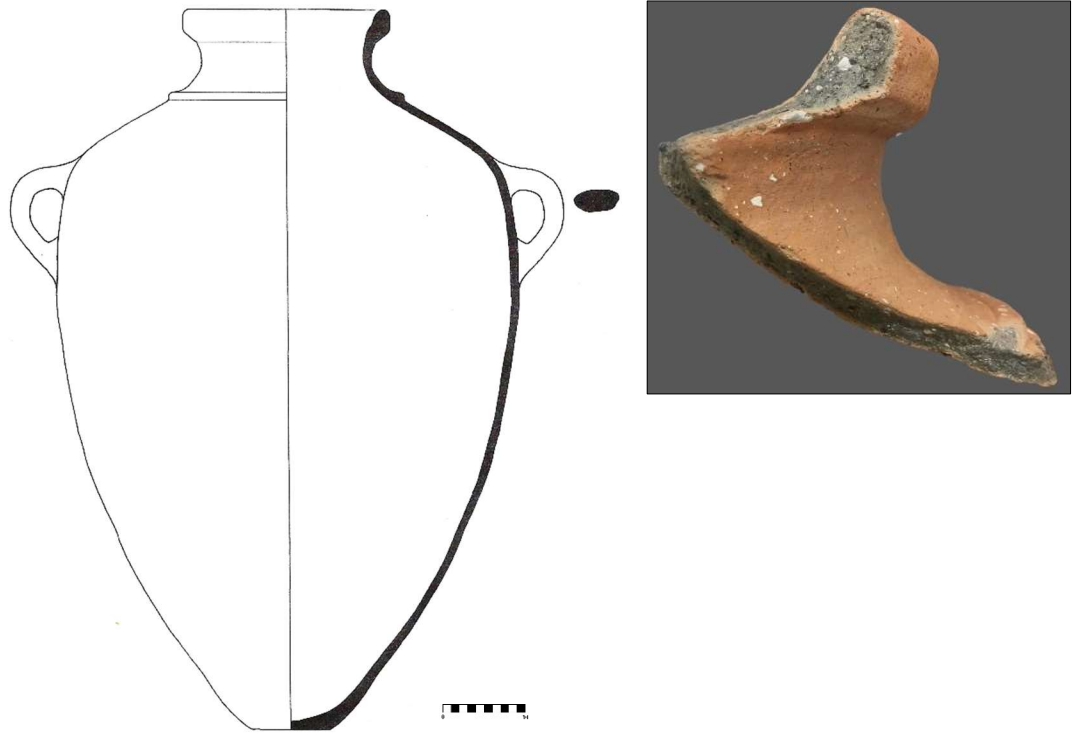


FIGURE 53. Pithos 7.15, Tall al-'Umayri #16 (Herr et al. 2014: 343).

Pithos 7.16: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.16 (figure 54) was unearthed in Field B, Square 7J99, Locus 3. The common kidney-shaped, profiled rim of this pithos stands aligned directly above the typical teardrop-shaped collar. This alignment is uncommon, only being present in 10% of the Long Form vessels in this study. The handles are 22% wider than the average Long Form pithos. The rest of the characteristics of this vessel are congruent with the standard expectations of Long Form pithoi.

TABLE 29. Comparable Data for Tall al-'Umayri Long Form Pithos 7.16.

	Pithos 7.16	μ Pithos in Group (σ)
Neck Height in cm	7.00	7.02 (1.64)
Rim Thickness in cm	1.63	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T1: Kidney, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.92	3.07 (0.66)
Rim Circumference in cm	84.80	81.42 (7.96)
Exterior Rim Diameter in cm	27.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	Aligned	9.41° Inside (5.59°)
Collar Prominence in mm	10.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	10 YR 7/4, Very Pale Brown	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	unknown	177.01 (16.57)
Handle Width in cm	3.36 (22%)	4.30 (0.55)
Handle Height in cm	unknown	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	1.63	2.10 (1.19)

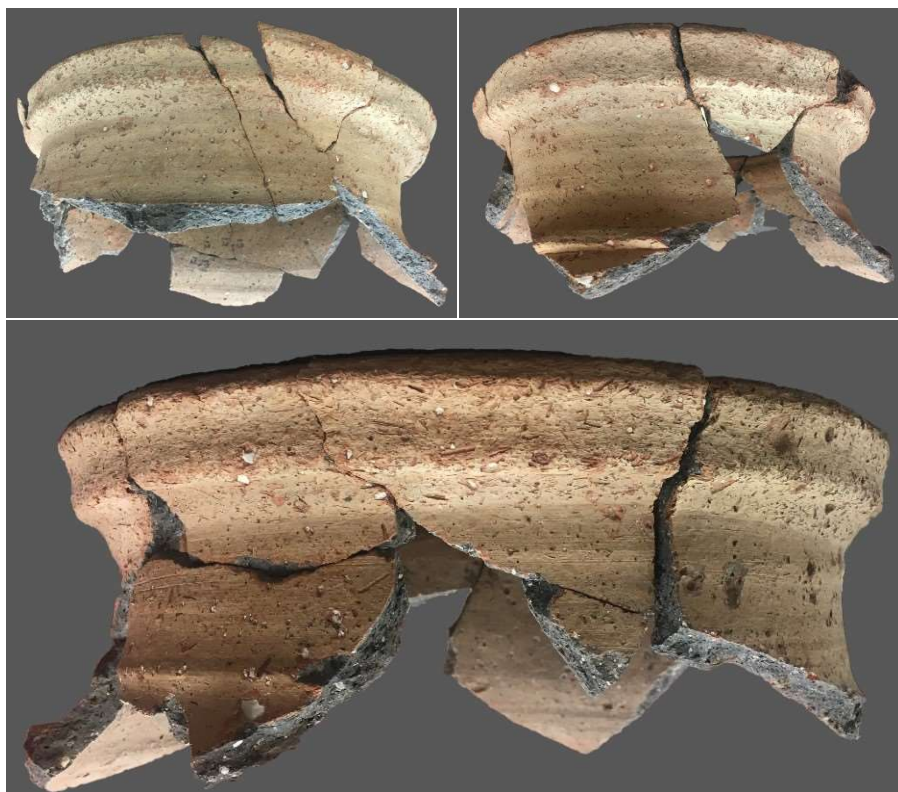


FIGURE 54. Pithos 7.16, Tall al-'Umayri #17, unpublished.

Pithos 7.17: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.17 (figure 55) originated in Field B, Square 7J99, Locus 3. The thickened, offset rim on this pithos has a rim circumference and associated exterior rim diameter that is only slightly larger than usual. This vessel's neck is on the shorter end of average, but still falls within one standard deviation of the mean. It stands above a triangular collar of nearly average prominence. The rim is only 3° inside of the line of the collar, making it more near alignment than most, and 68% more upright than the average rim. The pithos' overall height is slightly less than typical and its body circumference is somewhat larger than usual. This may give the impression of a body profile that is broader than what is expected of a standard Long Form vessel. The only other notable characteristic of this pithos is its 17% shorter than average handles.

TABLE 30. Comparable Data for Tall al-'Umayri Long Form Pithos 7.17.

	Pithos 7.17	μ Pithos in Group (σ)
Neck Height in cm	5.50	7.02 (1.64)
Rim Thickness in cm	1.70	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T4: Offset, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.20	3.07 (0.66)
Rim Circumference in cm	81.70	81.42 (7.96)
Exterior Rim Diameter in cm	26.00	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	3.00° Inside (68%)	9.41° Inside (5.59°)
Collar Prominence in mm	9.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 7/2, Pinkish Gray	Light Brown
Full Vessel Height in cm	99.50	102.36 (6.82)
Body Circumference in cm	182.20	177.01 (16.57)
Handle Width in cm	3.95	4.30 (0.55)
Handle Height in cm	11.45 (17%)	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	1.25	2.10 (1.19)

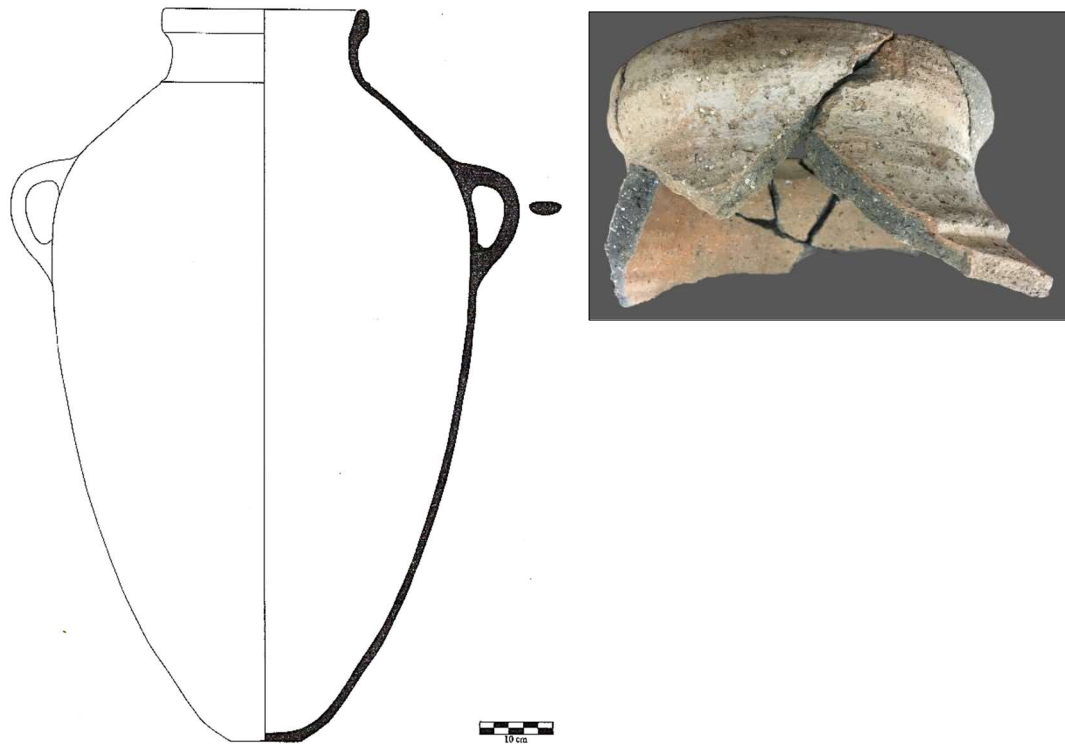


FIGURE 55. Pithos 7.17, Tall al-'Umayri #18 (Herr et al. 2014: 344, 357).

Pithos 7.18: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.18 (figure 56) was found in Field B, Square 7J99, Locus 3. It shares a 5.0 cm neck height with only 4% (n = 9) of the other vessels in this study. It has a rectangular rim with a hint of kidney-shaped profiling. This rim is aligned with the vessel's collar – a feature present in only 6% (n = 14) of the pithoi in this study. Atypically, this pithos was fully oxidized during firing and has a consistent coloring throughout the ware. The other features and dimensions of this pithos are all standard.

TABLE 31. Comparable Data for Tall al-'Umayri Long Form Pithos 7.18.

	Pithos 7.18	μ Pithos in Group (σ)
Neck Height in cm	5.00 (29%)	7.02 (1.64)
Rim Thickness in cm	1.74	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Rectangular, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.85	3.07 (0.66)
Rim Circumference in cm	88.00	81.42 (7.96)
Exterior Rim Diameter in cm	28.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	Aligned	9.41° Inside (5.59°)
Collar Prominence in mm	7.00	8.84 (2.72)
Firing	Oxidation	Underfired
Exterior Munsell Reading	10 YR 7/4, Very Pale Brown	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	unknown	177.01 (16.57)
Handle Width in cm	3.97	4.30 (0.55)
Handle Height in cm	12.49	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	1.90	2.10 (1.19)



FIGURE 56. Pithos 7.18, Tall al-'Umayri #19, unpublished.

Pithos 7.19: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.19 (figure 57) was unearthed in Field B, Square 7J99, Locus 3.

The larger than usual rim circumference and exterior rim diameter of this pithos are its most remarkable characteristics. They both measure 11% larger than average. Even though the neck height is slightly taller than usual, the broader rim gives the illusion of a shorter neck. The body circumference of this vessel is 9% larger than average, with a height that is only 2% taller than usual. These features contribute to the overall appearance of this pithos having been stretched horizontally when compared to other vessels in this study.

TABLE 32. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.19.

	Pithos 7.19	μ Pithos in Group (σ)
Neck Height in cm	7.50	7.02 (1.64)
Rim Thickness in cm	1.53	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T1: Kidney, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.70	3.07 (0.66)
Rim Circumference in cm	<i>91.10 (11%)</i>	81.42 (7.96)
Exterior Rim Diameter in cm	<i>29.00 (11%)</i>	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	10.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	9.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 7/4, Pink	Light Brown
Full Vessel Height in cm	104.00	102.36 (6.82)
Body Circumference in cm	<i>194.80 (9%)</i>	177.01 (16.57)
Handle Width in cm	3.76	4.30 (0.55)
Handle Height in cm	14.11	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	1.50 cm	2.10 (1.19)

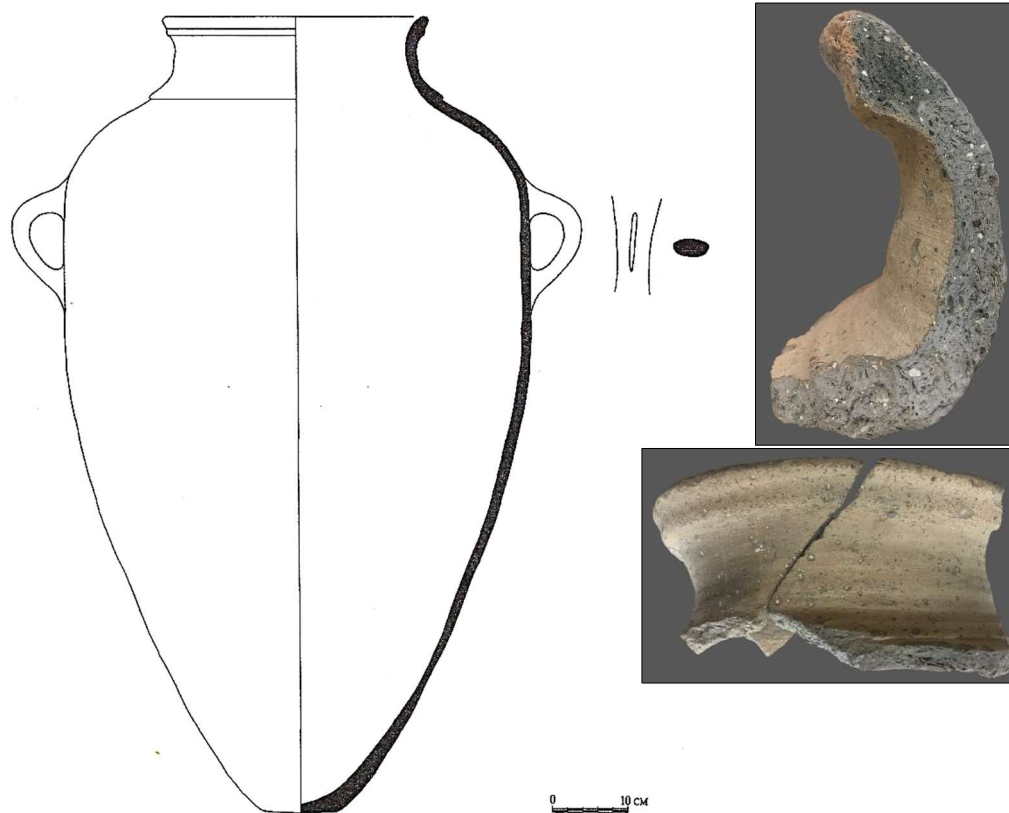


FIGURE 57. Pithos 7.19, Tall al-'Umayri #20 (Herr et al. 2014: 345, 357).

Pithos 7.20: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.20 (figure 58) was found in Field B, Square 7J99, Locus 3. It is among the nine pithoi in this study with 5.0 cm neck heights. It has a slightly thinner than average edgeless, thickened rim that is also somewhat shorter than usual. This rim rests just inside the line of the triangular-shaped collar, which is of nearly average prominence. The base was not present with the rim at the time of study and the body had not yet been reconstructed. Those dimensions are therefore unknown at this time. The handles are slightly smaller than average, but other than being slightly short, they are generally within one standard deviation of the mean for Long Form collared pithoi.

TABLE 33. Comparable Data for Tall al-'Umayri Long Form Pithos 7.20.

	Pithos 7.20	μ Pithos in Group (σ)
Neck Height in cm	5.00 (29%)	7.02 (1.64)
Rim Thickness in cm	1.47 (19%)	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.94	3.07 (0.66)
Rim Circumference in cm	81.70	81.42 (7.96)
Exterior Rim Diameter in cm	26.00	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	6.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	7.00	8.84 (2.72)
Firing	Oxidation	Underfired
Exterior Munsell Reading	10 YR 7/4, Very Pale Brown	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	unknown	177.01 (16.57)
Handle Width in cm	4.18	4.30 (0.55)
Handle Height in cm	10.94 (20%)	13.73 (2.23)
Base Shape	unknown	Flat
Base Thickness in cm	unknown	2.10 (1.19)

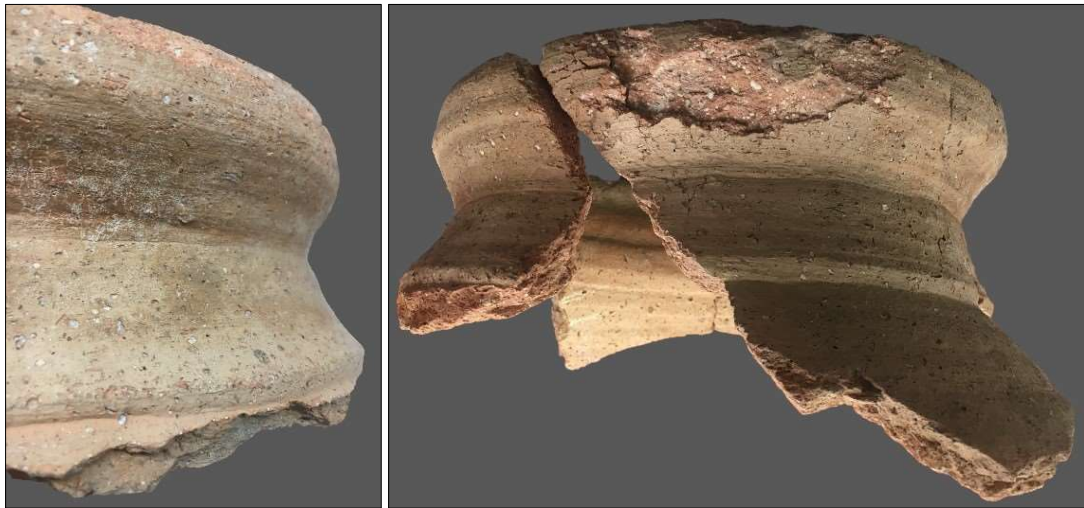


FIGURE 58. Pithos 7.20, Tall al-'Umayri #21, unpublished.

Pithos 7.21: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.21 (figure 59) was discovered in Field B, Square 7J99, Locus 3. The shape of this pithos, with the unusually prominent and angular shoulder, is reminiscent of the Late Bronze Age “northern Canaanite” ceramic culture (Amiran 1969: 143). In some ways this vessel has an overall horizontally-stretched appearance similar to that of Pithos 7.19. It is slightly shorter than average, but has a body circumference that is 12% wider than usual. This circumference is 7.5 cm more than one standard deviation from the mean. This pithos also has a neck that is 22% taller than average and displays profiling, especially on its lower half. The collar, although triangular in shape, is much more obviously folded over than most of the other collars in this group. This fold creates an inverse ledge profile that, while not unique, is uncommon in the Long Form. The thickened, edged rim is the second most common style. It has a rim circumference and exterior diameter that is 11% larger than average. Its circumference is 1.72 cm greater than one standard deviation from the mean. The base of this pithos is 42% thicker than average, placing it among the thickest bases in this group.

TABLE 34. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.21.

	Pithos 7.21	μ Pithos in Group (σ)
Neck Height in cm	9.00 (22%)	7.02 (1.64)
Rim Thickness in cm	2.04	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T1: Edged, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.78	3.07 (0.66)
Rim Circumference in cm	91.10 (11%)	81.42 (7.96)
Exterior Rim Diameter in cm	29.00	25.92 (2.54)

Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	12.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	8.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 7/4, Pink	Light Brown
Full Vessel Height in cm	100.00	102.36 (6.82)
Body Circumference in cm	201.10 (12%)	177.01 (16.57)
Handle Width in cm	4.98 (14%)	4.30 (0.55)
Handle Height in cm	11.56	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	3.60 (42%)	2.10 (1.19)

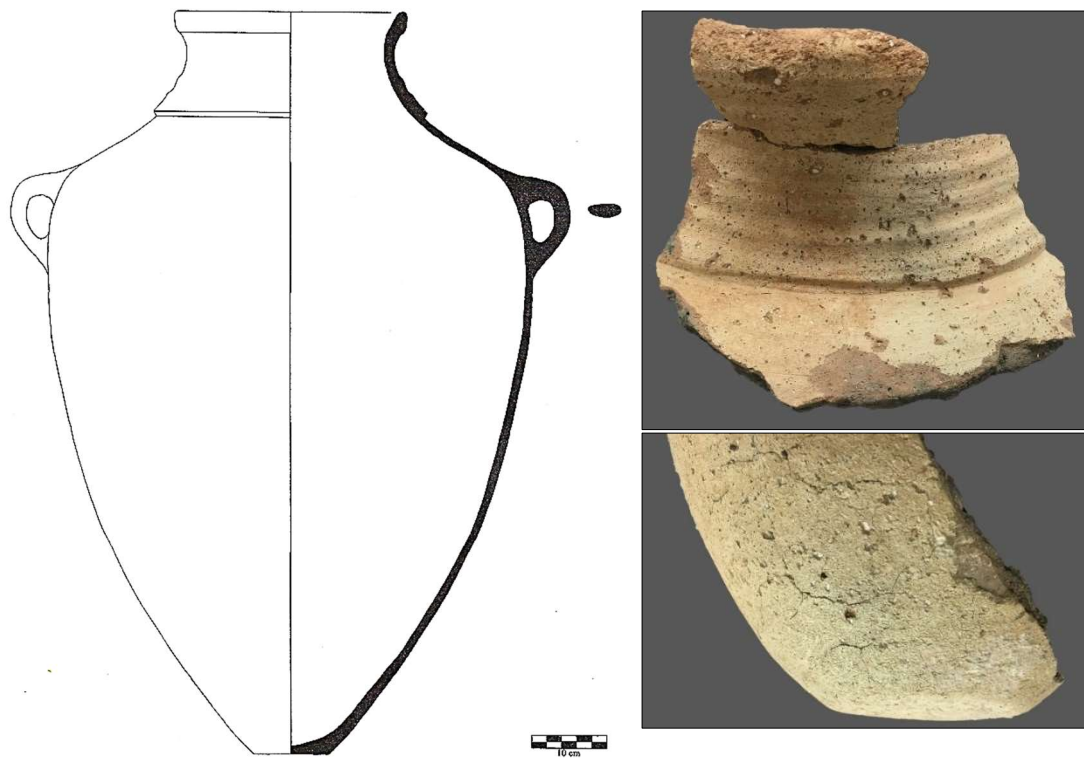


FIGURE 59. Pithos 7.21, Tall al-‘Umayri #22 (Herr et al. 2014: 346, 357).

Pithos 7.22: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.22 (figure 60) originated in Field B, Square 7J99, Locus 3. The characteristics of this pithos are all nearly standard. It has a thickened, offset rim that flares from a neck that is shorter than expected, in comparison to the mean for the Long Form. Despite this attribute, the rim still stands within the line of the triangular collar. This collar is more prominent than the typical example, but is still within one standard deviation of the mean. The overall height of this pithos is shorter than average, but the body circumference is larger than usual, adding to its horizontally-stretched appearance. The handles on this vessel are smaller than average, at 1.28 cm shorter than one standard deviation from the mean handle height.

TABLE 35. Comparable Data for Tall al-'Umayri Long Form Pithos 7.22.

	Pithos 7.22	μ Pithos in Group (σ)
Neck Height in cm	5.80	7.02 (1.64)
Rim Thickness in cm	1.71	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T4: Offset, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.78	3.07 (0.66)
Rim Circumference in cm	81.70	81.42 (7.96)
Exterior Rim Diameter in cm	26.00	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	5.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	11.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 7/4, Pink	Light Brown
Full Vessel Height in cm	98.00	102.36 (6.82)
Body Circumference in cm	186.90	177.01 (16.57)
Handle Width in cm	4.22	4.30 (0.55)
Handle Height in cm	10.22 (26%)	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	1.00	2.10 (1.19)



FIGURE 60. Pithos 7.22, Tall al-‘Umayri #23 (Herr et al. 2014: 347, 357).

Pithos 7.23: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.23 (figure 61) was unearthed in Field B, Square 7J99, Locus 3. This pithos has several interesting features and dimensions that distinguish it from the typical Long Form pithos. Its rim inflection is everted, its collar prominence is only slightly above average, and its full vessel height is very nearly typical. It also has a flat bottom of the usual thickness and a rim circumference somewhat smaller than average, but still within one standard deviation from the mean. The rest of the dimensions of this vessel are atypical. It has a round-shaped collar that is only found in 5% (n = 4) of the

Long Form examples. It is among the 2% (n = 5) of all pithoi in this study with a neck height of 10.0 cm or greater.

This vessel has a simple straight rim with a slight groove near the bottom of the rim, forming a slight ridge. This unusual rim shape is shared only with Pithos 7.01, though that example shows more thickening than this one. The rim of this pithos is among the two examples furthest inside the line of the collar, having a 21° angle between the collar-line and the outer edge of the rim. While the rim is fairly standard in circumference, the body circumference is quite large – stretching just over 9.0 cm beyond one standard deviation from the mean. Put another way, the body circumference of this vessel is 13% larger than average. The handles are also larger than expected, in comparison to the group mean, being 22% wider than average and 19% taller. Together with Pithos 7.59, these vessels have the widest handles in the Long Form group. Pithos 7.23 showcases some of the less common attributes to be seen in the Long Form collared pithos.

TABLE 36. Comparable Data for Tall al-'Umayri Long Form Pithos 7.23.

	Pithos 7.23	μ Pithos in Group (σ)
Neck Height in cm	10.00 (30%)	7.02 (1.64)
Rim Thickness in cm	2.00	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T5: Simple, Straight	Profiled T1: Kidney, OT
Rim Height in cm	4.00 (23%)	3.07 (0.66)
Rim Circumference in cm	75.40	81.42 (7.96)
Exterior Rim Diameter in cm	24.00	25.92 (2.54)
Collar Shape	Round	Teardrop
Rim-to-collar Angle	21.00° Inside (55%)	9.41° Inside (5.59°)
Collar Prominence in mm	9.00	8.84 (2.72)
Firing	Underfired	Underfired

Exterior Munsell Reading	5 YR 6/4, Light Reddish Brown	Light Brown
Full Vessel Height in cm	102.00	102.36 (6.82)
Body Circumference in cm	202.60 (13%)	177.01 (16.57)
Handle Width in cm	5.50 (22%)	4.30 (0.55)
Handle Height in cm	17.00 (19%)	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	2.00	2.10 (1.19)

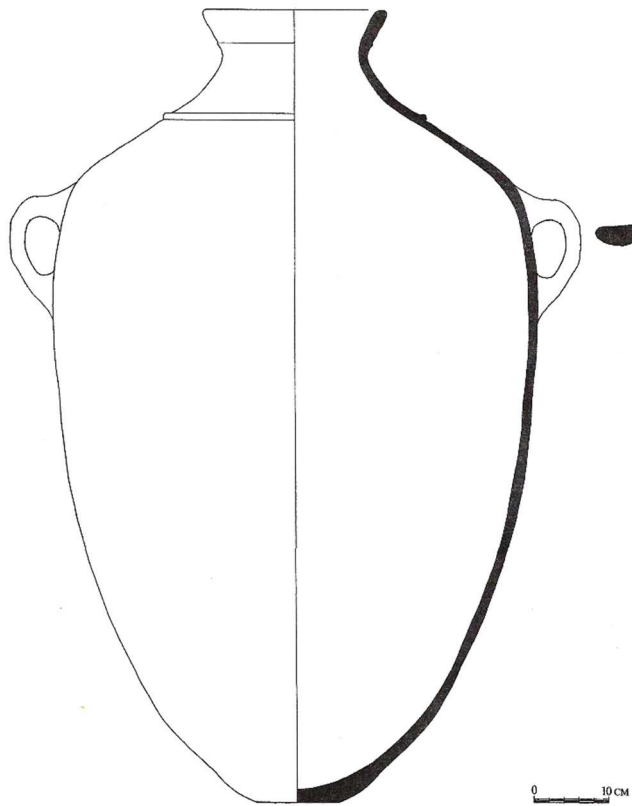


FIGURE 61. Pithos 7.23, Tall al-‘Umayri #24 (Herr et al. 2014: 348, 357).

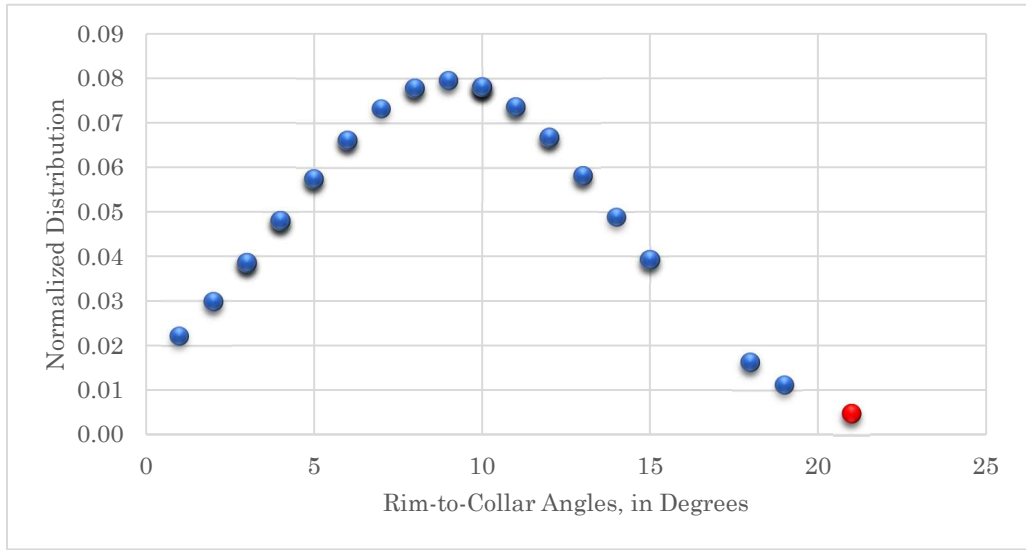


FIGURE 62. Distribution of Long Form Rim to Collar Angles, Pithos 7.23.⁸⁰

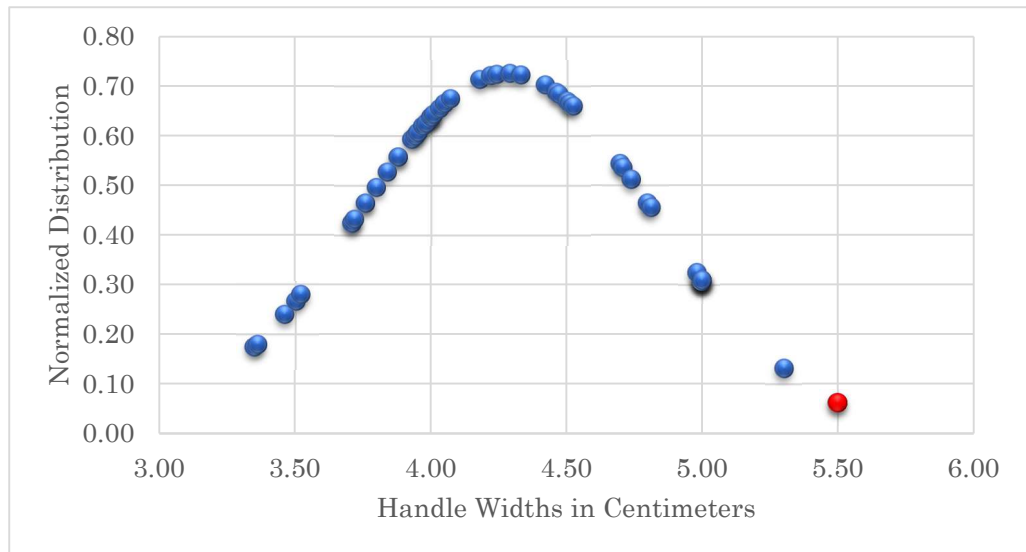


FIGURE 63. Distribution of Long Form Handle Widths, Pithos 7.23.

⁸⁰This represents angles inside of the line of the collar, only.

Pithos 7.24: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.24 (figure 64) was found in Field B, Square 7J99, Locus 3.

This pithos has an above average neck height. Its neck displays a fair amount of profiling, particularly on the lower half. It has a tall, thin rim that is folded over, giving it a triangular shape. The overall dimensions of this pithos are within one standard deviation of the mean, but it is shorter and wider than average. In comparison to the previous vessel (Pithos 7.23), this pithos has a body that is long and slender forming a v-shape from the shoulders to the base. The base, which one might expect to be pointed upon looking at the shape of the body, is actually flat. The remaining features of this pithos are standard for a vessel in the Long Form group.

TABLE 37. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.24.

	Pithos 7.24	μ Pithos in Group (σ)
Neck Height in cm	9.00 (22%)	7.02 (1.64)
Rim Thickness in cm	1.65	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Triangular, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.14	3.07 (0.66)
Rim Circumference in cm	81.70	81.42 (7.96)
Exterior Rim Diameter in cm	26.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	8.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	8.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 7/4, Pink	Light Brown
Full Vessel Height in cm	98.00	102.36 (6.82)
Body Circumference in cm	185.40	177.01 (16.57)
Handle Width in cm	4.71	4.30 (0.55)
Handle Height in cm	11.81	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	2.56	2.10 (1.19)

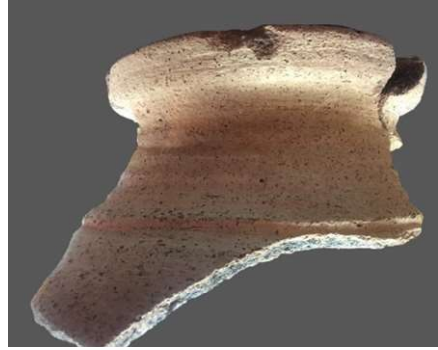
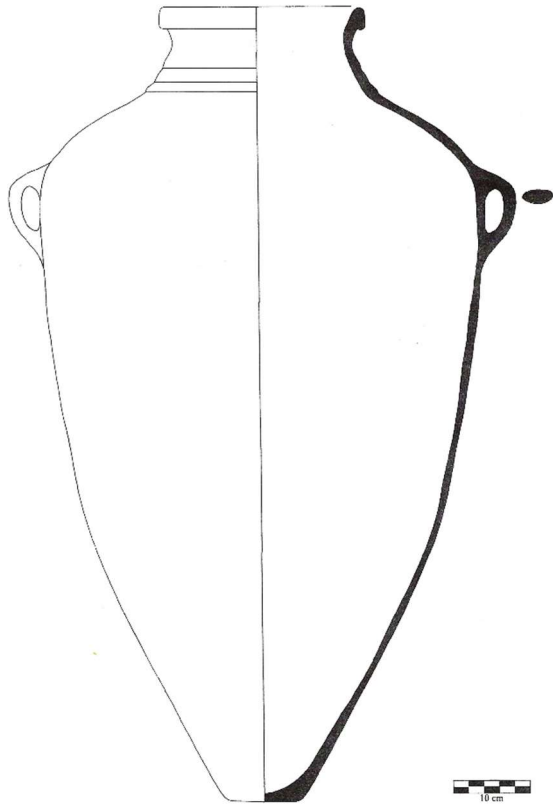


FIGURE 64. Pithos 7.24, Tall al-‘Umayri #25 (Herr et al. 2014: 349, 357).

Pithos 7.25: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.25 (figure 65) was discovered in Field B, Square 7J99, Locus 3. The dimensions and features of this pithos are close to average. The most notable element is this vessel's base. It measures at least 5.29 cm thick, making it the second thickest base in this study. Due to the extreme deterioration of the base, it was impossible to tell with certainty if it was originally flat or pointed or how thick it had been when fully intact. All of the other available dimensions of this vessel were within one standard deviation of the mean.

TABLE 38. Comparable Data for Tall al-'Umayri Long Form Pithos 7.25.

	Pithos 7.25	μ Pithos in Group (σ)
Neck Height in cm	6.50	7.02 (1.64)
Rim Thickness in cm	1.60	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.79	3.07 (0.66)
Rim Circumference in cm	84.80	81.42 (7.96)
Exterior Rim Diameter in cm	27.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	8.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	9.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 8/3, Pink	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	unknown	177.01 (16.57)
Handle Width in cm	3.88	4.30 (0.55)
Handle Height in cm	11.54	13.73 (2.23)
Base Shape	unknown	Flat
Base Thickness in cm	5.29 (60%)	2.10 (1.19)



FIGURE 65. Pithos 7.25, Tall al-'Umayri #26, unpublished.

Pithos 7.26: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.26 (figure 66) was found in Field B, Square 7J99, Locus 3. It has dimensions that are almost all within one standard deviation from the mean. The edged, thickened rim is common and rests on a neck that is slightly shorter than average. The rim's inflection is straight and its circumference and exterior-rim diameter are both a little bit larger than usual. The angle of the rim to the triangular-shaped collar is greater than most, but does not hold the distinction of being included among the vessels

with the greatest angles. This pithos is unique, however, in its body circumference. It has the broadest body of any other vessel in this study, by far. It is nearly 24 cm broader than the next widest pithos.⁸¹ This vessel's circumference is 22% larger than average and 32.62 cm beyond one standard deviation of the mean body circumference. This pithos also has handles that are larger than average, being 14% wider and taller than most. These dimensions give this somewhat taller than typical pithos a short, squat appearance.

TABLE 39. Comparable Data for Tall al-'Umayri Long Form Pithos 7.26.

	Pithos 7.26	μ Pithos in Group (σ)
Neck Height in cm	6.00	7.02 (1.64)
Rim Thickness in cm	1.62	1.82 (0.32)
Rim Inflection	Straight	Everted
Rim Shape	Thickened T1: Edged, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.08	3.07 (0.66)
Rim Circumference in cm	81.70	81.42 (7.96)
Exterior Rim Diameter in cm	26.00	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	15.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	6.00 (32%)	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 6/4, Light Brown	Light Brown
Full Vessel Height in cm	106.00	102.36 (6.82)
Body Circumference in cm	226.20 (22%)	177.01 (16.57)
Handle Width in cm	5.00 (14%)	4.30 (0.55)
Handle Height in cm	16.00 (14%)	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	1.26	2.10 (1.19)

⁸¹ This is Classic Form Pithos 10.01, from Khirbat Ataruz.

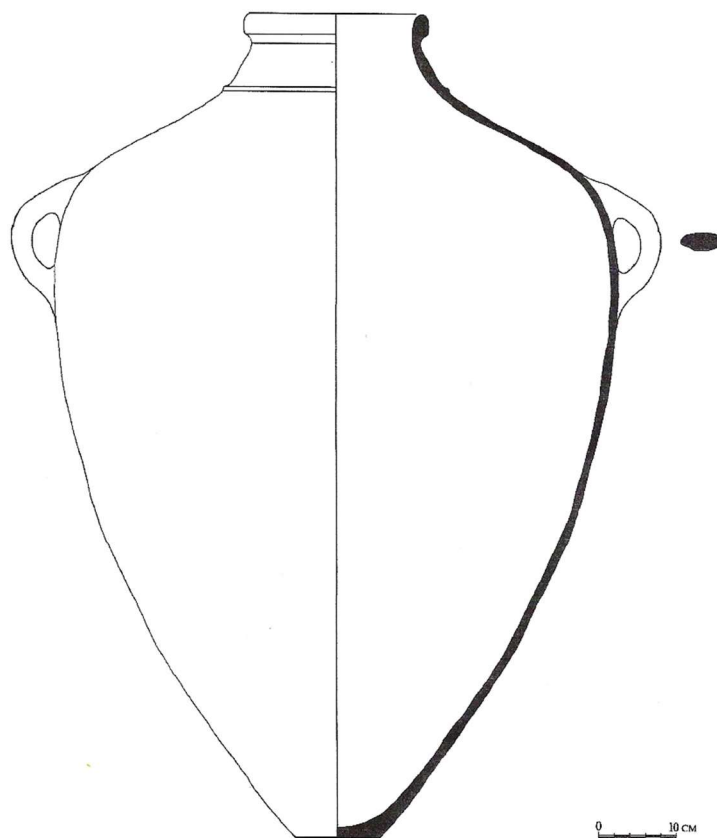


FIGURE 66. Pithos 7.26, Tall al-Umayri #28 (Herr et al. 2014: 350, 358).

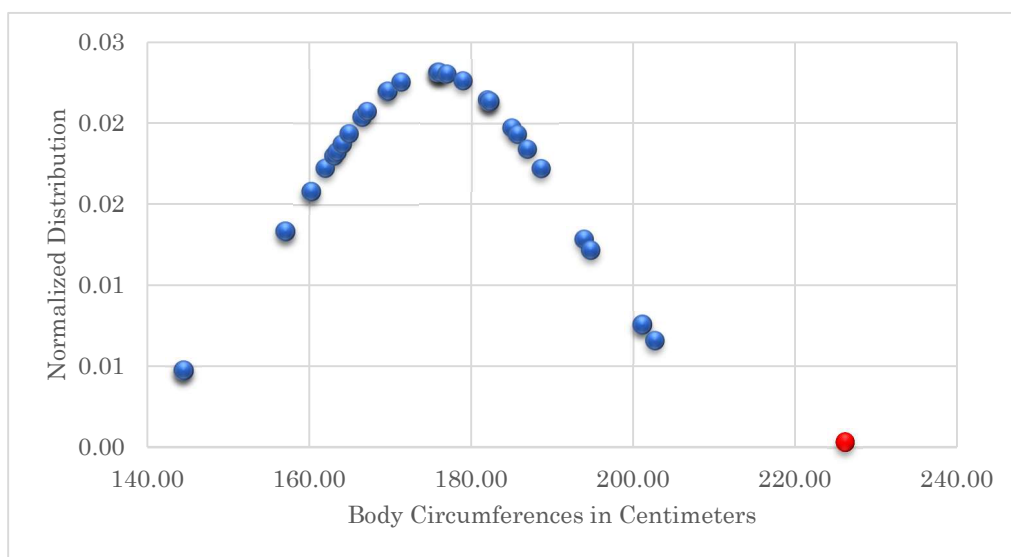


FIGURE 67. Distribution of Long Form Body Circumferences, Pithos 7.26.

Pithos 7.27: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.27 (figure 68) was unearthed in Field B, Square 7J99, Locus 3.

None of the features or dimensions of this pithos fall outside of one standard deviation from the mean. Nevertheless, there are a few characteristics that are not among the most common for this group. The rim is aligned with a triangular collar. Both of these features, while not unique, are less typical. This pithos also has an 8.0 cm neck height, which is nearly a cm taller than most. Beyond these elements, this vessel is a very standard Long Form pithos.

TABLE 40. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.27.

	Pithos 7.27	μ Pithos in Group (σ)
Neck Height in cm	8.00	7.02 (1.64)
Rim Thickness in cm	1.89	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T1: Kidney, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.51	3.07 (0.66)
Rim Circumference in cm	88.00	81.42 (7.96)
Exterior Rim Diameter in cm	28.00	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	Aligned	9.41° Inside (5.59°)
Collar Prominence in mm	7.23	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 7/2, Pinkish Gray	Light Brown
Full Vessel Height in cm	103.00	102.36 (6.82)
Body Circumference in cm	182.00	177.01 (16.57)
Handle Width in cm	4.29	4.30 (0.55)
Handle Height in cm	14.00	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	1.50	2.10 (1.19)

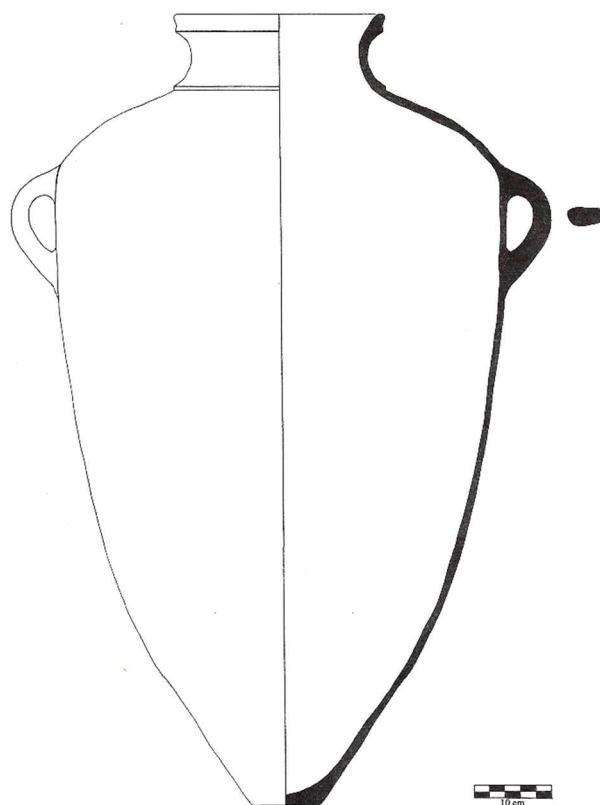


FIGURE 68. Pithos 7.27, Tall al-‘Umayri #29 (Herr et al. 2014: 351, 358).

Pithos 7.28: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.28 (figure 69) was found in Field B, Square 7J99, Locus 3. Nearly all of the dimensions of this vessel are standard. It has a kidney-shaped profiled rim and light neck profiling on a slightly shorter-than-average neck. The rim circumference and exterior rim diameter are both about 14% larger than usual, and are the only two measurements that fall outside of one standard deviation from the mean. These dimensions reveal this vessel to have the largest rim circumference in the Long Form group, sharing the ranking with Pithos 7.04. The body has a long v-shaped profile that evokes the later, pointed base pithoi, but this one has a small, flat base.

This pithos stands just over 4.0 cm taller than most. This feature, together with its slightly smaller than average body circumference, may contribute to this vessel's long and lean appearance.

TABLE 41. Comparable Data for Tall al-'Umayri Long Form Pithos 7.28.

	Pithos 7.28	μ Pithos in Group (σ)
Neck Height in cm	6.80	7.02 (1.64)
Rim Thickness in cm	1.83	1.82 (0.32)
Rim Inflection	Straight	Everted
Rim Shape	Profiled T1: Kidney, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.65	3.07 (0.66)
Rim Circumference in cm	<i>94.25 (14%)</i>	81.42 (7.96)
Exterior Rim Diameter in cm	<i>30.00 (14%)</i>	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	10.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	10.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 7/4, Pink	Light Brown
Full Vessel Height in cm	106.40	102.36 (6.82)
Body Circumference in cm	163.00	177.01 (16.57)
Handle Width in cm	3.94	4.30 (0.55)
Handle Height in cm	13.00	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	1.34	2.10 (1.19)

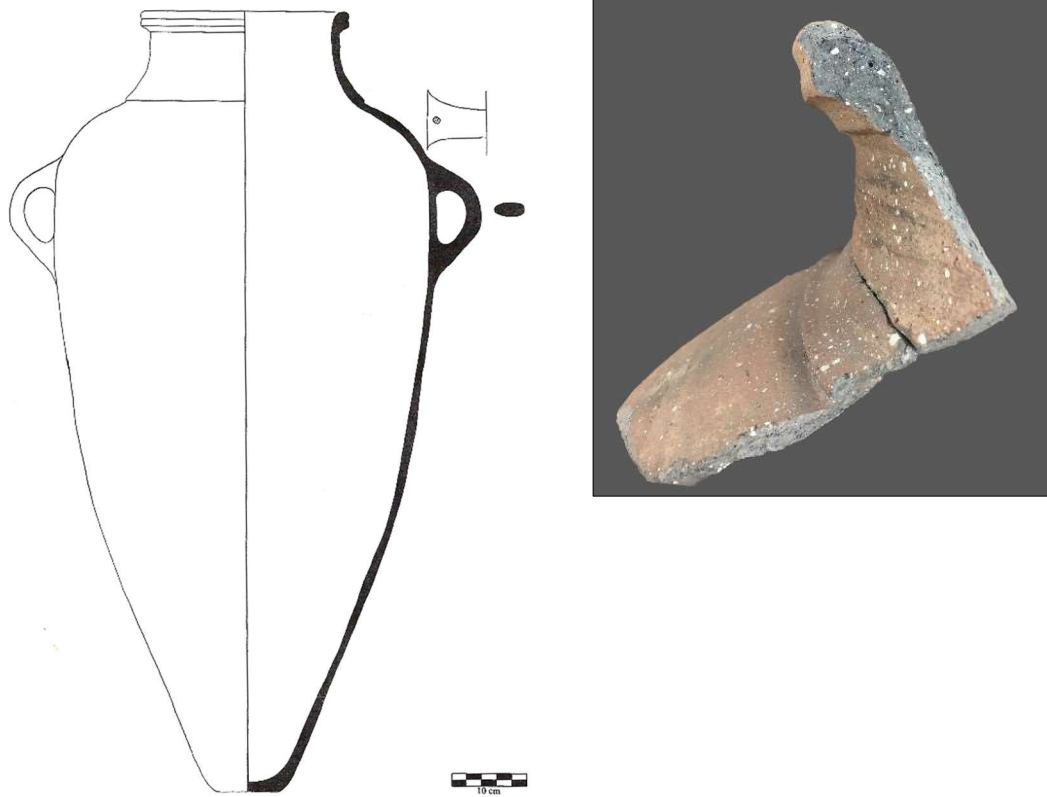


FIGURE 69. Pithos 7.28, Tall al-'Umayri #31, (Herr et al. 2014: 352, 358).

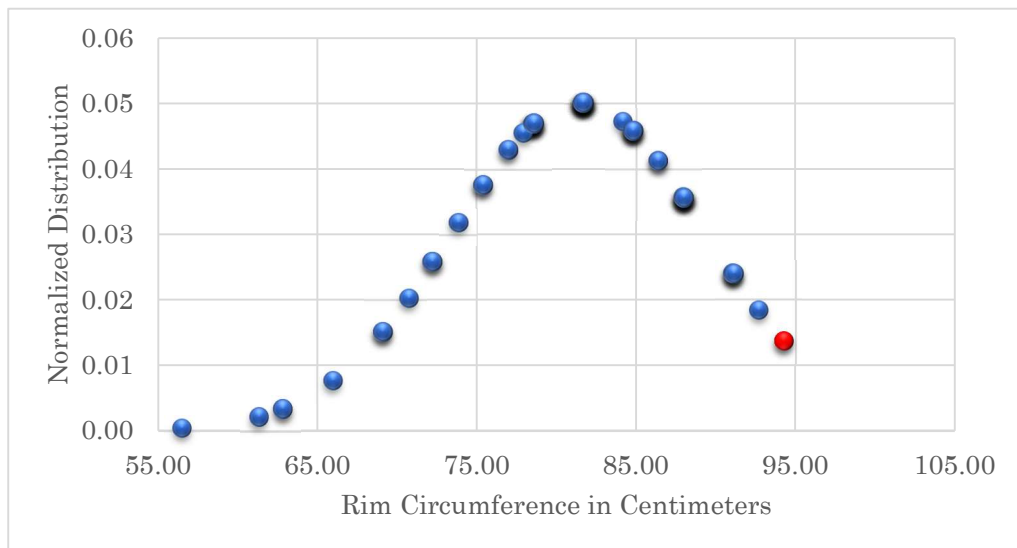


FIGURE 70. Distribution of Long Form Rim Circumferences, Pithos 7.28.

Pithos 7.29: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.29 (figure 71) was discovered in Field B, Square 7J99, Locus 3. This pithos is an average example of the Long Form. It has a neck height that is slightly taller, and a rim that is somewhat thicker than usual. But both dimensions are still within one standard deviation of the mean. Though thinner than usual, the base is still near enough to average that it does not stand out as remarkable. This trend of standard features follows through with the rim circumference, and the related exterior rim diameter as well. In fact, the only dimension of this vessel that is atypical is the height of its rim. The rim height is the second tallest in the Long Form group, making it 33% taller than the average Long Form pithos.

TABLE 42. Comparable Data for Tall al-'Umayri Long Form Pithos 7.29.

	Pithos 7.29	μ Pithos in Group (σ)
Neck Height in cm	8.00	7.02 (1.64)
Rim Thickness in cm	2.02	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Profiled T1: Kidney, OT
Rim Height in cm	4.60 (33%)	3.07 (0.66)
Rim Circumference in cm	84.80	81.42 (7.96)
Exterior Rim Diameter in cm	27.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	12.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	11.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	10 YR 7/4, Very Pale Brown	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	unknown	177.01 (16.57)
Handle Width in cm	4.33	4.30 (0.55)
Handle Height in cm	unknown	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	1.78	2.10 (1.19)



FIGURE 71. Pithos 7.29, Tall al-‘Umayri #39, unpublished.

Pithos 7.30: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.30 (figure 72) came from Field B, Square 7J99, Locus 3. This pithos possesses a few notable characteristics. The offset, thickened rim is 29% thinner and 35% shorter than average. However, the rim circumference and exterior rim diameter are 12% larger than usual. The rim has an inverted inflection that is only seen in 10% (n = 8) of the pithoi in the Long Form group. This rim inflection becomes more common as neck heights shorten.⁸² This pithos is unfortunately missing its handles, so those measurements could not be taken accurately. It does appear, from what little is remaining on the sides of the body, that they may have been taller than average. The remaining dimensions and features of this pithos are within standard and are typical for an Long Form vessel.

⁸² 11% (n = 9/80) of Classic Form vessels, 20% (n = 7/35) of Short Form vessels, and 35% (n = 6/17) of Final Form vessels have rims with an inverted inflection.

TABLE 43. Comparable Data for Tall al-'Umayri Long Form Pithos 7.30.

	Pithos 7.30	μ Pithos in Group (σ)
Neck Height in cm	6.00	7.02 (1.64)
Rim Thickness in cm	1.30 (29%)	1.82 (0.32)
Rim Inflection	Inverted	Everted
Rim Shape	Thickened T4: Offset, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.00 (35%)	3.07 (0.66)
Rim Circumference in cm	92.70 (12%)	81.42 (7.96)
Exterior Rim Diameter in cm	29.50 (12%)	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	11.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	9.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 7/6, Reddish Yellow	Light Brown
Full Vessel Height in cm	106.00	102.36 (6.82)
Body Circumference in cm	177.00	177.01 (16.57)
Handle Width in cm	unknown	4.30 (0.55)
Handle Height in cm	unknown	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	1.00	2.10 (1.19)

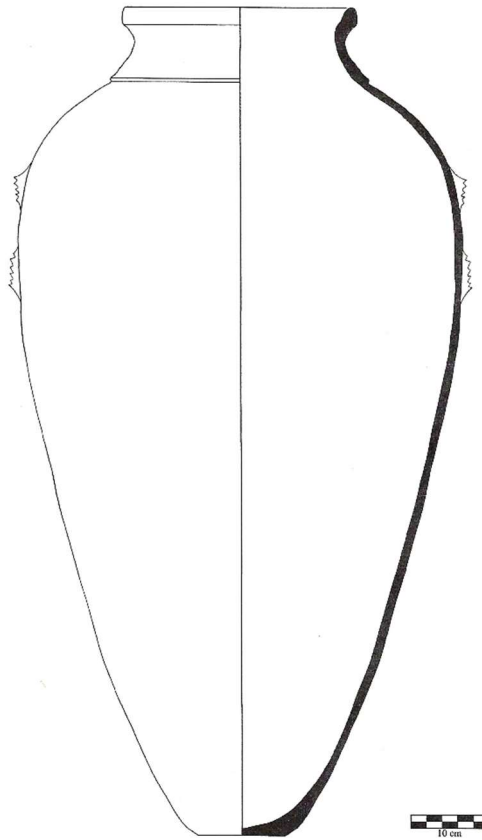


FIGURE 72. Pithos 7.30, Tall al-'Umayri #41 (Herr et al. 2014: 353, 358).

Pithos 7.31: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.31 (figure 73) originated in Field B, Square 7J99, Locus 3. It is a vessel nearly standard in its dimensions and attributes. One exception is the pithos' neck height, which is 1.34 cm taller than one standard deviation from the mean neck height, or 30% taller than average. This places this pithos among the tallest 7% of neck heights studied. The other remarkable feature of this pithos is its collar. While the triangular shape is not extraordinary, its diminutive profile is remarkable for an Long Form vessel. and places it among the lowest 8% (n = 6) for collar prominence. This collar is less than half as protuberant than the average collar. The remaining features of this pithos are typical for this form.

TABLE 44. Comparable Data for Tall al-'Umayri Long Form Pithos 7.31.

	Pithos 7.31	μ Pithos in Group (σ)
Neck Height in cm	10.00 (30%)	7.02 (1.64)
Rim Thickness in cm	1.68	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T2: Ridged, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.67	3.07 (0.66)
Rim Circumference in cm	88.00	81.42 (7.96)
Exterior Rim Diameter in cm	28.00	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	unknown	9.41° Inside (5.59°)
Collar Prominence in mm	4.00 (55%)	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 7/4, Pink	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	unknown	177.01 (16.57)
Handle Width in cm	4.05	4.30 (0.55)
Handle Height in cm	14.39	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	unknown	2.10 (1.19)



FIGURE 73. Pithos 7.31, Tall al-‘Umayri #40, unpublished.

Pithos 7.32: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.32 (figure 74) was discovered in Field B, Square 7J99, Locus 3. The two most notable features of this pithos are its rim and collar. There is nothing outstanding about the thickened, edged shape of the rim, but it is unusually thick for its height, which is below average. The rim of this vessel is 18% thicker than usual, and falls outside of one standard deviation of the mean. This characteristic gives it a squat appearance, in comparison to other Long Form rims. The neck is longer than average and ends in a round collar. Only two other vessels in this group have round-shaped collars, comprising 4% of the total collars analyzed in the Long Form group. The other dimensions of this pithos are near standard, or are missing and thus unable to be analyzed.

TABLE 45. Comparable Data for Tall al-'Umayri Long Form Pithos 7.32.

	Pithos 7.32	μ Pithos in Group (σ)
Neck Height in cm	8.50	7.02 (1.64)
Rim Thickness in cm	2.23 (18%)	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T1: Edged, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.79	3.07 (0.66)
Rim Circumference in cm	81.70	81.42 (7.96)
Exterior Rim Diameter in cm	26.00	25.92 (2.54)
Collar Shape	Round	Teardrop
Rim-to-collar Angle	10.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	7.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 6/6, Reddish Yellow	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	unknown	177.01 (16.57)
Handle Width in cm	3.46	4.30 (0.55)
Handle Height in cm	11.94	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	unknown	2.10 (1.19)



FIGURE 74. Pithos 7.32, Tall al-'Umayri #50, unpublished.

Pithos 7.33: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.33 (figure 75) was located in Field B, Square 7J99, Locus 3. It is among the nine vessels in this study that have a 5.0 cm neck. The rim of this pithos has a common rectangular shape that is 22% taller than average and is aligned with the edge of the collar. This rim-collar alignment is present in seven other Long Form vessels, comprising about 10% of the pithoi in that group. The teardrop shaped collar is 32% less prominent than usual. The flat base and rim circumference are both reasonably common. The measurements of the body circumference, overall height, and handle height were unavailable because the pithos has not yet been reconstructed.

TABLE 46. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.33.

	Pithos 7.33	μ Pithos in Group (σ)
Neck Height in cm	5.00 (29%)	7.02 (1.64)
Rim Thickness in cm	1.81	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Rectangular, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.87 (21%)	3.07 (0.66)
Rim Circumference in cm	88.00	81.42 (7.96)
Exterior Rim Diameter in cm	28.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	Aligned	9.41° Inside (5.59°)
Collar Prominence in mm	6.00 (32%)	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 6/4, Light Brown	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	unknown	177.01 (16.57)
Handle Width in cm	4.03	4.30 (0.55)
Handle Height in cm	unknown	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	1.44	2.10 (1.19)



FIGURE 75. Pithos 7.33, Tall al-'Umayri #55, unpublished.

Pithos 7.34: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.34 (figure 76) was unearthed in Field B, Square 7J99, Locus 3. Similar to Pithos 7.33, this vessel also has rim-collar alignment. The collar of this pithos, however, is triangular-shaped and has a low, 5.0 mm prominence. This prominence is 1.12 mm below one standard deviation from the mean. The neck of this pithos has unsightly blisters caused by improper wedging prior to firing. The remaining dimensions and features of this pithos are all nearly average for an Long Form pithos.

TABLE 47. Comparable Data for Tall al-'Umayri Long Form Pithos 7.34.

	Pithos 7.34	μ Pithos in Group (σ)
Neck Height in cm	6.00	7.02 (1.64)
Rim Thickness in cm	1.63	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T1: Edged, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.76	3.07 (0.66)
Rim Circumference in cm	81.70	81.42 (7.96)
Exterior Rim Diameter in cm	26.00	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	Aligned	9.41° Inside (5.59°)
Collar Prominence in mm	5.00 (43%)	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 7/2, Pinkish Gray	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	unknown	177.01 (16.57)
Handle Width in cm	3.72 (13%)	4.30 (0.55)
Handle Height in cm	11.77	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	unknown	2.10 (1.19)



FIGURE 76. Pithos 7.34, Tall al-'Umayri #57, unpublished.

Pithos 7.35: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.35 (figure 77) was discovered in Field B, Square 7J99, Locus 3. In most ways this pithos is an average Long Form example. It does, however, have one notable feature. The everted, rectangular rim of this vessel is outside of the line of the collar by 11°, an alignment only seen elsewhere among the Long Form group in Pithos 7.02. Roughly 9% (n = 20) of the vessels in this study have rims that stand outside the line of the collar. Only four of these vessels are outside of alignment 11° or more. Rims that are outside of the line of the collar are more frequent among Long Form vessels than any other phase of the collared pithos. They become gradually less common⁸³ until they disappeared near the end of the Short Form. The rest of the features and dimensions of this pithos are standard.

TABLE 48. Comparable Data for Tall al-'Umayri Long Form Pithos 7.35.

	Pithos 7.35	μ Pithos in Group (σ)
Neck Height in cm	7.00	7.02 (1.64)
Rim Thickness in cm	1.75	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Rectangular, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.46	3.07 (0.66)
Rim Circumference in cm	88.00	81.42 (7.96)
Exterior Rim Diameter in cm	28.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	11.00° Outside (36%)	9.41° Inside (5.59°)
Collar Prominence in mm	9.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 6/6, Reddish Yellow	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	unknown	177.01 (16.57)
Handle Width in cm	3.95	4.30 (0.55)
Handle Height in cm	unknown	13.73 (2.23)

⁸³ Among the Long Form pithoi, 17% (n = 13/76) have rims outside the line of the collar. In the Classic Form this drops to 6% (n = 5/83) and in the Short Form to only 3% (n = 1/35). All of the Final Form examples have rims inside of the collar.

Base Shape	Flat	Flat
Base Thickness in cm	unknown	2.10 (1.19)

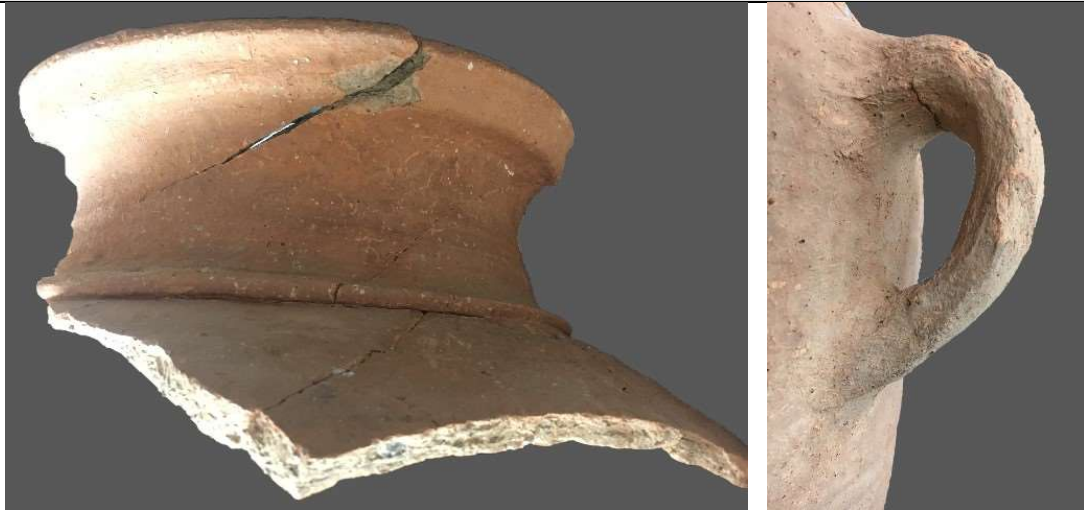


FIGURE 77. Pithos 7.35, Tall al-'Umayri #63, unpublished.

Pithos 7.36: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.36 (figure 78) was found in Field B, Square 7J99, Locus 3. It has standard dimensions for a Long Form collared pithos, with the exception of its 22% taller than average rim. This pithos has a kidney-shaped, profiled rim with an everted inflection. This rim stands in alignment with its triangular-shaped collar. The triangular-shaped collar appears to have possibly been made as a square-shaped collar that was then bonded with the top of the shoulder, forming a more triangular shape. The neck has blisters similar to those seen on Pithos 7.34, likely attributable to improper wedging. The handles on this pithos are slightly narrower and taller than average. The body circumference and overall height of this vessel remain unknown until more can be reconstructed. It does have the traditional flat base.

TABLE 49. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.36.

	Pithos 7.36	μ Pithos in Group (σ)
Neck Height in cm	7.00	7.02 (1.64)
Rim Thickness in cm	1.53	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T1: Kidney, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.96 (22%)	3.07 (0.66)
Rim Circumference in cm	88.00	81.42 (7.96)
Exterior Rim Diameter in cm	28.00	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	Aligned	9.41° Inside (5.59°)
Collar Prominence in mm	11.00	8.84 (2.72)
Firing	Oxidation	Underfired
Exterior Munsell Reading	10 YR 7/3, Very Pale Brown	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	unknown	177.01 (16.57)
Handle Width in cm	3.98	4.30 (0.55)
Handle Height in cm	15.10	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	2.10	2.10 (1.19)



FIGURE 78. Pithos 7.36, al-'Umayri #65, unpublished.

Pithos 7.37: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.37 (figure 79) was discovered in Field B, Square 7J99, Locus 3. It is a great example of the Long Form. It has an average neck height, with a rectangular-shaped rim that shows vague hints of kidney-shaped profiling in some areas. This rim is slightly thicker and shorter than average and stands perfectly in line with the teardrop-shaped collar. The exterior surface of this pithos is classified as Pinkish Gray with an underfired ware in which the core is present. The handles are also very typical in their size and shape. The body measurements are unavailable at this time, as the pithos awaits reconstruction. The base, however, is standard in shape and thickness.

TABLE 50. Comparable Data for Tall al-'Umayri Long Form Pithos 7.37.

	Pithos 7.37	μ Pithos in Group (σ)
Neck Height in cm	7.00	7.02 (1.64)
Rim Thickness in cm	2.01	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Rectangular, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.75	3.07 (0.66)
Rim Circumference in cm	81.70	81.42 (7.96)
Exterior Rim Diameter in cm	26.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	Aligned	9.41° Inside (5.59°)
Collar Prominence in mm	8.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 7/2, Pinkish Gray	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	unknown	177.01 (16.57)
Handle Width in cm	4.01	4.30 (0.55)
Handle Height in cm	13.52	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	1.00	2.10 (1.19)



FIGURE 79. Pithos 7.37, Tall al-'Umayri #71, unpublished.

Pithos 7.38: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.38 (figure 80) was found in Field B, Square 7J99, Locus 3. The core of this pithos is fully oxidized and the exterior surface is reddish yellow. It has a standard teardrop collar that is somewhat less prominent than usual. The rectangular rim rests just inside of the line of the collar. This rim is about 29% thinner and 17% shorter than the average Long Form rim, although the later dimension is actually within one standard deviation of the

mean. The most notable feature of this pithos is its neck height, which measures 9.5 cm. This neck height is 0.84 cm greater than one standard deviation and is approximately 26% taller than the average. Four of the examples of this form have the same neck height. This sub-group comprises 5% of the Long Form group. These pithoi do not have the tallest necks in this group, but they are among those that are taller than average and are outside of one standard deviation from the mean.

TABLE 51. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.38.

	Pithos 7.38	μ Pithos in Group (σ)
Neck Height in cm	9.50 (26%)	7.02 (1.64)
Rim Thickness in cm	1.30 (29%)	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Rectangular, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.56	3.07 (0.66)
Rim Circumference in cm	81.70	81.42 (7.96)
Exterior Rim Diameter in cm	26.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	5.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	7.00	8.84 (2.72)
Firing	Oxidation	Underfired
Exterior Munsell Reading	7.5 YR 6/6, Reddish Yellow	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	unknown	177.01 (16.57)
Handle Width in cm	4.51	4.30 (0.55)
Handle Height in cm	unknown	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	unknown	2.10 (1.19)

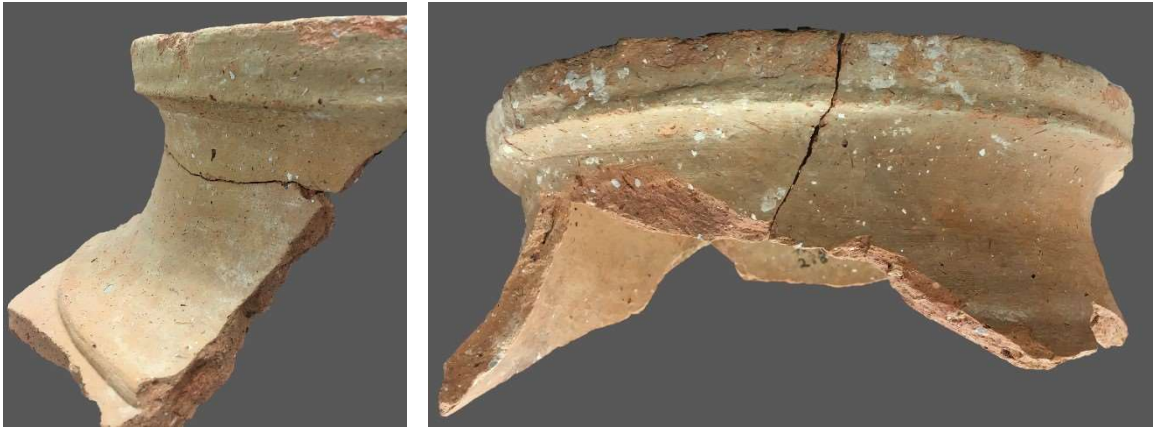


FIGURE 80. Pithos 7.38, Tall al-‘Umayri #72, unpublished.

Pithos 7.39: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.39 (figure 81) originated in Field B, Square 7J99, Locus 3. The edgeless, thickened rim of this pithos is 24% taller and 16% slimmer than average. This factor contributes to the elongated appearance of this rim which is on top of a somewhat shorter than usual neck. Atypically, the line of the collar is just outside of the rim. The collar has the usual teardrop shape, but is 43% less prominent than average. The core of this vessel appears to be fully oxidized. The handles are both somewhat larger than usual but are both well within one standard deviation of the mean for handle size. The top part of the handle, where it joins the body of the pithos is extraordinarily thick. The remaining features and dimensions of this vessel are typical for an Long Form collared pithos.

TABLE 52. Comparable Data for Tall al-'Umayri Long Form Pithos 7.39.

	Pithos 7.39	μ Pithos in Group (σ)
Neck Height in cm	6.00	7.02 (1.64)
Rim Thickness in cm	1.53	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Profiled T1: Kidney, OT
Rim Height in cm	4.05 (24%)	3.07 (0.66)
Rim Circumference in cm	75.40	81.42 (7.96)
Exterior Rim Diameter in cm	24.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	5.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	5.00 (43%)	8.84 (2.72)
Firing	Oxidation	Underfired
Exterior Munsell Reading	7.5 YR 6/6, Reddish Yellow	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	unknown	177.01 (16.57)
Handle Width in cm	4.81	4.30 (0.55)
Handle Height in cm	15.69	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	2.59	2.10 (1.19)



FIGURE 81. Pithos 7.39, Tall al-'Umayri #79, unpublished.

Pithos 7.40: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.40 (figure 82) was discovered in Field B, Square 7J99, Locus 3. There are several notable features and dimensions of this pithos that are somewhat atypical. The profiled rim is slightly thicker and taller than average and rests upon a profiled neck of nearly average height. The triangular collar, which is just outside of the line of this rim, has a very low profile. It is more than 2.0 mm below one standard deviation from the mean,

or about 55% lower than average. This collar is one of three that share this prominence. The whole vessel, however, is broader and taller than usual, making this diminutive collar seem even smaller. The handles of this pithos were not yet reassembled when it was published but have since been incorporated into its reconstruction. They are of average size. The flat base of this vessel is typical in shape, but is significantly thinner than normal, nearly 62% thinner, in fact. It is the second thinnest base in this study.

TABLE 53. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.40.

	Pithos 7.40	μ Pithos in Group (σ)
Neck Height in cm	7.50	7.02 (1.64)
Rim Thickness in cm	2.00	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T2: Ridged, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.28	3.07 (0.66)
Rim Circumference in cm	78.50	81.42 (7.96)
Exterior Rim Diameter in cm	25.00	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	7.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	4.00 (55%)	8.84 (2.72)
Firing	Oxidation	Underfired
Exterior Munsell Reading	5 YR 7/4, Pink	Light Brown
Full Vessel Height in cm	105.80	102.36 (6.82)
Body Circumference in cm	194.00 (9%)	177.01 (16.57)
Handle Width in cm	4.52	4.30 (0.55)
Handle Height in cm	14.85	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	0.80 (62%)	2.10 (1.19)

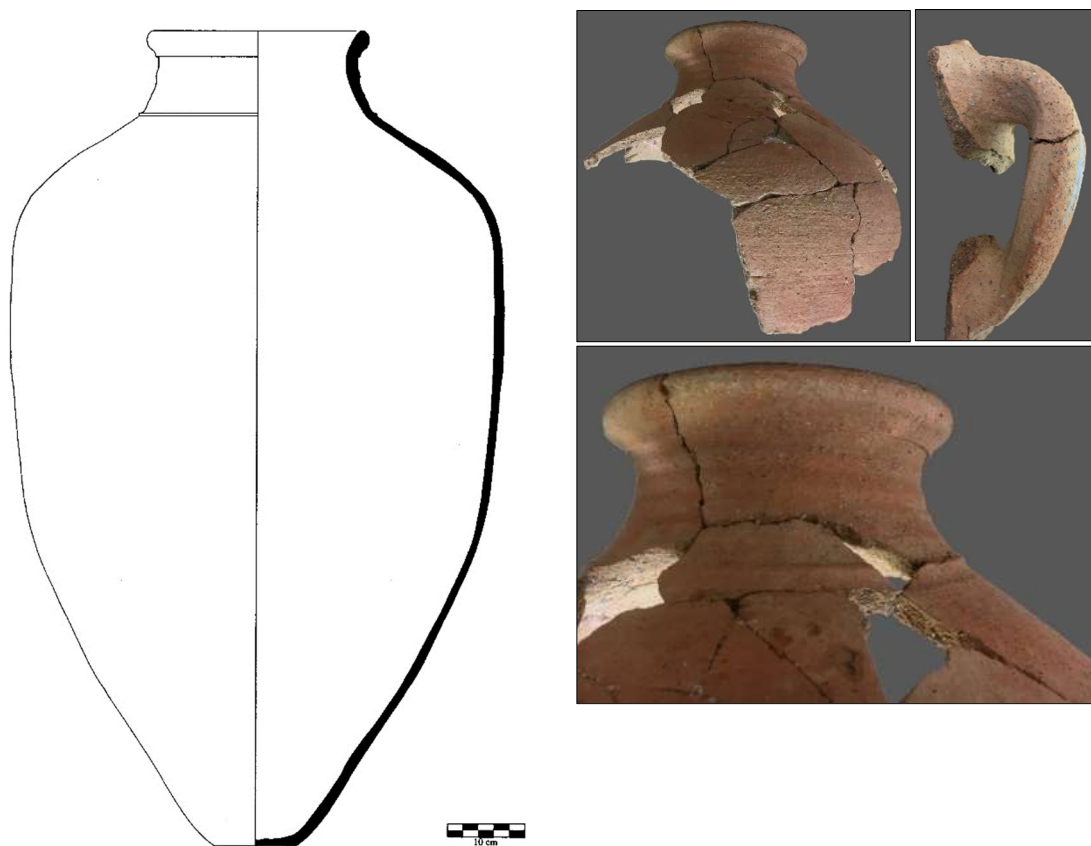


FIGURE 82. Pithos 7.40, Tall al-‘Umayri #80 (Herr et al. 2014: 355, 358).

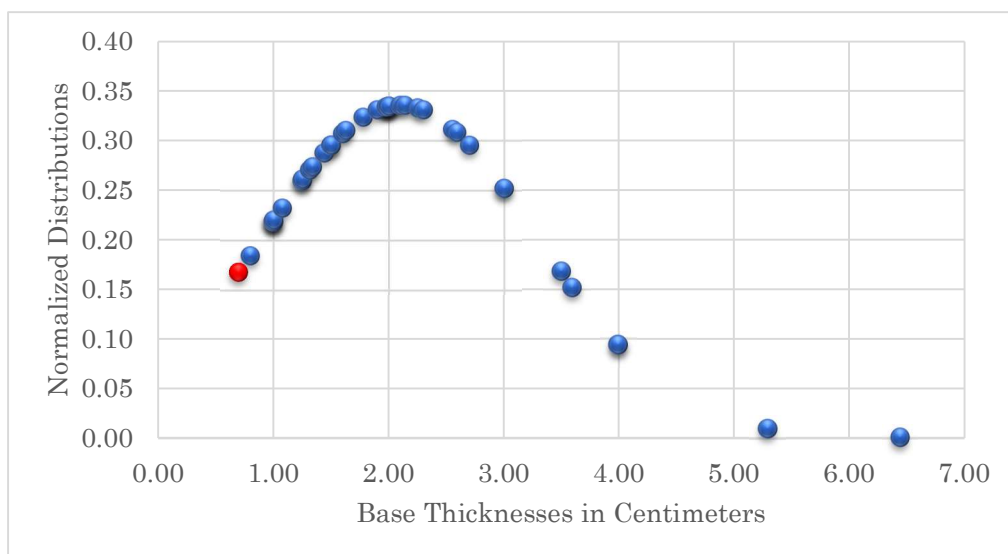


FIGURE 83. Distribution of Long Form Base Thicknesses, Pithos 7.40.

Pithos 7.41: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.41 (figure 84) was found in Field B, Square 7J99, Locus 3. The appearance of this pithos is very appealing. It has an oxidized core and a smooth, largely uniform coloring. It has a neck height that is taller than average, but still within one standard deviation from the mean. In fact, all of the dimensions of this vessel are nearly average. The rim is rectangular in shape with subtle profiling. It has the typical everted inflection, but rather than being inside of the line of the collar, as 71% of the Long Form rims are, it stands just outside this line – accentuating its slightly flaring profile. The dimensions of the body, base, and handles are unavailable to this study.

TABLE 54. Comparable Data for Tall al-'Umayri Long Form Pithos 7.41.

	Pithos 7.41	μ Pithos in Group (σ)
Neck Height in cm	8.00	7.02 (1.64)
Rim Thickness in cm	1.52	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Rectangular, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.58	3.07 (0.66)
Rim Circumference in cm	78.50	81.42 (7.96)
Exterior Rim Diameter in cm	25.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	6.00° Outside	9.41° Inside (5.59°)
Collar Prominence in mm	8.00	8.84 (2.72)
Firing	Oxidation	Underfired
Exterior Munsell Reading	10 YR 7/4, Very Pale Brown	Light Brown



FIGURE 84. Pithos 7.41, Tall al-'Umayri #88/89, unpublished.

Pithos 7.42: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.42 (figure 85) was located in Field B, Square 7J99, Locus 3. In most aspects, this pithos is nearly standard. It has an edgeless, thickened rim on a neck of average height, above a teardrop-shaped collar that has a rim-to-collar angle at a typical 9° . Its rim inflection is everted. Its rim is slightly taller and thinner than average, but still within one standard deviation from the mean. Its rim circumference and the related exterior rim diameter are both 15% smaller than usual. The collar of this pithos is extremely low, nearly 55% less prominent than the usual Long Form collar. The handles of this vessel are larger than usual, but fall within one standard deviation of the mean. The remaining dimensions of this pithos are not currently available for study.

TABLE 55. Comparable Data for Tall al-'Umayri Long Form Pithos 7.42.

	Pithos 7.42	μ Pithos in Group (σ)
Neck Height in cm	7.00	7.02 (1.64)
Rim Thickness in cm	1.53	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.19	3.07 (0.66)
Rim Circumference in cm	69.10 (15%)	81.42 (7.96)
Exterior Rim Diameter in cm	22.00 (15%)	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	9.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	4.00 (55%)	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 6/4, Light Brown	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	unknown	177.01 (16.57)
Handle Width in cm	4.47	4.30 (0.55)
Handle Height in cm	14.05	13.73 (2.23)
Base Shape	unknown	Flat
Base Thickness in cm	unknown	2.10 (1.19)



FIGURE 85. Pithos 7.42, Tall al-'Umayri #90, unpublished.

Pithos 7.43: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.43 (figure 86) was unearthed in Field B, Square 7J99, Locus 3.

All aspects of this pithos fall within one standard deviation from the mean, making this vessel a good example of the Long Form. The kidney-shaped profiled rim is just under average height and thickness – although profiled rims tend to measure about 0.02 cm thinner than the overall average, perhaps due to the nature of their shape. The base of this pithos has a typical flat bottom. The handles are somewhat smaller than normal. The body is broader and taller than average. However, neither the handles nor the overall dimensions of this vessel are outside of one standard deviation from the mean.

TABLE 56. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.43.

	Pithos 7.43	μ Pithos in Group (σ)
Neck Height in cm	7.00	7.02 (1.64)
Rim Thickness in cm	1.53	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T1: Kidney, OT	Profiled T1: Kidney, OT
Rim Height in cm	2.91	3.07 (0.66)
Rim Circumference in cm	75.40	81.42 (7.96)
Exterior Rim Diameter in cm	24.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	6.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	7.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 7/4, Pink	Light Brown
Full Vessel Height in cm	108.00	102.36 (6.82)
Body Circumference in cm	179.00	177.01 (16.57)
Handle Width in cm	3.93	4.30 (0.55)
Handle Height in cm	11.70	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	1.50	2.10 (1.19)

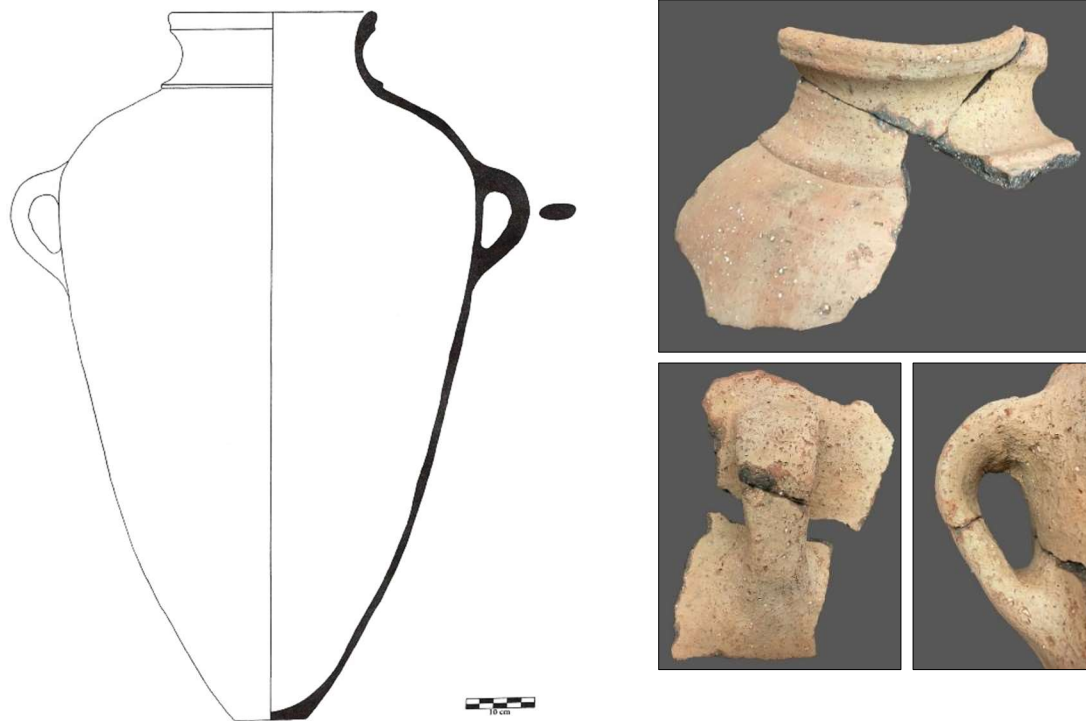


FIGURE 86. Pithos 7.43, Tall al-'Umayri #100 (Herr et al. 2014: 356, 358).

Pithos 7.44: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.44 (figure 87) was discovered in Field B, Square 7J99, Locus 3. The most remarkable feature of this vessel is the rim's relation to the collar. It stands 13° outside of alignment with the line of the collar. This angle is further than that of any other rim that is positioned outside of this line. This angle also accentuates the everted inflection of the triangular-shaped rim, creating a flaring profile. The neck height of this vessel is a little shorter than average while its rim circumference and exterior rim diameter are larger than usual. Its standard teardrop-shaped collar, however, is somewhat less prominent than the Long Form mean, but is still soundly

within one standard deviation. The remaining attainable dimensions of this pithos are equitably average.

TABLE 57. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.44.

	Pithos 7.44	μ Pithos in Group (σ)
Neck Height in cm	6.50	7.02 (1.64)
Rim Thickness in cm	1.43 (21%)	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Triangular, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.17	3.07 (0.66)
Rim Circumference in cm	84.80	81.42 (7.96)
Exterior Rim Diameter in cm	27.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	13.00° Outside (46%)	9.41° Inside (5.59°)
Collar Prominence in mm	7.15	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	10 YR 7/3, Very Pale Brown	Light Brown
Full Vessel Height in cm	unknown	102.36 (6.82)
Body Circumference in cm	unknown	177.01 (16.57)
Handle Width in cm	3.80	4.30 (0.55)
Handle Height in cm	12.53	13.73 (2.23)
Base Shape	unknown	Flat
Base Thickness in cm	unknown	2.10 (1.19)



FIGURE 87. Pithos 7.44, Tall al-‘Umayri #Unknown, unpublished.

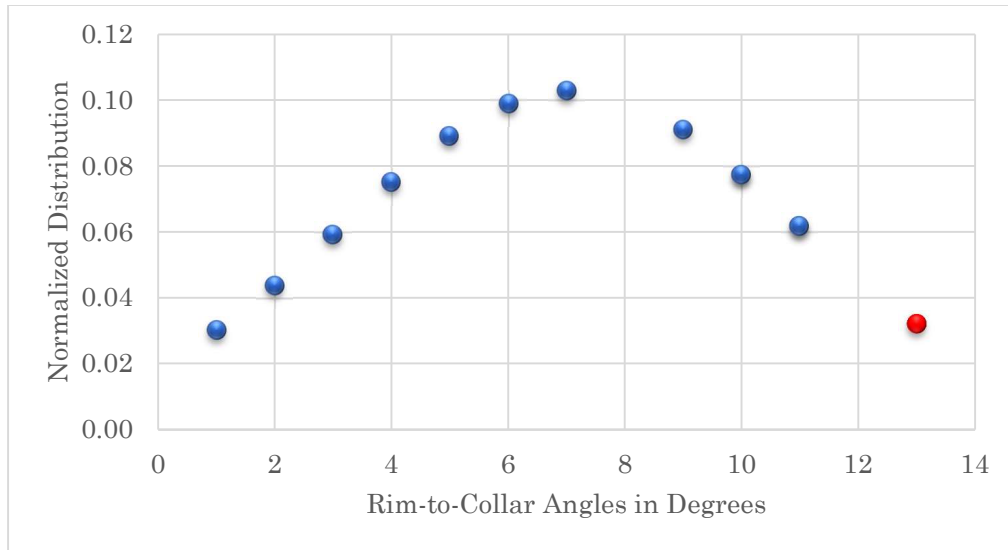


FIGURE 88. Distribution of Long Form Rim to Collar Angles (Outside Only), Pithos 7.46.

Pithos 7.45: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.45 (figure 89) was unearthed in Field B, Square 7J89, Locus 30. This pithos has a remarkably long neck. In fact, it has the longest neck of any vessel in this study. It is nearly two times taller than average and is a full 3.0 cm longer than the next tallest pithos neck in the group. On top of this long neck is a common thickened, edged rim that is slightly thicker and taller than usual, but still within one standard deviation for mean size in the Long Form group. The rim circumference, however, and the related exterior rim diameter are roughly 15% smaller than average. The everted rim leans deeply inside the collar-line more than 4° beyond the typical angle. The prominent round collar is doubled, a feature shared by only 6% (n = 15) of the collars in this study. The upper collar is generally round in shape, but it has

a bit more angle to it, adding to it a hint of a triangular shape. Dimensions for this vessel were obtained solely from a published plate.

TABLE 58. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.45.

	Pithos 7.45	μ Pithos in Group (σ)
Neck Height in cm	<i>14.00 (50%)</i>	7.02 (1.64)
Rim Thickness in cm	2.00	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T1: Edged, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.50	3.07 (0.66)
Rim Circumference in cm	<i>69.12 (15%)</i>	81.42 (7.96)
Exterior Rim Diameter in cm	<i>22.00 (15%)</i>	25.92 (2.54)
Collar Shape	Double	Teardrop
Rim-to-collar Angle	13.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	10.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 7/2, Pinkish Gray	Light Brown

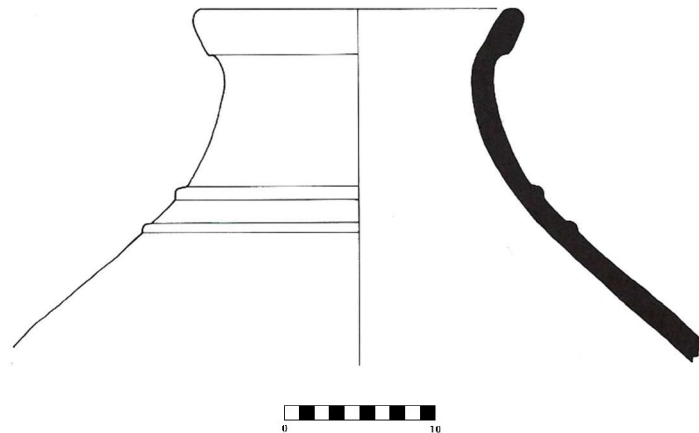


FIGURE 89. Pithos 7.45, Tall al-‘Umayri B7J89.109.1 loc 30 (Herr et al. 1997: 73-74; fig. 4.20.3).

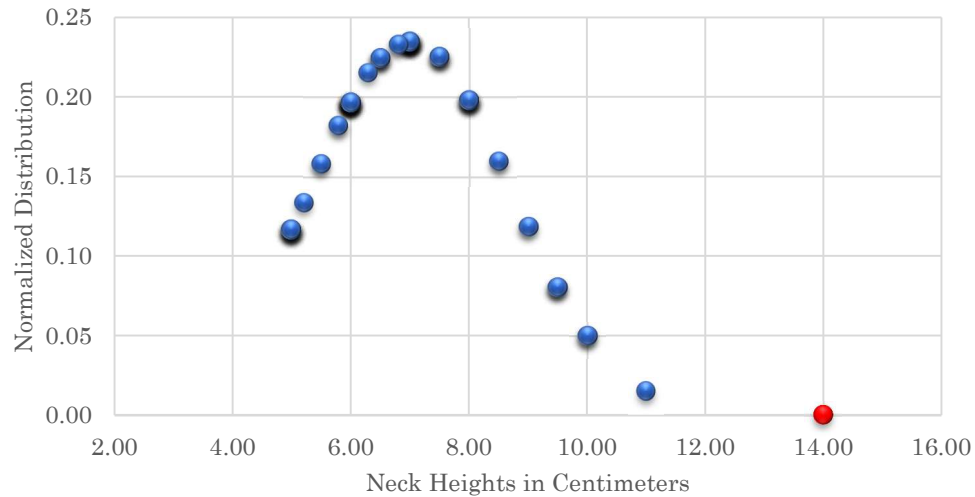


FIGURE 90. Distribution of Long Form Neck Heights, Pithos 7.45.

Pithos 7.46: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.46 (figure 91) was found in Field B, Square 7J89, Locus 31. Many of the features of this vessel are somewhat unusual for an Long Form collared pithos. The height of the neck is among the shortest in the Long Form study group. Nearly 4% (n = 9) of the pithoi in this study have 5.0 cm neck heights, collectively representing the shortest neck height in the Long Form classification. Despite this small neck, the kidney-shaped, profiled rim is 12% taller and 27% thicker than average. In fact, this pithos has the second thickest rim in the Long Form group – an unusual feature for a profiled rim, as these are typically thinner than other rim shapes. The rim leans outside of the line of the square-shaped collar. This collar, which is slightly less prominent than usual, is among the rarest of collar shapes. Only two of the pithoi in the Long Form group can be described as having square

collars. Dimensions for this vessel were obtained solely from a published plate.

TABLE 59. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.46.

	Pithos 7.46	μ Pithos in Group (σ)
Neck Height in cm	5.00 (29%)	7.02 (1.64)
Rim Thickness in cm	2.50 (27%)	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T1: Kidney, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.50	3.07 (0.66)
Rim Circumference in cm	91.11 (11%)	81.42 (7.96)
Exterior Rim Diameter in cm	29.00 (11%)	25.92 (2.54)
Collar Shape	Square	Teardrop
Rim-to-collar Angle	3.00° Outside (58%)	9.41° Inside (5.59°)
Collar Prominence in mm	7.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 7/4, Pink	Light Brown

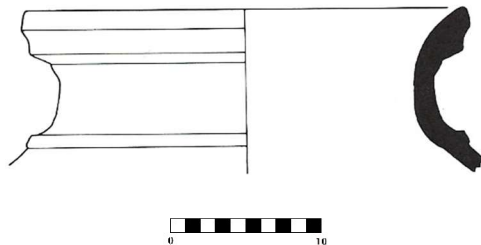


FIGURE 91. Pithos 7.46, Tall al-‘Umayri B7J89.110.1 loc 30 (Herr et al. 1997: 71-72; fig. 4.19.9).

Pithos 7.47: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.47 (figure 92) was found in Field B, Square 7J89, Locus 31.

The rim on this pithos is its most interesting feature. It has a simple thickened shape with a single groove around the top, just under the lip. This distinguishes this rim as a Type 4, Profiled style. This unusual shape is

shared with only two other vessels⁸⁴ in this study. This pithos also shares the unusual profiled rim dimensions of the previous vessel, Pithos 7.46. The rim is about 27% thicker and 12% taller than average. The neck, with its undulating profile, is below average in height but still within one standard deviation of the mean. The remaining available dimensions of this pithos all lie within the standard range. Dimensions for this vessel were obtained solely from a published plate.

TABLE 60 Comparable Data for Tall al-‘Umayri Long Form Pithos 7.47.

	Pithos 7.47	μ Pithos in Group (σ)
Neck Height in cm	5.80	7.02 (1.64)
Rim Thickness in cm	2.50 (27%)	1.82 (0.32)
Rim Inflection	Straight	Everted
Rim Shape	Profiled T4: Up. Groove, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.50	3.07 (0.66)
Rim Circumference in cm	78.54	81.42 (7.96)
Exterior Rim Diameter in cm	25.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	4.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	6.00 (32%)	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	10 YR 7/3, Very Pale Brown	Light Brown

⁸⁴ These are Pithos 16.01 from ‘Iraq el-Emir and Pithos 27.03 from Tall al-‘Umayri. Both vessels belong to the Classic Form group.

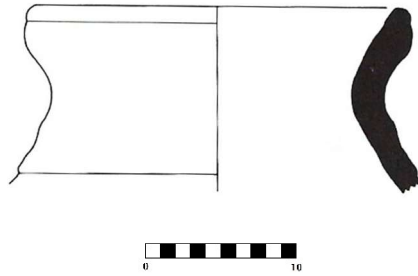


FIGURE 92. Pithos 7.47, Tall al-‘Umayri B7J89.130.? loc 31 (Herr et al. 1997: 71-72; fig. 4.19.6).

Pithos 7.48: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.48 (figure 93) was unearthed in Field B, Square 7J89, Locus 31. This pithos has a triangular-shaped folded rim that is 30% thicker than average, making it the thickest Long Form rim studied. It has a slightly shorter than average neck that displays some profiling and terminates in a typical teardrop-shaped collar. Most of the features of this pithos are within one standard deviation of the mean and are thus fairly average. The straight inflection of the rim, however is an unusual feature in the Long Form and is seen in only 17% (n = 13) of the vessels in this group.⁸⁵ Dimensions for this vessel were obtained solely from a published plate.

⁸⁵ The straight rim inflection is much more common in the later forms. In the Classic Form straight rims make up 35% of the group (n = 28). In the Short Form they are 40% (n = 14) and in the Final Form 24% (n = 4).

TABLE 61. Comparable Data for Tall al-'Umayri Long Form Pithos 7.48.

	Pithos 7.48	μ Pithos in Group (σ)
Neck Height in cm	6.50	7.02 (1.64)
Rim Thickness in cm	2.60 (30%)	1.82 (0.32)
Rim Inflection	Inverted	Everted
Rim Shape	Thickened T4: Offset, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.50	3.07 (0.66)
Rim Circumference in cm	78.54	81.42 (7.96)
Exterior Rim Diameter in cm	25.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	10.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	10.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 8/3, Pink	Light Brown

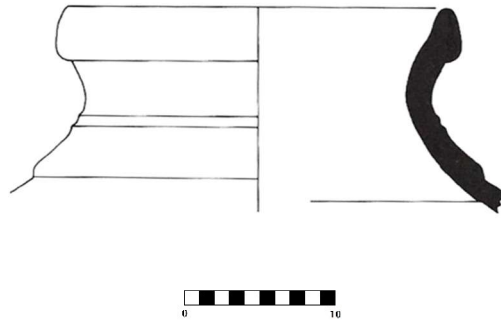


FIGURE 93. Pithos 7.48, Tall al-'Umayri B7J89.130.? loc 31, 1:5 ratio (Herr et al. 1997: 71-72; fig. 4.19.5).

Pithos 7.49: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.49 (figure 94) was discovered in Field B, Square 7J89, Locus 31. This pithos has an unusually narrow neck. This feature is reflected in its rim circumference and exterior rim diameter, which are both about 11% smaller than normal. However, this edgeless, thickened rim stands outside of the line of the collar by 10°, exaggerating the rim's flaring appearance,

despite its straight inflection. The rim is 9% thicker and 4% taller than usual but is still within one standard deviation of the mean rim size. The neck has significant profiling but is somewhat shorter than average. The triangular-shaped collar is less prominent than expected, upon consideration of the mean for the Long Form group. Dimensions for this vessel were obtained solely from a published plate.

TABLE 62. Comparable Data for Tall al-'Umayri Long Form Pithos 7.49.

	Pithos 7.49	μ Pithos in Group (σ)
Neck Height in cm	6.00	7.02 (1.64)
Rim Thickness in cm	2.00	1.82 (0.32)
Rim Inflection	Straight	Everted
Rim Shape	Thickened T2: Edgeless, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.20	3.07 (0.66)
Rim Circumference in cm	72.26 (11%)	81.42 (7.96)
Exterior Rim Diameter in cm	23.00 (11%)	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	10.00° Outside	9.41° Inside (5.59°)
Collar Prominence in mm	7.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 7/4, Pink	Light Brown

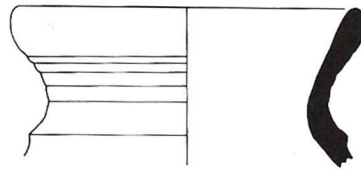


FIGURE 94. Pithos 7.49, Tall al-'Umayri B7J89.132.1 loc 31 (Herr et al. 1997: 71-72; fig. 4.19.2).

Pithos 7.50: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.50 (figure 95) was located in Field B, Square 7J89, Locus 31.

Nearly all of the available dimensions of this vessel fall within one standard deviation of the mean. It has a ridged, profiled rim that is everted and simply flared. Unlike most rims, this one is straight in shape and does not exhibit outer thickening. This rim is slightly thinner than average and stands 23% taller than usual. It has a neck that is about 1.0 cm shorter than average and ends in a simple teardrop-shaped, folded collar. The collar is about 20% more prominent than usual but is still within one standard deviation of the mean for the Long Form group. Dimensions for this vessel were obtained solely from a published plate.

TABLE 63. Comparable Data for Tall al-'Umayri Long Form Pithos 7.50.

	Pithos 7.50	μ Pithos in Group (σ)
Neck Height in cm	6.00	7.02 (1.64)
Rim Thickness in cm	1.60	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T2: Ridged, ST	Profiled T1: Kidney, OT
Rim Height in cm	4.00 (23%)	3.07 (0.66)
Rim Circumference in cm	86.39	81.42 (7.96)
Exterior Rim Diameter in cm	27.50	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	4.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	11.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 6/3, Light Reddish Brown	Light Brown

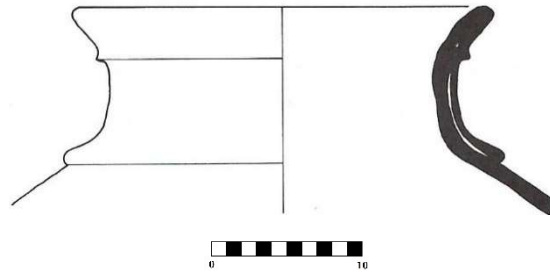


FIGURE 95. Pithos 7.50, Tall al-‘Umayri B7J89.139.1 loc 31 (Herr et al. 1997: 73-74; fig. 4.20.2).

Pithos 7.51: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.51 (figure 96) was found in Field B, Square 7J89, Locus 31. This pithos is among those with the shortest necks in the Long Form group. It has prominent neck profiling that could even be interpreted as a multiple collar. The thickened, edged rim is common and has the usual everted inflection. It is 17% thicker and 23% taller than the average rim. Overall, this pithos is much smaller than usual. It is 8.54 cm shorter than one standard deviation from the mean and 15% shorter than average. This vessel also has a correspondingly smaller body circumference, measuring 8% smaller than other Long Form pithoi. The shoulders are more sloping than usual. The handles have a longer lower segment that causes them to measure 19% taller than average. Finally, the pithos terminates in a typical flat base. This base, however, is 40% thicker than the usual Long Form collared pithos. Altogether

this is a distinctly unique example. Dimensions for this vessel were obtained solely from a published plate.

TABLE 64. Comparable Data for Tall al-'Umayri Long Form Pithos 7.51.

	Pithos 7.51	μ Pithos in Group (σ)
Neck Height in cm	5.00 (29%)	7.02 (1.64)
Rim Thickness in cm	2.20 (17%)	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T1: Edged, OT	Profiled T1: Kidney, OT
Rim Height in cm	4.00 (23%)	3.07 (0.66)
Rim Circumference in cm	76.97	81.42 (7.96)
Exterior Rim Diameter in cm	24.50	25.92 (2.54)
Collar Shape	Teardrop, Multiple	Teardrop
Rim-to-collar Angle	5.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	11.00	8.84 (2.72)
Firing	Oxidation	Underfired
Exterior Munsell Reading	5 YR 7/4, Pink	Light Brown
Full Vessel Height in cm	87.00 (15%)	102.36 (6.82)
Body Circumference in cm	163.36	177.01 (16.57)
Handle Width in cm	5.00 (14%)	4.30 (0.55)
Handle Height in cm	17.00 (19%)	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	3.50 (40%)	2.10 (1.19)

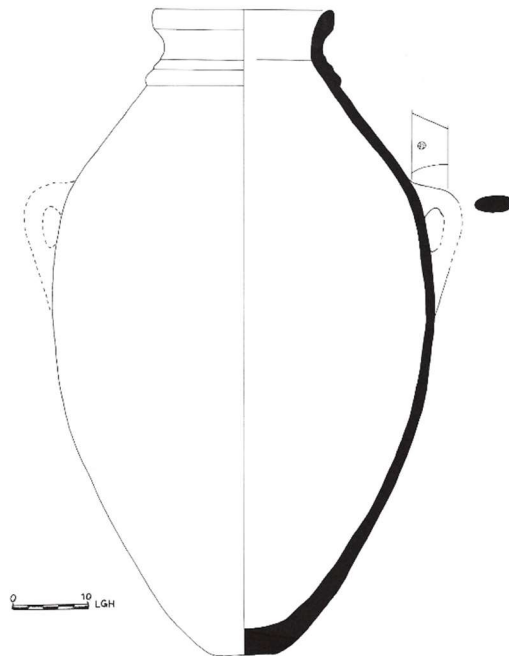


FIGURE 96. Pithos 7.51, Tall al-'Umayri B7J89.140.1 loc 31, (Herr et al. 1997: 68, 70; fig. 4.17.1).

Pithos 7.52: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.52 (figure 97) was unearthed in Field B, Square 7J89, Locus 31. The most notable feature of this pithos is its long, subtly-profiled neck. At 9.5 cm, it is 26% taller than average or 0.84 cm longer than one standard deviation from the mean of the Long Form group. This neck is topped with an average sized rectangular-shaped rim and terminates below in a common triangular-shaped collar that is slightly more prominent than usual. The rim stands at a 3° angle inside of the rim, which is 68% closer to alignment than expected. The rim circumference and the exterior rim diameter are both larger than average, but still within one standard deviation from the mean. Dimensions for this vessel were obtained solely from a published plate.

TABLE 65. Comparable Data for Tall al-'Umayri Long Form Pithos 7.52.

	Pithos 7.52	μ Pithos in Group (σ)
Neck Height in cm	9.50 (26%)	7.02 (1.64)
Rim Thickness in cm	2.00	1.82 (0.32)
Rim Inflection	Inverted	Everted
Rim Shape	Thickened T4: Offset, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.00	3.07 (0.66)
Rim Circumference in cm	86.39	81.42 (7.96)
Exterior Rim Diameter in cm	27.50	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	3.00° Inside (68%)	9.41° Inside (5.59°)
Collar Prominence in mm	10.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 7/3, Pink	Light Brown

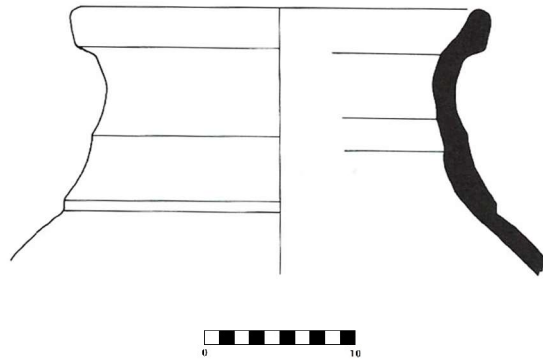


FIGURE 97. Pithos 7.52, Tall al-‘Umayri B7J89.144.1 loc 31 (Herr et al. 1997: 71-72; fig. 4.19.7).

Pithos 7.53: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.53 (figure 98) was located in Field B, Square 7J89, Locus 31. It is another good example of an average Long Form collared pithos. It has a nicely formed curve to its standard height neck. Its everted, ridged rim is of average size and stands just within the line of the collar. The rim circumference and exterior rim diameter are 11% wider than usual. Its teardrop-shaped collar has a small hint of an edge that evokes a triangular profile. The collar is more prominent than most but is still within one standard deviation from the mean for the Long Form group, as are the other available dimensions of this pithos. Dimensions for this vessel were obtained solely from a published plate.

TABLE 66. Comparable Data for Tall al-'Umayri Long Form Pithos 7.52.

	Pithos 7.53	μ Pithos in Group (σ)
Neck Height in cm	7.00	7.02 (1.64)
Rim Thickness in cm	1.50	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T2: Ridged, ST	Profiled T1: Kidney, OT
Rim Height in cm	3.70	3.07 (0.66)
Rim Circumference in cm	91.11 (11%)	81.42 (7.96)
Exterior Rim Diameter in cm	29.00 (11%)	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	3.00° Inside (68%)	9.41° Inside (5.59°)
Collar Prominence in mm	11.00	8.84 (2.72)
Firing	Reduction	Underfired
Exterior Munsell Reading	2.5 YR 6/4, Light Reddish Brown	Light Brown

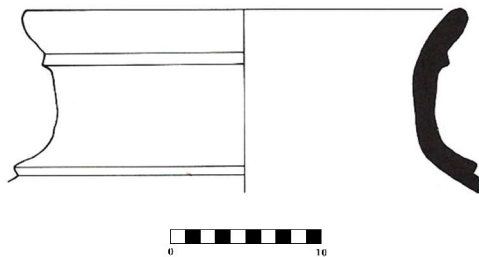


FIGURE 98. Pithos 7.53, Tall al-'Umayri B7J89.146.1 loc 31 (Herr et al. 1997: 73-74; fig. 4.20.7).

Pithos 7.54: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.54 (figure 99) was found in Field B, Square 7J89, Locus 31. It has a very near standard neck height for the Long Form group. The edgeless, thickened rim is 21% thicker and 4% taller than average but the rim circumference and exterior rim diameter are about 11% smaller than usual. The rim has a straight rim inflection. The collar of this vessel is also unusual. It has a round shape present in only 4% (n = 3) of the seventy-seven pithoi in the Long Form study group.⁸⁶ Of those with round collars, Pithos 7.54 is the largest and its collar is 26% more prominent than average. Dimensions for this vessel were obtained solely from a published plate.

TABLE 67. Comparable Data for Tall al-'Umayri Long Form Pithos 7.54.

	Pithos 7.54	μ Pithos in Group (σ)
Neck Height in cm	7.00	7.02 (1.64)
Rim Thickness in cm	2.30 (21%)	1.82 (0.32)
Rim Inflection	Straight	Everted
Rim Shape	Thickened T2: Edgeless, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.20	3.07 (0.66)
Rim Circumference in cm	72.26 (11%)	81.42 (7.96)
Exterior Rim Diameter in cm	23.00 (11%)	25.92 (2.54)
Collar Shape	Round	Teardrop
Rim-to-collar Angle	9.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	12.00 (26%)	8.84 (2.72)
Firing	Reduction	Underfired
Exterior Munsell Reading	7.5 YR N/, Gray	Light Brown

⁸⁶ The other Long Form rounded collars are on Pithoi 7.23 and 7.32.

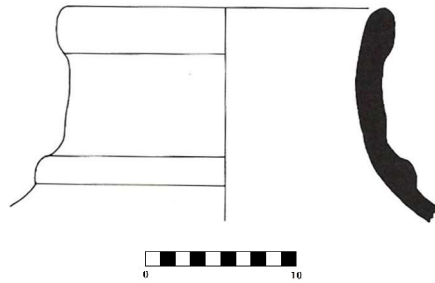


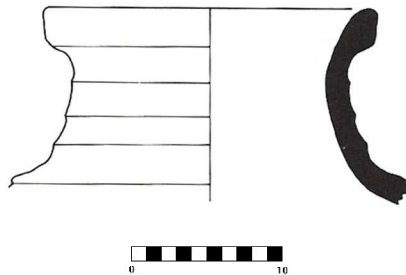
FIGURE 99. Pithos 7.54, Tall al-‘Umayri B7J89.147.? loc 31 (Herr et al. 1997: 71-72; fig. 4.19.8).

Pithos 7.55: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.55 (figure 100) was discovered in Field B, Square 7J89, Locus 31. Most of the aspects of this vessel are within one standard deviation of the mean for a Long Form example. It has a profiled neck that is 12% taller than average, but still within one standard deviation of the mean. The thickened, edged rim is slightly reduced in height and thickness compared to average and is significantly smaller in circumference and exterior diameter. The latter dimensions are 19% smaller than usual. The rim has a straight inflection and stands inside the line of the collar. The teardrop-shaped collar is 43% less prominent than average, or 1.12 mm lower than one standard deviation from the mean. Dimensions for this vessel were obtained solely from a published plate.

TABLE 68. Comparable Data for Tall al-'Umayri Long Form Pithos 7.55.

	Pithos 7.55	μ Pithos in Group (σ)
Neck Height in cm	8.00	7.02 (1.64)
Rim Thickness in cm	2.00	1.82 (0.32)
Rim Inflection	Straight	Everted
Rim Shape	Thickened T1: Edged, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.00	3.07 (0.66)
Rim Circumference in cm	65.97 (19%)	81.42 (7.96)
Exterior Rim Diameter in cm	21.00 (19%)	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	10.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	5.00 (43%)	8.84 (2.72)
Firing	Oxidation	Underfired
Exterior Munsell Reading	2.5 YR 6/6, Light Red	Light Brown

**FIGURE 100.** Pithos 7.55, Tall al-'Umayri B7J89.147.1 loc 31 (Herr et al. 1997: 71-72; fig. 4.19.10).

Pithos 7.56: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.56 (figure 101) was unearthed in Field B, Square 7J89, Locus 31. All of the dimensions of this pithos are close to average. The triangular-shaped collar is the second most common shape in the Classic Form group. This collar has a common prominence and is set at the typical angle outside of the rim. The neck is profiled and only slightly taller in height than usual for the Long Form group. The thickened, edged rim is somewhat taller and thicker than average, but is still very close to standard and has the typical everted rim inflection. Overall, the available measurements of this pithos are

very common for this form. Dimensions for this vessel were obtained solely from a published plate.

TABLE 69. Comparable Data for Tall al-'Umayri Long Form Pithos 7.56.

	Pithos 7.56	μ Pithos in Group (σ)
Neck Height in cm	7.50	7.02 (1.64)
Rim Thickness in cm	2.10	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T1: Edged, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.50	3.07 (0.66)
Rim Circumference in cm	81.68	81.42 (7.96)
Exterior Rim Diameter in cm	26.00	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	9.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	9.00	8.84 (2.72)
Firing	Oxidation	Underfired
Exterior Munsell Reading	5 YR 7/4, Pink	Light Brown

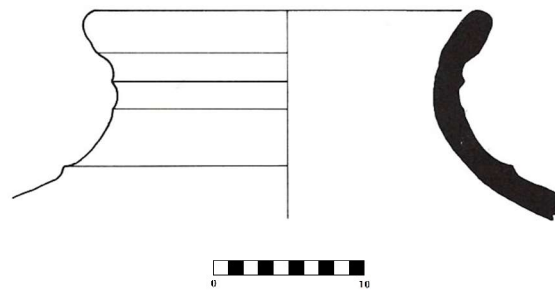


FIGURE 101. Pithos 7.56, Tall al-'Umayri B7J89.151.? loc 31 (Herr et al. 1997: 73-74; fig. 4.20.6).

Pithos 7.57: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.57 (figure 102) was located in Field B, Square 7J89, Locus 31. This vessel is very similar to the previous example, Pithos 7.56. The neck heights are identical and the rim shapes are only slightly different. Pithos 7.57 has somewhat less neck profiling and the thickened, edged rim is almost aligned to the triangular-shaped collar. This rim stands 2° inside of the collar

line. The collars of Pithos 7.57 and Pithos 7.56 have identical shape and prominence, both being slightly more prominent than usual. Dimensions for this vessel were obtained solely from a published plate.

TABLE 70. Comparable Data for Tall al-'Umayri Long Form Pithos 7.57.

	Pithos 7.57	μ Pithos in Group (σ)
Neck Height in cm	7.50	7.02 (1.64)
Rim Thickness in cm	2.00	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T1: Edged, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.00	3.07 (0.66)
Rim Circumference in cm	84.82	81.42 (7.96)
Exterior Rim Diameter in cm	27.00	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	2.00° Inside (79%)	9.41° Inside (5.59°)
Collar Prominence in mm	9.00	8.84 (2.72)
Firing	Oxidation	Underfired
Exterior Munsell Reading	5 YR 7/4, Pink	Light Brown

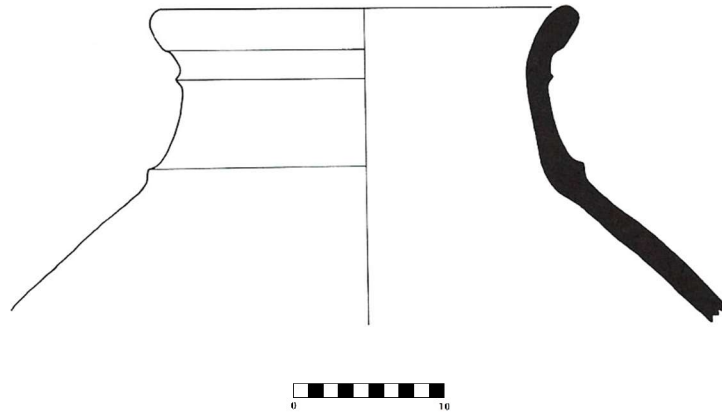


FIGURE 102. Pithos 7.57, Tall al-'Umayri B7J89.155.1 loc 31 (Herr et al. 1997: 73-74; fig. 4.20.1).

Pithos 7.58: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.58 (figure 103) was found in Field B, Square 7J89, Locus 31. There are 15 examples⁸⁷ of double collars in this study. Pithos 7.58 has the most prominent example of this collar shape. This collar is approximately 1.5 mm greater than one standard deviation from the mean collar prominence. Only 5% (n = 4) of Long Form collars have a prominence that is equal to or greater than that of this pithos. This vessel also has a rim that is angled further inside the line of the collar than any other Long Form example, sharing this distinction with Pithos 7.23. The remaining features and dimensions of this pithos, however, are very close to average and all fall within one standard deviation from the mean for the Long Form group. Dimensions for this vessel were obtained solely from a published plate.

TABLE 71. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.58.

	Pithos 7.58	μ Pithos in Group (σ)
Neck Height in cm	8.50	7.02 (1.64)
Rim Thickness in cm	2.00	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T1: Edged, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.00	3.07 (0.66)
Rim Circumference in cm	73.83	81.42 (7.96)
Exterior Rim Diameter in cm	23.50	25.92 (2.54)
Collar Shape	Double	Teardrop
Rim-to-collar Angle	21.00° Inside (55%)	9.41° Inside (5.59°)
Collar Prominence in mm	13.00 (32%)	8.84 (2.72)
Firing	Oxidation	Underfired
Exterior Munsell Reading	5 YR 7/3, Pink	Light Brown

⁸⁷ This collar shape group comprises 6.6% of the total collars in this study.

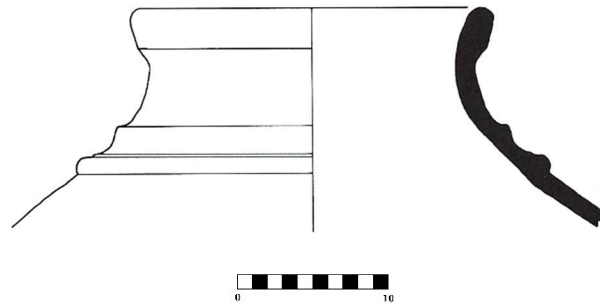


FIGURE 103. Pithos 7.58, Tall al-'Umayri B7J89.172.1 loc 31 (Herr et al. 1997: 73-74; fig. 4.20.4).

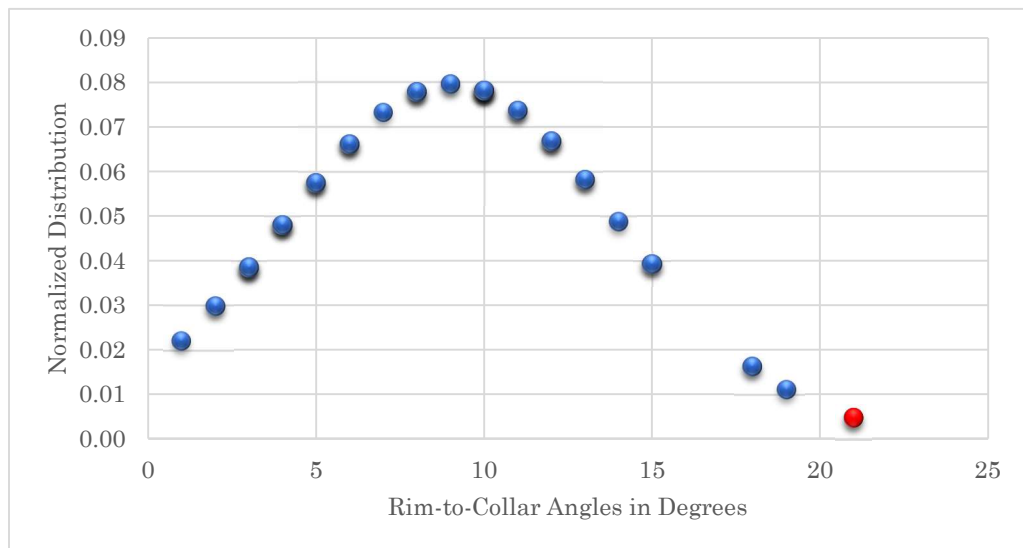


FIGURE 104. Distribution of Long Form Rim to Collar Angles, Pithos 7.58.

Pithos 7.59: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.59 (figure 105) was discovered in Field B, Square 7J89, Locus 31. This pithos is quite uniquely shaped for a vessel of this form, and has a body style more reminiscent of a Galilean pithos than a collared pithos. Typically, the collared pithoi are widest approximately one quarter of the way down the body from the rim, or conversely three quarters of the way up from

the base. For example, a pithos that is one meter tall will be at its broadest at about 75.0 cm from the base. While this principle is not absolute, it is typical and gives the form its distinctive shape. This vessel, however, is widest right above the midline of the body. This gives the appearance of an elongated sloping shoulder and short bottom half, creating a bit of a “sagged” look. The shoulders have followed the bulge down the body and are lower than usual. Set on these shoulders, the handles are significantly larger than average, nearly 24% taller and 22% wider than average for the Long Form group. These dimensions make these the widest handles in the group, a distinction shared only with Pithos 7.23. The rim and base are both shaped similarly to other Long Form examples, however, the base is nearly twice as thick as usual. These unique differences aside, the rest of the dimensions of this pithos are close to standard. Dimensions for this vessel were obtained solely from a published plate.

TABLE 72. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.59.

	Pithos 7.59	μ Pithos in Group (σ)
Neck Height in cm	9.50 (26%)	7.02 (1.64)
Rim Thickness in cm	2.00	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.00	3.07 (0.66)
Rim Circumference in cm	78.54	81.42 (7.96)
Exterior Rim Diameter in cm	25.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	6.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	10.00	8.84 (2.72)
Firing	Oxidation	Underfired
Exterior Munsell Reading	7.5 YR 7/4, Pink	Light Brown
Full Vessel Height in cm	104.00	102.36 (6.82)
Body Circumference in cm	169.65	177.01 (16.57)

Handle Width in cm	5.50 (22%)	4.30 (0.55)
Handle Height in cm	18.00 (24%)	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	4.00 (47%)	2.10 (1.19)

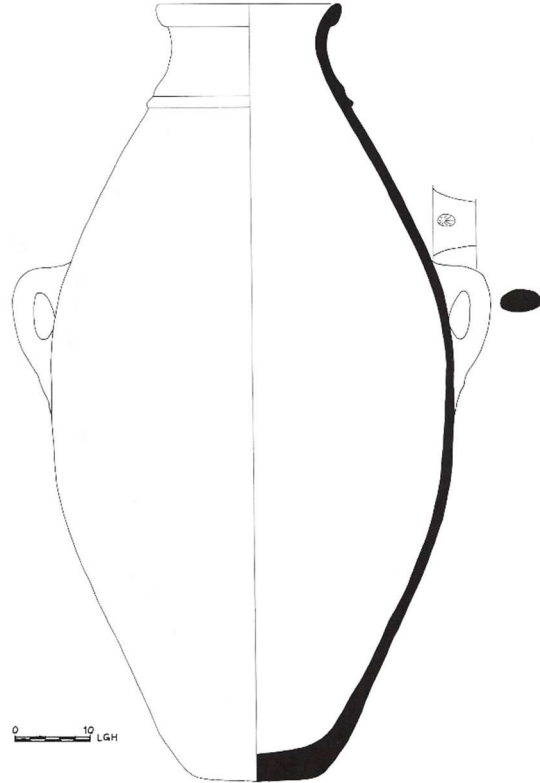


FIGURE 105. Pithos 7.59, Tall al-'Umayri B7J89.182.1 loc 31, (Herr et al. 1997: 67, 70; fig. 4.16.1).

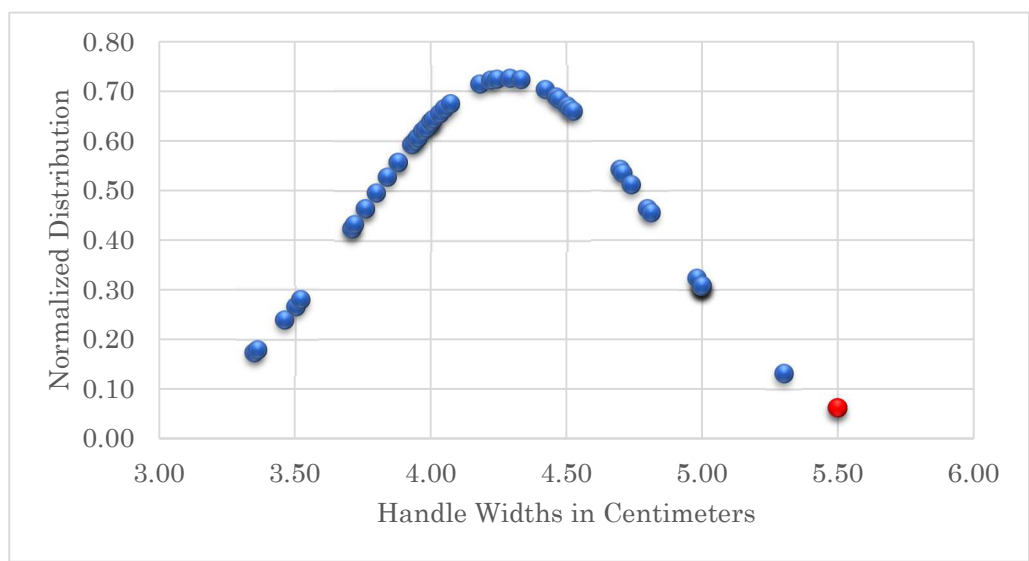


FIGURE 106. Distribution of Long Form Handle Widths, Pithos 7.59.

Pithos 7.60: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.60 (figure 107) was found in Field B, Square 7J89, Locus 31. While the greatest body width of Pithos 7.60 is nearer to the top than it is with Pithos 7.59, the shoulders are still less defined than usual for the Long Form. The handles, which are slightly wider and shorter than average, are placed higher on the shoulder than is typical on collared pithoi. This visual smoothing of the upper portion of the vessel is somewhat compensated by the heavy profiling, or even duplicate collaring, found on this extraordinarily tall neck. The rim is also larger, nearly 24% thicker and 39% taller than average. This is the tallest rim in the study group. These features, as well as the narrower flat base, give this pithos a more familiar profile than that of the previous vessel. Despite the small size of this base, however, it is nearly twice as thick as usual. Together Pithos 7.60 and Pithos 7.59 provide interesting variations from the typical Long Form collared pithos. Dimensions for this vessel were obtained solely from a published plate.

TABLE 73. Comparable Data for Tall al-'Umayri Long Form Pithos 7.60.

	Pithos 7.60	μ Pithos in Group (σ)
Neck Height in cm	9.50 (26%)	7.02 (1.64)
Rim Thickness in cm	2.40 (24%)	1.82 (0.32)
Rim Inflection	Straight	Everted
Rim Shape	Thickened T1: Edged, OT	Profiled T1: Kidney, OT
Rim Height in cm	5.00 (39%)	3.07 (0.66)
Rim Circumference in cm	78.54	81.42 (7.96)
Exterior Rim Diameter in cm	25.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	1.00° Outside (69%)	9.41° Inside (5.59°)
Collar Prominence in mm	8.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 7/6, Reddish Yellow	Light Brown
Full Vessel Height in cm	98.00	102.36 (6.82)
Body Circumference in cm	175.93	177.01 (16.57)
Handle Width in cm	5.00	4.30 (0.55)
Handle Height in cm	11.50	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	4.00 (47%)	2.10 (1.19)

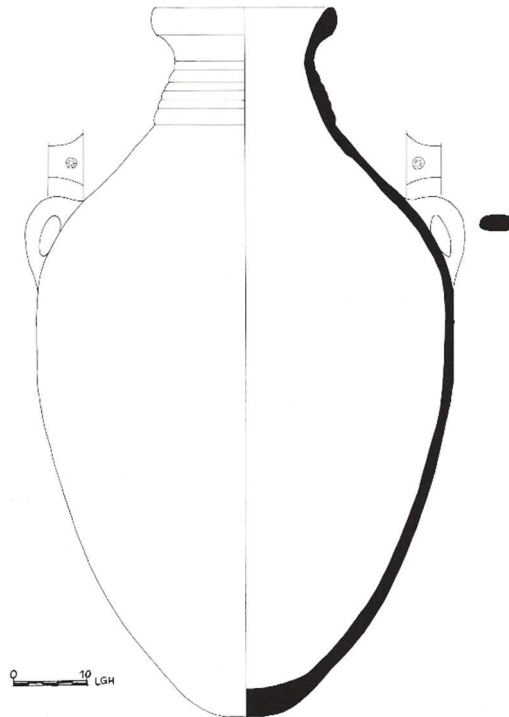


FIGURE 107. Pithos 7.60, Tall al-'Umayri B7J89.186.1 loc 31 (Herr et al. 1997: 69, 70; fig. 14.18.1).

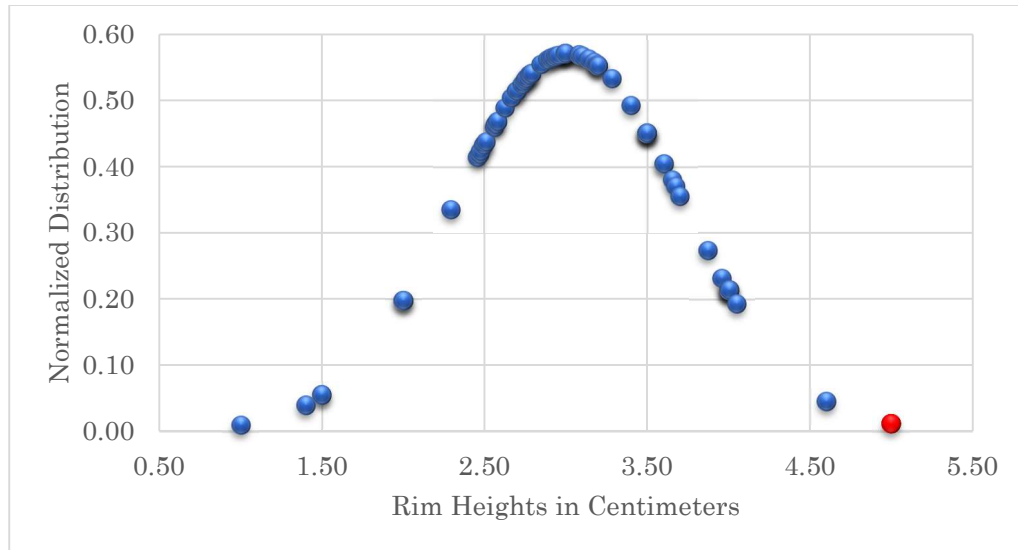


FIGURE 108. Distribution of Long Form Rim Heights, Pithos 7.60.

Pithos 7.61: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.61 (figure 109) was found in Field B, Square 7J89, Locus 31.

This pithos is close to standard, for the Long Form group, in many of its dimensions and features. It has a common edgeless, thickened rim that is about 23% taller and 13% thicker than average. This everted rim has a circumference and exterior diameter that are approximately 11% smaller than usual. Interestingly, the body circumference of this pithos is 12% larger than that of the average example. This pithos has the second tallest full height in the Long Form group – rising 2.82 cm above one standard deviation from the mean for vessel height. This pithos is among the 14% (n = 11) of Long Form vessels with rounded bases. As mentioned earlier, this base shape

is more common in the shorter-necked collared pithoi. The handles of this pithos are within standard for height, but are placed higher on the shoulder than is typically seen for vessels of this type. Dimensions for this vessel were obtained solely from a published plate.

TABLE 74. Comparable Data for Tall al-'Umayri Long Form Pithos 7.61.

	Pithos 7.61	μ Pithos in Group (σ)
Neck Height in cm	6.80	7.02 (1.64)
Rim Thickness in cm	2.10	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Profiled T1: Kidney, OT
Rim Height in cm	4.00 (23%)	3.07 (0.66)
Rim Circumference in cm	72.26 (11%)	81.42 (7.96)
Exterior Rim Diameter in cm	23.00 (11%)	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	3.00° Inside (68%)	9.41° Inside (5.59°)
Collar Prominence in mm	9.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 6/3, Light Reddish Brown	Light Brown
Full Vessel Height in cm	112.00 (9%)	102.36 (6.82)
Body Circumference in cm	201.06 (12%)	177.01 (16.57)
Handle Width in cm	4.80	4.30 (0.55)
Handle Height in cm	14.00	13.73 (2.23)
Base Shape	Rounded	Flat
Base Thickness in cm	3.00	2.10 (1.19)

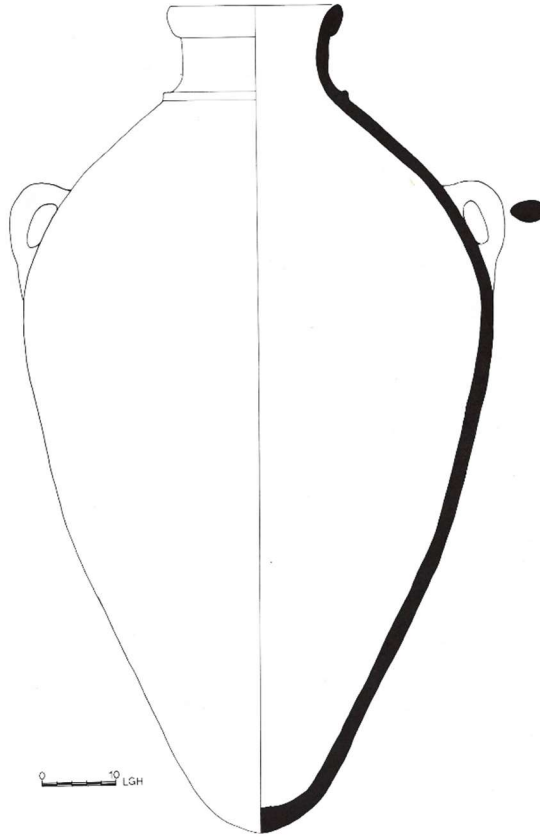


FIGURE 109. Pithos 7.61, Tall al-'Umayri B7J89.188.1 loc 31, (Herr et al. 1997: 65, 70; fig. 4.14.1).

Pithos 7.62: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.62 (figure 110) was found in Field B, Square 7K80, Locus 37. Beyond the height of the rim rising 0.27 cm above one standard deviation from the mean rim height, there are no dimensions of Pithos 7.62 that are atypical. This rim is an excellent example of an average Long Form collared pithos. The thickened, offset rim is just inside of the line of the triangular-shaped collar. It has the typical everted rim inflection for this group. The collar is more prominent than usual and the neck is slightly shorter than

average, but neither feature is remarkably unusual. Dimensions for this vessel were obtained solely from a published plate.

TABLE 75. Comparable Data for Tall al-'Umayri Long Form Pithos 7.62.

	Pithos 7.62	μ Pithos in Group (σ)
Neck Height in cm	6.00	7.02 (1.64)
Rim Thickness in cm	2.00	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T4: Offset, OT	Profiled T1: Kidney, OT
Rim Height in cm	4.00 (23%)	3.07 (0.66)
Rim Circumference in cm	84.82	81.42 (7.96)
Exterior Rim Diameter in cm	27.00	25.92 (2.54)
Collar Shape	Triangular	Teardrop
Rim-to-collar Angle	10.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	11.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 7/4, Pink	Light Brown

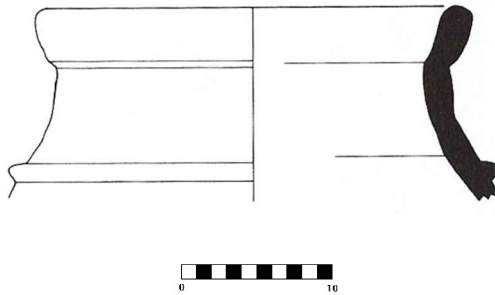


FIGURE 110. Pithos 7.62, Tall al-'Umayri B7K80.205.1 loc 37, 1:5 ratio (Herr et al. 1997: 75; fig. 4.21.1).

Pithos 7.63: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.63 (figure 111) was discovered in Field B, Square 7J99, Locus 3. The double-grooved shape of the profiled rim on Pithos 7.63 is unique in the Long Form group. There are six pithoi in this study with this rim shape,

but the other five are all Classic Form examples.⁸⁸ The rim has an everted stance, which is again unique for this rim shape. This rim is a typical height and thickness for the Long Form group. However, the rim circumference and exterior diameter are 11% larger than average. This feature is contrasted by the vessel's overall height and body circumference, both of which are significantly smaller than usual. In fact, this pithos, together with Pithoi 1.01 and 5.01, have the smallest body circumference of all the collared pithoi in this study. The other attributes of this vessel are typical. Dimensions for this vessel were obtained solely from a published plate.

TABLE 76. Comparable Data for Tall al-'Umayri Long Form Pithos 7.63.

	Pithos 7.63	μ Pithos in Group (σ)
Neck Height in cm	7.00	7.02 (1.64)
Rim Thickness in cm	2.00	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T3: Dbl. Grvd, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.60	3.07 (0.66)
Rim Circumference in cm	91.11 (11%)	81.42 (7.96)
Exterior Rim Diameter in cm	29.00 (11%)	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	4.00° Outside	9.41° Inside (5.59°)
Collar Prominence in mm	11.00	8.84 (2.72)
Firing	Oxidation	Underfired
Exterior Munsell Reading	7.5 YR 7/4, Pink	Light Brown
Full Vessel Height in cm	94.00 (8%)	102.36 (6.82)
Body Circumference in cm	144.50 (18%)	177.01 (16.57)
Handle Width in cm	4.00	4.30 (0.55)
Handle Height in cm	15.00	13.73 (2.23)
Base Shape	Rounded	Flat
Base Thickness in cm	2.00	2.10 (1.19)

⁸⁸ These are Pithos 12.01 from Umm al-Biyara, Pithos 13.03 from Busayra, and Pithoi 17.01, 17.04, 17.06 from Tall Jalul.

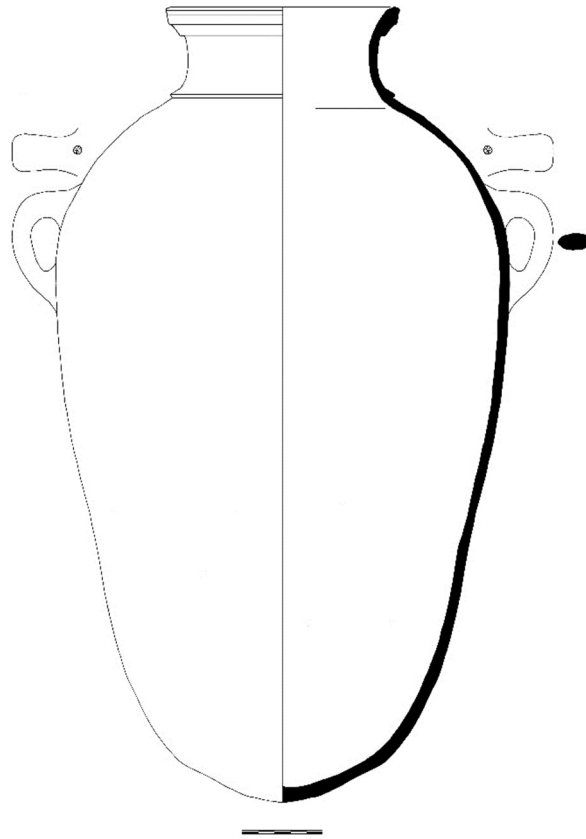


FIGURE 111. Pithos 7.63, Tall al-Umayri B7J99.16.1 loc3 (Herr et al. 2017: 174; fig. 7.11).

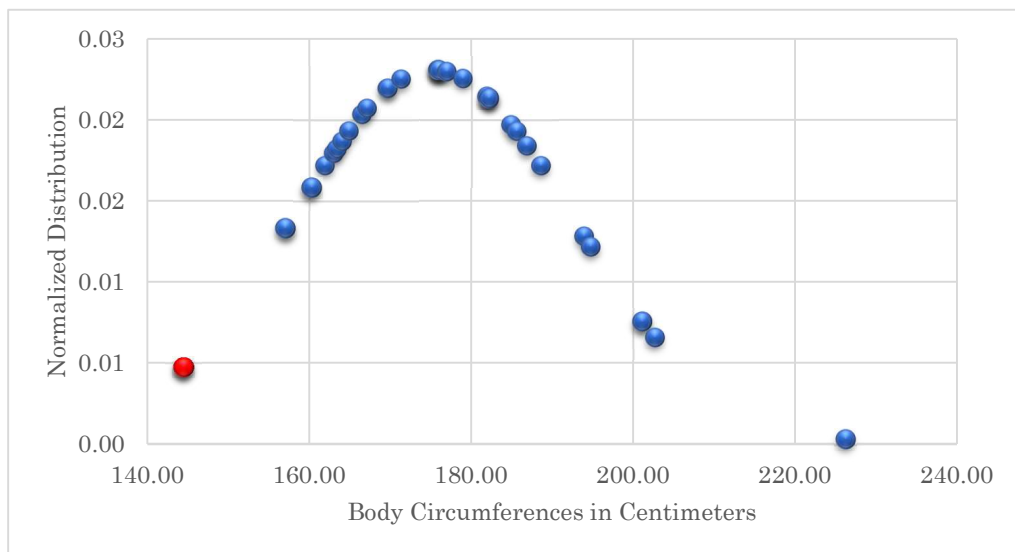


FIGURE 112. Distribution of Long Form Body Circumferences, Pithos 7.63.

Pithos 7.64: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.64 (figure 113) was discovered in Field B, Square 7J99, Locus 3. The teardrop-shaped collar on this vessel has the greatest prominence in the Long Form group, a distinction only shared with Pithos 5.02 from Tall Safut. Rising from this collar is a neck of nearly average height, curving upward to an edgeless, thickened rim just inside of alignment with the collar. The height and thickness of the rim are nearly standard for a Long Form example. The overall vessel height and body circumference are slightly below average, but are both still well within one standard deviation from the mean for the Long Form group. The handles are 14% wider and 19% taller than usual in this group. This vessel and Pithos 7.01 are the only two Long Form examples classified as having pointed bases. The remaining characteristics of Pithos 7.64 are near to standard Long Form examples. Dimensions for this vessel were obtained solely from a published plate.

TABLE 77. Comparable Data for Tall al-'Umayri Long Form Pithos 7.64.

	Pithos 7.64	μ Pithos in Group (σ)
Neck Height in cm	6.30	7.02 (1.64)
Rim Thickness in cm	2.00	1.82 (0.32)
Rim Inflection	Straight	Everted
Rim Shape	Thickened T2: Edgeless, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.40	3.07 (0.66)
Rim Circumference in cm	87.96	81.42 (7.96)
Exterior Rim Diameter in cm	28.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	3.00° Inside (68%)	9.41° Inside (5.59°)
Collar Prominence in mm	15.00 (41%)	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 7/3, Pink	Light Brown
Full Vessel Height in cm	99.80	102.36 (6.82)
Body Circumference in cm	167.13	177.01 (16.57)
Handle Width in cm	5.00 (14%)	4.30 (0.55)

Handle Height in cm	17.00 (19%)	13.73 (2.23)
Base Shape	Pointed	Flat
Base Thickness in cm	2.00	2.10 (1.19)

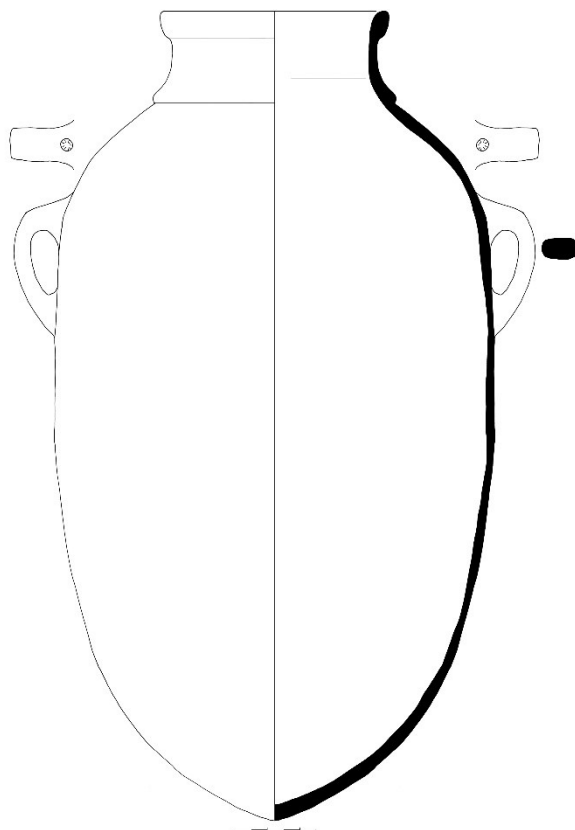


FIGURE 113. Pithos 7.64, Tall al-'Umayri B7J99.21.1 loc3 (Herr et al. 2017: 175; fig. 7.12).

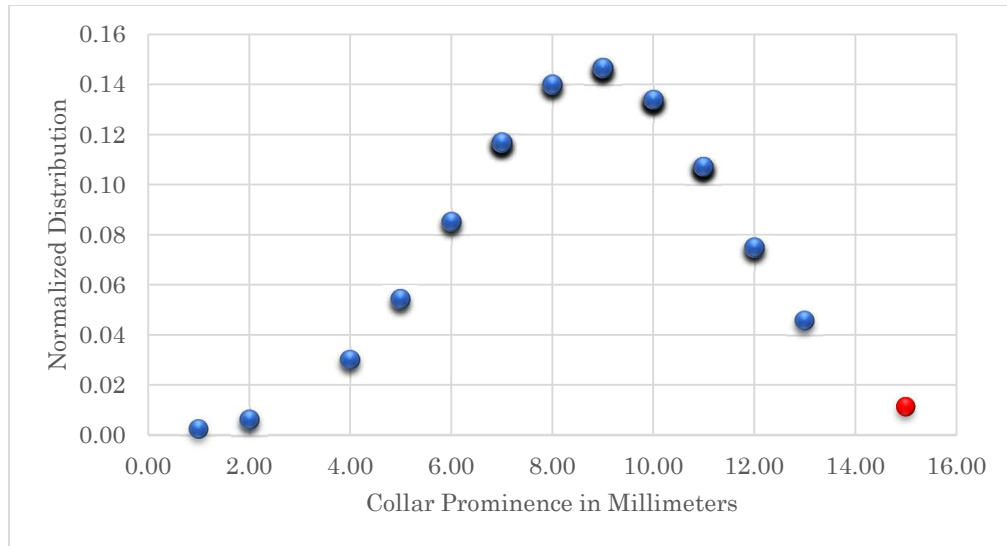


FIGURE 114. Distribution of Long Form Collar Prominences, Pithos 7.64.

Pithos 7.65: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.65 (figure 115) was discovered in Field B, Square 7J99, Locus 3. There are only six pithoi in the Long Form group that have a triangular-shaped rim – Pithos 7.65 is one of those. While the rim is of an average height and thickness, its straight inflection is less common. This pithos is also distinguished by its yellow surface color and its extraordinarily prominent collar which rises 32% higher than average. Beyond these features, this vessel displays many of the standard characteristics typical of an Long Form collared pithos. Dimensions for this vessel were obtained solely from a published plate.

TABLE 78. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.65.

	Pithos 7.65	μ Pithos in Group (σ)
Neck Height in cm	7.00	7.02 (1.64)

Rim Thickness in cm	2.00	1.82 (0.32)
Rim Inflection	Straight	Everted
Rim Shape	Triangular, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.00	3.07 (0.66)
Rim Circumference in cm	77.91	81.42 (7.96)
Exterior Rim Diameter in cm	24.80	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	4.00° Inside	9.41° Inside (5.59°)
Collar Prominence in mm	13.00 (32%)	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	10 YR 8/6, Yellow	Light Brown
Full Vessel Height in cm	102.30	102.36 (6.82)
Body Circumference in cm	164.93	177.01 (16.57)
Handle Width in cm	unknown	4.30 (0.55)
Handle Height in cm	15.00	13.73 (2.23)
Base Shape	Rounded	Flat
Base Thickness in cm	3.00	2.10 (1.19)

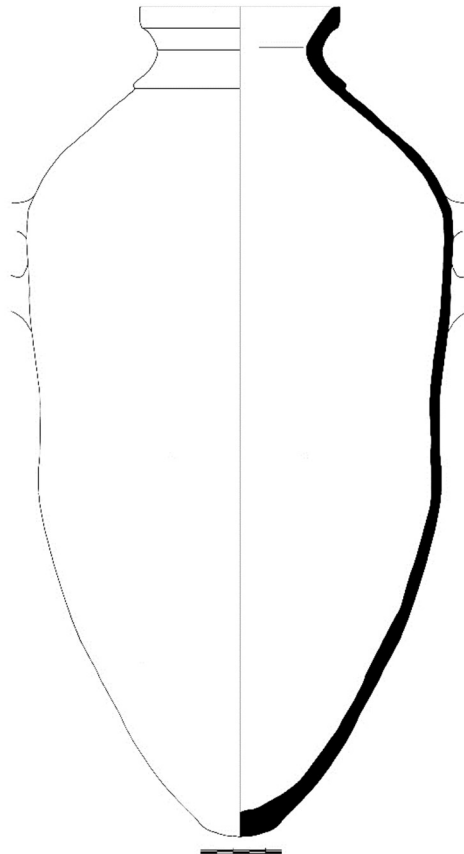


FIGURE 115. Pithos 7.65, Tall al-'Umayri B7J99.31.1 loc3 (Herr et al. 2017: 176; fig. 7.13).

Pithos 7.66: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 7.66 (figure 116) was found in Field B, Square 7J99, Locus 3.

The rim of this vessel is unique enough that it is the one rim among the Long Form examples that necessitated a “miscellaneous” shape classification. Coincidentally, there is one rim in each phase that was identified by this non-descriptive label. The reasoning for this is simply that this rim contained elements of several different styles and, together with the fact that it is unlike any other rim, could not be confidently placed into a shape classification. Beyond this unique feature, this is a very good example of a standard Long Form collared pithos. The slightly tall neck is profiled in such a way that it could be considered a double collar. The rim is nearly aligned to the collar, the latter of which is 26% more prominent than usual and has a tear-drop shape. The handles are slightly larger than average, but the body circumference and full height are both very close to the mean for the Long Form group. The flat base is slightly thinner than usual but is still within range. Dimensions for this vessel were obtained solely from a published plate.

TABLE 79. Comparable Data for Tall al-‘Umayri Long Form Pithos 7.66.

	Pithos 7.66	μ Pithos in Group (σ)
Neck Height in cm	8.00	7.02 (1.64)
Rim Thickness in cm	2.20	1.82 (0.32)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T5: Misc, OT	Profiled T1: Kidney, OT
Rim Height in cm	3.50	3.07 (0.66)
Rim Circumference in cm	84.19	81.42 (7.96)
Exterior Rim Diameter in cm	26.80	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	1.00° Inside (89%)	9.41° Inside (5.59°)
Collar Prominence in mm	12.00 (26%)	8.84 (2.72)

Firing	Oxidation	Underfired
Exterior Munsell Reading	2.5 YR 7/4, Lt. Reddish Brown	Light Brown
Full Vessel Height in cm	101.80	102.36 (6.82)
Body Circumference in cm	175.93	177.01 (16.57)
Handle Width in cm	5.00 (14%)	4.30 (0.55)
Handle Height in cm	15.00	13.73 (2.23)
Base Shape	Flat	Flat
Base Thickness in cm	1.60	2.10 (1.19)

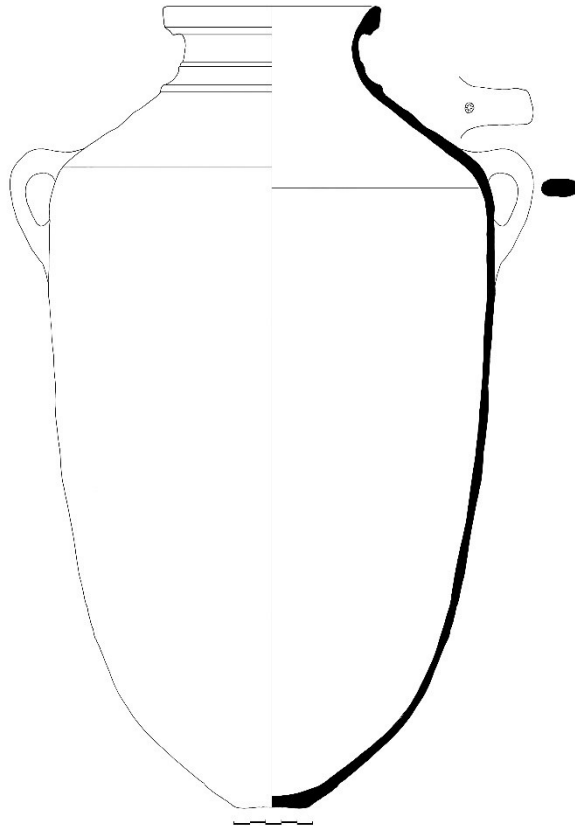


FIGURE 116. Pithos 7.66, Tall al-'Umayri B7J99.32.1 loc3 (Herr et al. 2017: 177; fig. 7.14).

Pithos 7.67: Tall al-'Umayri, ca. 1200 B.C.

Pithos 7.67 (figure 117) was discovered in Field B, Square 7J99, Locus 3. This pithos has a generally typical look for a Long Form collared pithos. However, its thickened, off-set rim is 17% thicker and 23% taller than average. Due likely to its offset nature, it is inverted. Of the examples in this study with the thickened, off-set rim shape, 56% (n = 9/16) have neck heights classified as Long Form. The other examples are among the Classic Form set. There are no instances of this rim shape in the Short or Final Form groups. The rim of this pithos is 5° outside of the line of the collar. This stance is more common in the Long Form group, but is still out of the ordinary. The base of this vessel is rounded, a characteristic it shares with 14% (n = 11) of the pithoi in this group. The other features and dimensions of this pithos are very close to the standard ranges projected by analysis of the data of the Long Form group. Dimensions for this vessel were obtained solely from a published plate.

TABLE 80. Comparable Data for Tall al-'Umayri Long Form Pithos 7.67.

	Pithos 7.67	μ Pithos in Group (σ)
Neck Height in cm	6.00	7.02 (1.64)
Rim Thickness in cm	2.20	1.82 (0.32)
Rim Inflection	Inverted	Everted
Rim Shape	Thickened T4: Offset, OT	Profiled T1: Kidney, OT
Rim Height in cm	4.00 (23%)	3.07 (0.66)
Rim Circumference in cm	81.68	81.42 (7.96)
Exterior Rim Diameter in cm	26.00	25.92 (2.54)
Collar Shape	Teardrop	Teardrop
Rim-to-collar Angle	5.00° Outside	9.41° Inside (5.59°)
Collar Prominence in mm	10.00	8.84 (2.72)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 8/3, Pink	Light Brown

Full Vessel Height in cm	102.50	102.36 (6.82)
Body Circumference in cm	175.93	177.01 (16.57)
Handle Width in cm	4.50	4.30 (0.55)
Handle Height in cm	13.00	13.73 (2.23)
Base Shape	Rounded	Flat
Base Thickness in cm	2.00	2.10 (1.19)

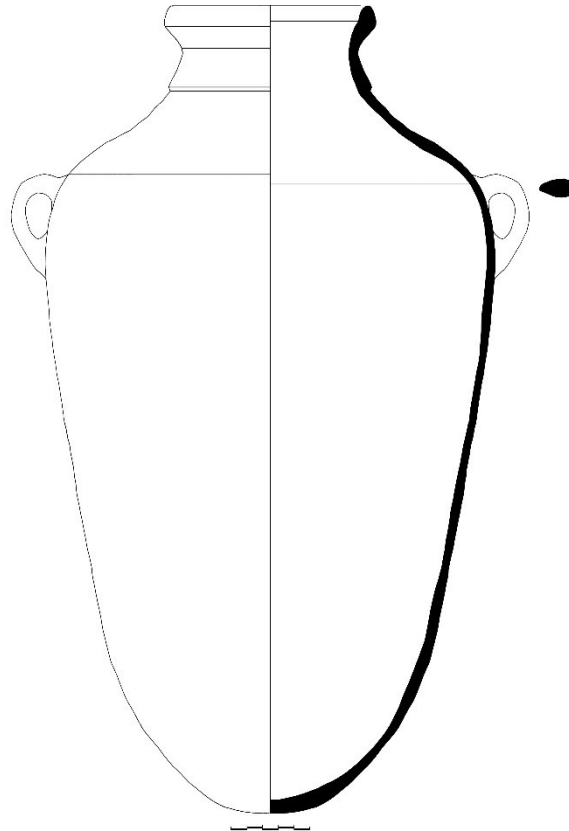


FIGURE 117. Pithos 7.67, Tall al-'Umayri B7J99.46.1 loc3 (Herr et al. 2017: 178; fig. 7.15).

Conclusions

This chapter sought to explore the specific characteristics of the longest necked collared pithoi in Transjordan. As they were accessible, thirty aspects of each of the seventy-seven vessels were carefully measured and categorized. The data were analyzed and compared to produce a detailed understanding of the classification group as a whole. In addition to the physical characteristics of each vessel, the archaeological contexts were evaluated for information relating to the chronology, geographic distribution, and use patterns for each of these vessels. Based on the foregoing data, the following conclusions can now be suggested.

Chronology

The Long Form collared pithos is found in contexts⁸⁹ spanning nearly three hundred years, beginning at the end of the 13th century B.C. and continuing into the later half of the 10th century B.C. This longer-necked version of the vessel is associated both with forms from the final stages of the Late Bronze Age 2B and those that begin the Iron Age 2A. The statistical average year of origination, within one standard deviation of the mean for the Long Form is ca. 1193 B.C. \pm 29 years. This estimate provides an approximate

⁸⁹ It should again be noted that the contexts in which these pithoi are found can only represent their period of final use. There is no way to determine from these contexts when the vessels were originally created or how long they were in use. It has been reasonably suggested that they may have been used for decades, or perhaps even a century or more.

framework upon which generalizations about the Long Form's chronology may be developed.

One of the earliest examples in Long Form group is Pithos 6.01, from Tomb 117 in the cemetery at Tall es-Sa'idiyeh. While this pithos lacks a clear, stratified context, it is part of a ceramic-rich burial that contains chronologically significant imports, such as Late Helladic stirrup jars. This burial is also part of a pair of contemporaneous tombs. The lamp, storage jar, and juglet from the adjacent Tomb 102 have clear late 13th century B.C. characteristics. This late 13th century/early 12th century B.C. appearance of the collared pithos is corroborated by the Tall al-'Umayri collection, which is seen on a surface that was also founded during the transition between the LB2B and the early Iron Age 1A. At Tall al-'Umayri, the pithoi are sealed under a late Iron Age 1A destruction that clearly limits their origins to the beginning of that period.

Pithos 4.01, from Khirbat Safra represents the example from the latest context in the Long Form group. This vessel was found in a debris layer associated with the second and final occupational phase at the site. Among this debris, primarily populated by Iron Age 1 ceramic remains, were also found a few forms associated with the early Iron Age 2A. This stratum thus dates to the transition from the end of the Iron Age 1B to the beginning of the Iron Age 2A, or ca. 980 B.C. With the exception of Pithos 6.01, which belongs

to the very beginning of the Iron Age, the remaining Long Form pithoi belong to the Iron Age 1B.

Together these pithoi represent the chronological boundaries of the Long Form, long-necked, phase. This group of vessels leads to the conclusion that collared pithoi with neck heights 5.0 cm or greater do not occur in the Iron Age 2B and subsequent periods. However, this apparent period exclusivity is not reflected in the longer-lived Classic Form, as will be demonstrated in Chapter 3.

Geographic Distribution

At the present time, the Long Form is known from seven excavated sites. Five of these (71%) are located on the central Transjordanian plateau. Two sites (29%), Tall Deir 'Alla and Tall es-Sa'idiyeh, are in the Jordan Valley. However, 96% of the Classic Form examples originated in central Transjordan and only 4% in the Jordan Valley. This concentration of Long Form examples in central Transjordan may be attributed to the accidents of preservation, discovery, or the accessibility of published material. Naturally, it might also indicate the earliest development of the form on the central Transjordanian plateau.

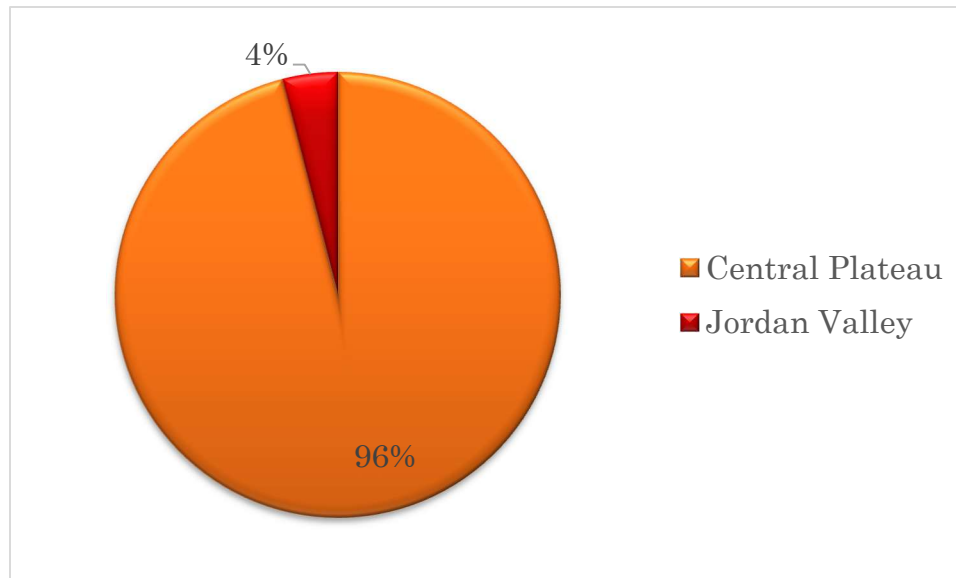


FIGURE 118. Geographic Distribution of the Long Form Pithoi, by Region.

As the vessel moves into its Classic Form phase, however, this focused distribution broadens and examples can be found across a wider geographic area. This harmonizes with traditional models of sedentarization patterns during this period, which suggest that as Transjordan moves into the Iron Age, centralization of political authority begins to develop first in central Transjordan.⁹⁰ By the 11th century B.C., the area to the south, later known as Moab becomes increasingly populated by towns and cities. This pattern continues to move south into Edom in the eighth century B.C. However, recent scholarship in southern Transjordan has challenged this model, as it is applied to Edom, supporting instead a timeline for a sedentary population in southern Transjordan beginning as early as the 12th – 11th centuries B.C. (Routledge et al. 2014:87; Levy et al. 2014: 2-3).

⁹⁰ This is a widely accepted development pattern. See Herr 2015a: 97 and Gregor 2004: 40, among others.

Use Patterns

There is no indication from the data that the Long Form collared pithoi were used for any other primary purpose than the storage of dry goods in large quantities. None of the vessels in this group, which underwent residue analysis, contained any type of interior sealant or residue indicating that it had contained liquids during its use period.⁹¹ One notable exception is Pithos 6.01 from Tell es-Sa'idiyeh, which had an interior coating of bitumen, possibly indicating that the vessel had been used in the preparation of the burial and not solely as a container for the remains. It is sensible to assume, however, that the use of this vessel in that capacity was in a secondary role. As the bottom of this pithos was neatly sheared off, it obviously was altered for use in the funerary context, rather than having been created for that purpose originally. Reasonably, it can also be assumed that this pithos was originally unsealed and used in a similar dry storage capacity as is observed in the other contexts with Long Form collared pithoi.

Another indicator of use within the original contexts in which the collared pithoi were found is worthy of discussion. All of the Long Form examples from stratified contexts were located within rooms that included implements of domestic activity such as cooking pots, jars, spindle whorls,

⁹¹ The pithoi from Tall al-'Umayri did not have any sealant on their interiors, which would have provided the waterproofing necessary for a liquid storage use. In the base of one of the vessels from this site, however, carbonized barley was found – indicating the long-term storage of grain (Herr et al. 2000: 61; Herr 2007: 140). More data will be needed to further elucidate this question.

etc. This association may be indicative of a living, breathing space, rather than a closed off storeroom entered infrequently or only for the retrieval of dry goods. The large collection of pithoi from Tall al-'Umayri stands somewhat in contrast to this usage pattern. While domestic implements were still present near the pithoi, this large group of collected vessels may indicate community storage facilities, a hub of distribution, or perhaps hierarchical storage – indicating the great wealth of a single individual or extended family group (Herr 2009). These issues will hopefully be further elucidated through the examination of later phase pithoi in the following chapters.

Characteristic Analysis

As described in the beginning of this chapter, all Long Form collared pithoi share certain unifying characteristics. Many scholars have observed the unusual homogeneity among collared pithoi. Yet, within this group there is also great variety. There are five distinct collar shapes, three clear base types, and a 13.0 cm range between the narrowest rim diameter and the widest. Of the complete vessels included in this study, the tallest is 113.0 cm tall and the shortest is only 75.0 cm tall. Neck height, the defining characteristic of the form classification, also varies from 5.0 – 14.0 cm.

The most indescribable feature of the collared pithos is, without equal, its rim. Within this collection of seventy-seven examples, five primary rim shapes were identified, with another nine sub-categories represented. The unique shapes of these rims are nearly as heterogeneous as the Munsell color

readings of their exteriors. This variety within a single ceramic tradition, while still maintaining the characteristic integrity of the form, speaks to the personality of the vessels, the uniqueness of hand-made forms, and the creative freedom of the potters. In the following chapters these distinctions within the form will continue to be examined as the neck heights decrease.

Chapter 3: The Classic Form Collared Pithos

An average Classic Form collared pithos, within the collection studied,⁹² stands just over 1.0 meter tall⁹³ with a rounded base⁹⁴ that is 2.0 cm⁹⁵ thick. The everted rim⁹⁶ of this vessel is about one and a half times⁹⁷ taller than it is wide. It is thickened and edgeless in shape⁹⁸ and rests atop a 3.0 cm,⁹⁹ concave neck. The base of the neck is encircled by a triangular-

⁹² The following portrayal does not belong to any actual vessel but is rather a conglomerate description, based upon the mean dimensions and characteristics of the 87 Classic Form pithoi in this study.

⁹³ Seven of the 87 Classic Form pithoi are complete or restored forms. The mean height of these examples is 107.1 cm with a 12.2 cm standard deviation.

⁹⁴ Of the eight bases available for study, 13% (n = 1) are flat, 13% (n = 1) are pointed, and 75% (n = 6) are rounded.

⁹⁵ The mean base thickness is 2.0 cm with a standard deviation of 1.1 cm.

⁹⁶ 54% (n = 44) of the Classic Form rims have an everted rim inflection; 35% (n = 28) are straight, showing no variation from the curve of the neck, and 11% (n = 9) have an inverted inflection.

⁹⁷ The mean rim thickness to rim height ratio is 1:1.5 cm with a standard deviation of 0.5 cm.

⁹⁸ Of the 82 Classic Form rims evaluated for shape in this study, 56% (n = 46) are categorized as thickened, 13% (n = 11) as profiled, 11% (n = 9) as triangular, 10% (n = 8) as round, 7% (n = 6) as simple, 1% (n = 1) as rectangular, and 1% (n = 1) as square. If the sub-categories of the profiled and thickened groups are taken into account individually, then the most common classification for a Classic Form rim is the thickened, edgeless shape, or Thickened, Type 2. 29% (n = 24) of the Classic Form rims fall into this category. Five of the Classic Form rims have shapes that could not be confidently determined from the accessible data.

⁹⁹ The mean neck height in the Classic Form collection is 3.0 cm with a standard deviation of 0.7 cm.

shaped collar,¹⁰⁰ with a 7.0 mm¹⁰¹ prominence. The neck inclination places the rim 19.0° inside¹⁰² the line of the collar.

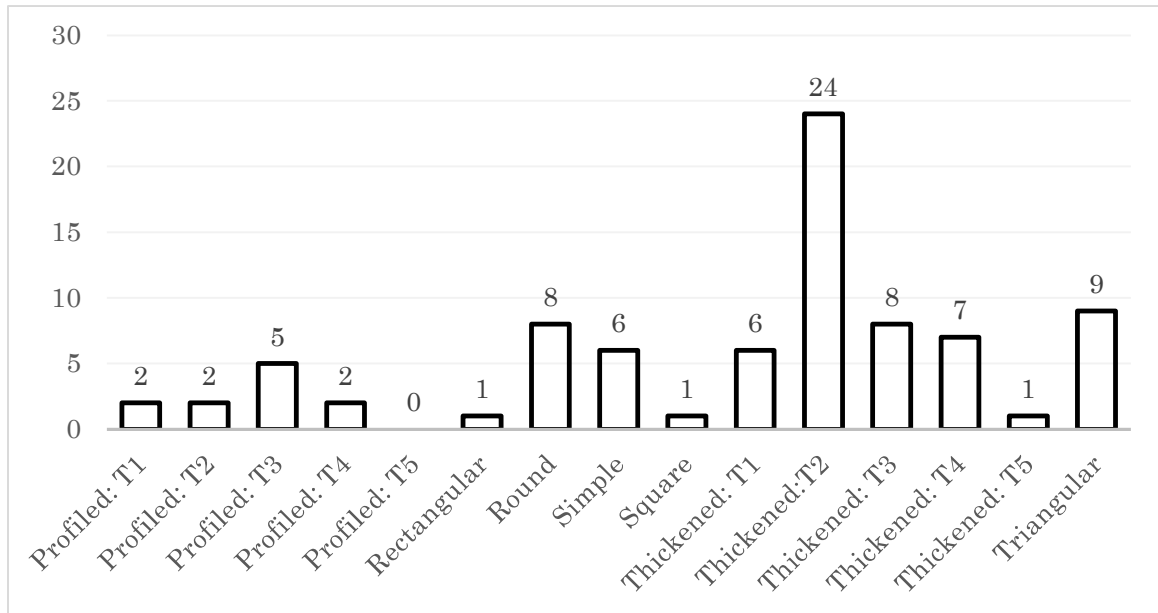


FIGURE 119. Classic Form Distribution of Rim Shape by Categorization.

¹⁰⁰ 78 of the Classic Form pithoi have collars that are accessible for analysis. Of these, 67% (n = 52) are triangular in shape, 18% (n = 14) are teardrop, 6% (n = 5) are rounded, 4% (n = 3) are double, 3% (n = 2) are vestigial, and 3% (n = 2) are square.

¹⁰¹ The mean collar prominence for the Classic Form is 7.2 mm with a standard deviation of 4.0 mm.

¹⁰² The Classic Form pithoi have a neck inclination that places the rim inside the line of the collar 84% (n = 73) of the time. The mean rim-to-collar angle for this group is 18.5° with a standard deviation of 11.6°. Of the remaining pithoi, 6% (n = 5) have rims and collars that are aligned, 6% (n = 5) have rims that stand outside the line of the collar at a mean angle of 9.6°, with a standard deviation of 6.6°, and 5% (n = 4) have indeterminate rim-to-collar stances.

This cumulate pithos has two elliptical strap handles, which are 14.0 cm tall and 4.0 cm¹⁰³ wide. The handles, placed on opposite sides of the body's widest point, begin on the lower slope of the shoulder and end on the upper body. Between these handles the body circumference is just under 182.0 cm with a diameter of 58.0 cm.¹⁰⁴ This creates an overall vessel width to height ratio of 1:1.7.¹⁰⁵ The exterior surface of this pithos has a slightly lighter and warmer tone than the longer necked Long Form examples. Its best color description is "Pink" (table 81) and it has a ware that is underfired,¹⁰⁶ with a core present. This figurative pithos, as a representative of its type, is statistically most likely found at a site on the Central Plateau.

¹⁰³ Sufficient accessibility permitted the analysis of handle heights on only 9% (n = 8) and widths on only 3% (n = 3) of the Classic Form vessels. The handle height, or the average distance from the upper, external side of the handle, where it attaches to the shoulder, to the lower, exterior portion that attaches to the body is 14.1 cm with a standard deviation of 1.9 cm. This measurement is taken with electronic calipers and does not account for the curve or shape of the handle itself. The mean width, obtained at the narrowest part of the handle, is 4.4 cm with a standard deviation of 0.4 cm.

¹⁰⁴ 8% (n = 7) of the Classic Form pithoi have obtainable body circumferences and diameters. The mean circumference is 181.6 cm, with a standard deviation of 12.4 cm. The mean body diameter is 57.8 cm with a standard deviation of 3.9 cm.

¹⁰⁵ This ratio is based on the mean height and width dimensions for the Classic Form pithoi and has a standard deviation of 0.3 cm.

¹⁰⁶ 45% (n = 39) of the Classic Form pithoi were available for visual ware analysis. Of these, 62% (n = 24) are underfired, 33% (n = 13) display signs of oxidation and 5% (n = 2) of reduction.

Table 81. Munsell Color Distribution for the Classic Form Samples.

Color Name Group	Count	% of Total
Pink (5 YR 7/3, 7/4; 7.5 YR 7/3, 7/4)	12	26%
Light reddish brown (2.5 YR 6/4; 5 YR 6/3, 6/4)	9	20%
Very pale brown (10 YR 7/3, 8/3)	6	13%
Pinkish gray (7.5 YR 6/2, 7/2)	4	9%
Reddish yellow (5 YR 6/6)	3	7%
Brown (7.5 YR 5/2, 5/4)	2	4%
Light brown (7.5 YR 6/3, 6/4)	2	4%
Reddish gray (5 YR 5/2)	2	4%
Gray (10 YR 6/1)	1	2%
Light gray (10 YR 7/2)	1	2%
Light red (2.5 YR 7/6)	1	2%
Pale yellow (2.5 Y 8/2)	1	2%
Pinkish white (7.5 8/2)	1	2%
Reddish brown (2.5 YR 5/4)	1	2%
Total	46	100%

There are 20 sites with a total of 87 examples of the Classic Form collared pithos. The large majority of these vessels – 23% of the group – come from Tall Jalul. Roughly 13% were found at Tall al-‘Umayri and Tall Sahab. All three of these sites are located in the highland region referred to as the central plateau. In fact, 12 of the 20 sites in this group are from this region and together produced 77% (n = 68) of the Classic Form examples. Of the remaining 22%, seven are from southern Jordan, five are from the northern uplands, five are from the Kerak plateau, and two are from the Jordan Valley. Table 82 lays out the distribution of these vessels.

TABLE 82. Geographic Distribution of the Classic Form Pithoi.

	Archaeological Site	Geographic Region	Pithos Count	% of Total
1.	Tall Jalul	Central Plateau	20	23%
2.	Tall al-‘Umayri	Central Plateau	13	15%
3.	Tall Sahab	Central Plateau	11	12%
4.	Tall Hisban	Central Plateau	7	8%
5.	Tall Johfiyeh	Northern Jordan	5	6%
6.	Tall Safut	Central Plateau	5	6%
7.	Busayra	Southern Jordan	4	5%
8.	Khirbat al-Balu‘a	Kerak Plateau	3	4%
9.	‘Iraq el-Emir	Central Plateau	3	4%
10.	Tall Jawa	Central Plateau	3	4%
11.	Khirbat al-Mudayna al-‘Aliya	Kerak Plateau	2	2%
12.	Khirbat en-Nahas	Southern Jordan	2	2%
13.	Khirbat Safra	Central Plateau	2	2%
14.	Abu al-Kharaz	Northern J. R. Valley	1	1%
15.	Amman Citadel	Central Plateau	1	1%
16.	Khirbat Ataruz	Central Plateau	1	1%
17.	Umm al-Biyara	Southern Jordan	1	1%
18.	Tall Deir ‘Alla	Southern J. R. Valley	1	1%
19.	Tall Lahun	Central Plateau	1	1%
20.	Tall Madaba	Central Plateau	1	1%

Abu al-Kharaz, Northern Jordan Valley



FIGURE 120 Aerial view of Abu al-Kharaz

Abu al-Kharaz, traditionally associated with the biblical city of Jabesh-Gilead, stands as a plateau in the northern Jordan Valley, just north of Wadi al-Rayan (formerly Wadi Yabis) and about four kilometers east of the Jordan River. It has a commanding view of the surrounding countryside and oversight of two major ancient trade routes. The smaller site of Tall al-Maqbarah was a sister site during the Iron Age. Unfortunately, this neighboring town was bull-dozed before excavations could be conducted, and a fuller understanding of the relationship of these two sites could be obtained (Fischer 2013: 17). With the exception of an occupational hiatus during the Middle Bronze Age 2-3, the site was continually occupied from the Early Bronze Age through the end of the Iron Age.

Pithos 8.01: Abu al-Kharaz, ca. 1140 B.C.

This Classic Form collared pithos from Abu al-Kharaz was discovered in Trench XIA, Locus 23 in Area 3. The vessel was found in an ashy fill layer, underneath what appears to be a food preparation area – with two ovens and several cooking pot remains (Fischer 2013: 103-20). This locus has been placed in Fischer's Phase XI, dated to the Iron Age 1 or possibly the Iron Age 2A (Fischer 2013: 111, 16). The ceramics from this locus are still primarily Iron Age 1 forms, so a date prior to the beginning of the Iron Age 2 seems most appropriate. The radiocarbon dates from a nearby burial in this stratum produced an average calibrated date of 1163 B.C. (Fischer 2013: 460). Therefore, this pithos is dated to the beginning of the Iron Age 1B.

Pithos 8.01 (figure 121) is well representative of the Classic Form group statistical mean in almost all of its aspects. The only exceptions are the triangular rim and upright neck inclination. These two characteristics give this vessel its unique flavor. The triangular rim is a shape seen in only 11% (n = 9) of the rims in this group. At an 84% more upright than average angle, the rim-to-collar alignment is likewise unusual. Only 9% (n = 10) of Classic Form vessels have a rim to collar stance that is within 3° of alignment. Beyond these characteristics, however, this rim is a good example of the Classic Form statistical mean. Dimensions for this vessel were obtained solely from a published plate.

TABLE 83. Comparable Data for Abu al-Kharaz Classic Form Pithos, Pithos 8.01.

	Pithos 8.01	μ Pithos in Group (σ)
Neck Height in cm	3.50	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Triangular, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	62.80	68.18 (13.41)
Exterior Rim Diameter in cm	20.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	3.00° Inside (84%)	18.51° Inside (11.62)
Collar Prominence in mm	8.00	7.19 (4.04)
Firing	Hard-fired	Underfired
Exterior Munsell Reading	Light Brown Slip	Pink

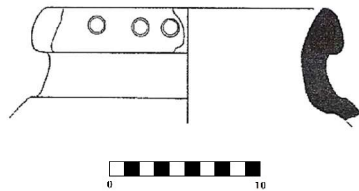


FIGURE 121. Pithos 8.01, Abu al-Kharaz (Fischer 2013: 115-16; fig. 107:2).

Amman Citadel, Central Plateau



FIGURE 122. Aerial view of the Amman Citadel.

The acropolis commonly referred to as the Amman Citadel, is located in the heart of the modern-day city of Amman. The site was built on a hill on the southern side of Wadi Ras al-‘Ain, which empties to the southwest in the River Zarqa basin (Potter et al. 2007: 5). The site consists of four levels or tiers of occupational activity, as well as several tomb sites in the surrounding area. It is identified with the ancient city Rabbath-Ammon.

Pithos 9.01: Amman, Unstratified

Pithos 9.01 (figure 123) is from an unstratified deposit (Dornemann 1983: 97-98). It is one of six collared pithoi¹⁰⁷ published by Dornemann from Amman, but unfortunately most of the others are shown only in unscaled photographs of such a quality as to render them unusable in this study. All of these pithoi, however, appear to be of the shorter-necked variety. In fact, Pithos 9.01 is likely the longest necked of the examples. One of these six pithoi will be presented in the following chapter, as Pithos 29.01.

At 2.0 cm, the neck of Pithos 9.01 is at the shortest end of the range of neck heights in the Classic Form group. It is crested with an unusual round rim – a shape seen in only 10% (n = 8) of vessels in this group. This round shape is new to the collared pithos in the Classic Form and is not present among the longer necked versions of the vessel in the Long Form group. The rim's circumference and related exterior rim diameter are 21% smaller than the Classic Form mean. The teardrop-shaped collar, while most common among the Long Form vessels, is only seen on 18% (n = 14) of the pithoi in the Classic Form group. The remaining features of Pithos 9.01 are within the mean for this group. Dimensions for this vessel were obtained solely from a published plate.

¹⁰⁷ These include the collared pithoi in fig. 67:395 (Dornemann 1983: 260), fig. 64:256, fig. 64:257, and fig. 64:262 (Dornemann 1983: 257).

TABLE 84. Comparable Data for Amman Classic Form Pithos 9.01.

	Pithos 9.01	μ Pithos in Group (σ)
Neck Height in cm	2.00 (36%)	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Round, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.20	2.81 (0.62)
Rim Circumference in cm	53.41 (21%)	68.18 (13.41)
Exterior Rim Diameter in cm	17.00 (21%)	21.74 (4.22)
Collar Shape	Teardrop	Triangular
Rim-to-Collar Angle	20.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	5.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

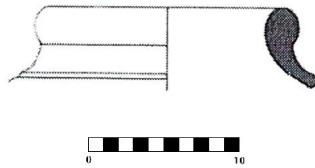


FIGURE 123. Pithos 9.01, Amman #629, Type LVIII (Dornemann 1983: 250; fig. 57:629).

Khirbat Ataruz, Central Plateau



FIGURE 124. Aerial view of Khirbat Ataruz.

Located on the Dhiban Plateau, just south of Wadi Zarqa Main, Khirbat Ataruz is generally associated with biblical Ataroth.¹⁰⁸ The site was first identified in the modern era by Nelson Glueck in 1937, during a survey of the region. Surface sherds identified activity at Khirbat Ataruz beginning in the Iron Age and continuing into the Islamic period, with a few brief hiatuses after the close of the Iron Age. Excavations thus far indicate the greatest record of human activity at the site dates to the Iron Age 2A-C (Ji and Bates 2014: 51). The south-western half of the site is occupied by a

¹⁰⁸ The conquered city of Ataroth is first mentioned in Numbers 32 as a possession given to the tribe of Gad.

modern cemetery, and thus remains unexcavated. The on-going excavations of the north-eastern area of the site began in 2000, under the direction of Chang-Ho Ji of La Sierra University (Ji and Bates 2014: 50).

Pithos 10.01: Khirbat Ataruz, ca. 750 B.C.

Pithos 10.01 (figure 127) represents the only example of a collared pithos from Khirbat Ataruz yet found. It was unearthed during the 2012 excavation season in Field F, Square 3. The pithos was found standing upright in a room that is 1.0 meter wide, within the larger Room B. These rooms belong to a structure whose function is yet unknown. This structure is directly to the north of a set of buildings identified as a cultic complex. The rim and shoulder fragments of the vessel were broken and found inside the lower body, along with many fairly large rocks. There were also rocks around the outside of the pithos. It has been suggested by the excavator that these rocks were placed in and around the vessel intentionally, rather than their presence being the result of post-occupational structural collapse (Ji and Bates 2014: 56 and the reconstruction drawn in fig. 19). In this preliminary report, the excavator did not explore this suggestion further or provide a hypothesis explaining the proposed meaning of the arrangement. If this conjecture is accepted, such a configuration of a broken pithos within a building is unique and the purpose it may have served the occupants is as yet unknown.

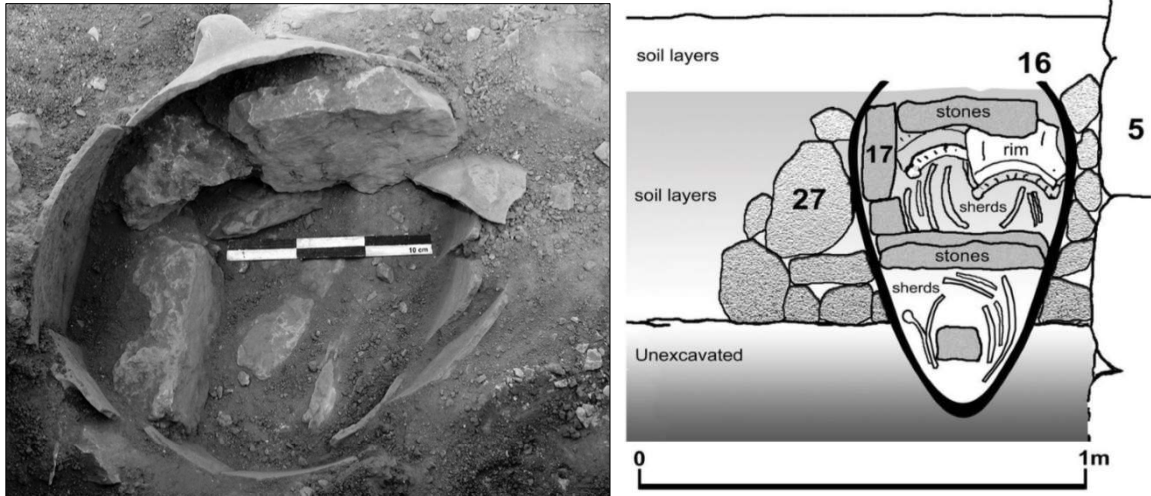


FIGURE 125. Pithos 10.01, Khirbat Ataruz, in situ (Ji and Bates 2014: 81; fig. 19 [right] and 20 [left], reproduced here).

This pithos is assigned a mid-eighth century B.C. date by the excavator (Ji and Bates 2014: 56). The reasoning presented for this dating is the prominence of the vessel's collar and the suggested dating of an associated lamp, reproduced below in fig. 126 from the publication (Ji and Bates 2014: 56, 78; fig. 17). Aside from the disappointing lack of diagnostic forms unearthed with Pithos 10.01, the biggest challenge to adopting this dating for this pithos is the discontinuity of the published drawings and the lack of details given in the description within the text. Fully acknowledging that this lamp is published in a preliminary report only, two unique features stand out upon a cursory glance at the profile of this lamp. First, it does not have the expected thickening in its lower half, typical of Iron Age lamps in Transjordan. The lamp's thickness is nearly uniform throughout its body. Second, the spout angles down. Most lamps have spouts that are either

horizontal or angle up from the body of the lamp – due likely to a manufacturing technique designed to increase wick stability.

The troubling thing about this lamp, however, is that it isn't clear from the figure if this lamp has a ring base, disc base, or flat base. The profile drawing at the top of the figure appears to have a flat base, but the drawing of the underside of the lamp portrays a ring base, or perhaps even a disc base. If the lamp has a disc base then it is likely better assigned to the Iron Age 1B – 2A. A thinner, flat base, without a pronounced flanged rim, would possibly indicate an Iron Age 1A date. Only a ring base would give this lamp an Iron Age 2B date assignment. Elucidating the nature of the base of this lamp is, therefore, an important element in understanding its period of origin.

Regardless, even if the question of the lamp's form were settled, this factor alone is not sufficient to date this pithos beyond doubt. As Franken warned regarding a similar situation in his 1962 report on Tall Deir 'Alla, "One interesting find was a lamp which, out of context, could at first sight be mistaken for an Iron Age 2 lamp. As it is, there can be no doubt of its Late Bronze Age date as it was found on the floor of the room packed in by scores of Late Bronze Age 2 pottery. It remains a warning to typologists." (Franken 1962: 382).

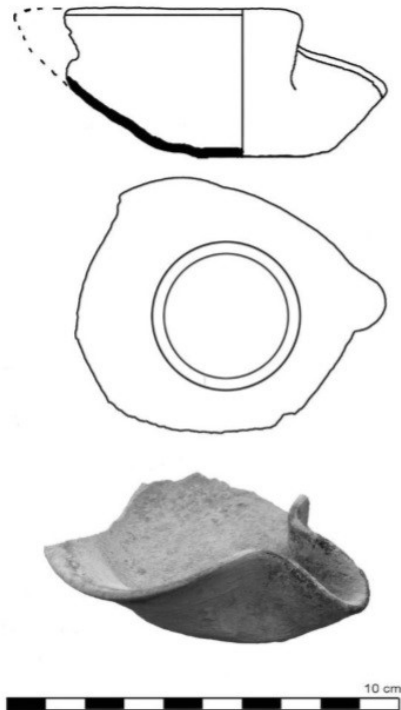


FIGURE 126. Lamp Associated with Pithos 10.01, Khirbat Ataruz (Ji and Bates 2014: 78; fig. 17, reproduced here).

Further, as has been observed thus far in this research analysis, the prominence of a collared pithos' collar does not have a significant chronological component. While collars do become somewhat less prominent as the form develops, the range of sizes observed indicates that this trend is a phenomenon of statistical probability alone. The collar prominence of an individual pithos cannot act as a true indicator of the period in which a pithos was created. It's reasonable to presume that these issues will be elucidated upon publication of the full excavation report. With only these preliminary details regarding the context of this pithos, the date assignment can presently only be tentatively accepted for this vessel.

Pithos 10.01 has a few unique features for Classic Form example. The unusually round-shaped rim is 53% thicker and 30% taller than average. This may be contributing to the smaller than average rim circumference and external rim diameter. While the straight vessel height is slightly shorter than expected, it has a body circumference that is 10% greater than the mean of the Classic Form group. The teardrop-shaped collar is more reminiscent of the Long Form than the triangular shape more commonly seen in the Classic Form group. The same can be said for this vessel's coloring. However, the neck height and rim-to-collar angle, along with several other features of this pithos, align well with the other Classic Form examples. The dimensions given below were obtained from the actual vessel, except for the thickness of the base, as it was inaccessible at the time the measurements were taken.

TABLE 85. Comparable Data for Khirbat Ataruz Classic Form Pithos 10.01.

	Pithos 10.01	μ Pithos in Group (σ)
Neck Height in cm	3.50	2.97 (0.71)
Rim Thickness in cm	4.25 (53%)	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Round, OT	Thickened T2: Edgeless, OT
Rim Height in cm	4.00 (30%)	2.81 (0.62)
Rim Circumference in cm	56.60	68.18 (13.41)
Exterior Rim Diameter in cm	18.00	21.74 (4.22)
Collar Shape	Teardrop	Triangular
Rim-to-collar Angle	20.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	9.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	10 YR 7/3, Very Pale Brown	Pink
Full Vessel Height in cm	105.00	107.07 (12.24)
Body Circumference in cm	203.00 (10%)	181.63 (12.38)
Handle Width in cm	unknown	4.36 (0.39)
Handle Height in cm	17.00 (17%)	14.06 (1.88)
Base Shape	Pointed	Rounded
Base Thickness in cm	1.00	1.97 (1.10)

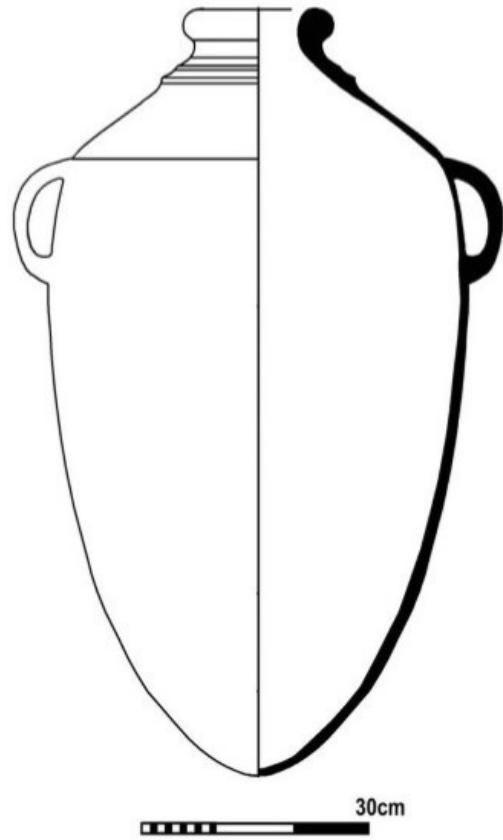
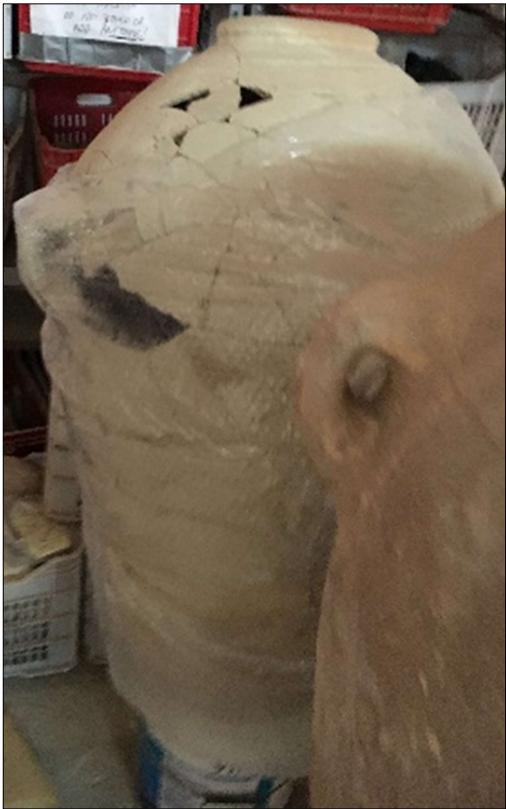


FIGURE 127. Pithos 10.01, Khirbat Ataruz, #ATZ 2013.2/M.1.907 (Ji and Bates 2014: 79; fig. 18) Scale 1:10.

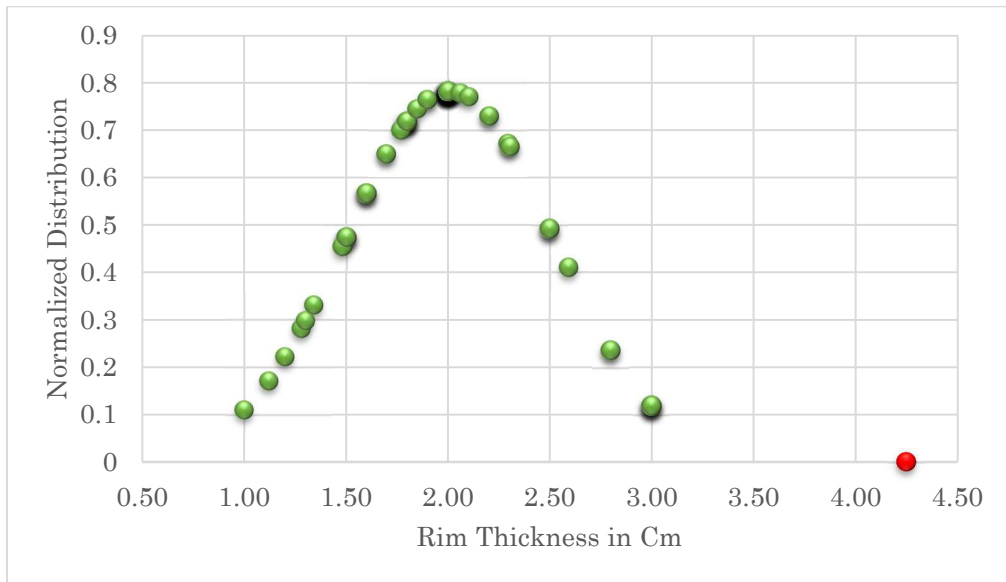


FIGURE 128. Distribution of Classic Form Rim Thicknesses, Pithos 10.01.

Khirbat al-Balu'a, Kerak Plateau



FIGURE 129. Aerial view of Khirbat al-Balu'a.

Khirbat al-Balu'a sits on the northern edge of the Kerak Plateau in central Moabite territory. One of the largest sites in the area, it spans nearly one and a half hectares. Excavations at Khirbat al-Balu'a began in 1987 under the direction of Udo Worschech and later continued under Friedbert Ninnow, both associated with Friedensau Adventist University. Identified by the excavation team as the ancient Moabite city of Ar, the site's most significant remains are from the Iron Age, more specifically the Iron Age 2 (Rieckmann 2020). However, ceramics indicate intermittent occupation from the early Iron Age through the Mamluk period (Keller and Tuttle 2010: 530).

Pithos 11.01: Khirbat al-Balu'a, ca. 830 B.C.

This pithos (figure 130) was found in the courtyard of a structure identified as a four-room house in Area G. The room was used during the Byzantine period and the Iron Age remains were sealed under this floor. Within the Iron Age material, no strata were present that indicated more than one occupational layer (Worschech 2014: 5). The Iron Age floor was beaten earth mixed with limestone. Between these floors, the loci from the courtyard produced a large tabun and ashy soils in the western section (Worschech 2014: 237). A limestone mortar, loom weight, and a jar stopper were among the objects found in this space. The published ceramics included seven kraters, five pithoi, five jars, and one small vessel, possibly a flask. There were also nine bowls, one that was carinated in the imitation Assyrian style and one basalt bowl (Worschech 2014: 250-65). The majority of the ceramics find parallels in Iron 2B forms, although a few may be somewhat earlier or later. Given these associations, and the excavator's interpretation of the shorter-necked pithoi presented in the next chapter (Worschech 1992: 151), this example has been dated to the beginning of the Iron Age 2B.

Pithos 11.01 has a neck height that is at the lowest length included in the Classic Form group. Nevertheless, its dimensions are all fairly typical. The rim height, which is 36% shorter than average, and the rim-to-collar angle are the only two features that are remarkably different than the mean for this group. The rim has an upright inflection and stands 3° outside of the

line of the rim. There are five rims that share this position outside of the line of the collar and this one is the nearest to alignment of this group. This stance is 69% more upright than the mean angle for rims outside of collar alignment. The remaining features that were available for study for this pithos are within one standard deviation of the mean. Dimensions for this vessel were obtained solely from a published plate.

TABLE 86. Comparable Data for Khirbat al-Balu‘a Classic Form Pithos 11.01.

	Pithos 11.01	μ Pithos in Group (σ)
Neck Height in cm	2.00 (33%)	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Thickened T3: Hook, OT	Thickened T2: Edgeless, OT
Rim Height in cm	1.80 (36%)	2.81 (0.62)
Rim Circumference in cm	55.30	68.18 (13.41)
Exterior Rim Diameter in cm	17.60	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	3.00° Outside (69%)	18.51° Inside (11.62)
Collar Prominence in mm	4.00	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 7/4, Pink	Pink

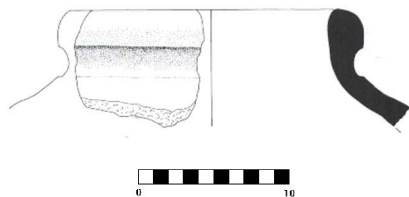


FIGURE 130. Pithos 11.01, Khirbat al-Balu‘a, R4G-20 (Worschech 2014: 258-9; fig. G 038).

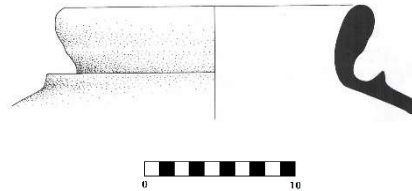
Pithos 11.02: Khirbat al-Balu'a, ca. 830 B.C.

This pithos (figure 131) was discovered in Room 1 within the Casemate Wall of Area B, west of the temenos area. This pithos was found with a lance point and many other pithoi, jars, and fragments of storage vessels. They were in a 0.30 m ashy layer that extended through both Rooms 1 and 2 within the wall (Worschech 2014: 115-27). Due to the long-lived nature of storage containers, there were no ceramic chronological indicators present in this collection to more narrowly define this room. No dating tests or analysis has yet been published for this area. Therefore, the estimated Iron Age 2B date given to this vessel is based on the dating of the pithos from Area G (Pithos 11.01) as they are most likely nearly contemporary.

As far as the dimensions of Pithos 11.02 are concerned, this is a very standard example of a Classic Form collared pithos. Setting it apart from other vessels is a collar that is 40% more prominent than average, scooping up from a very curved neck. The neck is slightly shorter than normal for this form, and the rim has an elongated appearance more commonly seen in the Earlier Form examples. All of these features, however, are well within one standard deviation of the mean for the Classic Form. Dimensions for this vessel were obtained solely from a published plate.

TABLE 87. Comparable Data for Khirbat al-Balu‘a Classic Form Pithos 11.02.

	Pithos 10.02	μ Pithos in Group (σ)
Neck Height in cm	2.40	2.97 (0.71)
Rim Thickness in cm	1.50	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	63.80	68.18 (13.41)
Ext. Rim Diameter in cm	20.30	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	10.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	12.00 (40%)	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 6/6, Reddish Yellow	Pink

**FIGURE 131.** Pithos 11.02, Khirbat al-Balu‘a, B.C. 40 (Worschech 1992: 154; fig. 2:2; Worschech 2014: 116-17; fig. B.C. 40).

Pithos 11.03: Khirbat al-Balu‘a, ca. 830 B.C.

This pithos (figure 132) was found in the same location as Pithos 11.02, and thus shares the context of that vessel (see the previous entry for more detail). The hook shape of this vessel’s thickened rim is its most unusual feature. Similar profiles are seen on the rims of seven other Classic Form examples. Together they comprise 10% ($n = 8$) of the Classic Form rims in this study. The straight inflection of this rim is also fairly uncommon, a

characteristic present in 35% (n = 28) of the Classic Form rims. The rim is smaller than average. While the thickness of this rim is within one standard deviation of the mean, its height is 40% shorter than usual. These trends are matched by the vessel's diminutive rim circumference and external rim diameter, both of which are 28% smaller than average. The remaining features of this pithos are typical. The neck height is the usual 3.0 cm and the collar is only slightly more prominent than most in this group. The dimensions for this vessel, presented below, were obtained solely from a published plate.

TABLE 88. Comparable Data for Khirbat al-Balu'a Classic Form Pithos 11.03.

	Pithos 11.03	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	1.80	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Thickened T3: Hook, OT	Thickened T2: Edgeless, OT
Rim Height in cm	1.70 (40%)	2.81 (0.62)
Rim Circumference in cm	49.00 (28%)	68.18 (13.41)
Exterior Rim Diameter in cm	15.60 (28%)	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	30.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	10.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	7.5 YR 5/2, Brown	Pink

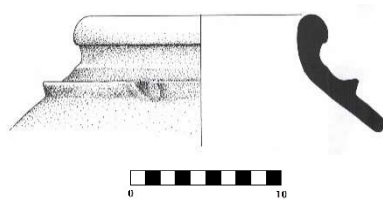


FIGURE 132. Pithos 11.03, Khirbat al-Balu'a, B.C. 41 (Worschech 1992: 154; fig. 2:3; Worschech 2014: 116-17).

Umm al-Biyara, Southern Jordan



FIGURE 133. Aerial view of Umm al-Biyara.

Umm al-Biyara is located on the west end of Petra National Park and is only accessible in the modern era by a rigorous hike up a hand-carved Nabatean staircase from the valley floor to the top of the 300-meter sandstone mountain. Umm al-Biyara is the tallest mountain in that part of the park and commands an outstanding view of the entire area (Bienkowski 2011: 1).

The early soundings of the site conducted in 1933 and 1934 yielded the sherds of a number of large storage jars, attributed to the Iron Age Edomites (Bienkowski 2011: 4). The site was later excavated under the direction of Crystal-M. Bennet from 1960 – 1965. With the exception of Nabatean use of

the mountain, the archaeological remains on Umm al-Biyara are exclusively Iron Age. Furthermore, there is evidence of only one period of occupation, with two contemporary occupation phases, which, according to the excavator date to the late Iron Age 2 period (Bienkowski 2011: 11). Although the specific dates of the site remain unknown, Bienkowski makes a compelling argument for seventh through sixth century B.C. occupation based on comparisons of the ceramic assemblage to that of other contemporary sites in the region (Bienkowski 2011: 77-78).

However, the dates of the contemporaneous sites in southern Jordan are currently under re-analysis, due to the plethora of calibrated radiocarbon dates from Khirbat en-Nahas and other regional surveys. These place the contemporary occupation of Khirbat en-Nahas in the ninth or even tenth centuries B.C. This chronology has been further corroborated with dates from the highlands which also test to the ninth and eighth centuries B.C. (Levy et al., 2014: 89-295). These new dates will likely impact the dating of all Iron Age sites in southern Transjordan. For the purpose of this study, this pithos has been placed at the beginning of the Iron Age 2A, though it is acknowledged that these dates are still undergoing scholarly analysis and debate and consensus has not yet been reached.

Pithos 12.01: Umm al-Biyara, ca. 980 B.C.

Unfortunately, this pithos (figure 134) was found in a locus for which the excavation data was not preserved. It came from room five, at the southern side of the excavated area. Beyond the location of this room, very little is published about it. The only other item mentioned to have been found in room five was an indeterminate number of spindle whorls (Bienkowski 2011: 52; fig. 3.3). It appears to have been a courtyard area at the bottom of a northward descending staircase that was cut into the bedrock. The southern wall defining this space may have been a later blockage rather than a wall, as it is composed of a single large boulder. In this scenario, the staircase would have opened up into this room or yard (Bienkowski 2011: 18-20). It should be noted, however, that the photograph of this staircase shows steps with very sharply-articulated edges and no observable wear patterns (Bienkowski 2011: 18; fig. 2.12). This may be indicative that this feature was not a staircase after all, but a bedrock cutting that served another unknown purpose. Due to the absence of locus data or stratigraphy, Pithos 12.01 is tentatively dated according to the general dating of this one period site.

The measurements of this pithos are all within one standard deviation of the mean for the Classic Form. The unusual features that it possesses are in its shapes. Its double-grooved profiled rim is seen in only four other vessels in the Classic Form group, and is unique to vessels from southern Transjordan (Bienkowski 2011: 67). Together these five pithoi make up 3% of

the Classic Form rim examples. The rim on Pithos 12.01 has an inverted inflection from the line of the neck, also an uncommon feature in the Classic Form group, and is seen in 11% (n = 9) of the vessels. Finally, the square shape of this pithos' collar is only found on one other Classic Form example, Pithos 17.14, from Tall Jalul. Dimensions for this vessel were obtained solely from a published plate.

TABLE 89. Comparable Data for Umm al-Biyara Classic Form Pithos 12.01.

	Pithos 12.01	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Inverted	Everted
Rim Shape	Profiled T3: D.Grved, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	62.80	68.18 (13.41)
Ext. Rim Diameter in cm	20.00	21.74 (4.22)
Collar Shape	Square	Triangular
Rim-to-Collar Angle	26.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	11.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

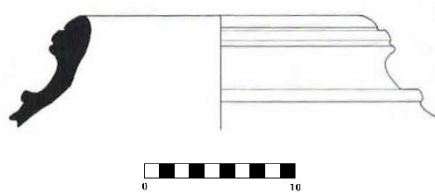


FIGURE 134. Pithos 12.01, Umm al-Biyara (Bienkowski 2011: 68; fig. 4.5:1).

Busayra, Southern Jordan

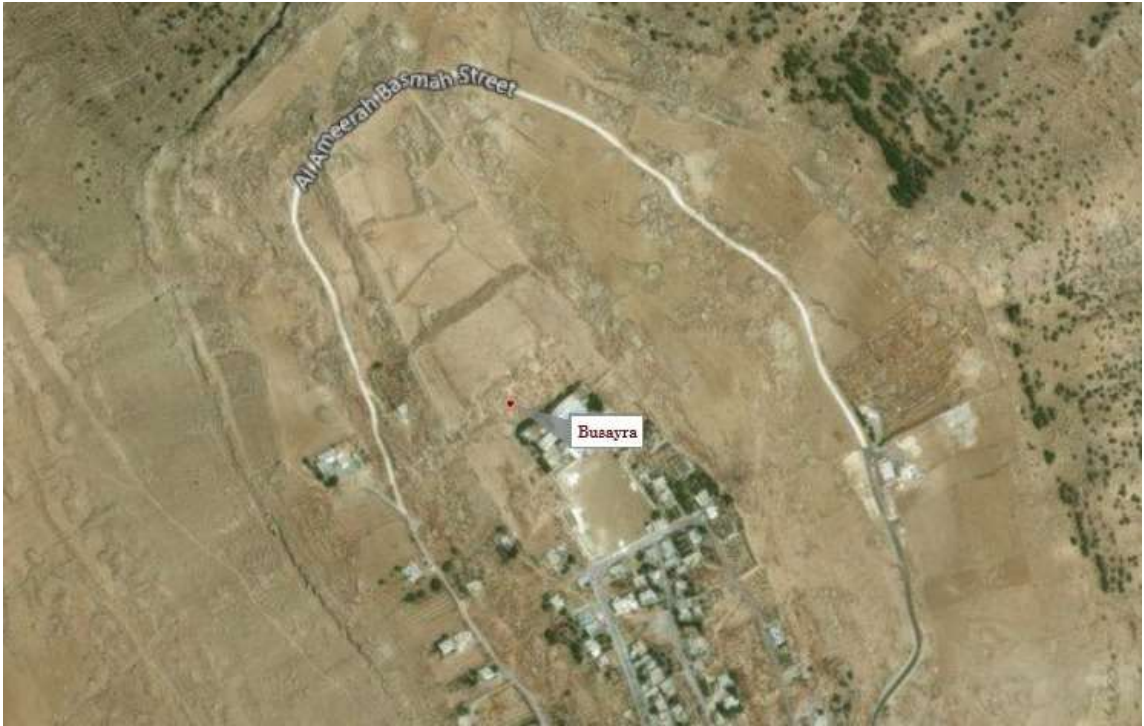


FIGURE 135. Aerial view of Busayra.

Busayra is located on the King's Highway, an ancient trade route which in this region leads north from Umm al-Biyara, 45 km to the south, and continues up into ancient Moab and Ammon. The site is 15 km northwest of Faynan, a rich copper producing location. Busayra has been associated with biblical Bozrah. Excavated by Crystal-M. Bennett in 1971-1980, her goals were to increase data regarding the Edomites and to potentially correlate the Israelite exodus given in the biblical account (Bienkowski 2002: 42).

The excavations, totaling 44 weeks of cumulative work, revealed an Iron Age settlement, judged by the excavator to have occurred during the seventh through fifth centuries B.C. The earliest occupation of this site is

largely contemporaneous with Umm al-Biyara and it has a similar, though not identical, ceramic corpus. The dating issues of that site are also relevant here, although Busayra was occupied for more than one period.

The following collared pithoi were all found in Area B. This area ran north-east from the perimeter wall up to the site's main acropolis (Area A). The goal for the excavation of Area B was to investigate the site's defensive structure and its relationship to the main acropolis. It yielded ceramics that were dated exclusively to the Iron Age 2C – Persian period (Bienkowski 2002: 111).¹⁰⁹ The following examples have thus been assigned coordinating dates.

Pithos 13.01: Busayra, ca. 732 B.C.

Locus B2.7.17, in which Pithos 13.01 (figure 136) was found, was a part of the earliest occupational debris in Area B. It was a mixed sand and ash lens directly underneath a wall (W10) that was most likely built during the second building phase of Area B. The locus was in the opening of a cave that was believed by the excavators to have been altered, but to what purpose remains unknown (Bienkowski 2002: 126-28, 141; fig. 5.16). The cave's contents did not produce anything to indicate what its use may have been. The deposition of Locus B2.7.14 may have been contemporary with the building of the Wall 10, but that cannot be ascertained conclusively on the preserved data. Either way, the pithos itself must have predated this wall

¹⁰⁹ This exclusivity was interrupted only by a few stray Roman and Nabataean sherds that were not associated with any occupation in this area of the site (Bienkowski 2002: 111).

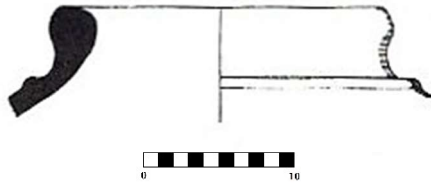
and thus likely belonged to the first occupation period of the area. Its location was a secondary deposit and thus gives no indication of its original use or location. This pithos has been assigned a date that correlates to the beginning of the Iron Age 2C, in accordance with that assessment.

Pithos 13.01 has the most unique rim in the Classic Form group. Because it possesses features of multiple different rim shapes (Square, Thickened: Type 2, etc.) it is considered undefinable and must simply be categorized as a miscellaneous thickened rim. With the exception of the outlier Pithos 10.01, from Khirbat Ataruz, this rim¹¹⁰ is the thickest in the Classic Form group, measuring 33% thicker than average. The other unusual feature of this vessel is its teardrop-shaped collar. While this shape is common among the longer-necked Long Form group, it is only present on 18% (n = 14) of the Classic Form pithoi. The other features of this pithos are near average for this form group. Dimensions for this vessel were obtained solely from a published plate.

¹¹⁰ There are five other Classic Form rims that are also 3.0 cm thick. These are Pithos 13.04, also from Busayra, Pithos 16.01, from Iraq el-'Amir, Pithos 17.18 from Tall Jalul, Pithos 19.01 from Tall Johfiyeh, and Pithos 23.02 from Khirbat en-Nahas.

TABLE 90. Comparable Data for Busayra Classic Form Pithos 13.01.

	Pithos 13.01	μ Pithos in Group (σ)
Neck Height in cm	2.50	2.97 (0.71)
Rim Thickness in cm	3.00 (33%)	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened: Misc, OT/IT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	66.00	68.18 (13.41)
Exterior Rim Diameter in cm	21.00	21.74 (4.22)
Collar Shape	Teardrop	Triangular
Rim-to-Collar Angle	27.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	8.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

**FIGURE 136.** Pithos 13.01, Busayra TS 294 (Bienkowski 2002: 314; fig. 9.42.12).

Pithos 13.02: Busayra, ca. 732 B.C.

Pithos 13.02 (figure 137) was part of a locus for which data has not been preserved. It is known to have been located near the perimeter wall system, but its precise phase and location are unknown. The date assigned to this vessel is based on the earliest dates in Area B, which according to the publications of the site, belong in the Iron Age 2C. This assignment should be considered estimated and approximate.

As with Pithos 13.01, the most remarkable feature of this vessel is its inverted rim. This rim's offset, thickened shape is present in only 9% ($n = 7$)

of the Classic Form examples in this study. Furthermore, this rim is 30% taller than average and second only to Pithos 15.04 (Tall Hisban) for rim height in the Classic Form group. The remaining dimensions of this vessel are typical for a Classic Form example. Dimensions for this vessel were obtained solely from a published plate.

TABLE 91. Comparable Data for Busayra Classic Form Pithos 13.02.

	Pithos 13.02	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Inverted	Everted
Rim Shape	Thickened T4: Offset, OT	Thickened T2: Edgeless, OT
Rim Height in cm	4.00 (30%)	2.81 (0.62)
Rim Circumference in cm	66.00	68.18 (13.41)
Ext. Rim Diameter in cm	21.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	28.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	3.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

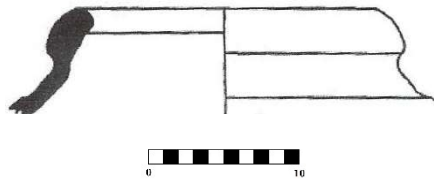


FIGURE 137. Pithos 13.02, Busayra (Bienkowski 2002: 314; fig. 9.42.17).

Pithos 13.03: Busayra, ca. 732 B.C.

This pithos (figure 138) was found in Area B, in a locus for which data has not been preserved.¹¹¹ While profiled rims were relatively common in the longer necked Long Form group, this rim shape is less typical among the Classic Form – comprising only 12% (n = 11) of total rims in this group. The double-grooved shape here is the most frequent of the profiled rims, the majority of which come from southern Transjordan. Together these double-grooved, profiled rims (n = 5) make up 6% of the Classic Form rims and 45% of the profiled rims in the Classic Form group. The rim on Pithos 13.03 has an unusual straight inflection stance. It also has a circumference and diameter that are 28% larger than average. This rim stands further inside of alignment with the collar than usual, but it is still within one standard deviation of the mean. All of the remaining dimensions of this vessel are also within standard. Dimensions for this vessel were obtained solely from a published plate.

TABLE 92. Comparable Data for Busayra Classic Form Pithos 13.03.

	Pithos 13.03	μ Pithos in Group (σ)
Neck Height in cm	2.80	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Profiled T3: D. Grved, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	94.30 (28%)	68.18 (13.41)
Ext. Rim Diameter in cm	30.00 (28%)	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	25.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	4.00	7.19 (4.04)

¹¹¹ See the location description given for Pithos 13.02, as these vessels were found in the same locus.

Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

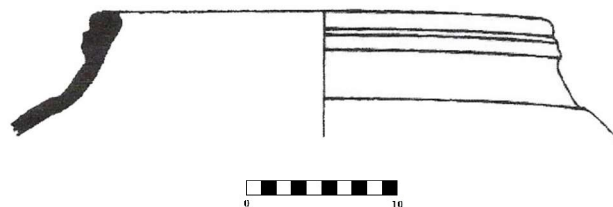


FIGURE 138. Pithos 13.03, Busayra (Bienkowski 2002: 314; fig. 9.42.2).

Pithos 13.04: Busayra, ca. 732 B.C.

Pithos 13.04 (figure 139) was found in Area B in a locus for which data has not been preserved, but originated from the same locus as Pithos 13.02. This pithos has one of the thickest rims in the Classic Form group. It also has a rim circumference and diameter that are 19% larger than average. This rim stands inside of alignment with the collar 26° more than the average Classic Form vessel, but it is still well within one standard deviation of the mean. The neck height, rim height, and collar prominence are all within standard for the Classic Form group as well. Dimensions for this vessel were obtained solely from a published plate.

TABLE 93. Comparable Data for Busayra Classic Form Pithos 13.04.

	Pithos 13.04	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	3.00 (33%)	2.01 (0.51)
Rim Inflection	Inverted	Everted
Rim Shape	Thickened T4: Offset, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	84.80 (19%)	68.18 (13.41)
Ext. Rim Diameter in cm	27.00 (19%)	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	25.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	9.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

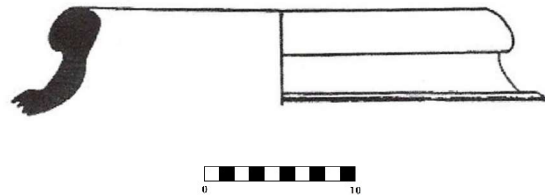


FIGURE 139. Pithos 13.04, Busayra (Bienkowski 2002: 315; fig. 9.43.2).

Tall Deir ‘Alla, Southern Jordan Valley



FIGURE 140. Aerial view of Tall Deir ‘Alla.

The description of the Iron Age excavations and stratigraphic context at Tall Deir ‘Alla is delineated in Chapter 2. Consult that description for further information regarding the larger archaeological context of the following pithos.

Pithos 14.01: Tall Deir ‘Alla, ca. 1140 B.C.

Although the precise original location of Pithos 14.01 (figure 141) is missing from the publications, it is described as coming from the first level of Iron Age deposits in Area F.¹¹² As discussed in Chapter 2 in reference to

¹¹² This is Franken’s “Phase A.” cf. Franken 1969: 33-35, 181.

Pithos 1.01, the Late Bronze Age *terminus* date in this field is 1180±60 B.C. (Franken 1969: 244-45). Thus, a date at the start of the Iron Age 1B, 1140 B.C., is assigned to this vessel.

Of the 216 collared pithoi in this study, this vessel is the third shortest. It is surpassed in diminutive stature only by the Long Form Pithos 7.01, from Tall al-‘Umayri, and Long Form Pithos 1.01, also from Tall Deir ‘Alla. Pithos 14.01, when compared to other Classic Form examples, is 21% shorter than average. Despite this feature, its body circumference is well within standard. This ratio gives Pithos 14.01 its rotund appearance. The neck height of this vessel is 26% taller than average. Its unusually triangular rim, seen in only 11% (n = 9) of Classic Form vessels, is 50% thinner than average for this group. This rim is the thinnest of the examples in the Classic Form group. The rim stands 52% further inside of alignment with the collar than average. Finally, the base has an unusual pointed shape, which is unique here among the Classic Form examples. It is the only pointed base in the Classic Form group. This base, however, is of nearly average thickness. The remaining features of this pithos are also within one standard deviation of the mean. Dimensions for this vessel were obtained solely from a published plate.

TABLE 94. Comparable Data for Tall Deir 'Alla Classic Form Pithos 14.01.

	Pithos 14.01	μ Pithos in Group (σ)
Neck Height in cm	4.00 (26%)	2.97 (0.71)
Rim Thickness in cm	1.00 (50%)	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Triangular, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	59.70	68.18 (13.41)
Exterior Rim Diameter in cm	19.00	21.74 (4.22)
Collar Shape	Round	Triangular
Rim-to-collar Angle	24.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	15.00 (52%)	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink
Full Vessel Height in cm	85.00 (21%)	107.07 (12.24)
Body Circumference in cm	172.79	181.63 (12.38)
Handle Width in cm	unknown	4.36 (0.39)
Handle Height in cm	14.00	14.06 (1.88)
Base Shape	Pointed	Rounded
Base Thickness in cm	2.00	1.97 (1.10)

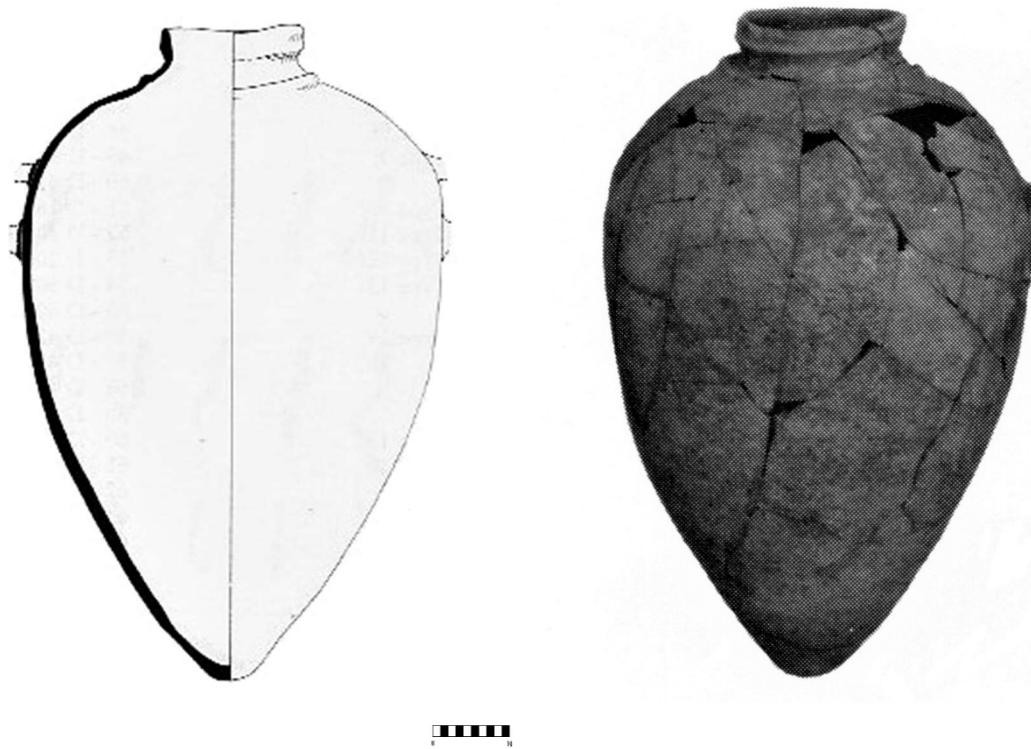


FIGURE 141. Pithos 14.01, Tall Deir 'Alla 1188 (Franken 1969: 180-81; fig. 47.1; Photograph, Pl. XIV).

Tall Hisban, Central Plateau



FIGURE 142. Aerial view of Tall Hisban.

Tall Hisban is a 50 acre site located on the central plateau, 11 km north of Madaba and 26 km southwest of downtown Amman. Due to the commonality of the site's name and its general location, many scholars associate the site with biblical Heshbon. This identification, however, has not yet reached scholarly consensus.

Five seasons of excavations began at Tall Hisban in 1968, under the direction of Siegfried Horn, Roger Boraas, and Lawrence Geraty. In 1996 a project to clean and restore the site for public access and viewing began under the direction of Øystein LaBianca. This project also led to the further excavation of the associated Umayyad and Abbasid occupation on the slopes of the tell (LaBianca 2011: 9-17). Tall Hisban was first occupied at the

beginning of the Iron Age, around 1225 B.C., and continued, with occasional hiatuses through the Islamic period. There are six Iron Age occupational phases, spanning 1225-450 B.C., demonstratable on the tell (Ray 2001: 5), although not all of them are accompanied by architectural remains. Materials at the site were routinely re-used by successive construction efforts, leaving little of the former occupational structures *in situ*. Non-useful remains, such as discarded sherds, were then scraped off the tell, or into the site's large reservoir, to prepare for the re-building. This process inspired one of the site's more recent excavators to refer to Tall Hisban as an archaeological palimpsest (LaBianca 2011: 9). As a result, the majority of the Iron Age ceramic remains of Tall Hisban have been found in mass periodic dumps.

Pithos 15.01: Tall Hisban, ca. 1140 B.C.

Pithos 15.01 (figure 143) was found in a bedrock trench on the southern shelf of the mound, in Field B, Square 3, Locus 77. The ceramic material in this stratum included a mix of Iron Age 1A and Iron Age 1B forms (Ray 2001: 45). This pithos was associated with the later corpus and has been assigned a date that reflects this. Other forms found in the same locus as Pithos 15.01 included two jars, two jugs, two chalices, two "Manasseh" bowls, a shallow grooved bowl, a large open krater, and a carinated bowl in the Iron Age style (Ray 2001: 45-49; Sauer, Herr, and Ray 2012: 26-48).

Pithos 15.01 is a good example of the Classic Form. Most of its features align nicely with those of the average vessel in this group. Nevertheless, it does have a few notable characteristics. Its rim is 19% larger than normal and its collar is one of the most prominent in this group. The rim stands nearer to alignment with the collar than usual, but it is still within one standard deviation of the mean. It is fully oxidized with a surface color better described as brown than pink. The remaining features of this pithos are within one standard deviation of the mean. Dimensions for this vessel were obtained solely from a published plate.

TABLE 95. Comparable Data for Tall Hisban Classic Form Pithos 15.01.

	Pithos 15.01	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	84.80 (19%)	68.18 (13.41)
Ext. Rim Diameter in cm	27.00 (19%)	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	8.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	16.00 (55%)	7.19 (4.04)
Firing	Oxidation	Underfired
Exterior Munsell Reading	7.5 YR 5/4, Brown	Pink

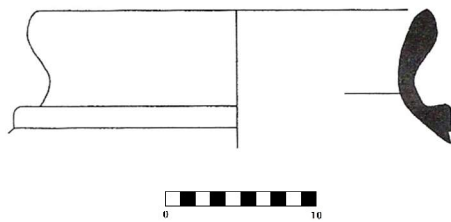


FIGURE 143. Pithos 15.01, Tall Hisban 14193 (Ray 2001: 46-48; fig. 3.2.3; Sauer 2012: 27-28; fig. 2.4.5).

Pithos 15.02: Tall Hisban, ca. 1140 B.C.

Pithos 15.02 (figure 144) was found in Field B, Square 3, Locus 82. Although it was in a different locus, Pithos 15.02 was found in the same general location as Pithos 15.01.¹¹³ No other publishable ceramics were included from this locus.

There are many features of Pithos 15.02 that are outside of what is expected for a Classic Form example. While its rim is near average in its thickness and is the most common shape found in this group, it is 26% taller than usual. It also has a rim circumference and diameter that are 16% larger than average and just outside of one standard deviation of the mean. The neck, with a typical height, slopes down to a teardrop-shaped collar that is 55% more prominent than average. While the teardrop shape was the most common collar shape in the Long Form, in this group it is the second most common, present on 18% (n = 14) of the vessels. When one considers only the examples from Tall Hisban, however, this shape is seen in all but one of the pithoi, making it the most common among Classic Form vessels from this site. The rim is only 4° from alignment with the collar, making it 78% more upright than the usual example. The ware of this pithos is fully oxidized but it has the usual pink exterior surface coloring. Dimensions for this vessel were obtained solely from a published plate.

¹¹³ See the entry for Pithos 15.01 for a more complete discussion of this vessel's archaeological context.

TABLE 96. Comparable Data for Tall Hisban Classic Form Pithos 15.02.

	Pithos 15.02	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.80 (26%)	2.81 (0.62)
Rim Circumference in cm	81.70 (16%)	68.18 (13.41)
Ext. Rim Diameter in cm	26.00 (16%)	21.74 (4.22)
Collar Shape	Teardrop	Triangular
Rim-to-Collar Angle	4.00° Inside (78%)	18.51° Inside (11.62)
Collar Prominence in mm	16.00 (55%)	7.19 (4.04)
Firing	Oxidation	Underfired
Exterior Munsell Reading	Pink	Pink

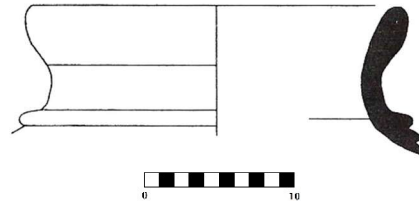


FIGURE 144. Pithos 15.02, Tall Hisban 14805 (Ray 2001: 46-48; fig. 3.2.2; Sauer 2012: 27-28; fig. 2.4.4).

Pithos 15.03: Tall Hisban, ca. 1140 B.C.

Pithos 15.03 (figure 145) was found very close to the previous two examples. Pithos 15.01 and 15.02 were found in Field B, Square 3, just to the west of Field D, Square 4, Locus 141, where Pithos 15.03 was located.¹¹⁴ All three vessels belong to Phase 20 of Tall Hisban. Published ceramics from this locus include three pithoi,¹¹⁵ two jars, one painted jar/jug, and two carinated bowls (Sauer and Herr 2012: 26-48).

There are five other rims in the Classic Form group that share the simple shape of this rim. Together they comprise 7% of the rims in this group. This rim is 30% taller than average. It has subtle outer thickening and stands everted from the line of the neck. Its circumference and exterior diameter are 30% larger than usual. The collar resting at the bottom of this vessel's neck has the teardrop shape, more common in the longer necked pithoi than in the Classic Form group. This collar rises 18.0 mm from the surface of the pithos, granting it the acclaim of the most prominent collar of the 233 in this study. This distinction is shared by only one other vessel, Classic Form Pithos 15.04. The remaining features of this pithos are within one standard deviation of the mean and are all considered common for the Classic Form group. Dimensions for this vessel were obtained solely from a published plate.

¹¹⁴ See the stratigraphic description for Pithos 15.01 for more detail on the general context of Pithos 15.03.

¹¹⁵ Two of these may have been collared pithoi, but the neck has not been preserved far enough to make that determination. The third is Pithos 15.04.

TABLE 97. Comparable Data for Tall Hisban Classic Form Pithos 15.03.

	Pithos 15.03	μ Pithos in Group (σ)
Neck Height in cm	2.50	2.97 (0.71)
Rim Thickness in cm	1.80	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Simple, OT	Thickened T2: Edgeless, OT
Rim Height in cm	4.00 (30%)	2.81 (0.62)
Rim Circumference in cm	84.80 (19%)	68.18 (13.41)
Exterior Rim Diameter in cm	27.00 (19%)	21.74 (4.22)
Collar Shape	Teardrop	Triangular
Rim-to-Collar Angle	25.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	18.00 (60%)	7.19 (4.04)
Firing	Oxidation	Underfired
Exterior Munsell Reading	5 YR 7/4, Brown	Pink

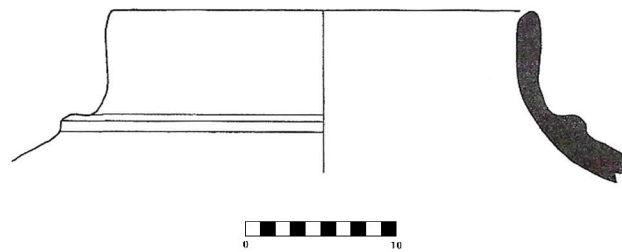


FIGURE 145. Pithos 15.03, Tall Hisban 31795 (Sauer and Herr 2012: 27-28; fig. 2.4.3).

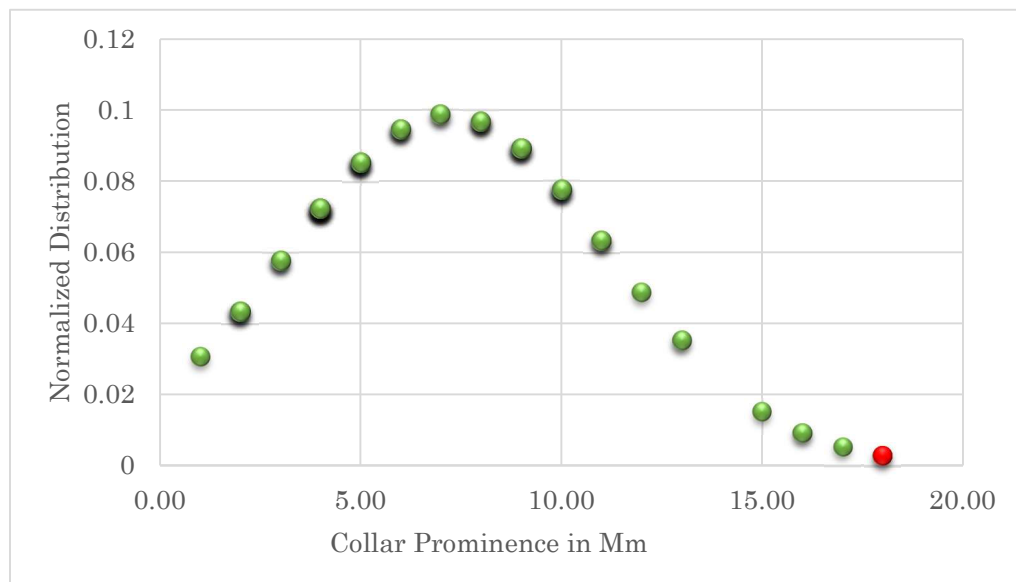


FIGURE 146. Distribution of Classic Form Collar Prominences, Pithos 15.03 and 15.04.

Pithos 15.04: Tall Hisban, ca. 1140 B.C.

This pithos (figure 147) is from the same locus as Pithos 15.03.¹¹⁶

Pithos 15.04 has a simple rim with subtle outer thickening. Its rim has a thickness slightly below average and a height that is 33% taller than usual, for the Classic Form group. Its circumference and exterior diameter are 22% larger than the mean. The neck of this pithos is slightly shorter than usual and terminates in a less common teardrop-shaped collar at the join to the vessel's upper shoulder. As is seen with the previous vessel, Pithos 15.04 also has an extraordinarily prominent collar that measures 60% larger than average. The remaining features of this pithos, however, are within one standard deviation of the mean and are all considered common. Dimensions for this vessel were obtained solely from a published plate.

TABLE 98. Comparable Data for Tall Hisban Classic Form Pithos 15.04.

	Pithos 15.04	μ Pithos in Group (σ)
Neck Height in cm	2.20 (26%)	2.97 (0.71)
Rim Thickness in cm	1.80	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Simple, OT	Thickened T2: Edgeless, OT
Rim Height in cm	4.20 (33%)	2.81 (0.62)
Rim Circumference in cm	88.00 (22%)	68.18 (13.41)
Exterior Rim Diameter in cm	28.00 (22%)	21.74 (4.22)
Collar Shape	Teardrop	Triangular
Rim-to-Collar Angle	Aligned	18.51° Inside (11.62)
Collar Prominence in mm	18.00 (60%)	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

¹¹⁶ See the stratigraphic description for Pithos 15.01 for more detail on the general context of Pithos 15.04.

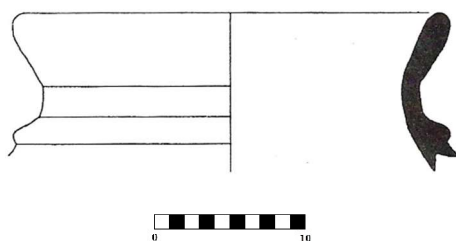


FIGURE 147. Pithos 15.04, Tall Hisban 31818 (Ray 2001: 46-48; fig. 3.2.5).

Pithos 15.05: Tall Hisban, ca. 1140 B.C.

Pithos 15.05 (figure 148) was found in Field D, Square 4, Locus 145. The only other publishable ceramic from this locus was a ring base in which the middle of the base goes down to the same level as the bottom of the ring. Such bases are most common on large jars and kraters in the Iron Age 1 (Sauer and Herr 2012: 49-50).¹¹⁷

With the exception of the rim diameter and circumference, all of the dimensions of Pithos 15.05 are within one standard deviation of the mean for the Classic Form group. The everted rim is simple, with subtle outer thickening and stretches to a circumference that is 25% larger than average. The teardrop-shaped collar is only observable on 18% (n = 14) of Classic Form pithoi. Interestingly, six of those vessels originate from Tall Hisban. The ware is fully oxidized and the exterior color is described as light reddish brown. Dimensions for this vessel were obtained solely from a published plate.

¹¹⁷ For more details on the larger context of this pithos, please see the descriptions of Pithos 15.01 and Pithos 15.03.

TABLE 99. Comparable Data for Tall Hisban Classic Form Pithos 15.05.

	Pithos 15.05	μ Pithos in Group (σ)
Neck Height in cm	3.50	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Simple, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	91.00 (25%)	68.18 (13.41)
Exterior Rim Diameter in cm	29.00 (25%)	21.74 (4.22)
Collar Shape	Teardrop	Triangular
Rim-to-Collar Angle	19.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	11.00	7.19 (4.04)
Firing	Oxidation	Underfired
Exterior Munsell Reading	2.5 YR 6/4, Light Reddish Brown	Pink

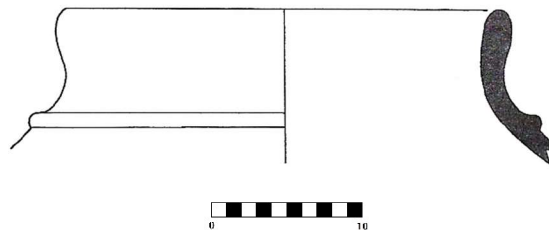


FIGURE 148. Pithos 15.05, Tall Hisban 32073 (Sauer 2012: 27-28; fig. 2.4.6)

Pithos 15.06: Tall Hisban, ca. 1140 B.C.

Also from Square D4 at Tall Hisban, Pithos 15.06 (figure 149) was found in a locus from which there were no other publishable ceramic remains.¹¹⁸ This is the third of the eight Classic Form pithoi presented in this chapter with a round-shaped rim. This average-sized, everted rim tops a neck that is 29% taller than average. The neck terminates in a prominent teardrop-shaped collar that is nearly 2.0 mm larger than one standard

¹¹⁸ For more details on the larger context of Pithos 15.06, see the descriptions of Pithos 15.01 and Pithos 15.03.

deviation of the mean. The ware is oxidized and the external surface of the vessel can best be described as “pink.” The remaining features and elements of this pithos are near enough to average to be considered standard for the Classic Form group. Dimensions for this vessel were obtained solely from a published plate.

TABLE 100. Comparable Data for Tall Hisban Classic Form Pithos 15.06.

	Pithos 15.06	μ Pithos in Group (σ)
Neck Height in cm	4.20 (29%)	2.97 (0.71)
Rim Thickness in cm	2.50	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Round, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	78.50	68.18 (13.41)
Exterior Rim Diameter in cm	25.00	21.74 (4.22)
Collar Shape	Teardrop	Triangular
Rim-to-Collar Angle	10.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	13.00 (45%)	7.19 (4.04)
Firing	Oxidation	Underfired
Exterior Munsell Reading	7.5 YR 7/4, Pink	Pink

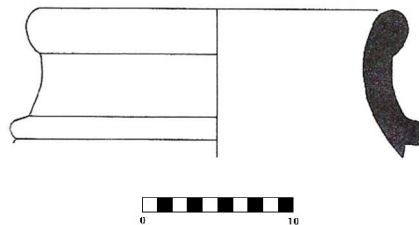


FIGURE 149. Pithos 15.06, Tall Hisban 32085 (Sauer 2012: 27-28; fig. 2.4.7).

Pithos 15.07: Tall Hisban, ca. 1140 B.C.

Pithos 15.07 (figure 150) was also found in Square D4 at Tall Hisban, in a locus from which there were no other publishable vessels.¹¹⁹ Other than the thickness of the rim of this pithos, none of its features are standard for the Classic Form group. This represents a very unique example of a Classic Form collared pithos. At 4.0 cm, its neck is 26% taller than average. Its simple, subtly-thickened rim is in straight alignment with the curve of the neck. The 4.0 cm rim height is 30% taller than usual and the same length as the neck. The rim circumference and diameter are also larger than expected for a Classic Form pithos, measuring 19% broader than average. The rim stands 5° outside the line of the collar. Only four other vessels in the Classic Form group have rims outside the line of the collar. The teardrop-shaped collar is the second most common Classic Form shape and yet still only comprises 18% (n = 14) of the collars in this group. This example is 58% more prominent than average. The ware of this pithos is fully oxidized and is best described as “light reddish brown,” rather than the more common “pink.” In sum, Pithos 15.07 is one of the most uncharacteristic examples in the Classic Form group. Dimensions for this vessel were obtained solely from a published plate.

¹¹⁹ For more details on the larger context of Pithos 15.07, see the descriptions of Pithos 15.01 and Pithos 15.03.

TABLE 101. Comparable Data for Tall Hisban Classic Form Pithos 15.07.

	Pithos 15.07	μ Pithos in Group (σ)
Neck Height in cm	4.00 (26%)	2.97 (0.71)
Rim Thickness in cm	1.80	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Simple, OT	Thickened T2: Edgeless, OT
Rim Height in cm	4.00 (30%)	2.81 (0.62)
Rim Circumference in cm	84.80 (19%)	68.18 (13.41)
Exterior Rim Diameter in cm	27.00 (19%)	21.74 (4.22)
Collar Shape	Teardrop	Triangular
Rim-to-Collar Angle	5.00° Outside (73%)	18.51° Inside (11.62)
Collar Prominence in mm	17.00 (58%)	7.19 (4.04)
Firing	Oxidation	Underfired
Exterior Munsell Reading	5 YR 6/4, Light Reddish Brown	Pink

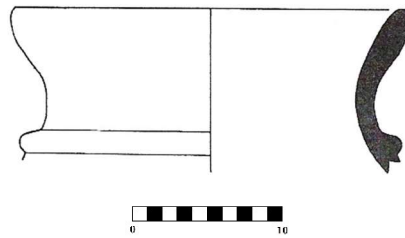


FIGURE 150. Pithos 15.07, Tall Hisban 32087 (Sauer 2012: 27-28; fig. 2.4.1).

‘Iraq el-Emir, Central Plateau



FIGURE 151. Aerial view of ‘Iraq el-Emir.

‘Iraq el-Emir is located near Wadi Sir on the western edge of the central plateau, west of Amman. The region is best known for its Hellenistic-period castle and Tobaid caves. There are many springs in the area. The village (Field I) of ‘Iraq el-Emir contained the site’s only Iron Age remains. It was excavated under the direction of Paul Lapp over the course of three seasons from 1961-1962 (Lapp, P. 1963: 15-21). Above the Early Bronze Age town, a phase identified by Lapp as Stratum VI, the site’s second period of use began during the Iron Age 2, identified as Stratum V. The third occupation occurred during the Hellenistic period, Stratum IV (Lapp, P. 1963: 10). During its construction, the Hellenistic-period builders significantly impacted and damaged the existing Iron Age stratum. As a result, data is limited about the latter’s development (Lapp, N. 1980: 10).

The ceramics of Iron Age 'Iraq el-Emir are largely mixed and disturbed. The majority are forms most familiar to the Iron Age 2B/C, or more specifically the sixth through fourth centuries B.C. (Ulvoczky 2017: 93). However, there are examples of a few jars and bowls that would be better assigned to the Iron Age 1 (Ulvoczky 2017: 93-94), indicating the possibility of less sedentary occupation of the site during that period. The collared pithoi studied below are among those vessels that may be best dated earlier than the main corpus present at the site.

Pithos 16.01: 'Iraq el-Emir, ca. 1140 B.C.

This pithos (figure 152) was found in Square 1 of Field I. It was excavated from a trench that bisected the square, with a small pit on the east side. The excavator originally interpreted the ceramic material of this locus to be entirely Iron Age 1 (Ulvoczky 2017: 16, 17). No other ceramics were published from this locus. With the lack of further correlations, this pithos has been assigned an Iron Age 1 date, as the locus was considered homogenous and was thus interpreted by the excavators.

The rim of Pithos 16.01 is its most unique feature. Its upper grooved, profiled shape is shared with one other Classic Form example, Pithos 27.03 from Tall al-'Umayri. It is about 33% thicker and 29% shorter than average. Its rim circumference and diameter are on the smallest boundary of one standard deviation of the mean for the Classic Form. The rim is significantly

inside of alignment with the triangular collar, but it is still near enough to average to be considered normal for this group. The 4.0 mm prominence of the collar is likewise within the Classic Form standard, although it is on the lower end of the spectrum. Dimensions for this vessel were obtained solely from a published plate.

TABLE 102. Comparable Data for 'Iraq el-Emir Classic Form Pithos 16.01.

	Pithos 16.01	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	3.00 (33%)	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T4: U. Grved, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.00 (29%)	2.81 (0.62)
Rim Circumference in cm	55.00	68.18 (13.41)
Ext. Rim Diameter in cm	17.50	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	22.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	4.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

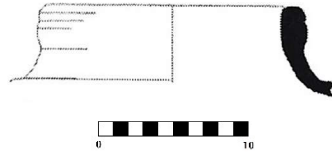


FIGURE 152. Pithos 16.01, 'Iraq el-Emir I.1.10.24 (Ulvoczky 2017: 39; pl. 3.3).

Pithos 16.02: 'Iraq el-Emir, ca. 980 B.C.

Pithos 16.02 (figure 154) was found in Square 4 of Field I. Few details are accessible regarding the nature of this square. There is, however, one published sherd – a jar, that was found in the same locus. This jar has a triangular rim, with an upright stance, and some evidence of possible neck profiling. Parallels date to the Iron Age 2A-B (Ulvoczky 2017: 73-74). Pithos 16.02 has thus been dated to the beginning of the Iron Age 2A, or 980 B.C.

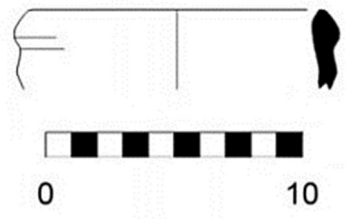
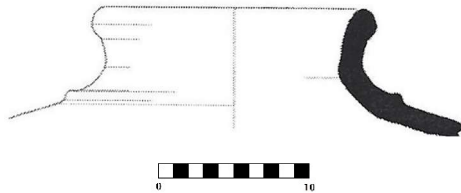


FIGURE 153. Jar found with Pithos 16.02 (Ulvoczky 2017: 67; pl. 10:5).

The short round rim on the longer neck of Pithos 16.02 is its most remarkable feature. The round shape, unknown before the Classic Form, is seen on 10% ($n = 8$) of the examples. This rim is 29% shorter than average with a thickness that is statistically average for the Classic Form group. In fact, aside from the rim and the neck height, which is 34% taller than usual, the dimensions of this pithos are all average for a Classic Form example. Dimensions for this vessel were obtained solely from a published plate.

TABLE 103. Comparable Data for 'Iraq el-Emir Classic Form Pithos 16.02.

	Pithos 16.02	μ Pithos in Group (σ)
Neck Height in cm	4.50 (34%)	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Round, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.00 (29%)	2.81 (0.62)
Rim Circumference in cm	59.70	68.18 (13.41)
Exterior Rim Diameter in cm	19.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	20.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	6.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

**FIGURE 154.** Pithos 16.02, 'Iraq el-Emir I.4.61.427 (Ulvoczky 2017: 39; pl. 3.1).

Pithos 16.03: 'Iraq el-Emir, ca. 732 B.C.

Pithos 16.03 (figure 156) was found in Square 5 of Field I. Little is published about the nature of the material in this square, excavated during the second and third seasons (Ulvoczky 2017: 18). The rim of one vessel, presumed to be a jug, was published from the same locus as Pithos 16.03 (Ulvoczky 2017: 72-73). This rim (figure 155) may have a parallel in a tenth century B.C. jug from Yoqne'am (Ulvoczky 2017: 73). However, the 'Iraq el-Emir example has a 19.0 cm rim diameter and the Yoqne'am jug has a 9.0 cm rim diameter. While this difference is not exclusionary, two other possible parallels are bowls. An Iron Age 2C bowl from Busayra has a 26.0 cm rim

diameter and a nearly vertical inflection (Bienkowski 2002: fig. 9.14:7). The height of this rim fragment is notably also similarly 6.0 cm in height. The Busayra bowl, however, has a black horizontal line decoration below the rim, which is not present on this vessel. Another possibility is a “Negevite” bowl from Kheleifeh, also dated Iron Age 2C. This example has a 16.0 cm rim diameter and a similar 1.0 cm thickness to the ‘Iraq el-Emir rim (Pratico 1985: 16; fig. 12:4). It seems reasonable, however, that if the ‘Iraq el-Emir rim were handmade it would have been observed and described as such in the excavator’s notes and publications. In brief, it is not possible to identify this vessel fragment with a reliable level of certainty.

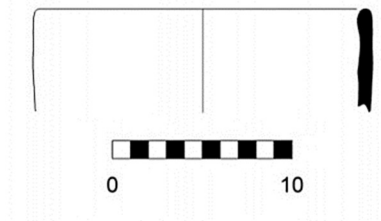


FIGURE 155. Vessel found with Pithos 16.03 (Ulvoczky 2017: 67; pl. 10:3).

Despite these difficulties in the form identification of the associated vessel, Pithos 16.03 has been here dated to the beginning of the Iron Age 2C, or 732 B.C., in alignment with the dating of these later two possible parallels. Again, it should be noted that this assignment is to be considered an estimate only. This locus is likely a mixed one and the chronological evidence admittedly thin. But with the lack of any other correlating evidence, a postulation of similar dating is here made.

The 2.0 cm neck height of Pithos 16.03 makes it one of 14 Classic Form pithoi ranked as the shortest necked vessels in the group. Despite this handful of examples with identical neck heights, they are still 33% shorter than the mean neck height for the Classic Form group as a whole and lie outside of one standard deviation. The other notable dimension of this pithos is the inside alignment of its rim to its collar. At 37°, this rim leans inward 50% more than the average Classic Form rim does in relation to its collar. Aside from the “very pale brown” shade of this vessel’s exterior, the remaining features of this example are classified as typical for the Classic Form group. Dimensions for this vessel were obtained in person and from a published plate.

TABLE 104. Comparable Data for ‘Iraq el-Emir Short Form Pithos 16.03.

	Pithos 16.03	μ Pithos in Group (σ)
Neck Height in cm	2.00 (33%)	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.30	2.81 (0.62)
Rim Circumference in cm	58.00	68.18 (13.41)
Ext. Rim Diameter in cm	18.50	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	37.00° Inside (50%)	18.51° Inside (11.62)
Collar Prominence in mm	4.00	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	10 YR 7/3, Very Pale Brown	Pink

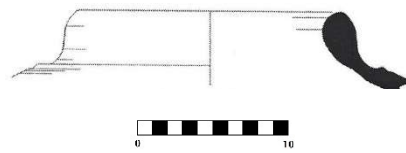


FIGURE 156. Pithos 16.03, Iraq el-Emir I.5.35.497 (Ulvoczky 2017: 40; pl. 4.3).

Tall Jalul, Central Plateau



FIGURE 157. Aerial view of Tall Jalul.

Tall Jalul is situated on the central plateau. Covering 18.0 acres, it is one of the largest archaeological mounds in central Transjordan. The site is located 5 km east of Madaba in the direction of Queen Alia International Airport. The ongoing excavations began in 1992, under the direction of Randall Younker and David Merling, and have continued for 16 seasons.

Occupation of the tell began in the Early Bronze Age and continued, with a few hiatuses, through the Hellenistic period. Evidence points toward the most extensive building period on the site having occurred during the late Iron Age 2C/Persian period, when the site supported the largest population in its history. The acropolis of the main tell is currently occupied by a modern

cemetery. Below the tell to the south is an extensive Islamic-period village. The 20 collared pithoi presented below were found in six different excavation fields across Tall Jalul. These are Fields A (9 examples), Field B (1 example), Field C (3 examples), Field F (1 example), Field G (4 examples), and Field W (2 examples).

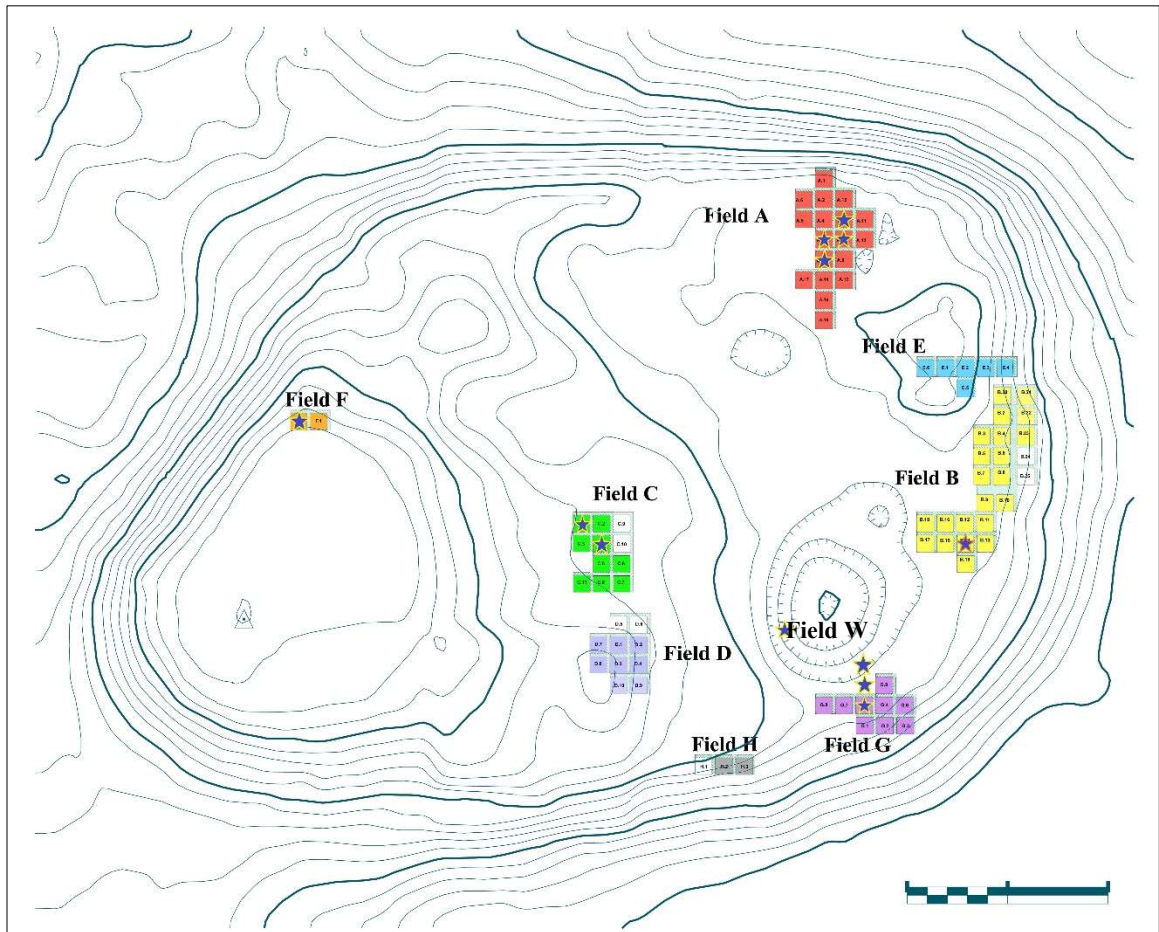


FIGURE 158. Topographic Map of Tall Jalul with areas of excavation (2007) and collared pithos distribution (indicated with stars).

Field A has thus far yielded a tripartite pillared building, the first of its kind found in Transjordan, dating to the Iron Age 2C. The structure had two main phases. The seventh century B.C. tripartite building was an adaptation and rebuilding of an earlier eighth century B.C. structure. The remains of the earlier building are built on tenth century B.C. fill (Younker et al. 2007, 78). Two other large buildings from the same period were also articulated to the south of the pillared building in this area, separated by a narrow street (Gane et al. 2010: 168).

Field B, on the eastern side of the tell, has a wide approach ramp, paved with flagstones, up to one of the city's gates. Construction phases dating to the ninth and eighth centuries B.C. are demonstrable in the pavement, with at least two more subsequent phases apparent in the gate.

Excavations in Field C, near the center of the tell, revealed a typical four-room house with a storage cave in the floor, near the middle of the central long room (Ray 2019: 532). This building had three major construction phases, with the original construction on the bedrock dating to the Iron Age 1 (Ray 2019: 531), the second phase ending in the early sixth century B. C. (Ray 2019: 536), and the final destruction of the third phase occurring in the late Iron Age 2C/Persian period (Ray 2019: 537).

Located on the south-east side of the tell, Fields G and W revealed an extensive water system, with a seventh century B.C. plastered water overflow channel (Field G) leading from the largest open-air reservoir (Field

W) yet discovered in the Iron Age levant. Field G also yielded an eighth century B.C. pillared building and a large segment of the ninth century B.C. city wall, elucidating its nature and course in that area of the site (Gane et al. 2010: 198-99).

Pithos 17.01: Tall Jalul, ca. 980 B.C.

Pithoi 17.01 (figure 159) and 17.02 (figure 160) are both from Locus 29 in Field A, Square 10, located just to the south of the center of the field. This locus is in an earth locus approximately 35 cm below the foundation of the eighth century B.C. tripartite building. It covered the entire 5.0 m square excavation area to an average depth of 27.0 cm. The Munsell readings revealed the earth to be a very dark ashy brown. Artifacts from this locus included one spindle whorl and two stone pounders. Faunal remains from Locus 29 included 107 ovine/caprine bones, 19 equine bones, 12 bovine bones, 4 porcine bones, and 3 gazella bones.

The ceramic finds in this locus totaled 433 Iron Age sherds. The diagnostic examples, in this fill layer, find their best parallels in the Late Bronze Age through the Iron Age 2A. From the Late Bronze Age examples came one lamp. From the Iron Age 1 group originated one bowl, two jugs, and a jar. From the Iron Age 2 came 9 jugs, 16 cooking pots, 17 bowls, and 7 jars. With consideration of this ceramic context and the sealed nature of this locus under an eighth century B.C. building, a date has been assigned to Pithos 17.01 and 17.02 from the beginning of the Iron Age 2A. It must be

acknowledged, however, that these pithoi could belong to the earlier forms and date as early as the Iron Age 1.

Apart from the neck, which is 26% taller than average, and the unusual rim, Pithos 17.01 possesses many of the standard features of a Classic Form example. It has an average rim height and circumference for this group. The collar has the usual triangular shape and is about 3.0 mm less prominent than average, but still within one standard deviation of the mean Classic Form collar. While its core is fully oxidized, its surface is the usual “pink.” The rim has some unusual features, however. It has a double grooved, profiled shape that is seen in only four other Classic Form examples. Together these five rims make up 6% of the rim shapes in this group. This rim is 44% thicker than the usual Classic Form example and has an unusually inverted stance from the line of the neck. The rim is aligned with the collar. Dimensions for this pithos were obtained directly from the vessel.

TABLE 105. Comparable Data for Tall Jalul Classic Form Pithos 17.01.

	Pithos 17.01	μ Pithos in Group (σ)
Neck Height in cm	4.00 (26%)	2.97 (0.71)
Rim Thickness in cm	1.12 (44%)	2.01 (0.51)
Rim Inflection	Inverted	Everted
Rim Shape	Profiled T3: D. Grved, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.80	2.81 (0.62)
Rim Circumference in cm	69.00	68.18 (13.41)
Ext. Rim Diameter in cm	22.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	Aligned	18.51° Inside (11.62)
Collar Prominence in mm	4.00	7.19 (4.04)
Firing	Oxidation	Underfired
Exterior Munsell Reading	5 YR 7/3, Pink	Pink



FIGURE 159. Pithos 17.01, Tall Jalul J05.A10.63.1,2.loc29.

Pithos 17.02: Tall Jalul, ca. 980 B.C.

For information regarding the direct context of Pithos 17.02 (figure 160), consult the description of Pithos 17.01. The thickened, offset rim shape of Pithos 17.02 is seen in 9% ($n = 7$) of the pithoi in the Classic Form group. Four of these seven vessels are from Tall Jalul, making this the second most common rim shape from this site in the Classic Form. This rim is inverted from the line of the neck and has a thickness and height that are within one standard deviation of the mean. The neck is 26% taller than the usual Classic Form example. The rim to collar angle is average. The triangular shape of the collar is typical, however this example is 72% less prominent than usual. The ware is oxidized but the surface is the typical Classic Form “pink.” Dimensions for this pithos were obtained directly from the vessel.

TABLE 106. Comparable Data for Tall Jalul Classic Form Pithos 17.02.

	Pithos 17.02	μ Pithos in Group (σ)
Neck Height in cm	4.00 (26%)	2.97 (0.71)
Rim Thickness in cm	1.60	2.01 (0.51)
Rim Inflection	Inverted	Everted
Rim Shape	Thickened T4: Offset, OT/IT	Thickened T2: Edgeless, OT
Rim Height in cm	3.30	2.81 (0.62)
Rim Circumference in cm	75.40	68.18 (13.41)
Ext. Rim Diameter in cm	24.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	19.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	2.00 (72%)	7.19 (4.04)
Firing	Oxidation	Underfired
Exterior Munsell Reading	7.5 YR 7/3, Pink	Pink



FIGURE 160. Pithos 17.02, Tall Jalul J05.A10.63.3.loc29.

Pithos 17.03: Tall Jalul, ca. 980 B.C.

Pithos 17.03 (figure 161) was found in Locus 30 of Field A, Square 10. This locus was an earth locus, 1.0 x 5.0 m in size, directly under Locus 29, from which Pithos 17.01 and 17.02 came, along the southern edge of the square. Locus 30 had an average depth of 38 cm. The Munsell readings revealed this locus to be the same color as Locus 29, that is a very dark ashy brown. The only artifact from this locus was a single spindle whorl. The faunal remains included 60 ovine/caprines bones, 1 caprine horn, and 19 bovine bones.

The ceramic finds in this locus contained a total of 253 Iron Age sherds. The diagnostic examples came from vessels with parallels in the Iron Age 1 through the Iron Age 2. These include 4 jars from the Iron Age 1 and 13 bowls, 8 jars, 1 juglet, 1 cooking pot, and 1 krater from the Iron Age 2. It is possible that Loci 29 and 30 are from the same phase. Certainly, the ceramic corpus seems to support their contemporaneity. As such, this vessel has also been given a date at the beginning of the Iron Age 2A, or 980 B.C..

The neck height, rim height, and rim circumference of Pithos 17.03 are all near standard for a Classic Form example. However, the simple, straight rim shape of this vessel is unique among the collared pithoi from Tall Jalul. This rim shape comprises 7% (n = 6) of the Classic Form rims as a whole. Its everted stance from the line of the neck gives the illusion of a simple thickened rim shape. This rim stands 6° inside of alignment with the

teardrop shaped collar. This collar, with the second most common shape in the Classic Form, is just over 2.0 mm less prominent than average, but is still within one standard deviation of the mean for the group. The surface of the ware is the typical “pink.” Dimensions for this pithos were obtained directly from the vessel.

TABLE 107. Comparable Data for Tall Jalul Classic Form Pithos 17.03.

	Pithos 17.03	μ Pithos in Group (σ)
Neck Height in cm	3.40	2.97 (0.71)
Rim Thickness in cm	1.20 (40%)	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Simple, Straight	Thickened T2: Edgeless, OT
Rim Height in cm	3.30	2.81 (0.62)
Rim Circumference in cm	62.80	68.18 (13.41)
Exterior Rim Diameter in cm	20.00	21.74 (4.22)
Collar Shape	Teardrop	Triangular
Rim-to-Collar Angle	6.00° Inside (68%)	18.51° Inside (11.62)
Collar Prominence in mm	5.00	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 7/3, Pink	Pink



FIGURE 161. Pithos 17.03, Tall Jalul J05.A10.68.1?.loc30

Pithos 17.04: Tall Jalul, ca. 980 B.C.

Pithos 17.04 (figure 162) was found in Field A, Square 10, Locus 31.

This locus is a 3.0 m square in the north-west quadrant of Square 10 with an average depth of 40.0 cm. Munsell readings describe this earth locus as dark brown. Artifacts include a small jar stopper, a fragment of a stone bowl, and the base of a basalt bowl. Faunal remains of the locus include 45 ovine/caprine bones, 18 bovine bones, and 2 equine bones.

The ceramic finds in this locus contained a total of 293 primarily Iron Age sherds. The diagnostic examples came from vessels with parallels in the Early Bronze Age through the Iron Age 2. The Early Bronze Age diagnostic example is a plate. From the Iron Age 1 are one jug, one jar, and one bowl. The Iron Age 2 forms include five jars, four bowls, one juglet, and one cup. Considering the more common occurrence of forms with parallels in the Iron Age 2A, Pithos 17.04 is given a date that aligns with this pattern, keeping in mind that it may belong to the Iron Age 1.

With only three exceptions, all of the dimensions and features of Pithos 17.04 are standard for a Classic Form example. The unusual features include the neck height, the rim shape and inflection, and the fully oxidized ware. The 4.0 cm neck of this vessel is 26% taller than average and outside of one standard deviation of the mean. The rim is profiled with a subtle double groove shape and inverted inflection from the line of the neck. Dimensions for this pithos were obtained directly from the vessel.

TABLE 108. Comparable Data for Tall Jalul Classic Form Pithos 17.04.

	Pithos 17.04	μ Pithos in Group (σ)
Neck Height in cm	4.00 (26%)	2.97 (0.71)
Rim Thickness in cm	1.60	2.01 (0.51)
Rim Inflection	Inverted	Everted
Rim Shape	Profiled T3: D. Grved, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	69.00	68.18 (13.41)
Ext. Rim Diameter in cm	22.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	13.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	4.00	7.19 (4.04)
Firing	Oxidation	Underfired
Exterior Munsell Reading	5 YR 7/3, Pink	Pink



FIGURE 162. Pithos 17.04, Tall Jalul J05.A10.70.1.loc31.

Pithos 17.05: Tall Jalul, ca. 830 B.C.

Pithos 17.05 (figure 163) was found in Field G, Square 12 during the removal of the west balk. This square is located at the center of the north side of the field, and abuts the south side of Field W. The west balk is shared with Square 11 and was excavated to the level of the top of the water channel at the close of the 2011 season. There are four occupational phases in Field G, dating to the ninth through the seventh centuries B.C. and the Persian

period (Gregor 2011: 354). The construction of the water channel was dated to the seventh century B.C. There is evidence of widespread conflagration at the end of the eighth century B.C. occupational phase, prior to the building of the water channel (Gregor 2011, 358-59).

Although Pithos 17.05 may be considered to have a tenuously supported date, due to its discovery in a balk removal, the other ceramics retrieved from the same pail were exclusively Iron Age 2. From the Iron Age 2A, they included one jar and four bowls. From the Iron Age 2B, came one bowl, one jar, one cooking pot, and one hole-mouth krater. Because this material was from balk removal, this pithos has been somewhat arbitrarily assigned to the beginning of the Iron Age 2B. It could just as easily belong to the earlier part of the Iron Age 2.

While some of the aspects of Pithos 17.05 are less common in shape, almost all of its dimensions are within one standard deviation of the mean. The exception to this is the rim circumference and the related exterior rim diameter, which are just outside of one standard deviation and measure 16% larger than average for the Classic Form. The thickened, offset rim shape of this vessel is the second most common shape among the Tall Jalul Classic Form examples. It is only seen in 9% ($n = 7$) of the pithoi in the Classic Form group as a whole. The round collar is equally unusual. At 5.0 mm it is low profiled, but is still within the range of typical collar prominences. Its shape, however, is only seen on four other Classic Form vessels, together comprising

6% of the Classic Form rims. This rim falls outside of the line of the collar by about 10°. Only 7% (n = 6) of the rims in this group are outside of the collar line. This stance is much more common among the Long Form vessels, accounting for nearly 17% (n = 13) of those examples. Dimensions for this vessel were obtained solely from a published plate.

TABLE 109. Comparable Data for Tall Jalul Classic Form Pithos 17.05.

	Pithos 17.05	μ Pithos in Group (σ)
Neck Height in cm	3.50	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T4: Offset, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.20	2.81 (0.62)
Rim Circumference in cm	<i>81.70 (16%)</i>	68.18 (13.41)
Ext. Rim Diameter in cm	<i>26.00 (16%)</i>	21.74 (4.22)
Collar Shape	Round	Triangular
Rim-to-Collar Angle	10.00° Outside	18.51° Inside (11.62)
Collar Prominence in mm	5.00	7.19 (4.04)
Firing	unknown	Underfired
Ext. Munsell Reading	10 YR 7/3, Very Pale Brown	Pink

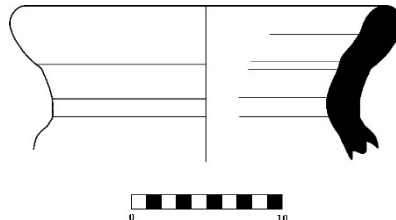


FIGURE 163. Pithos 17.05, Tall Jalul J11.G12.52.1.locWB.

Pithos 17.06: Tall Jalul, ca. 830 B.C.

Pithos 17.06 (figure 164) was discovered in Field C, Square 4, Locus 18 during the 1996 season at Tall Jalul. This field yielded a typical four-room house with a storage cave in the floor, near the middle of the central long room (Ray 2019: 532). This building had three major construction phases, with the original construction on the bedrock dating to the Iron Age 1 (Ray 2019: 531), the second phase beginning in the Iron Age 2A and ending in the early sixth century B. C. (Ray 2019: 536), and the final destruction of the third phase occurring in the late Iron Age 2C/Persian period (Ray 2019: 537).

Locus 18 belongs to Phase 2 of the house's occupation. This locus was approximately half a meter in depth and was located in the southwestern quadrant of Square C4, within the central area of the broad room of the four-room house. The ceramic remains found in Locus 18 include – from the Iron Age 2B – 8 bowls, 9 jars, 6 cooking pots, 4 pithoi, 1 tripod cup, 1 flask, 13 kraters (9 of which are hole-mouth), and 2 juglets. From those diagnostic sherds with parallels in the Iron Age 2C are nine bowls, two jars, and one juglet. The body sherds were classified as primarily Iron Age 2. As the Iron Age 2B ceramics are most prevalent in Locus 18, Pithos 17.06 is here dated to the beginning of the Iron Age 2B. This earlier date also harmonizes with the earlier construction of this phase.

Pithos 17.06 is a good example of a Classic Form collared pithos. All of its dimensions are within one standard deviation of the mean for that group.

The shape and stance of its rim, however, are somewhat less typical. 13% (n = 11) of the Classic Form rims are classified as “profiled.” The double-grooved, profiled rim, such as is seen here, is the most common of the profiled rim shapes, but still only represents 6% (n = 5) of the examples in the Classic Form group. Dimensions for this pithos were obtained directly from the vessel.

TABLE 110. Comparable Data for Tall Jalul Classic Form Pithos 17.06.

	Pithos 17.06	μ Pithos in Group (σ)
Neck Height in cm	3.50	2.97 (0.71)
Rim Thickness in cm	1.77	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Profiled T3: D. Groved, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.13	2.81 (0.62)
Rim Circumference in cm	66.00	68.18 (13.41)
Ext. Rim Diameter in cm	21.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	19.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	4.00	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 6/4, Light Reddish Brown	Pink



FIGURE 164. Pithos 17.06, Tall Jalul J96.C4.56.1.loc18.

Pithos 17.07: Tall Jalul, ca. 732 B.C.

Pithos 17.07 (figure 165) was found in Field B, Square 14, Locus 4. This locus belongs to an earth fill layer between the seventh and eighth century B.C. flagstone pavements leading up to the city gate. Unfortunately, most of the flagstones in this square were robbed out in antiquity, but directly below this locus the remnants of the decomposed limestone and

underlay of the eighth century B.C. pavement were present. This pithos has thus been assigned a date at the beginning of the Iron Age 2C. The ceramics found in this locus correlate this dating.

The characteristics of Pithos 17.07 are standard for a Classic Form collared pithos. The only notable dimension of this vessel is the depth of its rim to collar angle. The rim of this pithos leans inward from the line of the collar 44% more than average. Despite the extremity of this 33° angle from alignment, this example does not present one of the most inclined angles, but is simply outside of one standard deviation of the mean for the Classic Form group. The other remarkable feature of Pithos 17.07 is its double collar. This is a characteristic shared with only two other Classic Form vessels. These are Pithos 18.03 from Tall Jawa and Pithos 25.03 from Tall Safut. Dimensions for this pithos were obtained directly from the vessel.

TABLE 111. Comparable Data for Tall Jalul Classic Form Pithos 17.07.

	Pithos 17.07	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	2.10	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, IT	Thickened T2: Edgeless, OT
Rim Height in cm	2.90	2.81 (0.62)
Rim Circumference in cm	62.80	68.18 (13.41)
Ext. Rim Diameter in cm	20.00	21.74 (4.22)
Collar Shape	Double	Triangular
Rim-to-Collar Angle	33.00° Inside (44%)	18.51° Inside (11.62)
Collar Prominence in mm	4.00	7.19 (4.04)
Firing	Oxidation	Underfired
Exterior Munsell Reading	10 YR 7/3, Very Pale Brown	Pink

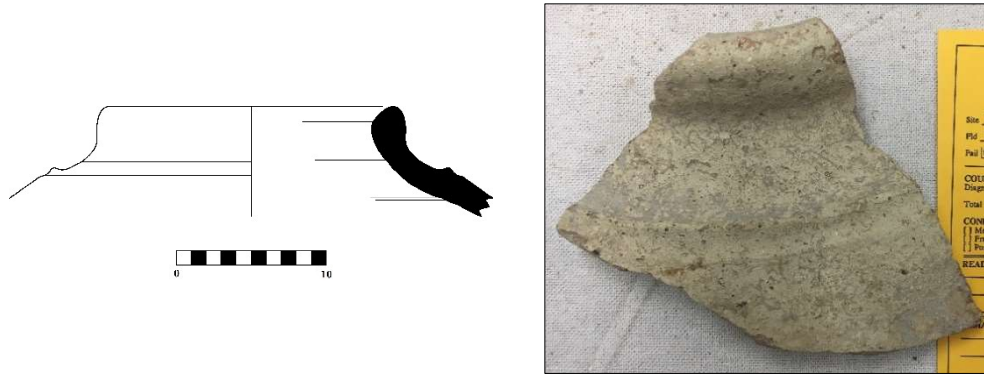


FIGURE 165. Pithos 17.07, Tall Jalul J96.B14.10.2.loc4

Pithos 17.08: Tall Jalul, ca. 700 B.C.

Pithos 17.08 (figure 166) was unearthed in Field A, Square 7, Locus 29, inside of the Iron Age 2C/Persian-period pillared building. It was excavated from between the pillars, directly on top of the eastern, seventh century B.C. stylobate (Younker and Merling 2000: 48). It had an average depth of 26.5 cm. About 70% of this locus was comprised of burned mudbrick from collapse of the structure during its demise. 22 pottery pieces were found, all generally from the Iron Age. Two bowls and one cooking pot were considered diagnostic and these dated to the Iron Age 1. This context may indicate that this pithos also dates to the Iron Age 1, however, for the purpose of this study, it has been given a seventh century B.C. date – in agreement with the earliest possible date of its immediate architectural context.

The rim on Pithos 17.08 is 26% thinner than the average Classic Form rim, with a rim circumference and diameter that are 27% larger than usual.

The low prominence of the collar, which could perhaps be taken as neck profiling, and the unexpected 20° angle of the rim flaring *outside* of the line of this presumptive collar, both give a sense of uncertainty regarding the classification of this rim as a collared rim pithos. At the very least, this vessel may have had a more prominent collar further down. Without a better understanding of the continuation of this vessel into the shoulder, its identification and collar dimensions are tentative. Nevertheless, for the sake of comprehensiveness, it has been included here. Dimensions for this pithos were obtained directly from the vessel.

TABLE 112. Comparable Data for Tall Jalul Classic Form Pithos 17.08.

	Pithos 17.08	μ Pithos in Group (σ)
Neck Height in cm	2.30	2.97 (0.71)
Rim Thickness in cm	1.48 (26%)	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T4: Offset, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.90	2.81 (0.62)
Rim Circumference in cm	94.30 (27%)	68.18 (13.41)
Ext. Rim Diameter in cm	30.00 (27%)	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	20.00° Outside	18.51° Inside (11.62)
Collar Prominence in mm	4.00 (44%)	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	10 YR 7/3, Very Pale Brown	Pink

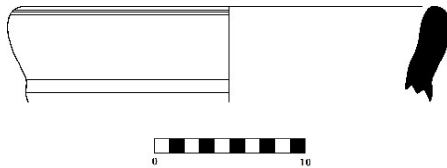


FIGURE 166. Pithos 17.08, Tall Jalul J99.A7.35.1.loc.29.

Pithos 17.09: Tall Jalul, ca. 980 B.C.

Pithos 17.09 (figure 167) was found in the same locus as Pithos 17.04. Consult the context description above for more details regarding its dating and archaeological context. The collar of Pithos 17.09 was unfortunately broken and only a small segment of the top portion survives. This allows measurement of the distance from the bottom of the rim to the collar top, but unfortunately, the dimensions and shape of the collar are lost. The neck measures 33% shorter than average and, at 2.0 cm, is among the shortest necks in the Classic Form group. The rim is only slightly larger than average,

but is still within one standard deviation of the mean for the Classic Form group. The rim circumference and diameter, however, are 16% larger than average. The remaining known features and dimensions of this pithos are within standard for the Classic Form. Dimensions for this pithos were obtained directly from the vessel.

TABLE 113. Comparable Data for Tall Jalul Classic Form Pithos 17.09.

	Pithos 17.09	μ Pithos in Group (σ)
Neck Height in cm	<i>2.00 (33%)</i>	2.97 (0.71)
Rim Thickness in cm	2.20	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	<i>81.70 (16%)</i>	68.18 (13.41)
Ext. Rim Diameter in cm	<i>26.00 (16%)</i>	21.74 (4.22)
Collar Shape	unknown, broken	Triangular
Rim-to-Collar Angle	10.00° Outside	18.51° Inside (11.62)
Collar Prominence in mm	unknown	7.19 (4.04)
Firing	unknown	Underfired
Ext. Munsell Reading	2.5 YR 8/2, Pinkish White	Pink



FIGURE 167. Pithos 17.09, Tall Jalul J05.A10.70.2.loc31.

Pithos 17.10: Tall Jalul, ca. 980 B.C.

Pithos 17.10 (figure 168) was found in Field A, Square 8, Locus 49.

This locus is characterized as one of several ashy fill layers next to and under the later Iron Age 2 Tripartite building. These deposits belong to the post Iron Age 1 occupational phase upon which the Iron Age 2 structure was built (Younker and Merling 2000: 46). Artifacts from this locus include two jar stoppers and a spindle whorl. Faunal remains of the locus include 48 ovine/caprine bones, 2 bovine bones, and 1 equine bone. The ceramics originating from this locus are best described as belonging to the end of the Iron Age 1. This pithos has been dated to the beginning of the Iron Age 2A, in accordance with the dating of these ceramics.

Pithos 17.10 possesses many of the standard features expected in a Classic Form collared pithos. Its neck height, the size of its rim, collar prominence, and the angle that the rim stands in relation to the collar are all comfortably within one standard deviation of the mean for this form group. The rim circumference and diameter are 16% larger than expected and just outside of the limit of one standard deviation from the mean. The round shape of the collar is the third most common Classic Form shape and is seen on 6% ($n = 5$) of Classic Form examples. The offset, thickened rim is common in 9% ($n = 7$) of the pithoi in this group. The inverted rim inflection is more frequent among offset rim shapes and is seen in four of the seven examples. Dimensions for this pithos were obtained directly from the vessel.

TABLE 114. Comparable Data for Tall Jalul Classic Form Pithos 17.10.

	Pithos 17.10	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	2.30	2.01 (0.51)
Rim Inflection	Inverted	Everted
Rim Shape	Thickened T4: Offset, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.30	2.81 (0.62)
Rim Circumference in cm	81.70 (16%)	68.18 (13.41)
Ext. Rim Diameter in cm	26.00 (16%)	21.74 (4.22)
Collar Shape	Round	Triangular
Rim-to-Collar Angle	10.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	5.00	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 6/3, Light Brown	Pink

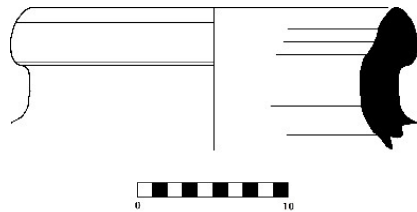


FIGURE 168. Pithos 17.10, Tall Jalul J99.A8.70.1.loc49.

Pithos 17.11: Tall Jalul, ca. 830 B.C.

Pithos 17.11 (figure 169) was discovered in Field G, Square 12, Locus 2. This locus begins about 20 cm below the surface and is best characterized as post-occupational debris. The earth matrix is described as pinkish gray and covered the entire excavated area of the square to an average depth of 16.0 cm. The locus was not associated with any architectural features or

installations. Artifacts from this locus include a basalt mortar, a stone weight, a pounder, and a figurine fragment.

Ceramic remains were very plentiful in this locus and all dated to the Iron Age 2 through Persian period, with the exception of one Byzantine-period body sherd and one Islamic-period jar. The earliest diagnostic sherds from this locus included one cooking pot and two store jars from the Iron Age 2B. Due to the somewhat mixed nature of this locus' composition, this pithos has been dated to the beginning of the Iron Age 2B, or 830 B.C., while fully acknowledging this dating as estimated.

Pithos 17.11 is a reliably standard example of a Classic Form pithos. Apart from the fully oxidized ware, all of the characteristics presented in this example are average for vessels in this group. Dimensions for this pithos were obtained directly from the vessel.

TABLE 115. Comparable Data for Tall Jalul Classic Form Pithos 17.11.

	Pithos 17.11	μ Pithos in Group (σ)
Neck Height in cm	3.50	2.97 (0.71)
Rim Thickness in cm	1.80	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	62.80	68.18 (13.41)
Ext. Rim Diameter in cm	20.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	13.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	4.00	7.19 (4.04)
Firing	Oxidation	Underfired
Exterior Munsell Reading	7.5 YR 7/2, Pinkish Gray	Pink



FIGURE 169. Pithos 17.11, Tall Jalul J11.G12.10.1.loc2.

Pithos 17.12: Tall Jalul, ca. 732 B.C.

Like the previous example, Pithos 17.12 (figure 170) also originates in Field G, Square 12. However, this vessel was located further down – in Locus 14. This locus, with an average depth of 41.0 cm, is directly under and beside the foundations of the western wall of the seventh century B.C. building. It is best described as the highest layer of fill and destruction debris within the eighth century B.C. structure. It covers the whole square, except the

southeast corner, through which ran the western walls of the building.¹²⁰ The earth color reading for this locus was identified as brown. Faunal remains include 42 ovine/caprine bones, 2 equine bones, 14 bovine bones, and 1 porcine bone. There is also a stone pounder that was unearthed in this locus.

In Locus 14, 289 sherds were discovered. Of the 21 sherds that were determined to be diagnostic, forms ranged from those belonging to the Iron Age 1B through the Iron Age 2C, with the majority coming from the Iron Age 2B. Although this is a somewhat mixed Iron Age locus, the distribution of the vessels indicates fill from the late Iron Age 2B/beginning of the Iron Age 2C. Because of the nature of these forms and the stratigraphic location of this vessel, it is here dated to the beginning of the Iron Age 2C with a good level of confidence.

The common edgeless, thickened rim of Pithos 17.12 has a straight inflection which continues with the line of the neck. It is slightly thinner and taller than average, but is still within one standard deviation of the mean. The 3.5 cm neck slopes down to a teardrop-shaped collar that is almost 3.0 mm more prominent than average. Although not very unusual, this shape represents the most remarkable feature of this vessel. Approximately 18% (n = 14) of Classic Form collars have a teardrop shape. This distribution is in contrast to nearly 52% (n = 40) of Long Form vessels having this collar shape. Dimensions for this pithos were obtained directly from the vessel.

¹²⁰ These include the eighth century B.C. wall (Locus 15) and the seventh century B.C. wall (Locus 6).

TABLE 116. Comparable Data for Tall Jalul Classic Form Pithos 17.12.

	Pithos 17.12	μ Pithos in Group (σ)
Neck Height in cm	3.50	2.97 (0.71)
Rim Thickness in cm	1.80	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.20	2.81 (0.62)
Rim Circumference in cm	69.10	68.18 (13.41)
Ext. Rim Diameter in cm	22.00	21.74 (4.22)
Collar Shape	Teardrop	Triangular
Rim-to-Collar Angle	18.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	10.00	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 6/2, Pinkish Gray	Pink



FIGURE 170. Pithos 17.12, Tall Jalul J11.G12.36.1.loc14.

Pithos 17.13: Tall Jalul, ca. 830 B.C.

This example (figure 171) comes from Field W, Square 3, Locus 8. With coloring best described as brown, this earth locus is fifth century B.C. post-occupational fill, located between the building in Field G and the southeast rim of the reservoir. The locus has an average depth of 28.0 cm. It contained 235 total ceramic sherds dating from all phases of the Iron Age 2. The Iron Age 2B is the most frequently represented period in this locus, therefore this example has been assigned a date aligning with those sherds.

Pithos 17.13 is another excellent representation of the Classic Form collard pithos. Aside from a neck height that is 34% taller than average, all of the characteristics and dimensions of this pithos are typical and within one standard deviation of the mean. The rim is categorized as an edgeless thickened rim, but does have some very subtle hints of double groove profiling. Dimensions for this pithos were obtained directly from the vessel.

TABLE 117. Comparable Data for Tall Jalul Classic Form Pithos 17.13.

	Pithos 17.13	μ Pithos in Group (σ)
Neck Height in cm	4.50 (34%)	2.97 (0.71)
Rim Thickness in cm	1.85	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.72	2.81 (0.62)
Rim Circumference in cm	66.00	68.18 (13.41)
Ext. Rim Diameter in cm	21.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	17.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	4.00	7.19 (4.04)
Firing	Reduction	Underfired
Exterior Munsell Reading	7.5 YR 7/2, Pinkish Gray	Pink



FIGURE 171. Pithos 17.13, Tall Jalul J11.W3.9.1&2.loc8.

Pithos 17.14: Tall Jalul, ca. 830 B.C.

Pithos 17.14 (figure 172) was found in Field W, Square 16 during a balk removal, located inside the southwestern rim of the reservoir. The only other notable ceramic found during this removal was an Iron Age 2B tripod bowl fragment. As this pithos is from a stratigraphically mixed fill, it has been dated to the Iron Age 2B, in agreement with the dating of this bowl. However, this date should be considered a rough estimate.

The square shape of the collar on Pithos 17.14 is seen on only one other Classic Form example, Pithos 12.01 from Umm al-Biyara.¹²¹ Unlike the above

¹²¹ There are eight examples (3%) of square shaped collars in the study as a whole.

average collar prominence of Pithos 12.01, however, the collar on Pithos 17.14 is 72% less prominent than average. This feature is the only one that is not within one standard deviation of the mean for this group. All of the other characteristics of this vessel are good examples of the Classic Form. Dimensions for this pithos were obtained directly from the vessel.

TABLE 118. Comparable Data for Tall Jalul Classic Form Pithos 17.14.

	Pithos 17.14	μ Pithos in Group (σ)
Neck Height in cm	3.10	2.97 (0.71)
Rim Thickness in cm	2.29	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.86	2.81 (0.62)
Rim Circumference in cm	69.10	68.18 (13.41)
Ext. Rim Diameter in cm	22.00	21.74 (4.22)
Collar Shape	Square	Triangular
Rim-to-Collar Angle	23.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	2.00 (72%)	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 6/6, Reddish Yellow	Pink



FIGURE 172. Pithos 17.14, Tall Jalul J17.W16.13.1.locBR.

Pithos 17.15: Tall Jalul, ca. 980 B.C.

Located in Square 8 of Field A, Pithos 17.15 (figure 173) was unearthed in Locus 43 about 40.0 cm above the locus where Pithos 17.10 was discovered. Locus 43 is defined by brown earth fill, interrupted by two pits, next to and beneath the later Iron Age 2 Tripartite building. The sherds of this locus are identified as belonging to the beginning of the tenth century B.C. Together with Pithos 17.15 and 507 Iron Age body sherds, diagnostic examples were found of two bowls, two cooking pots, three jars, and one jug. There is also a handle with a potter's mark that may have also belonged to this vessel. Artifacts from this locus include six jar stoppers, a spindle whorl, and a basalt grinding stone. Due to the near uniform periodization of the ceramic forms in this locus and its overall stratigraphy, this pithos has been dated to the beginning of the Iron Age 2A, with a good level of confidence.

Beyond the near alignment of the rim and collar of Pithos 17.15 and its subtlety kidney-shaped rim, it possesses no unusual characteristics for the Classic Form. It is thus a good representation of this group. Unfortunately, the collar is broken so that only its top edge is present and its full shape cannot be discerned. Its neck height and rim size are nearly average, however, as is the slightly everted inflection of its rim from the line of the neck. The thickened, kidney-shape of its rim is shared with five other Classic Form vessels, together comprising 7% of the rims in this group. Dimensions for this pithos were obtained directly from the vessel.

TABLE 119. Comparable Data for Tall Jalul Classic Form Pithos 17.15.

	Pithos 17.15	μ Pithos in Group (σ)
Neck Height in cm	2.50	2.97 (0.71)
Rim Thickness in cm	2.06	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T1: Edged, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.80	2.81 (0.62)
Rim Circumference in cm	60.32	68.18 (13.41)
Ext. Rim Diameter in cm	19.20	21.74 (4.22)
Collar Shape	Broken	Triangular
Rim-to-Collar Angle	2.00° Inside (89%)	18.51° Inside (11.62)
Collar Prominence in mm	unknown	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 6/2, Pinkish Gray	Pink

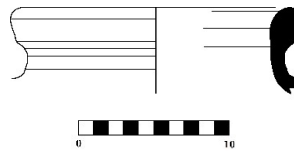
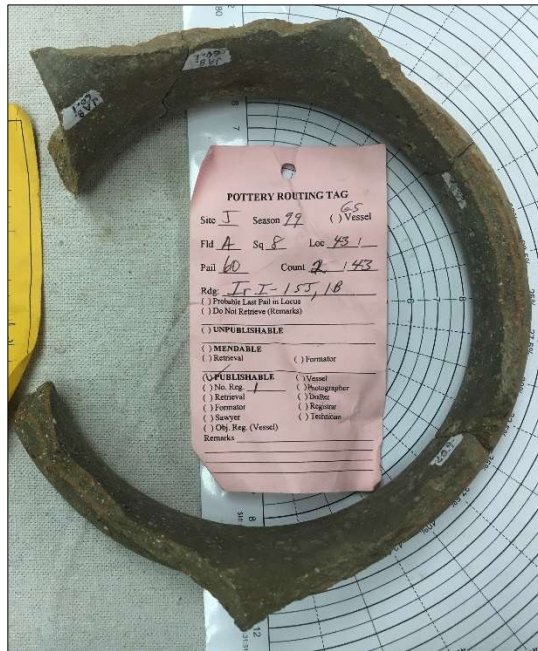


FIGURE 173. Pithos 17.15, Tall Jalul J99.A8.60.3.loc43.

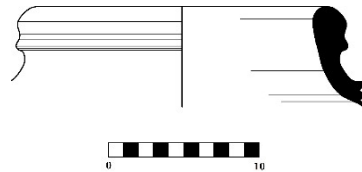
Pithos 17.16: Tall Jalul, ca. 732 B.C.

This example of a Classic Form collared pithos (figure 174) was unearthed in Field G, Square 5, Locus 6 at Tall Jalul. The locus is a brown earth fill layer located nearly 1.0 m below the surface and approximately 30.0 cm deep. It was the final locus blanketing the entire square directly above the fill in the water channel. From this locus, 80 pottery sherds were recovered. 16 diagnostic sherds were identified as Iron Age 2B and 8 as Iron Age 2C. Taking the overall field stratigraphy and the ceramics found with this pithos into consideration, a date from the beginning of the Iron Age 2C has been given to this vessel.

The characteristics and dimensions of Pithos 17.16 are nearly all average for the Classic Form. The kidney shape of its thickened rim is its only unusual feature. As with Pithos 17.15, this rim shape is shared with five other Classic Form pithoi in this study. It also has a broken collar, which prevents a true understanding of the shape of that feature. Dimensions for this vessel were obtained solely from a plate.

TABLE 120. Comparable Data for Tall Jalul Classic Form Pithos 17.16.

	Pithos 17.16	μ Pithos in Group (σ)
Neck Height in cm	2.50	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Profiled T1: Kidney, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	59.70	68.18 (13.41)
Exterior Rim Diameter in cm	19.00	21.74 (4.22)
Collar Shape	Broken	Triangular
Rim-to-Collar Angle	20.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	≥ 5.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	2.5 YR 5/4, Reddish Brown	Pink

**FIGURE 174.** Pithos 17.16, Tall Jalul J09.G5.26.2.loc6.

Pithos 17.17: Tall Jalul, Unstratified

Pithos 17.17 (figure 175) was unearthed in Field F, Square 2, Locus 13. This is an earth fill layer about 22.0 cm below the surface and approximately 13.0 cm thick. It covered the northeast quadrant of the excavated area, about 2.0 m square. Locus 13 contained 137 pottery sherds. While they were primarily Iron Age body sherds, there were six diagnostic pieces. In addition to this pithos, these included one krater, two bowls, and one jug from the Iron Age 2B and a Hellenistic-period cooking pot. Because this is a mixed earth fill

locus, it cannot give much guidance to the dating of this pithos. Therefore, Pithos 17.17 has been classified as unstratified for the purpose of this study.

Unlike the previous two examples, Pithos 17.17 has many characteristics that are unusual for a Classic Form pithos. Its 2.0 cm neck is among the shortest in this group and is 33% shorter than average. Its rim is only slightly thicker than usual, but is nearly 40% shorter than the average Classic Form rim. The thickened, hook shape of the rim is one of eight examples of this shape in this group. Together they comprise 10% of the Classic Form rim shapes. The rim circumference and exterior diameter are slightly smaller than usual, but are still within one standard deviation of the mean. The collar's teardrop shape is the second most common shape in the Classic Form group, seen in 18% ($n = 14$) of the collars. The rim to collar alignment is 59% more inverted than average. There are only two Classic Form rims that are more inset from the line of the collar than this example. These rims belong to Pithos 17.19, also from Tall Jalul, which at 60° is best considered an outlier, and Pithos 18.03, from Tall Jawa, at 47° . Dimensions for this pithos were obtained in person and confirmed with a plate.

TABLE 121. Comparable Data for Tall Jalul Classic Form Pithos 17.17

	Pithos 17.17	μ Pithos in Group (σ)
Neck Height in cm	2.00 (33%)	2.97 (0.71)
Rim Thickness in cm	2.20	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T3: Hook, OT	Thickened T2: Edgeless, OT
Rim Height in cm	1.70 (40%)	2.81 (0.62)
Rim Circumference in cm	56.60	68.18 (13.41)
Exterior Rim Diameter in cm	18.00	21.74 (4.22)
Collar Shape	Teardrop	Triangular
Rim-to-Collar Angle	45.00° Inside (59%)	18.51° Inside (11.62)
Collar Prominence in mm	4.00	7.19 (4.04)
Firing	Oxidation	Underfired
Exterior Munsell Reading	10 YR 6/1, Gray	Pink



FIGURE 175. Pithos 17.17, Tall Jalul J05.F2.14.2.loc13.

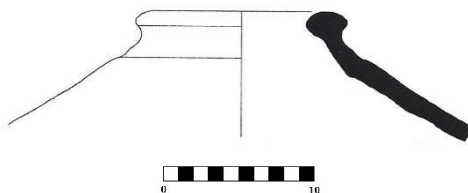
Pithos 17.18: Tall Jalul, ca. 732 B.C.

As with Pithos 17.06, Pithos 17.18 (figure 176) was found in Square 4 of Field C. Pithos 17.18 came from Locus 23, outside of the eastern wall of the Phase 2, four-room house. The ceramics found in Locus 23 include forms most familiar to the Iron Age 2B – 2C. This pithos is thus assigned a date from the beginning of the Iron Age 2C.

The unusual shapes and dimensions of Pithos 17.18 make it one of the more atypical collared pithoi in the Classic Form group. The rim is horizontally thickened, where most are vertically shaped with outer thickening. As a result, this rim is 36% shorter and 33% thicker than average. The rim circumference and exterior diameter of Pithos 17.18 are 36% smaller than usual. This rim tops a neck that is among the shortest in this group and at 2.0 cm is 33% shorter than average. The rim is 28° inside of alignment with the vestigial collar, but is still within one standard deviation of the mean. At 1.0 mm, the collar is so diminutive that its shape is imperceptible. In profile it appears that the neck is inwardly offset from the shoulder, creating this small ledge-like collar. Typically a trait of shorter-necked collared pithoi, this vessel's vestigial collar is one of two examples in the Classic Form group. The other is Pithos 21.01, from Tall Madaba. Dimensions for this pithos were obtained both in person and confirmed from a plate.

TABLE 122. Comparable Data for Tall Jalul Classic Form Pithos 17.18.

	Pithos 17.18	μ Pithos in Group (σ)
Neck Height in cm	2.00 (33%)	2.97 (0.71)
Rim Thickness in cm	3.00 (33%)	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened: Edgeless, OT/IT	Thickened T2: Edgeless, OT
Rim Height in cm	1.80 (36%)	2.81 (0.62)
Rim Circumference in cm	44.00 (36%)	68.18 (13.41)
Ext. Rim Diameter in cm	14.00 (36%)	21.74 (4.22)
Collar Shape	Vestigial	Triangular
Rim-to-Collar Angle	28.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	1.00 (86%)	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

**FIGURE 176.** Pithos 17.18, Tall Jalul J94.C4.41.1.loc23.

Pithos 17.19: Tall Jalul, ca. 732 B.C.

Pithos 17.19 (figure 177) was discovered in Field C, Square 1, Locus 28. This locus is approximately 30.0 cm in depth and is best described as earth fill and destruction debris within the upper section of the storage cave of the four-room house. The storage cave was destroyed at the end of Phase 2 of the building's use. Within this collapsed cave were found the remains of at least fourteen persons, including several children and one infant (Younker and Merling 2000: 49). The haphazard positions of these remains, and the associated ceramics, led to the conclusion that they had been tossed into the

cave at the time of the building's second destruction (Younker and Merling 2000: 49). This mass burial, together with multiple ballistics, an axe head, an arrowhead, and a dagger blade, indicate this second phase ended with an attack (Ray 2019: 535-36). This destruction occurred sometime around the early sixth century B.C. and may have been associated with the 582 B.C. Babylonian invasion of the area (Ray 2019: 536). As Phase 2 of the four-room house likely lasted from sometime in the Iron Age 2B until this destruction, Pithos 17.19 has been assigned a date at the beginning of the Iron Age 2C. This is meant to be a median approximate date and correlates with the majority of the ceramic remains in the storage cave.

There are many remarkable features present in Pithos 17.19. Beyond its rim thickness, none of the dimensions of this vessel are within one standard deviation for the Classic Form. The rim is 29% shorter than average, with a circumference that is 34% larger than usual for this group. Only Pithos 23.02, at 113.1 cm, from Khirbat en-Nahas, has a larger rim circumference and exterior diameter. The neck rises 2.0 cm to the rim above the vestigial collar. The rim is 60° inside of the collar line, an angle greater than any other in the Classic Form group and 69% greater than that average. The diminutive collar is 58% less prominent than usual. This is altogether an atypical Classic Form pithos. Dimensions for this vessel were obtained in person and from a plate.

TABLE 123. Comparable Data for Tall Jalul Classic Form Pithos 17.19.

	Pithos 17.19	μ Pithos in Group (σ)
Neck Height in cm	2.00 (33%)	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Square, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.00 (29%)	2.81 (0.62)
Rim Circumference in cm	103.70 (34%)	68.18 (13.41)
Exterior Rim Diameter in cm	33.00 (34%)	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	60.00° Inside (69%)	18.51° Inside (11.62)
Collar Prominence in mm	3.00 (58%)	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

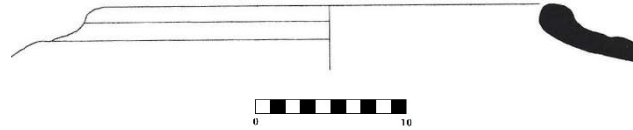


FIGURE 177. Pithos 17.19, Tall Jalul J99.C1.106.1.loc28.

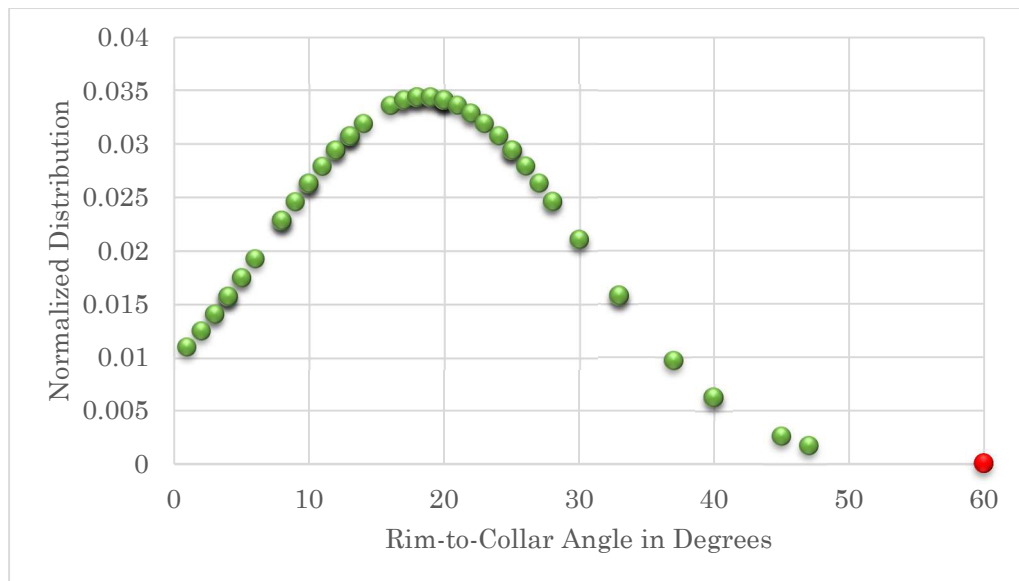


FIGURE 178. Distribution of Classic Form Rim to Collar Angles, Inside Only, Pithos 17.19.

Pithos 17.20: Tall Jalul, Unstratified

During the clean-up of inter-seasonal debris, prior to the excavations of 2005, Pithos 17.20 (figure 179) was discovered in Field A, Square 3. This is in the vicinity of the seventh – eighth century B.C. tripartite building on the north side of the tell. As an unstratified vessel, it cannot be assigned a reliable date for the purposes of this study.

Aside from a neck height, which is 26% taller than average, this Pithos 17.20 is a good example of the Classic Form standard. It has a thickened rim with a slight corner along the lower, outer edge. This edging is somewhat unusual and is only present on 7% (n = 6) of the rims in the Classic Form group. The triangular collar is more prominent than average, rising 9.0 mm from the surface of the pithos, but is still within one standard deviation of the mean, as are all of the remaining dimensions of this example. Dimensions for this vessel were obtained in person.

TABLE 124. Comparable Data for Tall Jalul Classic Form Pithos 17.20.

	Pithos 17.20	μ Pithos in Group (σ)
Neck Height in cm	4.00 (26%)	2.97 (0.71)
Rim Thickness in cm	1.60	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T1: Edged, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.20	2.81 (0.62)
Rim Circumference in cm	78.50	68.18 (13.41)
Ext. Rim Diameter in cm	25.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	12.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	9.00	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 7/4, Pink	Pink



FIGURE 179. Pithos 17.20, Tall Jalul J05.A3.77.1.locCU.

Tall Jawa, Central Plateau



FIGURE 180. Aerial view of Tall Jawa.

Tall Jawa is located on the central plateau at southern edge of the “Ammonite” Balqa hills, overlooking the Madaba Plains. Though it is largely thought of as an Iron Age site, the tell was also occupied during the Byzantine through Early Islamic periods. Excavations began at Tall Jawa in 1989 under the direction of Randall Younker. From 1991 onward, the site’s second season of excavation, Michèle Daviau became the senior director of the project, supported by Wilfrid Laurier University (Daviau 2003: xvii-xv).

The three examples of collared pithoi presented below were all found in Field A, Square 13. This square is in the southwest corner of the field, and incidentally also on the southwest side of the tell (Daviau 2003: 10). It contains segments of the city’s casemate wall and evidence of the Iron Age 1

through Iron Age 2 occupation strata. Although the identification numbers of the first two pithoi are published, indicating some of the information regarding their location of origin, little is published thus far regarding the specific loci from which they came or the relation of those loci to others in the square. The dating of these vessels of necessity therefore relies almost entirely on the published interpretations of the excavator alone.¹²² Pithos 18.03, however, does have more details published which are discussed further below.

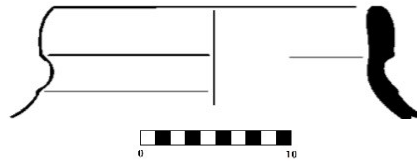
Pithos 18.01: Tall Jawa, ca. 1140 B.C.

Pithos 18.01 (figure 181) has a thickened, hook-shaped rim. The difference between this shape and the thickened, edged rim is the scooping shape below the edge, giving it a concave, hook appearance underneath. This rim also has a straight, rather than the usually everted, inflection from the line of the neck. Apart from this unusual rim shape, the shorter than average neck height, and the diminutive collar, this pithos well represents the Classic Form in its dimensions. Dimensions for this vessel were obtained solely from a published plate.

¹²² The dating of these pithoi specifically is not discussed in any publications to date. However, the collared pithoi are described collectively and these vessels are included in that collection. They are referred to as Iron Age 1 examples (Daviau 2003: 37-39).

TABLE 125. Comparable Data for Tall Jawa Classic Form Pithos 18.01.

	Pithos 18.01	μ Pithos in Group (σ)
Neck Height in cm	2.00 (33%)	2.97 (0.71)
Rim Thickness in cm	1.90	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Thickened T3: Hook, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	69.10	68.18 (13.41)
Exterior Rim Diameter in cm	22.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	Aligned	18.51° Inside (11.62)
Collar Prominence in mm	2.00 (72%)	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

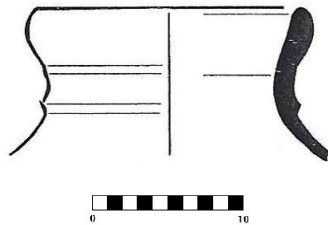
**FIGURE 181.** Pithos 18.01, Tall Jawa V11/A13.106.1 (Daviau 2003: 39; fig. 4.7.4).

Pithos 18.02: Tall Jawa, ca. 1140 B.C.

The collar of Pithos 18.02 (figure 182) is much higher up on the neck than usual, giving the neck a shorter measurement than its appearance otherwise suggests. At 2.0 cm this vessel's neck height, or the distance between the bottom of the rim and the top of the collar, is among the shortest in the Classic Form group and is 33% shorter than average. Its rim is slightly thinner and 30% taller than usual. But its shape and positioning are typical for the Classic Form. Dimensions for this vessel were obtained solely from a published plate.

TABLE 126. Comparable Data for Tall Jawa Classic Form Pithos 18.02.

	Pithos 18.02	μ Pithos in Group (σ)
Neck Height in cm	2.00 (33%)	2.97 (0.71)
Rim Thickness in cm	1.80	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	4.00 (30%)	2.81 (0.62)
Rim Circumference in cm	58.10	68.18 (13.41)
Ext. Rim Diameter in cm	18.50	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	10.00° Outside	18.51° Inside (11.62)
Collar Prominence in mm	8.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

**FIGURE 182.** Pithos 18.02, Tall Jawa V8/A13.88.2 (Daviau 2003: 39; fig. 4.7.1).

Pithos 18.03: Tall Jawa, ca. 980 B.C.

Pithos 18.03 (figure 184) was found in Room 106 of Building 113. This partially-preserved complex is located in Field A, Square 13 (Daviau 2003: 151-52). Locus 12 is an earth layer directly on and in an Iron Age 2 cobblestone floor, within a space the excavator described as a storeroom. On this floor were two chert pounders, a basalt millstone, reworked disks, nine pithoi, a krater, red-slipped bowls, cooking pots, jugs, and one complete juglet. The ceramic forms all date to the Iron Age 2 (Daviau 2003: 153). The excavator has dated this locus, and thus Pithos 18.03, to the early Iron Age 2A, paralleling the pithoi from Tall Sahab (Daviau 2003: 469-71).

Pithos 18.03 is one of the seven Classic Form vessels for which the whole vessel is available for study. For the most part, this pithos is a very standard example for the Classic Form group. Most of its features and dimensions are within one standard deviation of the mean, but some of its more remarkable characteristics are in the rim section. With a 2.0 cm neck height, it is among the shortest-necked pithoi here. It is 33% shorter than average. Atop this neck is a triangular-shaped rim that is of average height but is 29% shorter than usual. This rim is thickened outward and has a straight inflection with the line of the neck. It stands at a 47° angle inside of the line of the collar, an angle that is 61% more inclined than average for the Classic Form. This pithos is one of three examples in this group with a double collar. The other two are Pithos 17.07 from Tall Jalul and Pithos 25.03 from Tall Safut. Dimensions for this vessel were obtained solely from a published plate and three accompanying measurements.¹²³

¹²³ These include the vessel's height, body diameter, and rim diameter (Daviau 1995: 608).

TABLE 127. Comparable Data for Tall Jawa Classic Form Pithos 18.03.

	Pithos 18.03	μ Pithos in Group (σ)
Neck Height in cm	2.00 (33%)	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Triangular, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.00 (29%)	2.81 (0.62)
Rim Circumference in cm	63.00	68.18 (13.41)
Exterior Rim Diameter in cm	18.00	21.74 (4.22)
Collar Shape	Double	Triangular
Rim-to-Collar Angle	47.00° Inside (61%)	18.51° Inside (11.62)
Collar Prominence in mm	8.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink
Full Vessel Height in cm	107.00	107.07 (12.24)
Body Circumference in cm	163.36	181.63 (12.38)
Handle Width in cm	unknown	4.36 (0.39)
Handle Height in cm	13.50	14.06 (1.88)
Base Shape	Rounded	Rounded
Base Thickness in cm	1.80	1.97 (1.10)

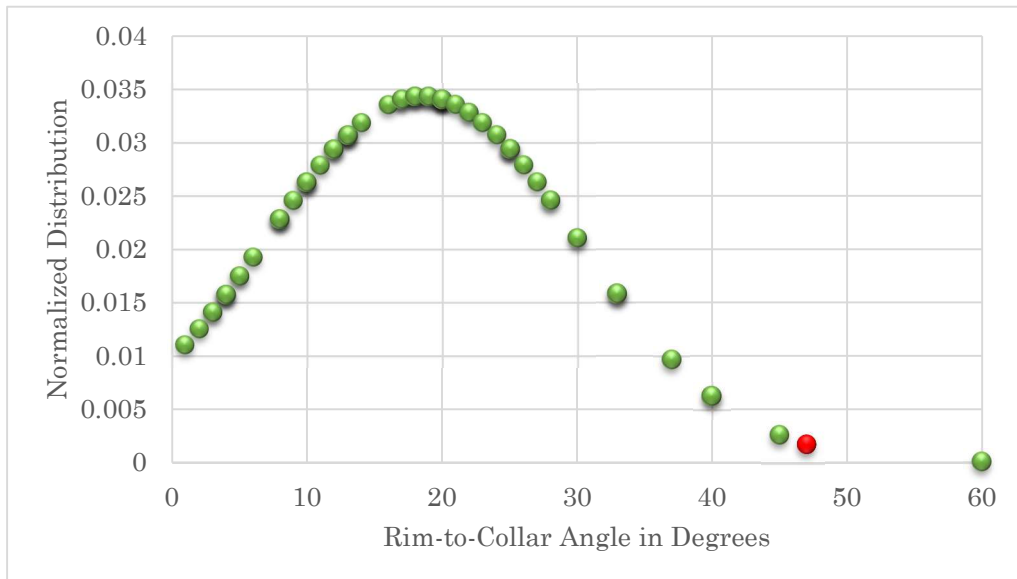


FIGURE 183. Distribution of Classic Form Rim to Collar Angles, Inside Only, Pithos 18.03.

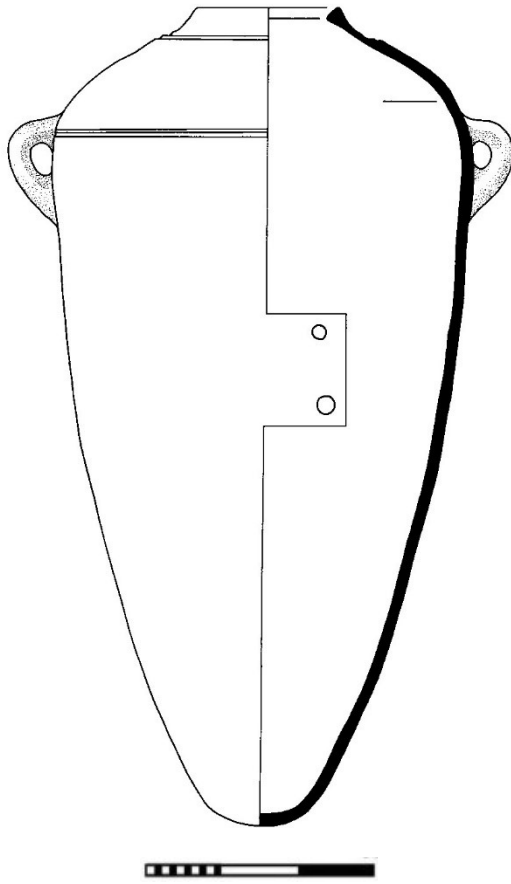


FIGURE 184. Pithos 18.03, Tall Jawa V189/A13.53.5, Scale 1:10, (Daviau 1992: 151; fig. 4, left)

Tall Johfiyeh, Northern Transjordan



FIGURE 185. Aerial View of Tall Johfiyeh.

Tall Johfiyeh is located on the Northern Transjordanian Plateau, approximately 7.5 km south of the modern city of Irbid. It sits atop a small, solitary mound that commands a clear view of the surrounding countryside, which richly supports agriculture (Lamprichs 2007: 4). It was excavated for two three-week seasons in 2002 and 2003, followed by a final four-week season in 2004. Excavations were directed by Roland Lamprichs in partnership with Yarmouk University and the Deutschen Evangelischen Institut für Altertumswissenschaft des Heiligen Landes (Lamprichs 2007: x, 7). These excavations have demonstrated occupation at Tall Johfiyeh, beginning in the Late Bronze Age and continuing, with a significant hiatus

between the Persian period and the Byzantine period, into the Umayyad period (Lamprichs 2007: 302). Permanent occupation of the site drew to a close in the Early Islamic period (Lamprichs 2007: 304).

Pithos 19.01: Tall Johfiyeh, ca. 732 B.C.

Pithos 19.01 (figure 186) was found in Field 3, Locus 3014. This locus is classified as a part of Stratum 3, described as a gray-brown layer, roughly a half a meter thick, composed of loose earth, with many pebbles and inclusions of hard clay, nari pockets, and ash lenses (Lamprichs 2007: 18). Locus 3014 is best described as hard calcareous material with numerous *in-situ* finds, including a mortar fragment, a basalt pestle, and a grinding stone (Lamprichs 2007: 565, 609). Ceramic examples from this locus include one pithos (Lamprichs 2007: 406) and two jars (Lamprichs 2007: 430). This locus has been dated by the excavator to the Iron Age 2B/C. Thus the abandonment date placed around the beginning of the Iron Age 2C is the suggested assignment for Pithos 19.01, for the purposes of this study (Lamprichs 2007: 198).

Pithos 19.01 has a thickened, hook-shaped rim that is 33% thicker than average for a Classic Form rim. It has a straight inflection and is of average height. The 3.0 cm neck is also typical. This neck concludes in a very low-profile, triangular collar. All of the remaining features and dimensions are best described as average for the Classic Form. Dimensions for this vessel were obtained solely from a published plate.

TABLE 128. Comparable Data for Tall Johfiyeh Classic Form Pithos 19.01.

	Pithos 19.01	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	3.00 (33%)	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Thickened T3: Hook, IT/OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.50	2.81 (0.62)
Rim Circumference in cm	56.60	68.18 (13.41)
Ext. Rim Diameter in cm	18.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	13.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	2.00 (72%)	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

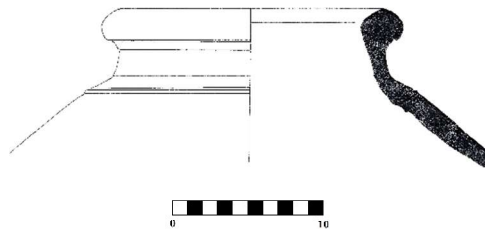


FIGURE 186. Pithos 19.01, Tall Johfiyeh 305201 (Lamprichs 2007: 391; Tafel 7.02).

Pithos 19.02: Tall Johfiyeh, ca. 732 B.C.

Pithos 19.02 (figure 187) was discovered in the north-western portion of Field 2, Locus 2013. This locus is on the south/southwestern edge of the tell and is classified as Stratum 2. This locus is best described as a gray-brown to light brown earth layer with numerous nari inclusions and ash lenses. This stratum is very rich in architectural remains as it belongs to a period of active building and re-structuring (Lamprichs 2007: 17-18). This vessel was found *in situ*, embedded in a layer of lime. Also found in this locus was a flint

object and numerous sherds (Lamprichs 2007: 604). This locus has been dated by the excavator to the Iron Age 2C (Lamprichs 2007: 198).

Pithos 19.02 has a hook-shaped rim, a rim shape shared with seven other Classic Form vessels. While this rim has average thickness, it is 29% shorter than usual in this group. It stands 40° inside the line of the collar, which is a 54% greater inclination than average. The rounded base was not connected to the rim and the vessel has thus far not been reconstructed. However, they are both presented below as separate portions. The remaining features are all typical for the Classic Form. Dimensions for this vessel were obtained solely from a published plate.

TABLE 129. Comparable Data for Tall Johfiyeh Classic Form Pithos 19.02.

	Pithos 19.02	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T3: Hook, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.00 (29%)	2.81 (0.62)
Rim Circumference in cm	62.80	68.18 (13.41)
Exterior Rim Diameter in cm	20.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	40.00° Inside (54%)	18.51° Inside (11.62)
Collar Prominence in mm	7.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink
Full Vessel Height in cm	unknown	107.07 (12.24)
Body Circumference in cm	unknown	181.63 (12.38)
Handle Width in cm	unknown	4.36 (0.39)
Handle Height in cm	unknown	14.06 (1.88)
Base Shape	Rounded	Rounded
Base Thickness in cm	1.50	1.97 (1.10)

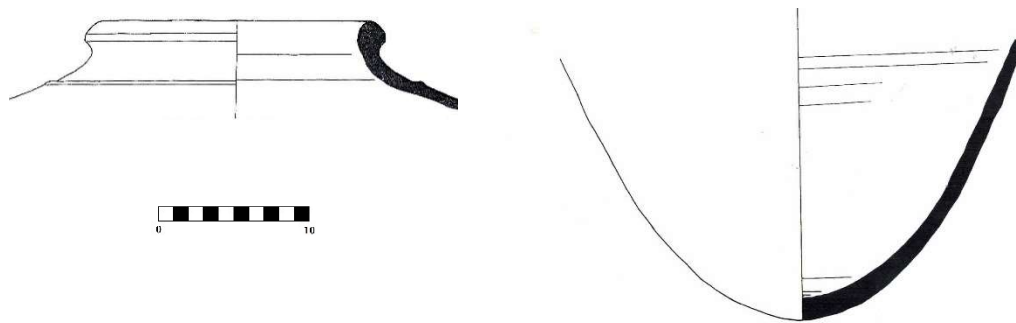


FIGURE 187. Pithos 19.02, Tall Johfiyeh 206002 (rim, left) and 206001 (base, right) (Lamprichs 2007: 389, 499; Tafel 5.02, 115.01).

Pithos 19.03: Tall Johfiyeh, ca. 732 B.C.

Pithos 19.03 (figure 188) was discovered in the southern area of Square 11, Locus 11002. Square 11 is located on the central, northern edge of the tell and Locus 11002 is directly inside of and against the fortification wall (Lamprichs 2007: 364). This locus is classified as a part of Stratum 2.¹²⁴ Amid the finds in this calcareous locus were a flint object, a loom weight, and a glass fragment (Lamprichs 2007, 641). Locus 1102 has been dated by the excavator to the Iron Age 2C (Lamprichs 2007: 198).

¹²⁴ This stratum is described above under Pithos 19.02.

The most notable feature of Pithos 19.03 is its round rim. This rim shape is present in only 10% (n = 8) of Classic Form vessels and is unknown among the longer-necked, Long Form examples. This rim is 33° inside the line of the collar, a 44% greater inset than the average Classic Form stance. The remaining dimensions and features are standard for this group. Dimensions for this vessel were obtained solely from a published plate.

TABLE 130. Comparable Data for Tall Johfiyeh Classic Form Pithos 19.03.

	Pithos 19.03	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	2.30	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Round, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.50	2.81 (0.62)
Rim Circumference in cm	66.00	68.18 (13.41)
Exterior Rim Diameter in cm	21.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	33.00° Inside (44%)	18.51° Inside (11.62)
Collar Prominence in mm	6.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

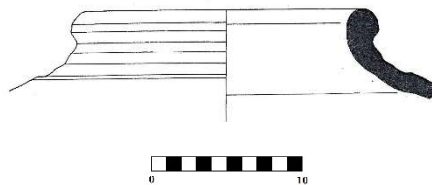


FIGURE 188. Pithos 19.03, Tall Johfiyeh 1100421 (Lamprichs 2007: 389; Tafel 5.01).

Pithos 19.04: Tall Johfiyeh, ca. 732 B.C.

Pithos 19.04 (figure 189) was found in the western area of Square 6, Locus 6016. Square 6 is located on the northwestern edge of the tell and Locus 6016 is directly inside of the fortification wall (Lamprichs 2007: 361). This locus is classified as a part of Stratum 2.¹²⁵ Amid the finds in this clay-filled locus are an abundance of ceramics and a basalt pestle (Lamprichs 2007: 564, 587, 623). Ceramic forms include one storage jar (Lamprichs 2007: 402), two jars (Lamprichs 2007: 415, 426), two cooking pots (Lamprichs 2007: 451), and one bowl (Lamprichs 2007: 462). Locus 6016 has been dated by the excavator to the Iron Age 2C (Lamprichs 2007: 198).

The rim of Pithos 19.04 has the thickened, hook shape present in seven of the other pithoi in the Classic Form. It is 28% thicker and 29% shorter than average for this group. It tops a neck that is 22% taller than the Classic Form average. The collar on Pithos 19.04 has the typical triangular shape, but with an extremely low prominence, 72% smaller than the usual Classic Form collar. The rim to collar angle is only 8°, but is still within one standard deviation of the mean for this group. The remaining dimensions and features are likewise standard. Dimensions for this vessel were obtained solely from a published plate.

¹²⁵ This stratum is described above under Pithos 19.02.

TABLE 131. Comparable Data for Tall Johfiyeh Classic Form Pithos 19.04.

	Pithos 19.04	μ Pithos in Group (σ)
Neck Height in cm	3.80 (22%)	2.97 (0.71)
Rim Thickness in cm	2.80 (28%)	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T3: Hook, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.00 (29%)	2.81 (0.62)
Rim Circumference in cm	62.80	68.18 (13.41)
Exterior Rim Diameter in cm	20.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	8.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	2.00 (72%)	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

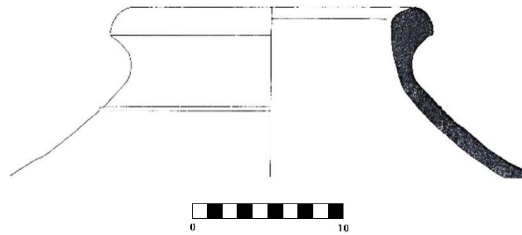


FIGURE 189. Pithos 19.04, Tall Johfiyeh 605208 (Lamprichs 2007: 391; Tafel 7.01).

Pithos 19.05 Tall Johfiyeh, ca. 732 B.C.

Pithos 19.05 (figure 190) was unearthed in Square 6, Locus 6040. Square 6 is located on the northwestern edge of the tell and Locus 6040 is near the middle of the square (Lamprichs 2007: 366). This locus is classified as a part of Stratum 2.¹²⁶ Locus 6040 is best described as reddish-brown earth with very few ceramic sherds. Directly above this locus was a collection of stones on a chalky surface, strewn with animal bones (Lamprichs 2007:

¹²⁶ This stratum is described above under Pithos 19.02.

626). It is possible, therefore, that Locus 6040 represents a rudimentary foundation for a food preparation area. Artifacts found in this locus include a basalt spindle whorl (Lamprichs 2007: 579), a ceramic spindle whorl (Lamprichs 2007: 582), and a ceramic “button” (Lamprichs 2007: 583). Locus 6040 has been dated by the excavator to the Iron Age 2C (Lamprichs 2007: 198).

There are several notable uncommon features in Pithos 19.05. The neck, with its subtle profiling, is 4.0 cm tall and is thus 26% taller than average for the Classic Form group. The rim is the usual height and thickness, but has a triangular shape that is only seen on 11% (n = 9) of the Classic Form examples. The typically shaped triangular collar rises only 3.0 mm from the surface of the pithos, giving it a prominence that is 58% lower than usual, for a Classic Form pithos. The rim circumference and diameter are 40% smaller than average and represent the smallest mouth of all Classic Form examples. This size still falls within the parameters for a collared pithos, but it should be mentioned that this may be a smaller collared-rim jar. Without the rest of the vessel, it is impossible to be certain. Dimensions for this vessel were obtained solely from a published plate.

TABLE 132. Comparable Data for Tall Johfiyeh Classic Form Pithos 19.05.

	Pithos 19.05	μ Pithos in Group (σ)
Neck Height in cm	4.00 (26%)	2.97 (0.71)
Rim Thickness in cm	1.60	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Triangular, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.20	2.81 (0.62)
Rim Circumference in cm	40.80 (40%)	68.18 (13.41)
Exterior Rim Diameter in cm	13.00 (40%)	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	14.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	3.00 (58%)	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

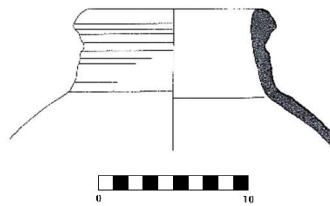


FIGURE 190. Pithos 19.05, Tall Johfiyeh 616502 (Lamprichs 2007: 393; Tafel 9.02).

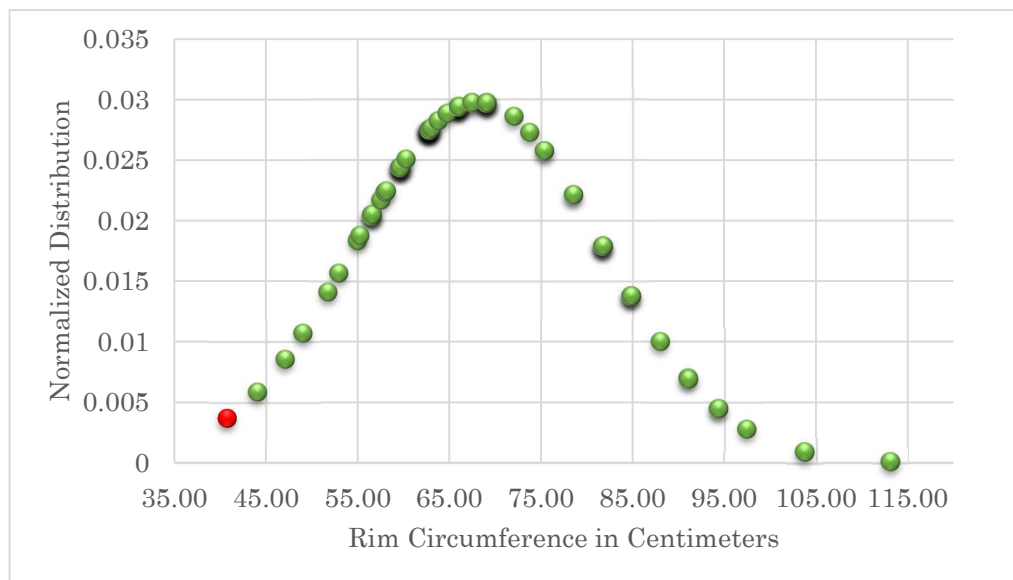


FIGURE 191. Distribution of Classic Rim Circumferences, Pithos 19.05.

Khirbat al-Lahun, Central Plateau



FIGURE 192. Aerial view of Khirbat al-Lahun.

Khirbat al-Lahun is located on the northern ridge of the Wadi Mujib, about 30.0 km east of the Dead Sea, and 6.0 km east of the Moabite capital, Dibon. The site was excavated for 17 seasons between 1997 – 2000, under the direction of Denyse Homes-Fredericq, with the oversight of the Belgian Committee for Excavations in Jordan (Swinnen 2009: 29). The southwestern summit of the site was occupied exclusively during the Iron Age. The citadel contains what is referred to as the Iron Age 2 “Fortress” and the lower part of the summit has the Iron Age 1 walled, domestic settlement. Lower down to the northeast is the Early Bronze Age town, while various areas north of the site had occupation during the Roman – Mamluk periods (Swinnen 2009: 31).

The Iron Age structures are plagued by ancient and modern disturbances, leaving them in significant disrepair (Swinnen 2009, 30).

Pithos 20.01: Khirbat al-Lahun, ca. 1140 B.C.

Pithos 20.01 (figure 194) was discovered in Room 1 of House 6, near the center of the site (Steiner 2013: 520; Porter 2007: 284). The contents of the house, such as a stone trough for storage or feeding animals (Swinnen 2009: 44), and its relationship to the other structures in the vicinity led the excavators to interpret this building as a domestic dwelling. The floor is made of beaten earth, with the exception of Room 2, referred to as the storage room, which has a flagstone floor (Swinnen 2009: 40). These buildings have been dated by the excavators to the Iron Age 1B, based on the presence of a scarab from the Egyptian Twentieth Dynasty (Swinnen 2009: 39). This pithos has been dated to the beginning of that period.

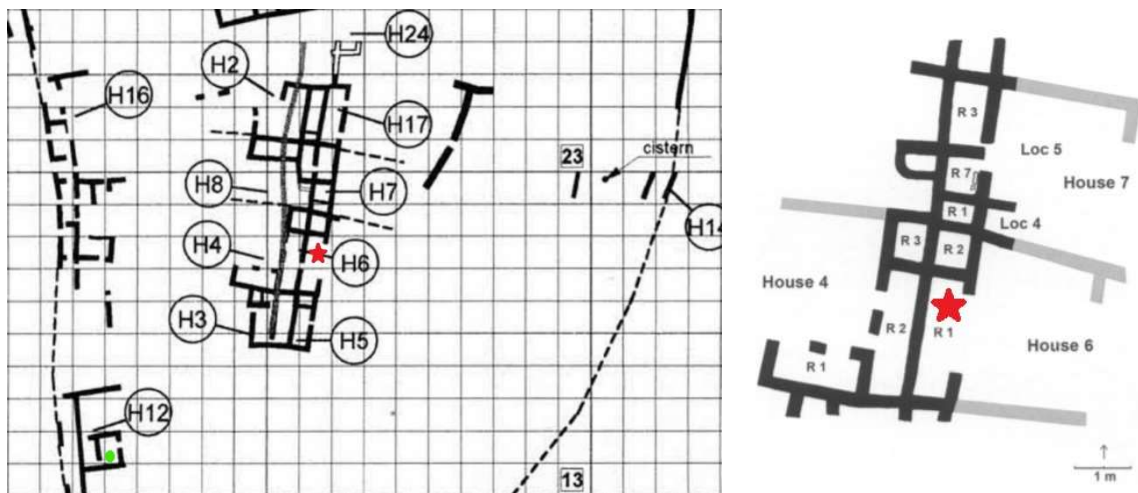


FIGURE 193. Khirbat al-Lahun, Field D, House 6. Left: Spatial relationship of collared pithos to the 20th Dynasty scarab (Steiner 2013: 520); Right: Location of the collared pithos within House 6, with restored house plan (Swinnen 2009: 38).

The neck height of Pithos 20.01 is among the shortest in the Classic Form group. At just over 2.0 cm, it is 28% shorter than average. It is topped by a triangular-shaped rim. This is the second most common Classic Form rim shape, represented by 11% (n = 9) of the whole group. The rim's thickness and height are almost exactly aligned with the statistical averages for those categories in the Classic Form group. The rim circumference and diameter are smaller than average, but are still within one standard deviation of the mean. The same can be said for the remaining features. Dimensions for this vessel were obtained solely from a published plate.

TABLE 133. Comparable Data for Khirbat al-Lahun Classic Form Pithos 20.01

	Pithos 20.01	μ Pithos in Group (σ)
Neck Height in cm	2.15 (28%)	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Triangular, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.80	2.81 (0.62)
Rim Circumference in cm	56.55	68.18 (13.41)
Exterior Rim Diameter in cm	18.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	18.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	9.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	2.5 YR 7/6, Light Red	Pink

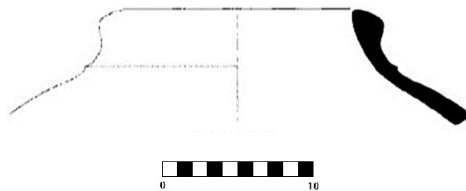


FIGURE 194. Pithos 20.01, Khirbat al-Lahun D.13.72 (Porter 2007: p. 284, 288; fig. 5.4.3.12).

Tall Madaba, Central Plateau



FIGURE 195. Aerial View of Tall Madaba.

Tall Madaba is located at the heart of the modern city by the same name. Located about 30.0 km southwest of Amman, Madaba was an urban and cultural center in the Iron Age for the surrounding agricultural landscape of the Central Transjordanian Plateau. Excavations began in 1996 under the direction of Timothy Harrison. Three fields were opened. They have revealed occupation of the site beginning in the Early Bronze Age and continuing intermittently into the present (Harrison 1997: 53). Field A was on the southeastern slope of the tell, with Field B and below it, and Field C on the western slope. Field A proved to be a midden, in use during the Early Bronze and Iron Ages (Harrison 1997: 53). Field C revealed a Late Byzantine/Early Islamic complex. Field B has thus far produced Late

Ottoman period, Early Roman/Nabataean period, Hellenistic period, and Iron Age 2 strata. At least two building phases dating to the Iron Age 2B have been identified in Field B. (Foran et al. 2004: 79-82). From these the following pithos was found.

Pithos 21.01: Tall Madaba, ca. 830 B.C.

Pithos 21.01 (figure 196) was discovered in the northern section of Field B during the 2002 excavation season. This area is directly inside of the city's main fortification wall in a building, the use of which has yet to be determined. There are many ash layers and signs of a great conflagration, including vitrified building materials. Beneath this destruction debris there are at least two surfaces with flat-lying pottery (Foran et al. 2004: 79-82). While the specific location of Pithos 21.01 was not included in its publication, all of the ceramics from this field season in Field B have been determined by the excavator to date to the Iron Age 2B (Foran et al. 2004: 82). With that in mind, a corresponding date has been assigned to this pithos.

The 2.0 cm neck of this pithos is 33% shorter than average and is among the shortest neck heights in the Classic Form group. Its round rim is similar to those of seven other Classic Form vessels. This example is of average thickness with a height that is 29% shorter than usual. The rim circumference, diameter, and rim-to-collar angle are all typical for a Classic Form pithos. The collar, however, is represented only by a thickening and a

slight angle at the join between the bottom of the neck and the top of the shoulder. Its rise is so slight as to make its shape imperceptible. This collar has thus been classified as vestigial, which places it among those with the least collar prominence in this group. The remaining features of this vessel are standard for the Classic Form group. Dimensions for this pithos were obtained solely from a published plate.

TABLE 134. Comparable Data for Tall Madaba Classic Form Pithos 21.01.

	Pithos 21.01	μ Pithos in Group (σ)
Neck Height in cm	2.00 (33%)	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Round, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.00 (29%)	2.81 (0.62)
Rim Circumference in cm	67.50	68.18 (13.41)
Exterior Rim Diameter in cm	21.50	21.74 (4.22)
Collar Shape	Vestigial	Triangular
Rim-to-Collar Angle	20.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	1.00 (86%)	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

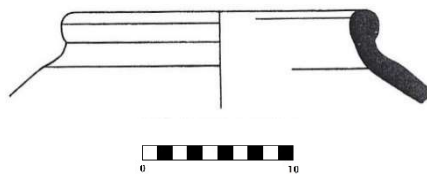


FIGURE 196. Pithos 21.01, Tall Madaba (Foran et al. 2004: 83; fig. 3.15).

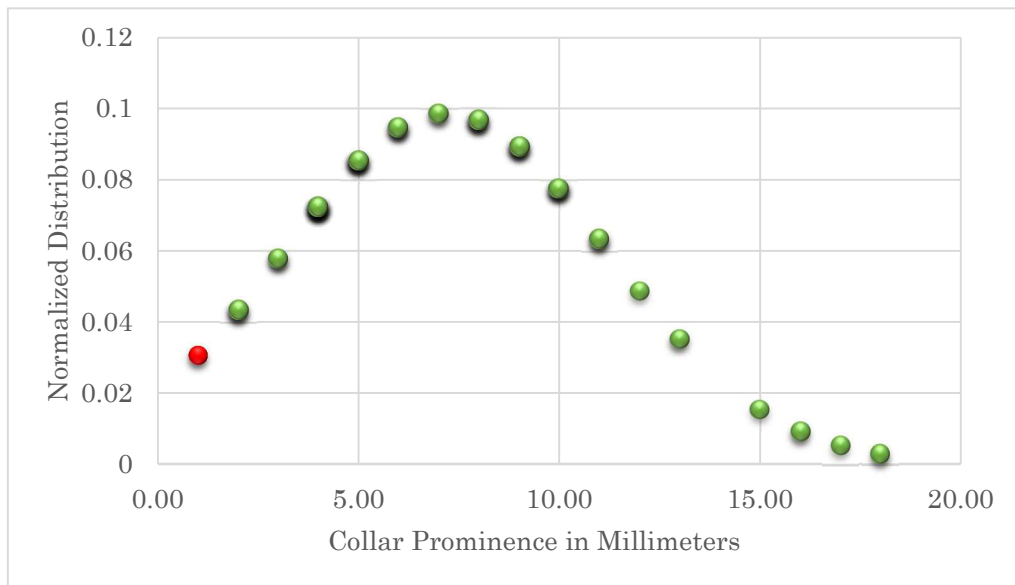


FIGURE 197. Distribution of Classic Form Collar Prominences, Pithos 21.01.

Khirbat al-Mudayna al-'Aliya, Kerak Plateau



FIGURE 198. Aerial View of Khirbat al-Mudayna al-'Aliya.

Khirbat al-Mudayna al-'Aliya is a wedge-shaped site surrounded on three sides by sheer drops of more than 200.0 m. into the wadi beds below. Located on the eastern edge of the Kerak Plateau and the south end of the Wadi Mujib, this site is accessible only by a small land bridge on the southwest side (Routledge 2008: 146). Surprisingly, remains of freshwater crabs and flora indicate an active use of the wadi beds by the ancient inhabitants (Routledge 2000: 38). In addition to the relative inaccessibility of the site, the settlement is surrounded by a casemate fortification wall.

Excavations began at Khirbat al-Mudayna al-'Aliya in 1994 and continued intermittently through 2004 under the direction of Bruce Routledge (Routledge 2008: 146). Archaeological evidence thus far collected suggests that the site was only briefly occupied and has only one

architectural phase, which dates to the Iron Age 1B (Routledge 2000: 43). The walls of at least nine interior buildings are visible on the surface, most of which are connected to the fortification walls. It is expected that at least another 26 buildings remain to be exposed. Many of the larger buildings are understood to be part of a large-scale food processing system (Routledge 2008: 146-48).

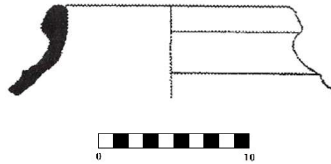
Pithos 22.01: Khirbat al-Mudayna al-‘Aliya, ca. 1140 B.C.

Unfortunately, Pithos 22.01 (figure 199) was published without specific contextual information, so it is here dated to the beginning of the Iron Age 1B based upon the excavator’s classification of this pithos as an Iron Age 1 form (Routledge 2008: 159-62) and all remains at the site dating exclusively to this period (Routledge 2000: 43). A date of 1140 B.C. also fits in with the late end of the short-lived sample radiocarbon dates from Khirbat al-Mudayna al-‘Aliya (Routledge 2000: 48).

This pithos is smaller than the average Classic Form example. Its neck height is 26% shorter and its rim is 29% shorter than usual for this group. Its rim circumference and diameter are 24% smaller than average for a Classic Form pithos. The triangular rim on this vessel is the second most common rim shape, shared with eight other examples, together comprising 11% of the rims in this group. The rest of the features and dimensions of this pithos are standard for the Classic Form. Dimensions for this vessel were obtained solely from a published plate.

TABLE 135 Comparable Data for Khirbat al-Mudayna al-‘Aliya Classic Form Pithos 22.01

	Pithos 22.01	μ Pithos in Group (σ)
Neck Height in cm	2.20 (26%)	2.97 (0.71)
Rim Thickness in cm	1.50	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Triangular, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.00 (29%)	2.81 (0.62)
Rim Circumference in cm	51.80 (24%)	68.18 (13.41)
Exterior Rim Diameter in cm	16.50 (24%)	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	21.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	4.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	10YR 8/3, Very Pale Brown	Pink

**FIGURE 199.** Pithos 22.01, Khirbat al-Mudayna al-‘Aliya (Routledge 2008: 160; fig. 6.14).

Pithos 22.02: Khirbat al-Mudayna al-‘Aliya, ca. 1140 B.C.

Pithos 22.02 (figure 201) was discovered inside the pillared room of Building 700 in the north-east corner of Khirbat al-Mudayna al-‘Aliya. As the building was not yet excavated at the time of publication, it is assumed to be a surface find (Routledge 2000: 53). This vessel has been assigned a date at the beginning of the Iron Age 1B, in harmony with the dating of the site as a whole (Routledge 2000: 43, 48).

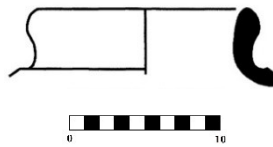


FIGURE 200. Pithos 22.02 at Khirbat Mudayna al-'Aliya. Left: Pithos 22.02 on the site map (Routledge 2000: 41); Right: Location of Pithos 22.02 within Building 700 (Routledge 2000: 53).

All of the dimensions of Pithos 22.02 are smaller than average. It has a 2.0 cm neck, placing it among the shortest-necked examples in the Classic Form group. It has a rim thickness and height that are both below average, but still within one standard deviation of the mean. The rim has the most common thickened shape for the Classic Form group and a typical everted stance. The rim circumference and diameter are 36% smaller than usual. The triangular collar has average prominence, for this group. Dimensions for this vessel were obtained solely from a published plate.

TABLE 136. Comparable Data for Khirbat al-Mudayna al-‘Aliya Classic Form Pithos 22.02.

	Pithos 22.02	μ Pithos in Group (σ)
Neck Height in cm	2.00 (33%)	2.97 (0.71)
Rim Thickness in cm	1.80	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.20	2.81 (0.62)
Rim Circumference in cm	43.98 (36%)	68.18 (13.41)
Ext. Rim Diameter in cm	14.00 (36%)	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	10.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	7.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	10YR 8/3, Very Pale Brown	Pink

**FIGURE 201.** Pithos 22.02, Khirbat al-Mudayna al-‘Aliya (Routledge 2000: 46; fig. 7.1)

Khirbat en-Nahas, Southern Transjordan



FIGURE 202. Aerial View of Khirbat en-Nahas.

Khirbat en-Nahas was a major copper mining and smelting settlement with activity beginning at the end of the 13th century B.C. and continuing through the ninth century B.C., with the most intensive use and occupation occurring during the tenth and ninth centuries B.C. (Levy et al. 2014: 89; Smith and Levy 2008: 42). Located in Araba, the lowland region of southern Transjordan, it is one of the first such sites to be excavated and published, greatly adding to the understanding of this area during the Iron Age. Large scale excavations of the site were carried out in 2002, 2006, and 2009 under the direction of Thomas Levy, Muhammad Najjar, and Neil Smith, with the University of California, San Diego. While seven different fields were identified and excavated at the site, only Fields A and T are represented by the collared pithoi examples below.

Pithos 23.01: Khirbat en-Nahas, ca. 980 B.C.

Pithos 23.01 (figure 204) was found in Field A, Locus 41, Basket 1242. This locus has been identified as belonging to the site's Integrated Phase 3. At the north side of Khirbat en-Nahas there is a large square fortress complex enclosed by a 2.0 m thick fortification wall with a four chambered gate at its only entrance, on the north-west (Levy et al. 2014: 89). The excavations in Field A explored three of the four chambers in this gatehouse, as well as the main passage through the gates. At the end of its ninth century B.C. use, the gatehouse was filled with large rocks, thus sealing the layers below and protecting them from later post-occupational intrusions (Levy et al. 2014: 97).

Published ceramics from this locus include a white jug, which does not have parallels outside of Khirbat en-Nahas and the nearby Khirbat al-Jariyeh,¹²⁷ a simple bowl,¹²⁸ and an imported bowl with red slip and horizontal burnishing inside and out.¹²⁹ This last bowl has parallels in Beer-Sheba Stratum VI, which dates it to around the beginning of the Iron Age 2A (Herzog 1977: 53). This dating assignment is corroborated by the radiocarbon dates that came from this field, placing the start of Integrated Phase 3 at Khirbat en-Nahas in the mid-tenth century B.C. (Smith and Levy 2008: 48).

¹²⁷ This jug's registration number is #265 and also came from basket #1242. Its form type is classified as JG14 (Levy et al. 2014, 325).

¹²⁸ Registration number #181, Locus 41, Basket 1263 (Levy et al. 2014, fig. 4.10.12).

¹²⁹ This bowl is likely imported from the Negev. It has a registration number of #180 (Levy et al. 2014, 319, fig. 4.10.9).

Pithos 23.01 has thus been assigned a date from the start of the Iron Age 2A.

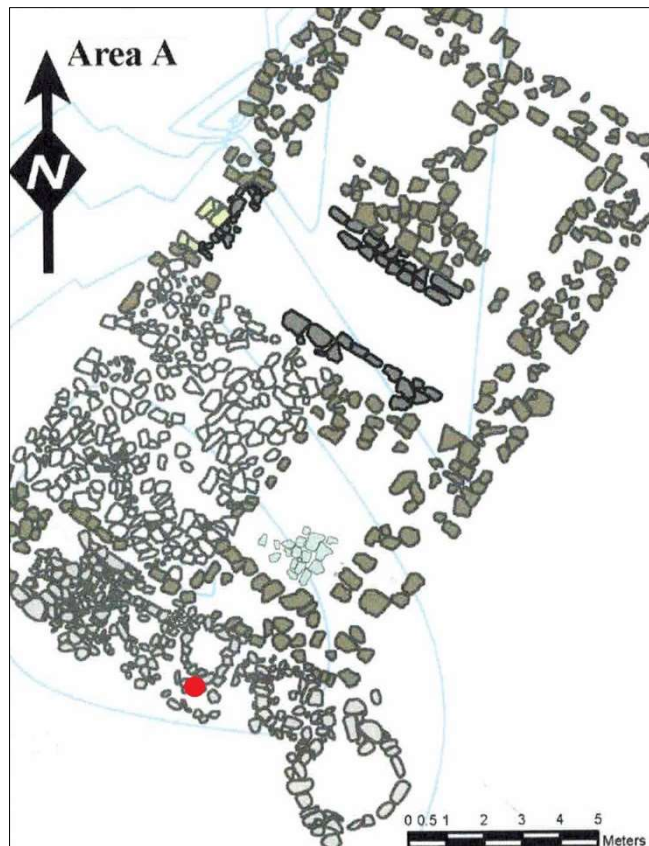


FIGURE 203. Location of Pithos 23.01 in the metallurgic dump outside of the south-east chamber of the gatehouse in Field A at Khirbat en-Nahas (Levy et al. 2014, 428; Adapted from fig. 4.48).

The shapes and appearance of Pithos 23.01 are very similar to the average Classic Form example. Unusual for the group is the size of its rim and the alignment between its rim and collar. In all ways, the rim is 30-34% larger than average. Nevertheless, the neck height is slightly shorter than usual and the prominence of the collar is nearly typical. The rest of its features and dimensions are within one standard deviation from the mean for a Classic Form example. Dimensions for this vessel were obtained solely from

a published plate.

TABLE 137. Comparable Data for Khirbat en-Nahas Classic Form Pithos 23.01.

	Pithos 23.01	μ Pithos in Group (σ)
Neck Height in cm	2.50	2.97 (0.71)
Rim Thickness in cm	3.00 (33%)	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	4.00 (30%)	2.81 (0.62)
Rim Circumference in cm	103.67 (34%)	68.18 (13.41)
Ext. Rim Diameter in cm	33.00 (34%)	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	Aligned	18.51° Inside (11.62)
Collar Prominence in mm	8.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	10YR 8/3, Very Pale Brown	Pink

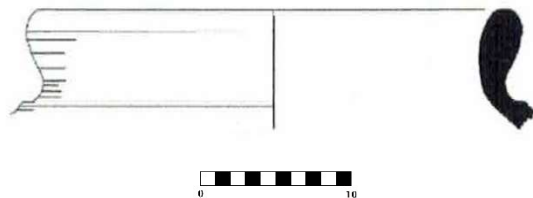


FIGURE 204. Pithos 23.01, Khirbat en-Nahas #266 (Smith and Levy 2008: 56-57; fig. 11.7; Levy et al. 2014: 356-57; fig. 4.11.7).

Pithos 23.02: Khirbat en-Nahas, ca. 980 B.C.

Pithos 23.02 (figure 206) was found in Field T, Locus 1518 (Levy et al. 2014: 346). Field T contains a large domestic complex, centrally placed on the east side of Khirbat en-Nahas. This structure, which may have been used as an elite residence, includes five perimeter rooms, a tower, and a central courtyard, all surrounded by an extraordinarily thick exterior wall. (Levy et

al. 2014: 89, 169). Locus 1518 is a part of Stratum III¹³⁰ in the courtyard. It is composed of wall tumble and post-occupational debris. Also found in this locus was a grinding stone. No other ceramics have yet been published from this locus. However, a radiocarbon date from the adjacent and contemporary locus¹³¹ dates this stratum to the tenth century B.C. (Levy et al. 2014: 183). Although they are not published with their individual details, about eight vessels classified as collared pithoi were discovered within this complex. Five of these eight were found in the south-eastern half of the courtyard and the space classified as Room 5 (Levy et al. 2014: 333, 427-28). Two of these pithoi are ninth century B.C. vessels, found closer to the center of the courtyard. Six of the eight pithoi were associated with the tenth century B.C. occupation. These vessels were primarily located around the periphery walls within the rooms in which they were located. Pithos 23.02 is among these tenth century B.C. pithoi.

Pithos 23.02 possesses the profiles and shapes of the average Classic Form example, but most of its features are larger than usual for that group. Its neck height, rim height, and collar prominence are all within one standard deviation from the Classic Form mean. Its thickened, edgeless rim is the most typical shape for this group. However, its rim thickness is 33% greater than average. The rim circumference and the related exterior rim diameter both stretch 43% larger than usual. This rim circumference is by far

¹³⁰ This locus is in layer T1b within Area T.

¹³¹ This is Locus 1517 from the smaller area at the back of the courtyard, known as Room 5.

the most unusual and, as it is 16.0 cm greater than the next largest rim circumference in the group, is clearly to be classified as a Classic Form outlier. With a 35° rim-to-collar alignment, this large rim is inset 47% more than the average observed among the Classic Form examples. The remaining features of this pithos are within standard for the Classic Form group. Dimensions for this vessel were obtained solely from a published plate.

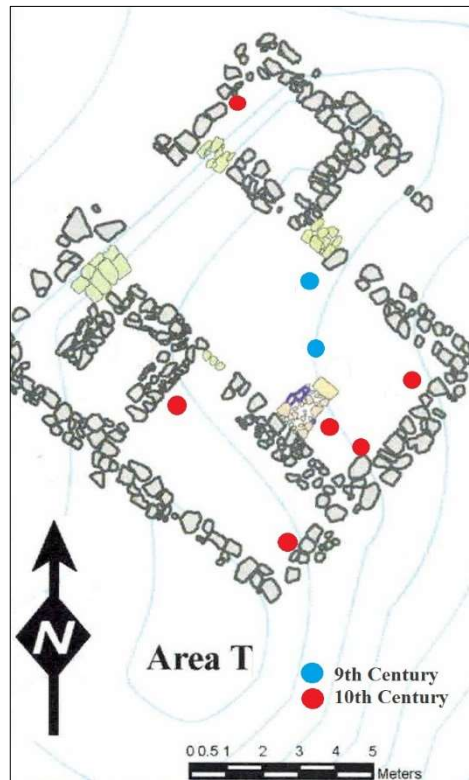


FIGURE 205. Distribution Pattern of Pithoi within the Area T complex at Khirbat en-Nahas (Levy et al. 2014: 427,28; Adapted from fig. 4.47 and 4.48).

TABLE 138. Comparable Data for Khirbat en-Nahas Classic Form Pithos 23.02.

	Pithos 23.02	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	3.00 (33%)	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	119.38 (43%)	68.18 (13.41)
Ext. Rim Diameter in cm	38.00 (43%)	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	35.00° Inside (47%)	18.51° Inside (11.62)
Collar Prominence in mm	10.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

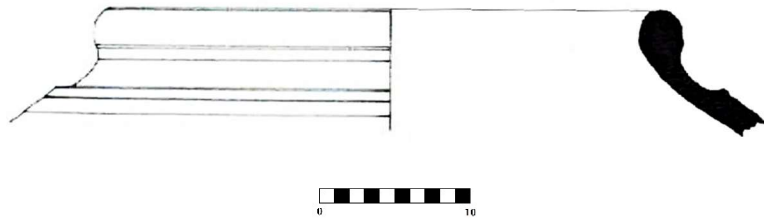


FIGURE 206. Pithos 23.02, Khirbat en-Nahas, #475 (Levy et al. 2014: 346; fig. 4.5.17).

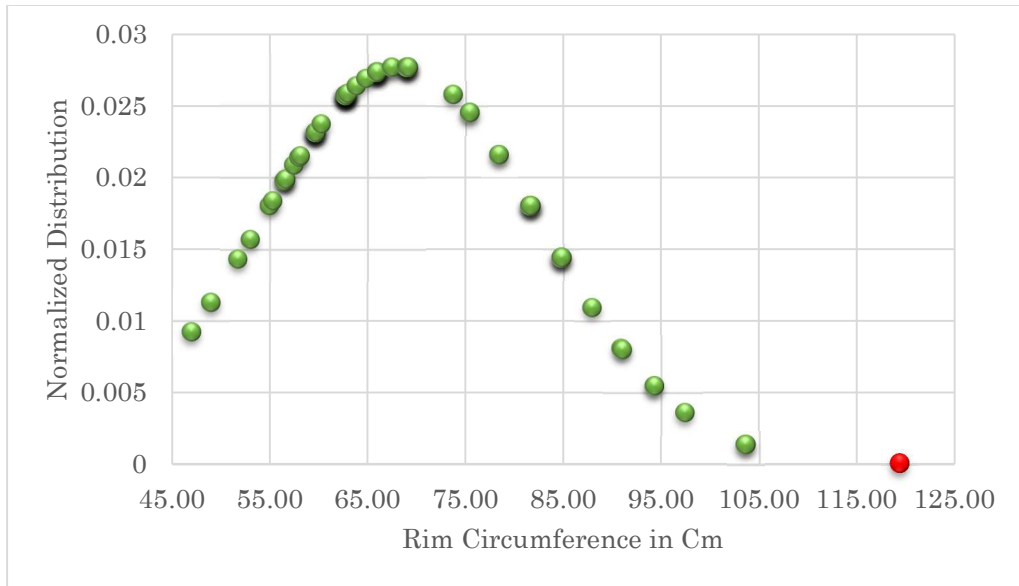


FIGURE 207. Distribution of Classic Form Rim Circumferences, Pithos 23.02.

Khirbat Safra, Central Plateau



FIGURE 208. Aerial View of Khirbat Safra.

This site was introduced fully in Chapter 2, prior to the presentation of Pithos 4.01. Please refer to that information for more details regarding the overview of this site.

Pithos 24.01: Khirbat Safra, ca. 980 B.C.

Pithos 24.01 (figure 213) was found in Field C, Square 2, Locus 15 at Khirbat Safra. It was located in Room 4 of the building complex connected to the site's casemate fortification wall.¹³² This narrow chamber is not fully excavated nor yet understood. Beyond the shared wall in the structure in

¹³² For building layout, see fig. 209.

Field C, there is as yet no demonstrable connection between the two southwestern rooms and those to the northeast.

In the first occupational phase of Room 4 there is a staircase leading into this room from the northwest and a doorway in the north-eastern wall. However, in the second phase, to which Pithos 24.01 belongs, this doorway is blocked and the surface is raised too high for the earlier staircase to have continued to serve a purpose. These changes are likely an indication of the shift of use pattern for this space. The inverted posture of Pithos 24.01¹³³ and the position of the roof roller, embedded at a suspended angle in the floor, suggests that both objects experienced a fall from some height. They may have fallen off of a roof as it collapsed inward, although this would be a curious location for a likely round or pointed-base vessel of this size.

Locus 15 is best described as a surface associated with the second phase of occupation in Field A. While the *terminus* date for this phase belongs to the early Iron Age 2, the cooking pots directly associated with this pithos in Locus 15 are best placed in the Iron Age 1B. Pithos 24.01 has been given a date at the beginning of the Iron Age 2, with the understanding that it may belong to an earlier period.

¹³³ While inverted pithos rims are known to be repurposed as ovens (for example at Tall Jawa, Daviau 2003: 222), this rim does not have any indications of having been exposed to fire, nor was it surrounded by stones or “built” into an oven in the expected manner. It is therefore presumed to have fallen from above and landed in an inverted position.

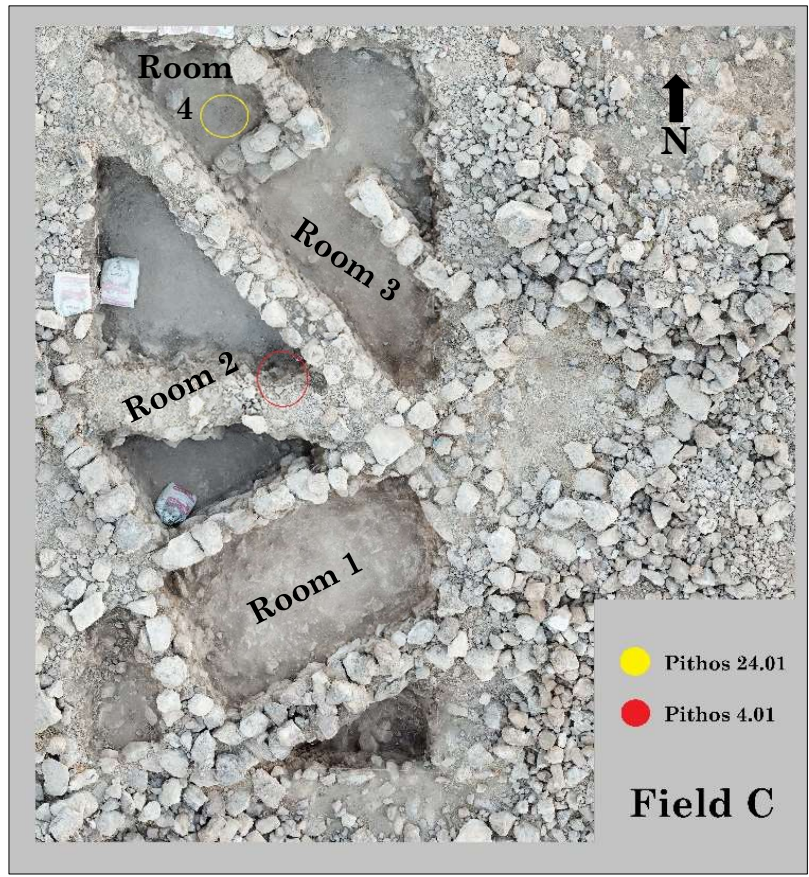


FIGURE 209. Collared Pithos locations in Field C at Khirbat Safra.



FIGURE 210. Roof roller in situ, located directly above Pithos 24.01.



FIGURE 211. The rim of Pithos 24.01 in situ.



FIGURE 212. Iron Age 1 Cooking pots from Khirbat Safra, Field C2, Locus 15.

The 4.0 cm neck of Pithos 24.01 is among the longest in the Classic Form group. It is 26% taller than average. The rim, in contrast is 33% thinner than usual. It has a rim height that is just slightly under the average Classic Form height, but is still within one standard deviation of the mean. The rim has a subtle profiling that places it among those with “kidney-shaped” rims. While there are nineteen rims in this study with this shape, only two¹³⁴ of them are among the Classic Form examples. The other seventeen are categorized as Long Form pithoi. This rim stands with a straight inflection from the line of the neck. At the base of the neck is a triangular collar of below average prominence. The remainder of the characteristics of this pithos are standard for a Classic Form example. Dimensions for this pithos were obtained directly from the vessel.

¹³⁴ In addition to this vessel, Pithos 17.16 from Tall Jalul represents the other example of a Classic Form pithos with a kidney-shaped, profiled rim.

TABLE 139. Comparable Data for Khirbat Safra Classic Form Pithos 24.01.

	Pithos 24.01	μ Pithos in Group (σ)
Neck Height in cm	4.00 (26%)	2.97 (0.71)
Rim Thickness in cm	1.34 (33%)	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Profiled T1: Kidney, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.37	2.81 (0.62)
Rim Circumference in cm	62.80	68.18 (13.41)
Exterior Rim Diameter in cm	20.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	13.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	5.00	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 7/3, Pink	Pink



FIGURE 213. Pithos 24.01, Khirbat Safra S18.C2.18.1-5.loc15.

Pithos 24.02: Khirbat Safra, ca. 1140 B.C.

This pithos (figure 214) was unearthed in Field B, Square 5, Locus 5 at Khirbat Safra during the 2019 excavation season. This locus is part of the wall collapse and post-occupational fill within the structure connected to the casemate fortification walls. The ceramics from this locus primarily date to the Iron Age 1 and are represented by diagnostic examples of one bowl and one jar from the Iron Age 1A and one bowl, two jars, and three kraters from the Iron Age 1B. Given this context, this pithos will be dated to the beginning of the Iron Age 1B.

Pithos 24.02 has many common features of the Classic Form. The neck height, rim thickness, rim inflection, rim circumference, and diameter are all typical and within one standard deviation of the mean for this group. However, the rim height is 28% shorter than average and the offset, thickened rim is a shape shared by only 9% (n = 7) of the Classic Form examples. The typically shaped, triangular collar is 75% less prominent than usual. But it stands at a near average 12° outside of alignment with the rim. The remaining features of this pithos are standard for the Classic Form group. Dimensions for this pithos were obtained directly from the vessel.

TABLE 140 Comparable Data for Khirbat Safra Classic Form Pithos 24.02

	Pithos 24.02	μ Pithos in Group (σ)
Neck Height in cm	3.25	2.97 (0.71)
Rim Thickness in cm	1.72	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T4: Offset, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.03 (28%)	2.81 (0.62)
Rim Circumference in cm	64.80	68.18 (13.41)
Ext. Rim Diameter in cm	20.50	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	12.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	1.80 (75%)	7.19 (4.04)
Firing	Oxidation	Underfired
Exterior Munsell Reading	7.5 YR 7/3, Pink	Pink



FIGURE 214. Pithos 24.02, Khirbat Safra S19.B5.9.1-6.loc5 (The lower images are not shown to scale).

Tall Safut, Central Plateau



FIGURE 215. Aerial View of Tall Safut.

Tall Safut sits on the north side of the Amman-Jerash highway, approximately 15.0 km northwest of the Amman citadel, overlooking the lush Baq'ah Valley. The village of Safut which lies directly to the northwest is currently a suburb of modern Amman. Ten seasons of salvage excavation were conducted at the site between 1982 and 2001 under the direction of Donald Wimmer with Seton Hall University (Chesnut 2019: 3, 10-14). With the exception of the unprovenanced Pithos 25.01, all of the following pithoi from Tall Safut were found in the southern building complex in Fields B and C.

Pithos 25.01: Tall Safut, Unstratified

Beyond its provenance at Tall Safut, little is known about Pithos 25.01 (figure 218) in regard to its context information. It is possible that this pithos originated in Field B, Square 6, as descriptions were given of at least five pithoi being found here in an Iron Age 1 stratum, but knowledge of the location of these vessels has unfortunately been lost (Chesnut 2019: 69). For the purposes of this study, this vessel is thus considered unstratified.

Pithos 25.01 is one of seven complete Classic Form examples in this study. This vessel is the tallest and narrowest of these pithoi, with a height that is 12% greater than average and a body circumference that is 9% smaller than usual for the Classic Form group. Its rim, however, is 26% shorter and 22% thicker than average. Its thickened, edged shape is common to only five other Classic Form examples, together comprising 7% of the rims in this group. This rim is 40° inside of alignment with the triangular collar, an angle which is about 54% greater than average. This triangular collar is inset, with grooves above and below it, a feature that develops with the later forms of the collared rim pithos. In many ways this vessel is more reminiscent of these later styles than of those usually associated with the longer necked Classic Form vessels. With the exception of the handle, which is 18% shorter than usual, the remaining features of this pithos are standard for the Classic Form group. Dimensions for this example were obtained directly from the vessel.

TABLE 141. Comparable Data for Tall Safut Classic Form Pithos 25.01.

	Pithos 25.01	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	2.59 (22%)	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Thickened T1: Edged, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.07 (26%)	2.81 (0.62)
Rim Circumference in cm	56.60	68.18 (13.41)
Ext. Rim Diameter in cm	18.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	40.00° Inside (54%)	18.51° Inside (11.62)
Collar Prominence in mm	6.00	7.19 (4.04)
Firing	Oxidation	Underfired
Exterior Munsell Reading	10 YR 7/2, Light Gray	Pink
Full Vessel Height in cm	122.00 (12%)	107.07 (12.24)
Body Circumference in cm	166.00 (9%)	181.63 (12.38)
Handle Width in cm	4.23	4.36 (0.39)
Handle Height in cm	11.47 (18%)	14.06 (1.88)
Base Shape	Rounded	Rounded
Base Thickness in cm	unknown	1.97 (1.10)

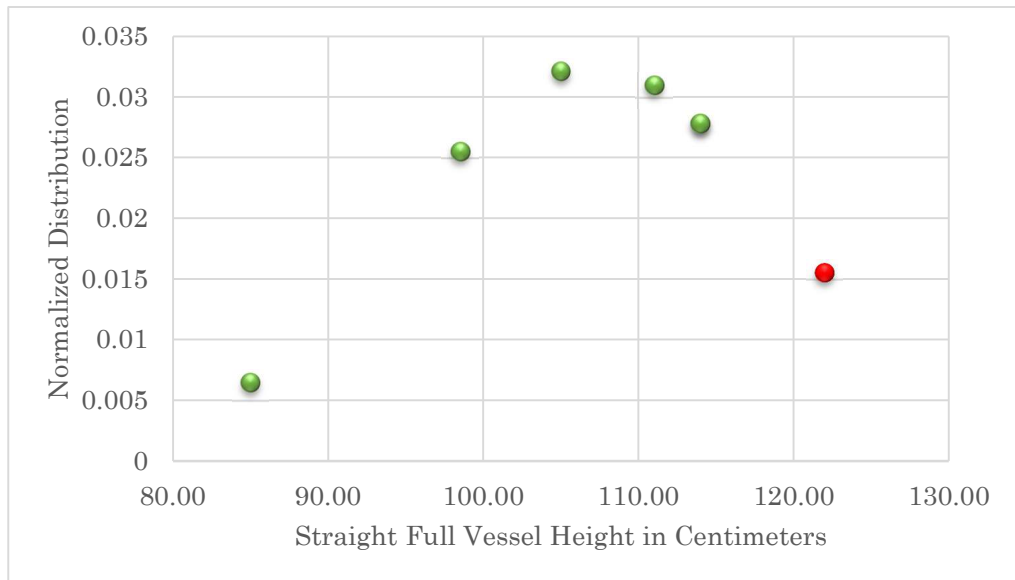


FIGURE 216. Distribution of Classic Form Vessel Heights, Pithos 25.01.

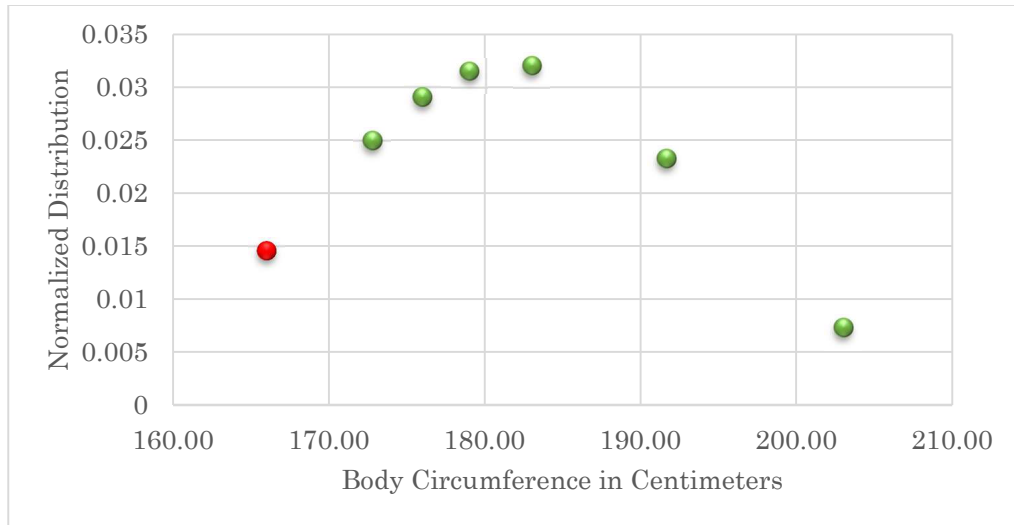


FIGURE 217. Distribution of Classic Form Body Circumferences, Pithos 25.01.



FIGURE 218. Pithos 25.01, Tall Safut 1312T (Unknown context; July, 2017: Located in Citadel Museum Storage in Amman, Jordan).

Pithos 25.02: Tall Safut, ca. 1140 B.C.

Pithos 25.02 (figure 220) was found in Field C, Square 3, Locus 410 at Tall Safut. Locus 410 is defined by wall tumble and inter-occupational fill. It was the first locus of the 2001 season, excavated in C3, after the seasonal clean-up (Chesnut 2019: 37). The mixed nature of the ceramics in this locus could be best understood as intrusive, interseasonal contamination or related to a nearby Ottoman-period burial. With the exception of two Hellenistic-period sherds, a late Middle Bronze Age juglet and a Roman-period storage jar, the ceramics of this locus primarily date to the Iron Age (Chesnut 2019: 281-82). In addition to Pithos 25.02, a published krater (figure 219) was found in this locus that dates to the Iron Age 1A/B. Pithos 25.02 has been given a correlating date.



FIGURE 219. Krater, Iron Age 1, from Field C3, Locus 410 at Tall Safut (Chesnut 2019, 547-48; pl. 11.7).

All of the dimensions of Pithos 25.02 are standard for the Classic Form. However, its rim shape and inflection are irregular. The triangular-shaped rim is the second most common shape, even though it is only represented by 11% (n = 9) of the examples. The inflection of this rim is straight from the angle of the neck, rather than having the usual eversion.

Dimensions for this vessel were obtained solely from a published plate.

	Pithos 25.02	μ Pithos in Group (σ)
Neck Height in cm	2.80	2.97 (0.71)
Rim Thickness in cm	1.90	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Triangular, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	67.50	68.18 (13.41)
Exterior Rim Diameter in cm	21.50	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	8.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	5.00	7.19 (4.04)
Firing	Oxidation	Underfired
Exterior Munsell Reading	5 YR 6/4, Light Reddish Brown	Pink

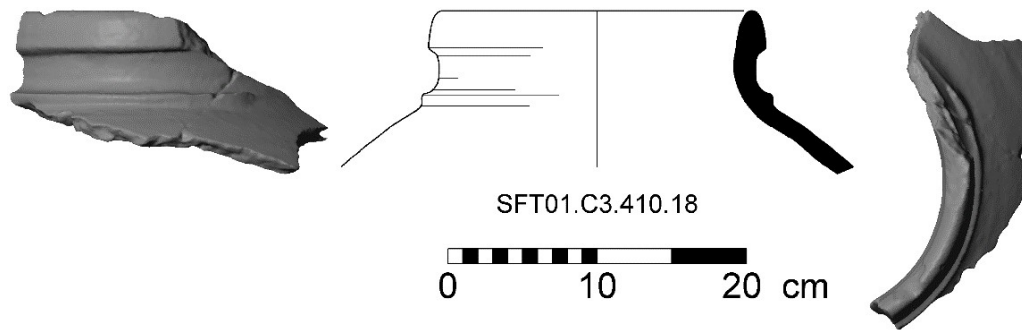


FIGURE 220. Pithos 25.02, Tall Safut SFT01.C3.410.18 (Chesnut 2019: 558-59; pl. 14.3.1).

Pithos 25.03: Tall Safut, ca. 780 B.C.

Pithoi 25.03, 25.04, and 25.05 were all found in Field B, Square 4, Locus 12. This square lies inside of the earlier Late Bronze Age perimeter wall (Chesnut 2019: 42). Locus 12 consists of hard packed, clay-like earth under ashy layers and wall tumble.¹³⁵ This destruction debris belongs to the later Iron Age 2C structure above. The stratigraphy below this building and above the Iron Age 1 fill below, is poorly understood. The notes from the 1982 and 1983 seasons during which these levels were excavated, are so poor that it is difficult to delineate the intermediate strata with fair precision (Chesnut 2019: 193). It seems reasonable under these circumstances to date the pithoi from Locus 12 to the middle of the Iron Age 2B, but this date is to be understood as an estimate as it is impossible to narrow their specific context any more precisely.

As with Pithos 25.02, all of the dimensions of Pithos 25.03 (figure 221) are standard. However, its round rim shape is not typical. This shape is only present on 10% (n = 8) of the Classic Form examples. This rim is slightly thicker and shorter than average, but is still within one standard deviation of the mean for this group. The same is true for the rim circumference and diameter, which are 13% smaller than average, but still within standard. Dimensions for this vessel were obtained solely from an unpublished plate.

¹³⁵ Above Locus 12 were Loci 6-9, described as ashy layers, and Locus 11, defined as wall tumble (Chesnut 2019: 65, 192).

TABLE 143. Comparable Data for Tall Safut Classic Form Pithos 25.03.

	Pithos 25.03	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	2.50	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Round, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.50	2.81 (0.62)
Rim Circumference in cm	59.70	68.18 (13.41)
Exterior Rim Diameter in cm	19.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	22.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	5.00	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	5YR 6/6, Reddish Yellow	Pink

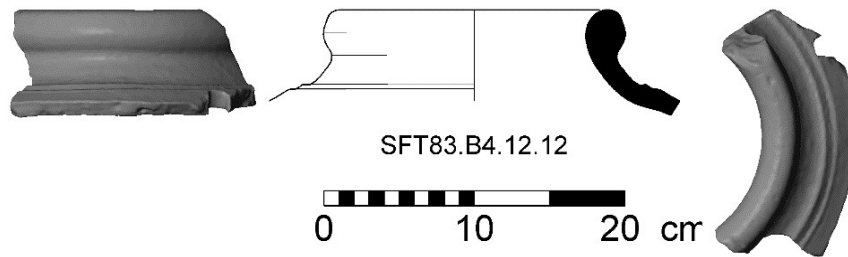


FIGURE 221. Pithos 25.03, Tall Safut SFT83.B4.12.12 (Chesnut 2019: 973, 87; pl. 47.11.6).

Pithos 25.04: Tall Safut, ca. 780 B.C.

Pithos 25.04 (figure 222) was found in the same context as the previous example, Pithos 25.03. Please consult that description for more information about its dating and stratigraphic location.

The only feature of Pithos 25.04 that is outside of one standard deviation of the mean for the Classic Form group is the rim height, which is 20% greater than average. The other dimensions are all slightly smaller than

usual, but still near enough to average to be considered standard. The only exception to this is the collar prominence which is slightly greater than typical, but also still standard. Dimensions for this vessel were obtained solely from an unpublished plate.

TABLE 144. Comparable Data for Tall Safut Classic Form Pithos 25.04.

	Pithos 25.04	μ Pithos in Group (σ)
Neck Height in cm	2.30	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.50 (20%)	2.81 (0.62)
Rim Circumference in cm	66.00	68.18 (13.41)
Ext. Rim Diameter in cm	21.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	17.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	8.00	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5YR 5/3 Brown	Pink

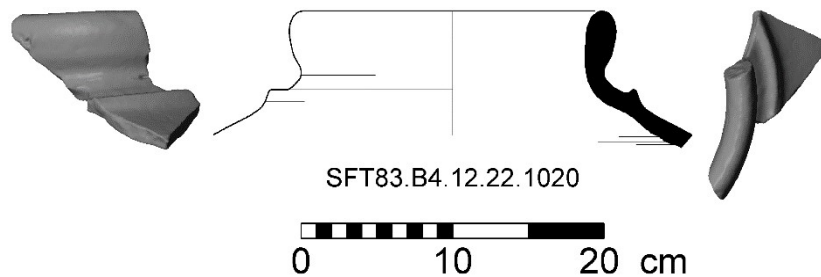


FIGURE 222. Pithos 25.04, Tall Safut SFT83.B4.12.22.1020 (Chesnut 2019: 557, 59; pl. 14.2.3).

Pithos 25.05: Tall Safut, ca. 780 B.C.

This pithos (figure 223) was found in the same context as Pithos 25.03. Consult that description for more information. Pithos 25.05 is another good example of the Classic Form. Most of the features of this vessel are standard. Its triangular rim shape is not typical and is a trait shared by only eight other Classic Form pithoi. This rim is also inset 33° inside the line of the collar, an angle that is 44% greater than average. The remaining characteristics of this example are within one standard deviation of the mean for the Classic Form. Dimensions for this vessel were obtained solely from a published plate.

TABLE 145. Comparable Data for Tall Safut Classic Form Pithos 25.05.

	Pithos 25.05	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Triangular, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.30	2.81 (0.62)
Rim Circumference in cm	59.70	68.18 (13.41)
Exterior Rim Diameter in cm	19.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	33.00° Inside (44%)	18.51° Inside (11.62)
Collar Prominence in mm	6.00	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	10YR 7/2 Light Gray	Pink

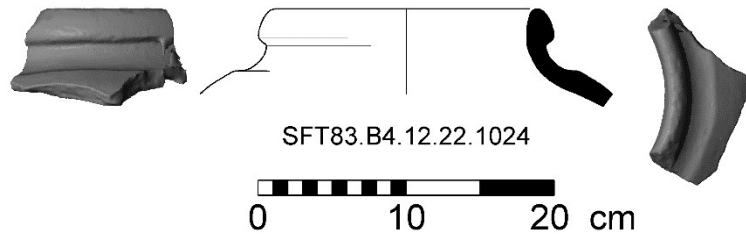


FIGURE 223. Pithos 25.05, Tall Safut SFT83.B4.12.22.1024 (Chesnut 2019: 964,81; pl.47.2.3)

Tall Sahab, Central Plateau



FIGURE 224. Aerial View of Tall Sahab.

Located approximately 12.0 km south-east of the Amman Citadel, Tall Sahab is part of the present-day city of Amman. The ancient mound was one of the largest in the region (Stern 2008: 1847). It belongs to the transitional zone between the rich agricultural area of the central plateau and the fringe of the eastern desert. In the Iron Age it was one of the last bastions of civilization on the route through the eastern deserts (Ibrahim 1972: 23).

Even in the early 1970s, excavations at Tall Sahab largely resembled a salvage expedition within a rapidly growing modern town. As is evidenced in the preliminary reports, active construction occurred on and around the site

throughout the excavations, leading to the discovery of additional burial caves or threatening the integrity of the stratigraphic remains on portions of the tell (Ibrahim 1972: 31; Ibrahim 1974: 69-70; Ibrahim 1975: 70). Despite these challenges, five seasons of excavations were completed at the site between 1972 and 1980, under the direction of Moawiyah Ibrahim, sponsored by the Department of Antiquities of Jordan. Evidence of occupation from the Chalcolithic through the Iron Age 2 was unearthed during this investigation, equating to six main phases (Ibrahim 1972: 24). The most extensive habitation occurred at Tall Sahab during the Iron Age 1 (Ibrahim 1972: 24-25). It is to this period that the following pithoi have been dated by the excavator (Ibrahim 1972: 26-27; Ibrahim 1978: 117-18).

While the specific individual archaeological contexts of the following vessels are unknown, many collared pithoi at Tall Sahab were found *in situ* on a plastered stone pavement in Area A (Ibrahim 1978: 117). This pavement was not connected to any walls, but was near a large cistern that the excavator believed to be associated with the pavement. He speculated that the pavement was an open storage area, though no conclusive evidence of the pavement's use was discovered in its excavation (Ibrahim 1978: 117). It is possible that some of the pithoi from this pavement are represented in the following collection.



FIGURE 225. Excavation Photograph portraying collared pithoi as they were discovered at Tall Sahab in Area A (Ibrahim 1978: 218).

Pithos 26.01: Tall Sahab, ca. 1140 B.C.

Pithos 26.01 (figure 226) is an excellent example of a Classic Form vessel. Beyond the inverted inflection of its rim, every feature and dimension of this vessel is typical and within one standard deviation of the mean for this group. It has the usual thickened, edgeless rim shape and the triangular collar with typical prominence for a Classic Form vessel. Its 3.0 cm neck height and 18° rim-to-collar alignment are equally standard for this group. Dimensions for Pithos 26.01 were obtained solely from a published plate.

TABLE 146. Comparable Data for Tall Sahab Classic Form Pithos 26.01.

	Pithos 26.01	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Inverted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.80	2.81 (0.62)
Rim Circumference in cm	62.80	68.18 (13.41)
Ext. Rim Diameter in cm	20.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	18.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	9.00	7.19 (4.04)
Firing	unknown	Underfired
Ext. Munsell Reading	unknown	Pink
Full Vessel Height in cm	111.00	107.07 (12.24)
Body Circum. in cm	176.00	181.63 (12.38)
Handle Width in cm	unknown	4.36 (0.39)
Handle Height in cm	15.00	14.06 (1.88)
Base Thickness	Rounded	Rounded
Base Shape	1.00	1.97 (1.10)

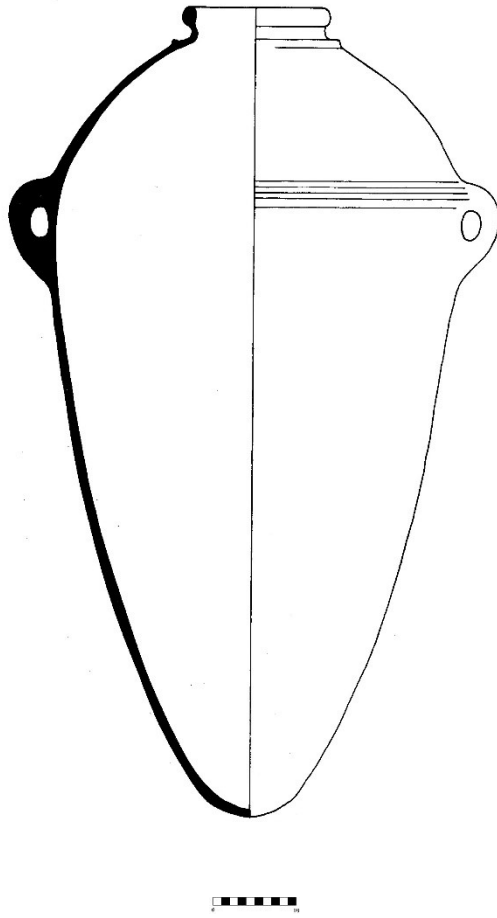


FIGURE 226. Pithos 26.01, Tall Sahab (Ibrahim 1978: 116; fig. 1).

Pithos 26.02: Tall Sahab, ca. 1140 B.C.

The profiled, ridged-shaped rim present on Pithos 26.02 (figure 227) is its singularly most unique feature. It is seen on only one other Classic Form example, Pithos 26.05, also from Tall Sahab. The rest of the features of this pithos appear to be standard. Dimensions were obtained from a published scaled photograph and are to be considered very rough approximations only.

TABLE 147. Comparable Data for Tall Sahab Classic Form Pithos 26.02.

	Pithos 26.02	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	1.80	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Profiled T2: Ridged, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	56.50	68.18 (13.41)
Ext. Rim Diameter in cm	18.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	13.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	6.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink



FIGURE 227. Pithos 26.02, Tall Sahab (Ibrahim 1978: 119; fig. 19, Top Row Left).

Pithos 26.03: Tall Sahab, ca. 1140 B.C.

All of the ascertainable features and dimensions of this pithos (figure 228) appear to be standard. Dimensions were obtained from a published scaled photograph and are to be considered very rough approximations only.

TABLE 148. Comparable Data for Tall Sahab Classic Form Pithos 26.03.

	Pithos 26.03	μ Pithos in Group (σ)
Neck Height in cm	3.50	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.50	2.81 (0.62)
Rim Circumference in cm	59.70	68.18 (13.41)
Ext. Rim Diameter in cm	19.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	25.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	9.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

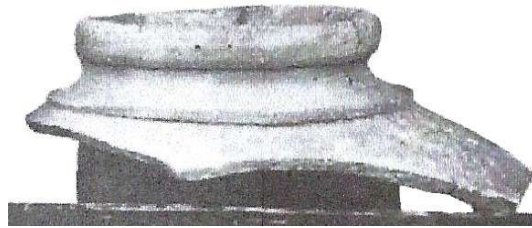


FIGURE 228. Pithos 26.03, Tall Sahab (Ibrahim 1978: 119; fig. 19, Top Row Right).

Pithos 26.04: Tall Sahab, ca. 1140 B.C.

Pithos 26.04 (figure 229) has a thickened, edged rim, similar to that of six other Classic Form examples. This rim appears to have a straight inflection from the neck. The collar seems to have a teardrop shape of greater than average prominence, while most of the other features appear to be slightly smaller than usual. Dimensions were obtained from a published scaled photograph and are to be considered very rough approximations only.

TABLE 149. Comparable Data for Tall Sahab Classic Form Pithos 26.04.

	Pithos 26.04	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	1.50	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Thickened T1: Edged, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	59.70	68.18 (13.41)
Ext. Rim Diameter in cm	19.00	21.74 (4.22)
Collar Shape	Teardrop	Triangular
Rim-to-Collar Angle	20.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	10.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

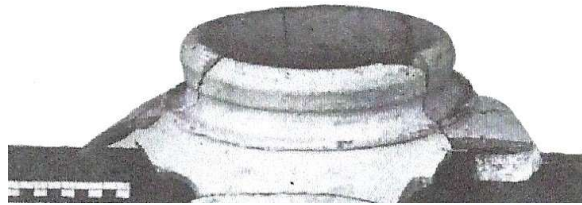


FIGURE 229. Pithos 26.04, Tall Sahab (Ibrahim 1978: 119; fig. 19, Second Row Left).

Pithos 26.05: Tall Sahab, ca. 1140 B.C.

The ridged, profiled rim on Pithos 26.05 (figure 230) is present on only one other Classic Form example, Pithos 26.02, also from Tall Sahab. The inflection of the rim on Pithos 26.05 appears to be straight, in line with the neck. The rim also appears to be in unusual alignment with the triangular collar. This rim is approximately 47% shorter and 25% thinner than usual for the Classic Form, although this latter measurement is still within one standard deviation of the mean. Dimensions were obtained from a published scaled photograph and are to be considered very rough approximations only.

TABLE 150. Comparable Data for Tall Sahab Classic Form Pithos 26.05.

	Pithos 26.05	μ Pithos in Group (σ)
Neck Height in cm	2.50	2.97 (0.71)
Rim Thickness in cm	1.50	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Profiled T2: Ridged, OT	Thickened T2: Edgeless, OT
Rim Height in cm	1.50 (47%)	2.81 (0.62)
Rim Circumference in cm	59.70	68.18 (13.41)
Exterior Rim Diameter in cm	19.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	Aligned	18.51° Inside (11.62)
Collar Prominence in mm	8.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

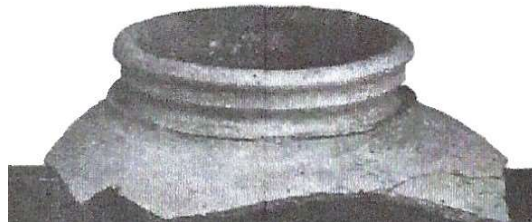


FIGURE 230. Pithos 26.05, Tall Sahab (Ibrahim 1978: 119; fig. 19, Second Row Right).

Pithos 26.06: Tall Sahab, ca. 1140 B.C.

Less than half of the rim on Pithos 26.06 (figure 231) was available for study – accessible only through a scaled published photograph. Thus the available data is extremely limited and roughly estimated, with the imprecision expected from gathering data from such a record. The neck height appears to be relatively standard for the Classic Form and the rim height 29% shorter than average. The collar is very difficult to see, but may be seen as triangular. Dimensions should be taken as very rough approximations only.

TABLE 151. Comparable Data for Tall Sahab Classic Form Pithos 26.06.

	Pithos 26.06	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	unknown	2.01 (0.51)
Rim Inflection	unknown	Everted
Rim Shape	Thickened T1: Edged, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.00 (29%)	2.81 (0.62)
Rim Circumference in cm	unknown	68.18 (13.41)
Ext. Rim Diameter in cm	unknown	21.74 (4.22)
Collar Shape	unknown	Triangular
Rim-to-Collar Angle	unknown	18.51° Inside (11.62)
Collar Prominence in mm	unknown	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

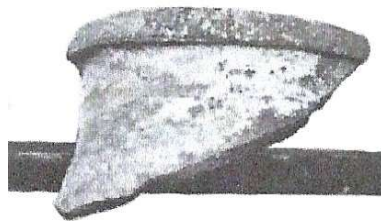


FIGURE 231. Pithos 26.06, Tall Sahab (Ibrahim 1978: 119; fig. 19, Third Row Left).

Pithos 26.07: Tall Sahab, ca. 1140 B.C.

The only dimensional data available for Pithos 26.07 (figure 232) came from a scaled published photograph of a rim segment that could not have been more than one quarter of the whole rim. Thus, only two measurements, the neck and rim heights, were attainable from this small sample. These both appear to be standard, but should be taken as very rough approximations only.

TABLE 152. Comparable Data for Tall Sahab Classic Form Pithos 26.07.

	Pithos 26.07	μ Pithos in Group (σ)
Neck Height in cm	2.50	2.97 (0.71)
Rim Thickness in cm	unknown	2.01 (0.51)
Rim Inflection	unknown	Everted
Rim Shape	unknown	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	unknown	68.18 (13.41)
Exterior Rim Diameter in cm	unknown	21.74 (4.22)
Collar Shape	unknown	Triangular
Rim-to-Collar Angle	unknown	18.51° Inside (11.62)
Collar Prominence in mm	unknown	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink



FIGURE 232. Pithos 26.07, Tall Sahab (Ibrahim 1978: 119; fig. 19, Third Row Middle).

Pithos 26.08: Tall Sahab, ca. 1140 B.C.

Three features of Pithos 26.08 (figure 323) were available for estimations. These were all determined to be near standard for the Classic Form group. These dimensions were obtained from a published scaled photograph and are to be considered very rough approximations only.

TABLE 153. Comparable Data for Tall Sahab Classic Form Pithos 26.08.

	Pithos 26.08	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	unknown	2.01 (0.51)
Rim Inflection	unknown	Everted
Rim Shape	unknown	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	unknown	68.18 (13.41)
Exterior Rim Diameter in cm	unknown	21.74 (4.22)
Collar Shape	unknown	Triangular
Rim-to-Collar Angle	16.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	unknown	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink



FIGURE 233. Pithos 26.08, Tall Sahab (Ibrahim 1978: 119; fig. 19, Third Row Right).

Pithos 26.09: Tall Sahab, ca. 1140 B.C.

Pithos 26.09 (figure 234) appears to have a neck that is 33% shorter than average for the Classic Form group and a straight rim inflection.

However, from what can be determined, its rim height and rim-to-collar angle all seem to be typical. Dimensions were obtained from a published scaled photograph and are to be considered very rough approximations only.

TABLE 154. Comparable Data for Tall Sahab Classic Form Pithos 26.09.

	Pithos 26.09	μ Pithos in Group (σ)
Neck Height in cm	2.00 (33%)	2.97 (0.71)
Rim Thickness in cm	unknown	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	unknown	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	unknown	68.18 (13.41)
Exterior Rim Diameter in cm	unknown	21.74 (4.22)
Collar Shape	unknown	Triangular
Rim-to-Collar Angle	9.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	unknown	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

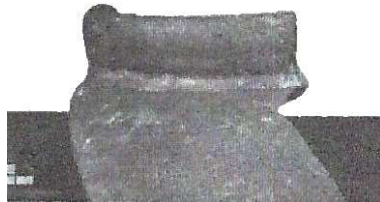


FIGURE 234. Pithos 26.09, Tall Sahab (Ibrahim 1978: 119; fig. 19, Fourth Row Left).

Pithos 26.10: Tall Sahab, ca. 1140 B.C.

Only the neck and rim heights were observable from this photograph (figure 235). The neck height appears to be slightly shorter than average and the rim is approximately 29% shorter than usual, for the Classic Form group. The rim's shape is too difficult to determine from this image. These dimensions were obtained from a published scaled photograph and are to be considered very rough approximations only.

TABLE 155. Comparable Data for Tall Sahab Classic Form Pithos 26.10.

	Pithos 26.10	μ Pithos in Group (σ)
Neck Height in cm	2.50	2.97 (0.71)
Rim Thickness in cm	unknown	2.01 (0.51)
Rim Inflection	unknown	Everted
Rim Shape	unknown	Thickened T2: Edgeless, OT
Rim Height in cm	2.00 (29%)	2.81 (0.62)
Rim Circumference in cm	unknown	68.18 (13.41)
Exterior Rim Diameter in cm	unknown	21.74 (4.22)
Collar Shape	unknown	Triangular
Rim-to-Collar Angle	unknown	18.51° Inside (11.62)
Collar Prominence in mm	unknown	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

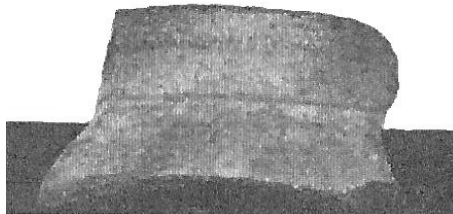


FIGURE 235. Pithos 26.10, Tall Sahab (Ibrahim 1978: 119; fig. 19, Fourth Row Middle).

Pithos 26.11: Tall Sahab, ca. 1140 B.C.

The discernable features of Pithos 26.11 (figure 236) appear near standard for the Classic Form, with the exception of the rim height, which is 29% shorter than usual. The neck height, rim circumference, and external rim diameter are all slightly smaller than average but are still within one standard deviation of the mean. Dimensions were obtained from a published scaled photograph and are to be considered very rough approximations only.

TABLE 156. Comparable Data for Tall Sahab Classic Form Pithos 26.11.

	Pithos 26.11	μ Pithos in Group (σ)
Neck Height in cm	2.50	2.97 (0.71)
Rim Thickness in cm	unknown	2.01 (0.51)
Rim Inflection	unknown	Everted
Rim Shape	unknown	Thickened T2: Edgeless, OT
Rim Height in cm	2.00 (29%)	2.81 (0.62)
Rim Circumference in cm	62.80	68.18 (13.41)
Exterior Rim Diameter in cm	20.00	21.74 (4.22)
Collar Shape	unknown	Triangular
Rim-to-Collar Angle	unknown	18.51° Inside (11.62)
Collar Prominence in mm	unknown	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

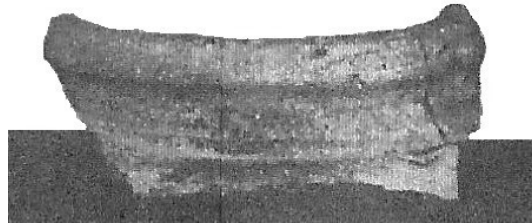


FIGURE 236. Pithos 26.11, Tall Sahab (Ibrahim 1978: 119; fig. 19, Fourth Row Right).

Tall al-‘Umayri, Central Plateau

Tall al-‘Umayri is introduced in Chapter 2. Please refer to the site description there for more details on the site in general, and Fields A and B specifically.



FIGURE 237. Collared Pithoi in situ in Field B, Square 7J99, Locus 3 (Herr et al. 1997: 64; fig. 4.13).

Pithos 27.01: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 27.01 (figure 238) was discovered among the cache of over a hundred primarily long-necked Long Form collared pithoi, among other transitional Late Bronze Age – Iron Age 1 vessels. This pithos specifically was located in Field B, Square 7J99, Locus 3. This locus is a part of Tall al-‘Umayri Stratum 12, and dates to the early Iron Age 1A.

The thickened, edgeless rim of Pithos 27.01 has the typical Classic Form shape, but it is 36% thicker and 28% taller than usual. It also has a rim circumference and diameter that are 16% larger than average. Despite these features that are larger than normal, for the Classic Form group, the handle on this pithos is smaller than average. Only Pithos 25.01, from Tall Safut, has a shorter handle than this vessel. The remaining characteristics of this vessel are expected for the Classic Form, with the exception of the base. The base is badly deteriorated. However, judging from the slope of the upper portion of the base, and what does remain of the lower portion, it seems most likely that the shape was originally flat. If that is indeed a correct hypothesis, then this example represents the only flat base in the Classic Form group. Dimensions for this pithos were obtained directly from the vessel.

TABLE 157. Comparable Data for Tall al-'Umayri Classic Form Pithos 27.01.

	Pithos 27.01	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	<i>1.28 (36%)</i>	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	<i>3.93 (28%)</i>	2.81 (0.62)
Rim Circumference in cm	<i>81.70 (16%)</i>	68.18 (13.41)
Ext. Rim Diameter in cm	<i>26.00 (16%)</i>	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-collar Angle	8.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	10.00	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 6/4, Light Brown	Pink
Full Vessel Height in cm	unknown	107.07 (12.24)
Body Circumference in cm	unknown	181.63 (12.38)
Handle Width in cm	4.06	4.36 (0.39)
Handle Height in cm	<i>11.52 (18%)</i>	14.06 (1.88)
Base Shape	Flat	Rounded
Base Thickness in cm	unknown	1.97 (1.10)



FIGURE 238. Pithos 27.01, Tall al-‘Umayri #30, unpublished.

Pithos 27.02: Tall al-‘Umayri, ca. 1200 B.C.

As with the previous example, Pithos 27.02 (figure 239) was also located in Field B, Square 7J99, Locus 3. Please read the details of this locus above. While the rim of Pithos 27.02 is of average size for the Classic Form group, it has an unusual straight inflection and a rim circumference that is 30% greater than average. The rim’s shape is one shared by only 9% (n = 7) of

the Classic Form pithoi. This rim stands only 1° inside of alignment with its very prominent teardrop-shaped collar. This collar, with a shape more common in the Long Form group than this one, is 45% more prominent than average. Only 9% (n = 8) of the Classic Form examples have a prominence that is 13.0 mm or greater.

While still within one standard deviation of the mean, the full height of this vessel is 8% below average for the Classic Form, but its body circumference is 5% greater than usual. This, together with the larger rim circumference, gives this pithos an overall horizontally stretched appearance. The remaining features of Pithos 27.02 are typical for this group. Dimensions for this vessel were obtained solely from a plate.

TABLE 158. Comparable Data for Tall al-'Umayri Classic Form Pithos 27.02.

	Pithos 27.02	μ Pithos in Group (σ)
Neck Height in cm	4.00 (26%)	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Thickened T1: Edged, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	97.39 (30%)	68.18 (13.41)
Ext. Rim Diameter in cm	31.00 (30%)	21.74 (4.22)
Collar Shape	Teardrop	Triangular
Rim-to-collar Angle	1.00° Inside (95%)	18.51° Inside (11.62)
Collar Prominence in mm	13.00 (45%)	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 6/6, Reddish Yellow	Pink
Full Vessel Height in cm	98.50	107.07 (12.24)
Body Circumference in cm	191.64	181.63 (12.38)
Handle Width in cm	4.80 (9%)	4.36 (0.39)
Handle Height in cm	15.00	14.06 (1.88)
Base Shape	Rounded	Rounded
Base Thickness in cm	2.00	1.97 (1.10)

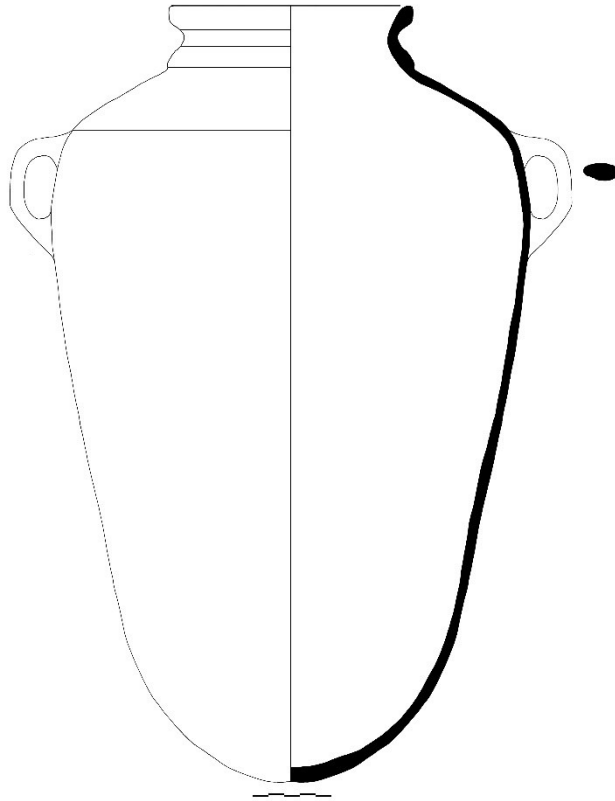


FIGURE 239. Pithos 27.02, Tall al-‘Umayri B7J99.70.1 loc3 (Herr et al.. 2017: 179; fig. 7.16).

Pithos 27.03: Tall al-‘Umayri, ca. 1200 B.C.

Pithos 27.03 (figure 240) was found in Field B, Square 7J89, Locus 31. This locus is best described as a destruction layer and is composed of burned mudbrick and debris from the upper levels of Building B (Herr et al.. 1997: 62-63). It belongs to Tall al-‘Umayri Stratum 12, and is thus dated to 1200 B.C.

The unusual upper-grooved profiled shape of the rim on Pithos 27.03 is seen on only one other example in the Classic Form group – Pithos 16.01,

from Iraq el-Emir. In contrast to that rim, however, the rim on Pithos 27.03 is of average height and thickness for the Classic Form and has a straight inflection. This rim also has a circumference and diameter that are 25% larger than average. The neck on this vessel is 38% taller than typical. Its relationship to the collar is at an 84% more upright angle than average, nearing alignment. The typical triangular-shaped collar is less prominent than usual but is still within one standard deviation of the mean for the Classic Form group. The same can be said about the remaining features of this vessel. Dimensions for Pithos 27.03 were obtained solely from a published plate.

TABLE 159. Comparable Data for Tall al-Umayri Classic Form Pithos 27.03.

	Pithos 27.03	μ Pithos in Group (σ)
Neck Height in cm	4.80 (38%)	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Profiled T4: U. Grved, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	91.11 (25%)	68.18 (13.41)
Ext. Rim Diameter in cm	29.00 (25%)	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	3.00° Inside (84%)	18.51° Inside (11.62)
Collar Prominence in mm	4.00	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 7/2, Pinkish Gray	Pink

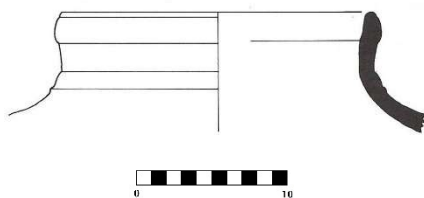


FIGURE 240 Pithos 27.03, Tall al-‘Umayri B7J89.117. loc 31 (Herr et. al. 1997: 73-74; fig. 4.20.5)

Pithos 27.04: Tall al-‘Umayri, ca. 1140 B.C.

Pithos 27.04 (figure 241) was unearthed in Field A, Square 7J79, Locus 8. This locus is a part of Building A and is best identified as an earth fill layer that covered the entire square. It averaged about 23.0 cm deep and is described as very pale brown. This fill was laid directly above the ash layer and is considered the collapse of Stratum 10. The ceramics demonstrated this fill belongs to the Iron Age 1B (Herr et al. 2014: 53).

The typically shaped rim on Pithos 27.04 is approximately 30% larger than average. It tops a neck of average height, for the Classic Form, and is 73% nearer to alignment with the collar than usual. This collar has a round shape, a profile shared by 10% (n = 8) of the Classic Form examples. The 10.0 mm prominence of this collar is shared by six of the other collars in this group. While it is a greater than average prominence, it is still within one standard deviation of the mean. The base on Pithos 27.04 is one of six Classic Form bases available for study. This example has the typical rounded shape seen on all but two of these bases. While the overall impression of this pithos

is triangular or cone-shaped, this may be attributed to its narrow body circumference in relation to its overall height. While both dimensions are still within one standard deviation of the mean, the height is above average and the body circumference below average. These proportions give the illusion of a very long, pointed lower half and base. However, if the base principle utilized in this study is applied,¹³⁶ this example is clearly rounded. This base is also twice as thick as any other base in the Classic Form group and is 51% thicker than the statistical average. It is thus the most remarkable feature of Pithos 27.04. Dimensions for this pithos were obtained solely from a published plate.

TABLE 160. Comparable Data for Tall al-'Umayri Classic Form Pithos 27.04.

	Pithos 27.04	μ Pithos in Group (σ)
Neck Height in cm	2.30	2.97 (0.71)
Rim Thickness in cm	2.80 (28%)	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	4.00 (30%)	2.81 (0.62)
Rim Circumference in cm	69.10	68.18 (13.41)
Ext. Rim Diameter in cm	22.00	21.74 (4.22)
Collar Shape	Round	Triangular
Rim-to-Collar Angle	5.00° Inside (73%)	18.51° Inside (11.62)
Collar Prominence in mm	10.00	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 7/4, Pink	Pink
Full Vessel Height in cm	114.00	107.07 (12.24)
Body Circum. in cm	179.00	181.63 (12.38)
Handle Width in cm	unknown	4.36 (0.39)
Handle Height in cm	15.00	14.06 (1.88)
Base Shape	Rounded	Rounded
Base Thickness	4.00 (51%)	1.97 (1.10)

¹³⁶ For a full explanation of this base categorization principle, see Appendix C.

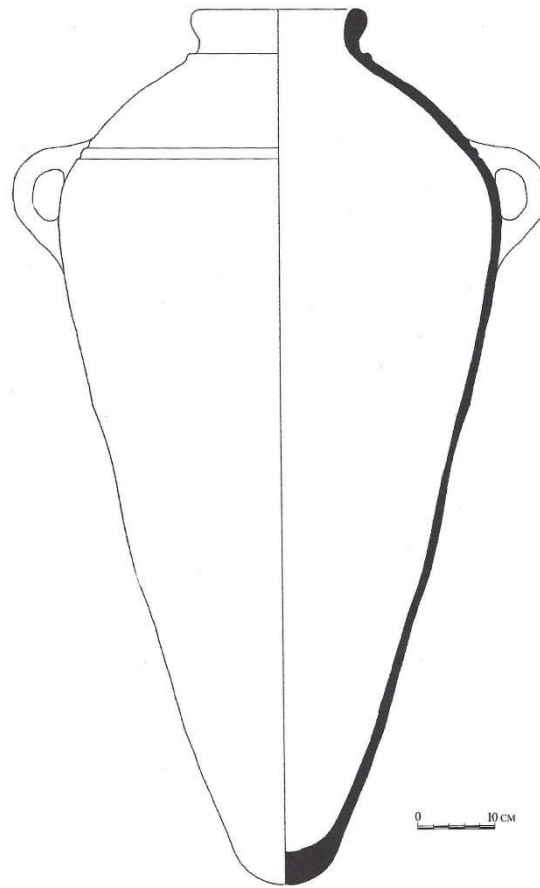


FIGURE 241. Pithos 27.04, Tall al-'Umayri (Herr et. al. 2014: 54, 57; fig. 3.29.1).

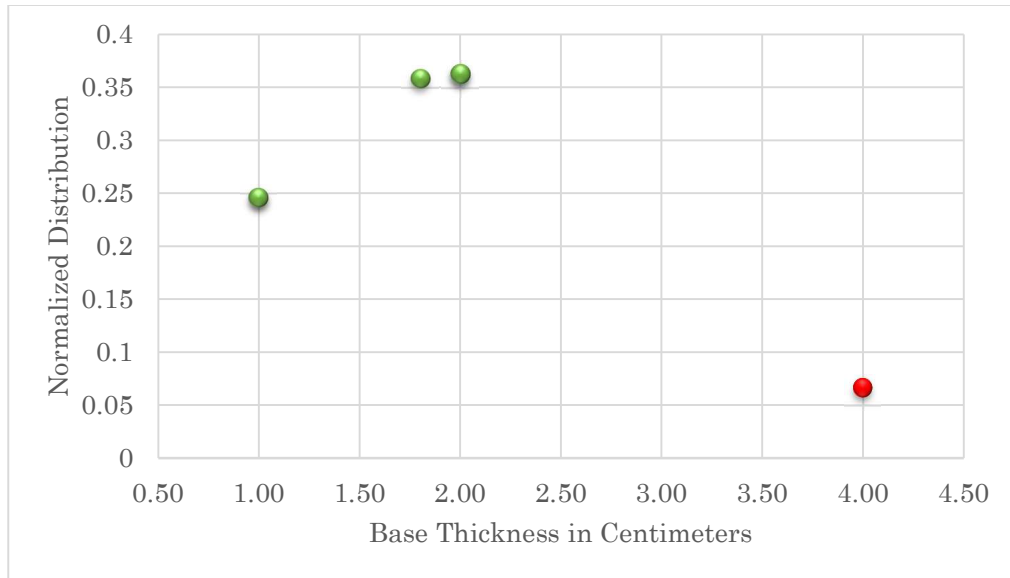


FIGURE 242. Distribution of Classic Form Base Thicknesses, Pithos 27.04.

Pithos 27.05: Tall al-‘Umayri, ca. 1140 B.C.

Pithoi 27.05 through 27.13 were located in Field A, Square 7J79, Locus 14. This locus is directly below the one in which Pithos 27.04 was located. It is best described as an area of yellowish-red “bricky material” in Building A. It is interpreted as destruction debris from Stratum 12 that was beaten and turned into a surface in Stratum 11, upon which this pithos was placed (Herr et al. 2014: 52). This stratum represents the first phase of the Iron Age 1B in this complex.

Pithos 27.05 (figure 243) has a neck height that is 26% shorter than average and just outside of the range of one standard deviation of the mean for the Classic Form. Its rim is of average size, but has straight inflection and a triangular shape. This shape is seen on only 11% (n = 9) of the rims in the

Classic Form group. It is more nearly aligned than most, with the rim stance only 4° inside the line of the collar. The triangular collar has the typical shape and a prominence that is slightly above average, but still within one standard deviation of the Classic Form mean. Dimensions for Pithos 27.05 were obtained solely from a published plate.

TABLE 161. Comparable Data for Tall al-'Umayri Classic Form Pithos 27.05.

	Pithos 27.05	μ Pithos in Group (σ)
Neck Height in cm	2.20 (26%)	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Triangular, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	66.00	68.18 (13.41)
Exterior Rim Diameter in cm	21.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	4.00° Inside (78%)	18.51° Inside (11.62)
Collar Prominence in mm	10.00	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 6/4, Light Reddish Brown	Pink

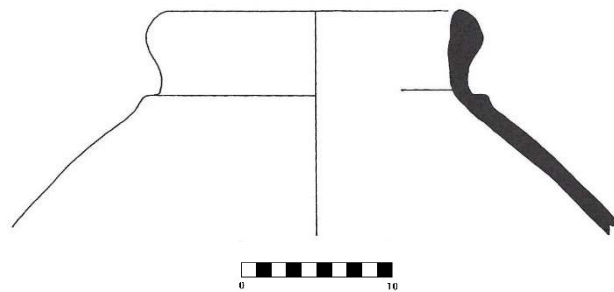


FIGURE 243. Pithos 27.05, Tall al-'Umayri (Herr et. al. 2014: 55; fig. 3.30.1).

Pithos 27.06: Tall al-‘Umayri, ca. 1140 B.C.

The description given under Pithos 27.05 should be consulted for the contextual details of this vessel. Nearly all of the dimensions of Pithos 27.06 (figure 244) measure within one standard deviation of the mean for that Classic Form feature. One of the notable atypical characteristics is the thickened, hook-shaped rim with a straight inflection. While it is of average size, its shape is apparent on only 10% (n = 8) of the Classic Form examples. This rim is also only 4° in from alignment with the round-shaped collar. The collar has above average prominence, but is still within standard. Its round shape, however, is only found on 6% (n = 5) of the collars in the Classic Form group. Dimensions for Pithos 27.06 were obtained solely from a published plate.

TABLE 162. Comparable Data for Tall al-‘Umayri Classic Form Pithos 27.06.

	Pithos 27.06	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Thickened T3: Hook, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.40	2.81 (0.62)
Rim Circumference in cm	62.80	68.18 (13.41)
Exterior Rim Diameter in cm	20.00	21.74 (4.22)
Collar Shape	Round	Triangular
Rim-to-Collar Angle	4.00° Inside (78%)	18.51° Inside (11.62)
Collar Prominence in mm	11.00	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 7/4, Pink	Pink

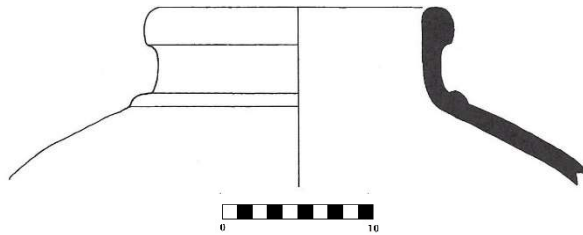


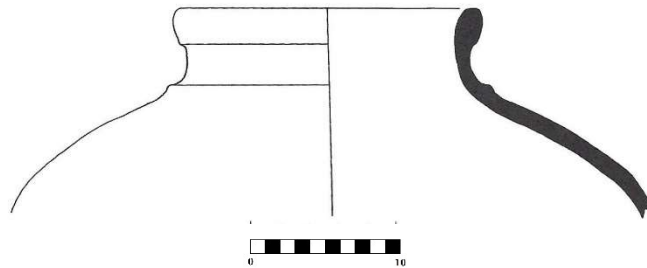
FIGURE 244. Pithos 27.06, Tall al-‘Umayri (Herr et. al. 2014: 55; fig. 3.30.2).

Pithos 27.07: Tall al-‘Umayri, ca. 1140 B.C.

The description given under Pithos 27.05 should be consulted for the contextual details of this vessel. Pithos 27.07 (figure 245) is a very good example of the Classic Form type. The less common features present in this vessel are its rim shape and the angle between its rim and collar. The thickened, edged rim shape is seen on 9% (n = 7) of the pithoi in this group. It is somewhat smaller than usual, but it is still of average size. At a 5° angle of inset from the collar, this rim is nearly aligned. The collar is slightly less prominent than usual, but is the usual triangular shape, and is thus considered typical for the Classic Form group, as are the remaining features of this pithos. Dimensions for Pithos 27.07 were obtained solely from a published plate.

TABLE 163. Comparable Data for Tall al-'Umayri Classic Form Pithos 27.07.

	Pithos 27.07	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	1.70	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T1: Edged, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.50	2.81 (0.62)
Rim Circumference in cm	66.00	68.18 (13.41)
Ext. Rim Diameter in cm	21.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	5.00° Inside (73%)	18.51° Inside (11.62)
Collar Prominence in mm	6.00	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	2.5 YR 6/4, Light Reddish Brown	Pink

**FIGURE 245.** Pithos 27.07, Tall al-'Umayri (Herr et. al. 2014: 55; fig. 3.30.3).

Pithos 27.08: Tall al-'Umayri, ca. 1140 B.C.

The description given under Pithos 27.05 should be consulted for the contextual details of this vessel. All of the dimensions of Pithos 27.08 (figure 246) are within one standard deviation of the mean for a Classic Form vessel. Its shapes and characteristics are likewise typical. While not all of the dimensions of this pithos are precisely the same as the statistical averages for this group, they are close. Thus, this vessel stands as an excellent

example of the Classic Form type and its average features and dimensions.

Dimensions for Pithos 27.08 were obtained solely from a published plate.

TABLE 164. Comparable Data for Tall al-'Umayri Classic Form Pithos 27.08.

	Pithos 27.08	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	1.50	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.50	2.81 (0.62)
Rim Circumference in cm	57.50	68.18 (13.41)
Ext. Rim Diameter in cm	18.30	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	17.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	5.00	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 5/2, Reddish Gray	Pink

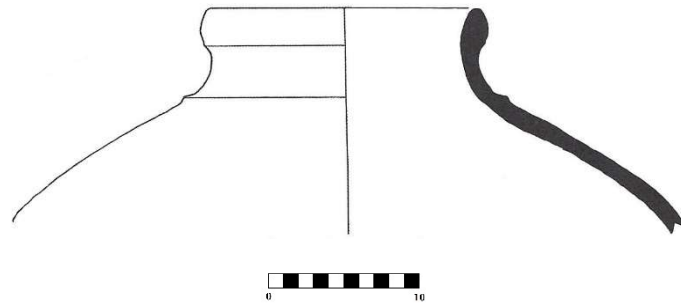


FIGURE 246. Pithos 27.08, Tall al-'Umayri (Herr et. al. 2014: 55; fig. 3.30.4).

Pithos 27.09: Tall al-‘Umayri, ca. 1140 B.C.

The description given under Pithos 27.05 should be consulted for the contextual details of this vessel. The round rim on Pithos 27.09 (figure 247) is a shape shared by 10% (n = 8) of the Classic Form examples. It is thicker and shorter than average, but is still within one standard deviation of the mean for those dimensions. The rim stands 4° inside the line of the typically triangular-shaped collar. The collar is 28% less prominent than the average collar in this group. However, the remaining features of this pithos are standard for Classic Form type. Dimensions for this vessel were obtained solely from a published plate.

TABLE 165. Comparable Data for Tall al-‘Umayri Classic Form Pithos 27.09.

	Pithos 27.09	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	2.50	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Round, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.30	2.81 (0.62)
Rim Circumference in cm	62.80	68.18 (13.41)
Exterior Rim Diameter in cm	20.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	4.00° Inside (78%)	18.51° Inside (11.62)
Collar Prominence in mm	3.00 (28%)	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 6/3, Light Reddish Brown	Pink

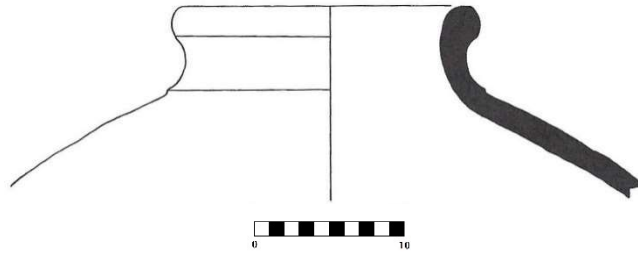


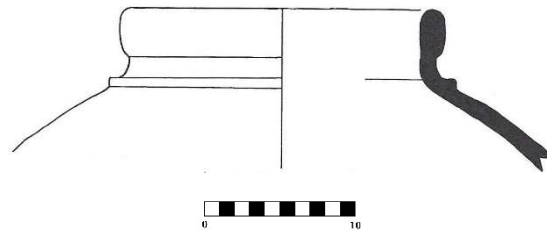
FIGURE 247. Pithos 27.09, Tall al-‘Umayri (Herr et. al. 2014: 56; fig. 3.31.1).

Pithos 27.10: Tall al-‘Umayri, ca. 1140 B.C.

The description given under Pithos 27.05 should be consulted for the contextual details of this vessel. Beyond its neck height, which is 33% shorter than average, Pithos 27.10 (figure 248) is a very good example of the Classic Form. It has a rim that is the typical thickened, edgeless shape, although it is thinner and taller than usual. It has a straight, almost offset, inflection in relation to the line of the neck. The remaining features and dimensions of this pithos, however, are standard for the Classic Form. Dimensions for Pithos 27.10 were obtained solely from a published plate.

TABLE 166. Comparable Data for Tall al-'Umayri Classic Form Pithos 27.10.

	Pithos 27.10	μ Pithos in Group (σ)
Neck Height in cm	2.00 (33%)	2.97 (0.71)
Rim Thickness in cm	1.70	2.01 (0.51)
Rim Inflection	Straight	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	69.10	68.18 (13.41)
Ext. Rim Diameter in cm	22.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	11.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	9.00	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 6/3, Light Reddish Brown	Pink

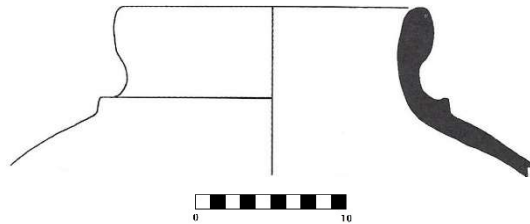
**FIGURE 248.** Pithos 27.10, Tall al-'Umayri (Herr et. al. 2014: 56; fig. 3.31.2).

Pithos 27.11: Tall al-'Umayri, ca. 1140 B.C.

The description given under Pithos 27.05 should be consulted for the contextual details of this vessel. Pithos 27.11 (figure 249) is an excellent type example for the Classic Form. All of its dimensions and features are within one standard deviation of the mean and are representative of the most common shapes in this group. Dimensions for this vessel were obtained solely from a published plate.

TABLE 167. Comparable Data for Tall al-'Umayri Classic Form Pithos 27.11.

	Pithos 27.11	μ Pithos in Group (σ)
Neck Height in cm	3.00	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.30	2.81 (0.62)
Rim Circumference in cm	66.00	68.18 (13.41)
Ext. Rim Diameter in cm	21.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	12.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	11.00	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	7.5 YR 7/4, Pink	Pink

**FIGURE 249.** Pithos 27.11, Tall al-'Umayri (Herr et. al. 2014: 56; fig. 3.31.3).

Pithos 27.12: Tall al-'Umayri, ca. 1140 B.C.

The description given under Pithos 27.05 should be consulted for the contextual details of this vessel. The 4.0 cm neck of Pithos 27.12 (figure 250) is 26% taller than the Classic Form average. It is topped with a simple rim with subtle outer thickening. The simple rim shape is only found on 7% ($n = 6$) of the vessels in the Classic Form group. This shape may account for the fact that this rim is thinner and taller than average and further inset from the line of the collar than other Classic Form rims. All of these dimensions,

however, are still within one standard deviation of the mean for this group.

Dimensions for Pithos 27.12 were obtained solely from a published plate.

TABLE 168. Comparable Data for Tall al-'Umayri Classic Form Pithos 27.12.

	Pithos 27.12	μ Pithos in Group (σ)
Neck Height in cm	4.00 (26%)	2.97 (0.71)
Rim Thickness in cm	1.80	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Simple, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	75.40	68.18 (13.41)
Exterior Rim Diameter in cm	24.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	20.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	7.00	7.19 (4.04)
Firing	Underfired	Underfired
Exterior Munsell Reading	5 YR 6/4, Light Reddish Brown	Pink

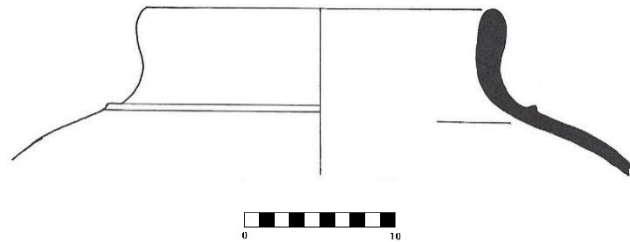


FIGURE 250. Pithos 27.12, Tall al-'Umayri (Herr et. al. 2014: 56; fig. 3.31.4).

Pithos 27.13: Tall al-‘Umayri, ca. 1140 B.C.

The description given under Pithos 27.05 should be consulted for the contextual details of this vessel. The dimensions of Pithos 27.13 (figure 251) are within one standard deviation of the mean Classic Form vessel. This rim section well represents the group type. The only feature that is atypical for a Classic Form collared pithos is the reduction of the ware in the firing process. Dimensions for Pithos 27.13 were obtained solely from a published plate.

TABLE 169. Comparable Data for Tall al-‘Umayri Classic Form Pithos 27.13.

	Pithos 27.13	μ Pithos in Group (σ)
Neck Height in cm	2.80	2.97 (0.71)
Rim Thickness in cm	2.00	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Thickened T2: Edgeless, OT
Rim Height in cm	3.00	2.81 (0.62)
Rim Circumference in cm	73.80	68.18 (13.41)
Ext. Rim Diameter in cm	23.50	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	18.00° Inside	18.51° Inside (11.62)
Collar Prominence in mm	7.00	7.19 (4.04)
Firing	Reduction	Underfired
Exterior Munsell Reading	5 YR 5/2, Reddish Gray	Pink

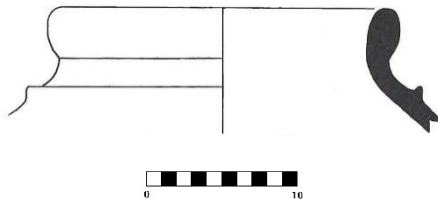


FIGURE 251. Pithos 27.13, Tall al-‘Umayri (Herr et. al. 2014: 56; fig. 3.31.6).

Pithos 27.14: Tall al-'Umayri, ca. 830 B.C.

Pithos 27.14 (figure 253) was found in one of the eastern rooms in the Iron Age 2B house of Stratum 8 in Field A at Tall al-'Umayri. These rooms were accessible only from within the house (Herr and Bates 2011: 20-21) and may alternatively be interpreted as storage or living spaces connected to the main central room or courtyard of the building.



FIGURE 252. Tall al-'Umayri, Iron Age 2 building complex, Field A; Pithos 27.14 find area indicated (Herr and Bates 2011: 22; adapted from fig. 7).

Pithos 27.14 appears to be transitional between the Classic and Short Forms. This quality is most evident in the vessel's rim to collar angle, which is 65% more inclined than the average Classic Form example. Its square rim is also significantly shorter than usual for this group, a trait that becomes more common as the form progresses. The remaining features of this pithos, however, are within standard for the Classic Form. Dimensions for Pithos 27.14 were obtained solely from a published plate.

TABLE 170. Comparable Data for Tall al-'Umayri Classic Form Pithos 27.14.

	Pithos 27.14	μ Pithos in Group (σ)
Neck Height in cm	3.20	2.97 (0.71)
Rim Thickness in cm	2.40	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Square, OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.00 (29%)	2.81 (0.62)
Rim Circumference in cm	73.83	68.18 (13.41)
Ext. Rim Diameter in cm	23.50	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	53.00° Inside (65%)	18.51° Inside (11.62)
Collar Prominence in mm	10.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

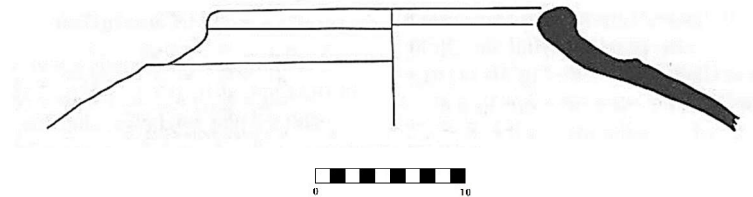


FIGURE 253. Pithos 27.14, Tall al-'Umayri (Herr and Bates 2011: 26; fig. 8.1).

Pithos 27.15: Tall al-'Umayri, ca. 830 B.C.

Pithos 27.15 was located in the same locus as the previous example, Pithos 27.14. Consult the above description for more information on the context of this vessel. Pithos 27.15 (figure 254) has several features that indicate it fits best as a transitional example between the Classic and Short Forms, in a similar way to Pithos 27.14. The rim-to-collar angle is again exaggerated, leaning inward 44% more than average for the Classic Form group. The rim height is diminished, but is 23% thicker than usual, a trait common in the Short Form. The round rim is likewise more frequently seen later. However, the neck is longer than 2.0 cm, placing this example in the Classic Form group. It also has a rim circumference and diameter that are larger than average for the Short Form and find a better place among the Classic Form examples. Dimensions for Pithos 27.15 were obtained solely from a published plate.

TABLE 171. Comparable Data for Tall al-'Umayri Classic Form Pithos 27.15.

	Pithos 27.15	μ Pithos in Group (σ)
Neck Height in cm	2.10 (29%)	2.97 (0.71)
Rim Thickness in cm	2.60 (23%)	2.01 (0.51)
Rim Inflection	Everted	Everted
Rim Shape	Round, IT/OT	Thickened T2: Edgeless, OT
Rim Height in cm	2.00 (29%)	2.81 (0.62)
Rim Circumference in cm	62.83	68.18 (13.41)
Ext. Rim Diameter in cm	20.00	21.74 (4.22)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	33.00° Inside (44%)	18.51° Inside (11.62)
Collar Prominence in mm	5.00	7.19 (4.04)
Firing	unknown	Underfired
Exterior Munsell Reading	unknown	Pink

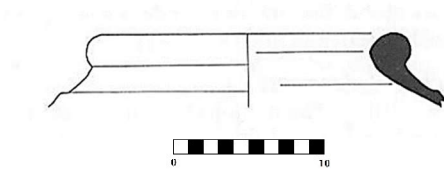


FIGURE 254. Pithos 27.15, Tall al-‘Umayri (Herr and Bates 2011: 26; fig. 8.5).

Conclusions

This chapter has sought to detail the nature and context of the collared pithoi in Jordan with a neck height between 2.0-4.9 cm, classified here the Classic Form. To this end, data on 30 features of each of the 89 examples were collected wherever possible and summarized. Additionally, all accessible data regarding the context of these vessels was analyzed for chronological contexts, geographic distribution, and use patterns. The foregoing data now provides the basis upon which the following conclusions about this vessel type can be drawn.

Chronology

Three pithoi from Tall al-‘Umayri, Pithoi 27.01-27.03, represent the earliest examples in the Classic Form group. These vessels originate in stratigraphically clear contexts dating to the beginning of the 12th century B.C., or Iron Age 1A. This is, therefore, accepted as the chronological point of origin for the Classic Form group.

The latest of the example in this group, dating to the early Iron Age 2C, or the beginning of the seventh century B.C., is Pithos 17.08 from Tall Jalul. This vessel is also in a clear stratigraphic context, directly on top of the stylobate of the seventh century B.C., tripartite building, in Field A. This pithos thus represents the *terminus* of the Classic Form group. While the Long Form pithoi date almost exclusively to the Iron Age 1A, the Classic Form group is most concentrated in the Iron Age 1B. However, unlike the Long Form, the Classic Form also continues, to a somewhat diminished degree, throughout most of the Iron Age 2.

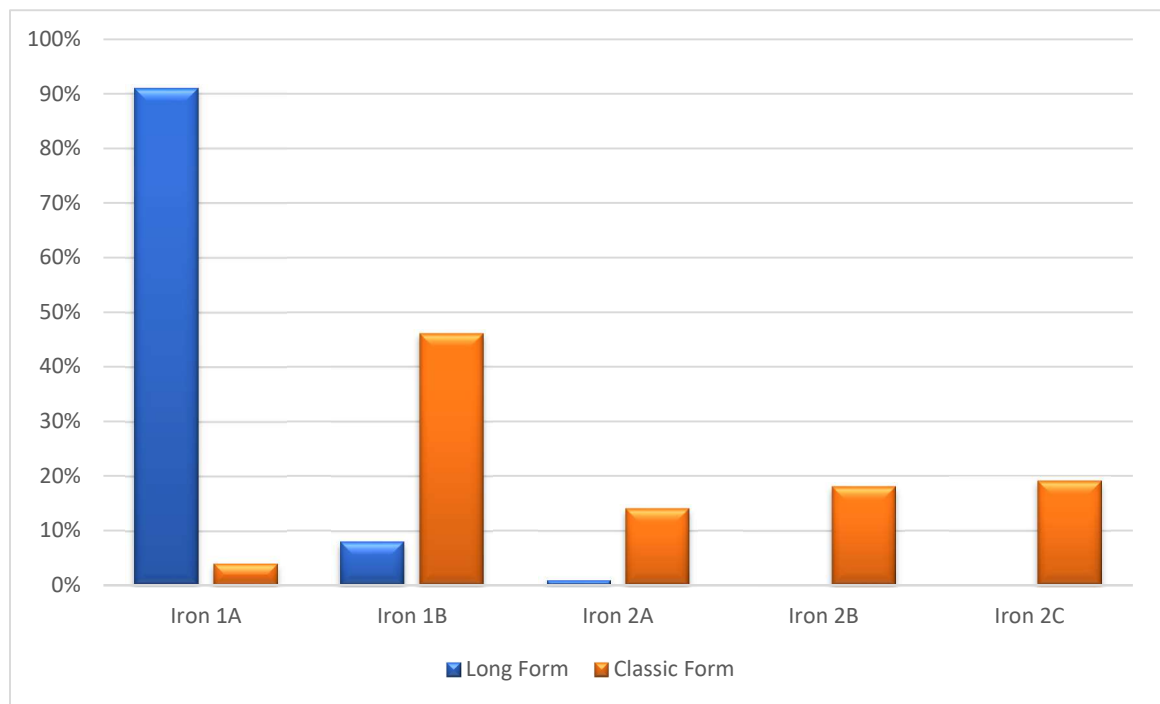


FIGURE 255. Comparative Distribution of the Long and Classic Form Pithoi Across Archaeological Periods.

These vessels, with 2.0-4.9 cm, neck heights enjoy the longest chronological range among collared pithoi in Transjordan. They span approximately 500 years and appear in nearly all ceramic horizons throughout the Iron Age. The Classic Form enjoys the most enduring popularity of the collared pithos groups in Jordan. The reasons for this longevity are unclear. Also worthy of consideration is the comparative brevity of the Long Form – a style which lasted at most about 400 years – despite the chronological nearness of the points of origin for the two forms.

As will be discussed further below, it should be noted that the Classic Form group represents vessels from 20 sites, whereas the Long Form is represented at only 7 sites. This distribution may be an influencing factor in the more limited chronological scope of the Long Form. It may then be hypothesized that with a wider geographic representation, the chronological range of the standard deviation from the mean would be expanded for the Long Form. This is a question that will be investigated further in the following chapter. For now, it seems apparent that the 2.0-4.9 cm necked Classic Form is the predominant form across both space and time in Transjordan.

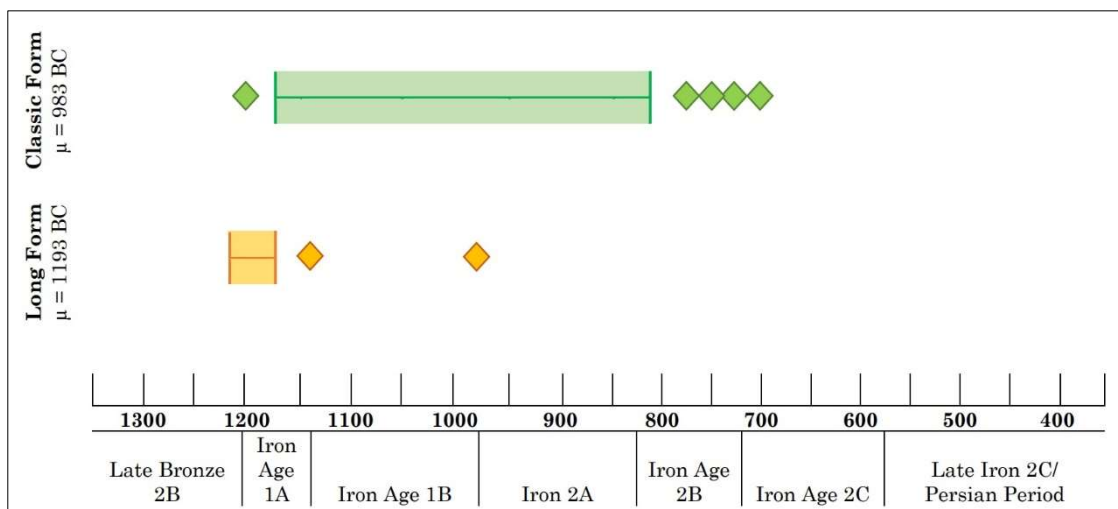


FIGURE 256. Statistical Comparison of Dates of Origin from the Long Form and Classic Form Groups (The shaded range indicates one standard deviation from the mean and the diamonds the dates that lie outside of one standard deviation).

Geographic Distribution

The sites at which the Classic Form examples were located span from Tall Johfiyeh in the north to Umm al-Biyara in the south. Of the 23 sites in this study, only Tall Nimrin, Umm al-Qanafid, and Tall es-Sa‘idiyeh do not have representative Classic Form examples. The number of sites with Classic Form collared pithoi is more than triple that of those with Long Form examples.¹³⁷ While the majority (77%) of the vessels are still found at locations in the Central Jordanian Plateau, 8% are now found in southern Transjordan, 7% are from sites on the Kerak Plateau, 6% are from northern Transjordan, and 2% originated in the Jordan Valley.

¹³⁷ Only seven sites are known to have the longer-necked Long Form collared pithoi. Of these, five are on the central plateau and two are in the Jordan Valley.

On the central plateau, the number of Classic Form examples has decreased from 74¹³⁸ in the Long Form to 67 in this group. The number of sites from which those examples originate, however, has more than doubled, increasing from 5 to 12. In the Jordan Valley, the number of examples has decreased from three to two, but the number of representative sites holds steady. Tall Deir ‘Alla has examples of both the Long Form and the Classic Form. However, while Tall es-Sa‘idiyeh had examples of the Long Form, it is regionally replaced by Abu al-Kharaz in Classic Form representation. This dispersion of the form likely indicates both its popularity and the increase in centralization of authority – encouraging the subsequent growth of trade and craft methodology exchange between artisans.

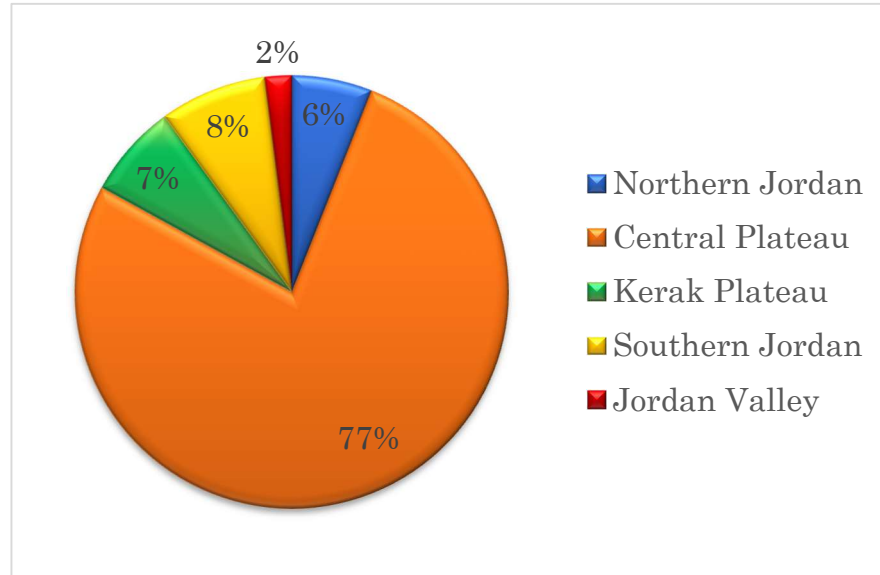


FIGURE 257. Geographic Distribution of the Classic Form, by Region

¹³⁸ This number may be inflated by the large cache of Long Form pithoi from Tall al-‘Umayri.

In an analysis of neck heights across regions, other possible patterns begin to appear. The Classic Form has its earliest contexts in the Jordan Valley and the Central Plateau. This distribution is likely indicative of the evolution of the collared pithos into the Classic Form occurring first in these regions. This hypothesis harmonizes with its geographic distribution in the Long Form, which is only found in these same regions – the Jordan Valley and the Central Plateau.

TABLE 172. Average Classic Form Neck Heights and Dates by Region¹³⁹

Geographic Region	Neck Height	Approximate Date
Northern Transjordan	3.36 cm	736 B.C.
Jordan Valley	3.75 cm	1175 B.C.
Central Plateau	2.98 cm	1036 B.C.
Kerak Plateau	2.29 cm	940 B.C.
Southern Transjordan	2.83 cm	811 B.C.

In Northern Transjordan and the Jordan Valley the mean neck height exceeds the Classic Form average, while in the southern sites on the Kerak Plateau and Southern Transjordan, the neck height averages are below the group mean. At the same time the neck heights of the vessels originating on the Central Plateau are almost exactly equivalent to the form average. This phenomenon cannot be explained by earlier or later dating of the associated stratigraphic contexts. This pattern may simply be a trick of the statistical representation, or it may be indicative of varying style patterns across

¹³⁹ The average Classic Form neck height is 2.97 cm and the average assigned date is 998 B.C.

geographic regions, due to different artisan schools, or perhaps cultural preferences. Either way, potential patterns such as these will continue to be evaluated as the following Short and Final Forms are analyzed.

Use Patterns

The apparent use of the collared pithos remains primarily centered on the storage of large quantities of dry goods. None of the Classic Form examples above is known to have any form of sealant that would permit liquid storage. The pithoi discovered *in situ* in a dry storage capacity at Tall al-'Umayri were found in the smaller room of a building, similar to the location of the Long Form examples at that site. At Khirbat al-Balu'a, Pithoi 11.02 and 11.03 were found in the inner room of a casemate wall, while Pithos 18.03 from Tall Jawa was found on the floor of an Iron Age 2 storeroom.

The question posed in Chapter 2 regarding the nature of the spaces in which these vessels are found is still not clearly answered by the analysis of the Classic Form examples. From these contexts above, it continues to be clear that while some pithoi were placed in smaller, less accessible spaces, many are found in the open courtyards or main rooms of buildings. Pithos 11.01, from Khirbat al-Balu'a was found on the floor of the courtyard of a four-room house, and Pithos 17.06, from Tall Jalul, was found on the floor of a large eighth century B.C. tripartite building. The same is true of Pithoi 22.02 and 23.02 from Khirbat al-Mudayna al-'Aliya and Khirbat en-Nahas,

respectively, both originating from the main courtyards of the buildings in which they were unearthed. At Tall Sahab collared pithoi were located on a pavement beside a large cistern. All of these locations invoke the idea of regularly-accessed food storage containers rather than a use as closed and less accessible storage – long-term seed grain storage, for example. This inference is further substantiated by Pithos 8.01, from Abu al-Kharaz, in a context associated with implements of food preparation, including two ovens and several cooking pot remains. Similarly, Pithos 19.01, from Tall Johfiyeh, was found beside a grinding stone, mortar, and basalt pestle.

Characteristic Analysis

The Classic Form collared pithos is closely related to the longer-necked Long Form. Many of the characteristics of this vessel remain fairly uniform. There are a few features, however, aside from the shorter neck, that show a shift in features and innovation of new styles.

While the concave, kidney-shaped profiled rim was the most frequent shape seen in the Long Form group, the Classic Form pithoi are more likely to have a thickened ovoid rim. In fact, the profiled rim shapes drop in frequency by 22% from the Long Form to the Classic Form group. The round and square rim shapes were unknown in the Long Form, but in the Classic Form together comprise 11% of the examples.

A similar shift is seen in the shapes of the collars and bases between the forms. The teardrop-shaped collar drops in popularity from the Long to the Classic Form by 34%. At the same time the triangular-shaped collar increases 30% in frequency by the Classic Form. The pithos' collar decreases in prominence between forms as well. In the Long Form it averages over 9.0 mm from the neck's surface, but Classic Form collars measure an average of just over 7.0 mm. An analysis of base shapes reveals a shift as well with 48% of the Long Form bases being best described as flat and 14% having a rounded profile. However, 75% of the Classic Form bases are rounded, with only 13% possessing a flat shape.

These trends are largely statistical in nature and require a substantial sample group to observe. Unfortunately, they are not unilaterally applicable. The data collected from these two groups makes it evident that categorizing a single pithos on the basis of its features is an unreliable method of identification. A flat based pithos could be best placed in either group and a triangular collar is not an immediate indicator of a Classic Form vessel.

Although the neck heights of the Long Form pithoi are longer than those of the Classic Form, as visualized in fig. 258, this trend is not observable at the local level. In fact, statistically speaking, a seventh century B.C. collared pithos is more likely to have a slightly longer neck than an 11th century B.C. vessel. Great care must therefore be exercised in classifying these pithoi solely on the basis of their physical characteristics. The following chapter will continue to elucidate the fluidity of these features as the Short and Final Forms are analyzed.

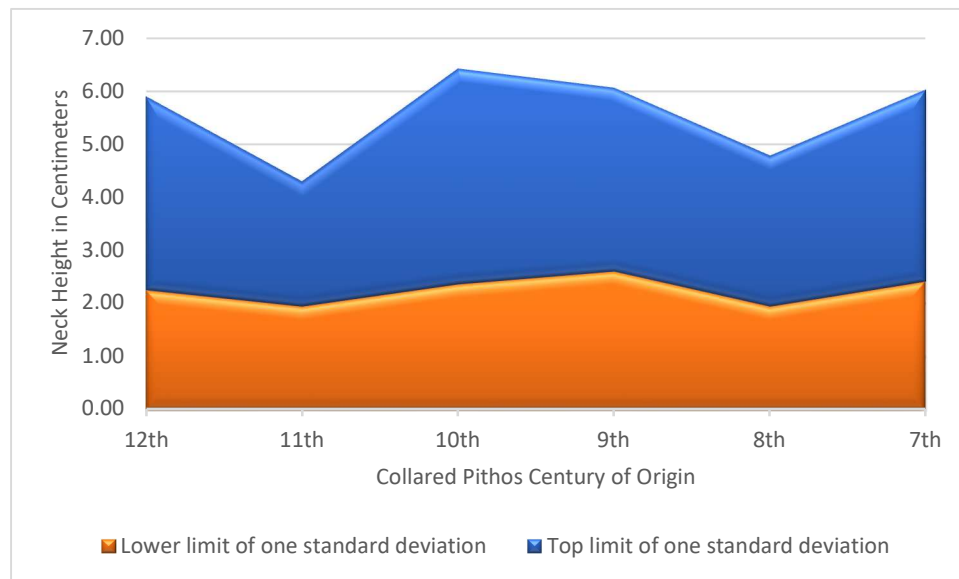


FIGURE 258. The Range of Mean Neck Heights within the Classic Form Group, by Century (examples classified as Iron Age 2C have here been given sixth century B.C. dates for the purpose of comparison).

Chapter 4: The Short Form Collared Pithos

There are two variations of the collared pithos discussed in this chapter and the next – here termed the Short and Final Forms. These forms exhibit many similar features and share more chronological overlap than is present with the Long or Classic Forms. Of these vessels, 39 pithoi have been classified as Short Form and 27 as Final Form, together representing just over 28% of the total number of pithoi in this study. The Short Form pithoi are those with neck heights between 1.0-1.9 cm tall.

The typical Short Form pithos, within the group studied,¹⁴⁰ is found in an archaeological context dating to the later part of the ninth century B.C.¹⁴¹ or the first half of the Iron Age 2B. It has an everted¹⁴² round rim¹⁴³ atop a

¹⁴⁰ The following description does not belong to any actual vessel but is rather a conglomerate portrayal, based upon the mean dimensions and characteristics of the Short Form study samples.

¹⁴¹ The mathematical mean of the dates belonging to the loci, to which the Short Form pithoi are associated, is 814 B.C. with a standard deviation of 145 years. In this study, this means that 64% of the Short Form pithoi are dated between 956 – 669 B.C. This mathematical range predicts that the largest single percentage of the Short Form group belong to the Iron Age 2B. The real range of context dates spans 1140 – 650 B.C., which includes the Iron Age 1B – Iron Age 2C.

¹⁴² 59% (n = 23) of the Short Form rims are everted, 33% (n = 13) are straight, and 8% (n = 3) are inverted.

¹⁴³ Of the 39 Short Form rims studied, 31% (n = 12) of the Short Form rims are classified as round. 18% (n = 7) are thickened with an external edge, 13% (n = 5) are thickened and edgeless, 13% (n = 5) have a thickened, hook shape, 8% (n = 3) are square, and 8% (n = 3) are rectangular. Four pithoi account for the final 12% of the examples and are classified as simple (n = 1), profiled, ridged (n = 1), miscellaneous thickened (n = 1), and triangular (n = 1).

neck that stretches beyond 1.0 cm¹⁴⁴ in length. The collar at the base of this neck has a triangular shape¹⁴⁵ and rises 4.0 mm¹⁴⁶ above the surface of the vessel. The rim stands 32° inside¹⁴⁷ of alignment with this collar. The Short Form pithos stands nearly 1.0 m tall¹⁴⁸ and has a rounded base that is 2.0 cm thick.¹⁴⁹ The body circumference of this vessel is 160.0 cm¹⁵⁰ at its widest. On either side of the widest point of the pithos' body are two elliptical strap handles that are 18.0 cm tall¹⁵¹ and 6.0 cm wide.¹⁵² The ware of this vessel is underfired¹⁵³ and it has an exterior best classified as “pink.”¹⁵⁴

There are 18 sites with Short Form collared pithos examples. Ten of these sites are located on the Central Plateau, three are in the Jordan Valley,

¹⁴⁴ The mean neck height in the Short Form group is 1.40 cm with a standard deviation of 0.32 cm.

¹⁴⁵ 67 (n = 26) of the Short Form pithoi have collars that are triangular in shape. 10% (n = 4) are round, 10% (n = 4) are doubled, 5% (n = 2) are square, and 5% (n = 2) are teardrop in shape.

¹⁴⁶ The mean collar prominence among Short Form vessels is 4.39 mm with a standard deviation of 3.14 mm.

¹⁴⁷ All but two of the Short Form examples have rims that are inside of alignment with the collar. Of the two that are not, one is in alignment with the collar and one is outside of this line. Of the rims that stand inside the line of the collar, the mean angle is 32.08° with a standard deviation of 19.16°.

¹⁴⁸ Six of the Short Form examples are complete with measurable vessel heights. These are taken as straight heights and not along the body of the pithos. The mean height is 98.17 cm with a standard deviation of 7.90 cm.

¹⁴⁹ Of the six bases available for analysis, 67% (n = 4) are rounded and 33% (n = 2) are pointed. There are no flat bases in the Short Form group. Only one vessel has a base thickness that is measurable.

¹⁵⁰ The mean body circumference of the six whole vessels in the Short Form group is 158.75 cm with a standard deviation of 10.25 cm.

¹⁵¹ This is based on the dimensions of the handles of only one pithos.

¹⁵² Of the four pithoi from which handle widths were obtained, the mean width is 5.63 cm with a standard deviation of 0.48 cm.

¹⁵³ 41% (n = 16) of the Short Form vessels were accessible for ware analysis or were published with the inclusion of this information. Of these 69% (n = 11) are underfired and 31% (n = 5) are oxidized.

¹⁵⁴ 15 of the Short Form examples have available Munsell readings. 33% of these (n = 5) are described as “pink,” 20% (n = 3) as “pinkish gray,” 20% (n = 3) as “light reddish brown,” 13% as “reddish yellow,” and 14% as “light brown” (n = 1) or “very pale brown” (n = 1).

three are found in southern Transjordan, one is on the Kerak Plateau, and one is from northern Transjordan. The following Short Form examples are presented by site and arranged alphabetically.

Abu al-Kharaz, Northern Jordan Valley

There is one example presented below of a Short Form collared pithos from Abu al-Kharaz. This site is introduced in Chapter 3 prior to the description of Pithos 8.01. Consult that summary for further general information regarding the nature of the site.

Pithos 28.01: Abu al-Kharaz, ca. 830 B.C.

This pithos (figure 260) was unearthed in Area 7, Locus 516 at Abu al-Kharaz. This locus is an unpaved floor level in an open common space between two buildings (Fischer 2013: 168). While neither of these buildings in the western domestic complex conform to the patterns of the traditional four-room house, the most western of the two buildings does possess four rooms. It also contained many implements associated with textile production. It is hypothesized that it may have been used in that purpose.

There are seven Iron Age strata at Tall Abu al-Kharaz, based upon the architecture of the site. Locus 516 belongs to Stratum XIII. The ceramics of Locus 516 included 6 storage jars, 15 kraters, 16 cooking pots, 5 bowls, 7 jugs, 4 juglets, 6 jars, and a storage jar handle with a stamped seal impression that was unfortunately unreadable. These forms have parallels that best fit

in the very end of the Iron Age 2A or the beginning of the Iron Age 2B (Fischer 2013: 507). Pithos 28.01 has thus been dated to 830 B.C.

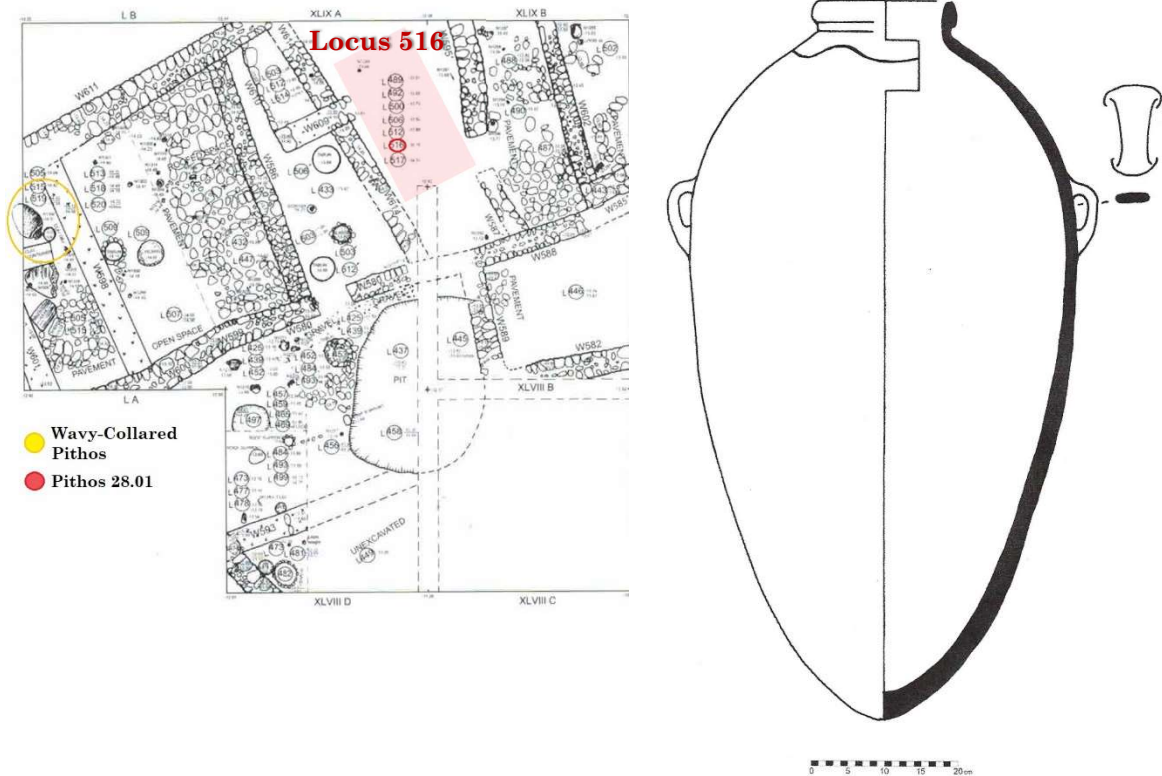


FIGURE 259. Top Plan of the Domestic Compound in Area 7 west (left) at Tall Abu al-Kharaz, with original locations of pithoi (adapted from Fischer 2013: 164; fig. 158); Wavy-line pithos (right) from western room (Fischer 2013, 182; fig. 174.1).

Pithos 28.01 is a unique example of the Short Form type. All of its features are atypical or outside of the range of one standard deviation from the mean for this form group. The neck height is 29% shorter than average – among the shortest in the group. All of the other dimensions, however, are significantly larger than expected. The hook-shaped rim, with inner thickening, is 49% taller and 18% thicker than average. This rim is the tallest rim in the Short Form group. It has a rim circumference and related

exterior rim diameter that are 22% larger than usual. The rim stands inside of alignment with the collar at a 49% greater angle than average for the Short Form. The square-shaped collar, with a subtle rope design, is 59% more prominent than the average collar. Intriguingly, with the exception of Pithos 8.01, none of the other pithoi from Abu al-Kharaz possess collars, despite their overall appearance as collared pithoi. For example, figure 259 portrays a pithos located near Pithos 28.01, from the same stratum. It has the shape of a typical Classic or Short Form collared pithos, but in place of the traditional collar it has an incised wavy line decoration. This makes the exceptionally prominent collar of Pithos 28.01 all the more remarkable. Dimensions for this vessel were obtained solely from a published plate.

TABLE 173. Comparable Data for Abu al-Kharaz Short Form Pithos 28.01.

	Pithos 28.01	μ Pithos in Group (σ)
Neck Height in cm	<i>1.00 (29%)¹⁵⁵</i>	1.40 (0.32)
Rim Thickness in cm	<i>3.00 (18%)</i>	2.45 (0.54)
Rim Inflection	Inverted	Everted
Rim Shape	Thickened T3: Hook, IT	Round, OT/IT
Rim Height in cm	<i>5.00 (49%)</i>	2.56 (0.70)
Rim Circumference in cm	<i>84.80 (22%)</i>	65.58 (14.94)
Exterior Rim Diameter in cm	<i>27.00 (22%)</i>	20.00 (4.76)
Collar Shape	Square	Triangular
Rim-to-Collar Angle	<i>62.00° Inside (49%)</i>	31.52° Inside (19.60)
Collar Prominence in mm	<i>10.00 (59%)</i>	4.06 (3.06)
Firing	Hard-fired	Underfired, Core Present
Exterior Munsell Reading	Greyish-Yellow Slip, Light Brown Fabric	Pink

¹⁵⁵ As in the previous chapters, the italicized figures in these tables represent the dimensions that are outside of one standard deviation from the mean. The figures in parenthesis account for the percentage difference between the associated measurement and the Short Form mean.

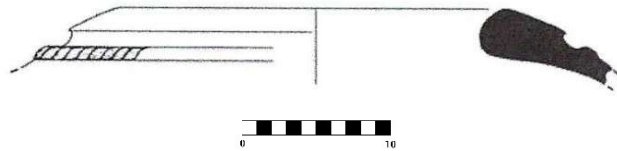


FIGURE 260. Pithos 28.01, Abu al-Kharaz (Fischer 2013: 182, 86; Fig. 174.5).

Amman Citadel, Central Plateau

There is one example presented below of a Short Form collared pithos from the Amman Citadel. The site has been more thoroughly introduced in Chapter 3 before the description of Pithos 9.01. Consult that entry for further general information on this site and its stratigraphy.

Pithos 29.01: Amman Citadel, Unstratified

This pithos (figure 261) is one of the unstratified surface finds from the Amman Citadel assemblage (Dornemann 1983: 112). As such, it can provide no information on the context or dating of the collared pithos. It is included here to contribute to the general discussion of the form.

At only 1.0 cm, Pithos 29.01 has the shortest neck height in the Short Form group, a dimension shared by ten other pithoi. Its thickened, edgeless rim possesses the second most common shape in the Short Form group, and though it is thinner and taller than average, its dimensions still fall within one standard deviation of the mean. The same can be said for all of the remaining features of this pithos. Dimensions for this vessel were obtained solely from a published plate.

TABLE 174. Comparable Data for Amman Citadel Short Form Pithos 29.01.

	Pithos 29.01	μ Pithos in Group (σ)
Neck Height in cm	1.00 (29%)	1.40 (0.32)
Rim Thickness in cm	2.00	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Round, OT/IT
Rim Height in cm	2.80	2.56 (0.70)
Rim Circumference in cm	57.00	65.58 (14.94)
Ext. Rim Diameter in cm	18.00	20.00 (4.76)
Collar Shape	Triangular, Double	Triangular
Rim-to-Collar Angle	30.00° Inside	31.52° Inside (19.60)
Collar Prominence in mm	5.00	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	unknown	Pink

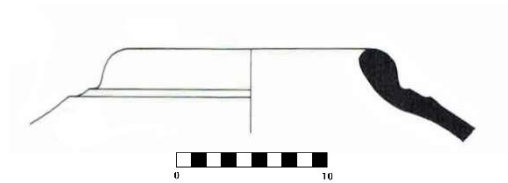


FIGURE 261. Pithos 29.01, Amman Citadel (Photograph, Left: Dornemann 1983: 270, fig. 77:635; Right: Dornemann 1983: 250; fig. 57:635).

Khirbat al-Balu'a, Kerak Plateau

There are three examples presented below of Short Form collared pithoi from Khirbat al-Balu'a. All three pithoi originated from contexts dated to the last half of the eighth century B.C. Based on these examples collectively, the neck heights of the Short Form vessels at Khirbat al-Balu'a tend to be slightly longer than average. The rim shapes are varied, but are generally somewhat taller and thinner than the Short Form group averages. The rim circumferences and diameters are typically about 6% smaller than the mean. The triangular collars are somewhat more prominent than usual and the angle at which the rim stands in relation to the collar is 55% more upright than average. As no whole Short Form vessels have yet been found at Khirbat al-Balu'a, information regarding the body, handles, and base for the typical vessel at this site is missing. The excavations at Khirbat al-Balu'a have been more extensively introduced in Chapter 3 prior to the description of Pithos 11.01. Please consult that entry for further general information on this site.

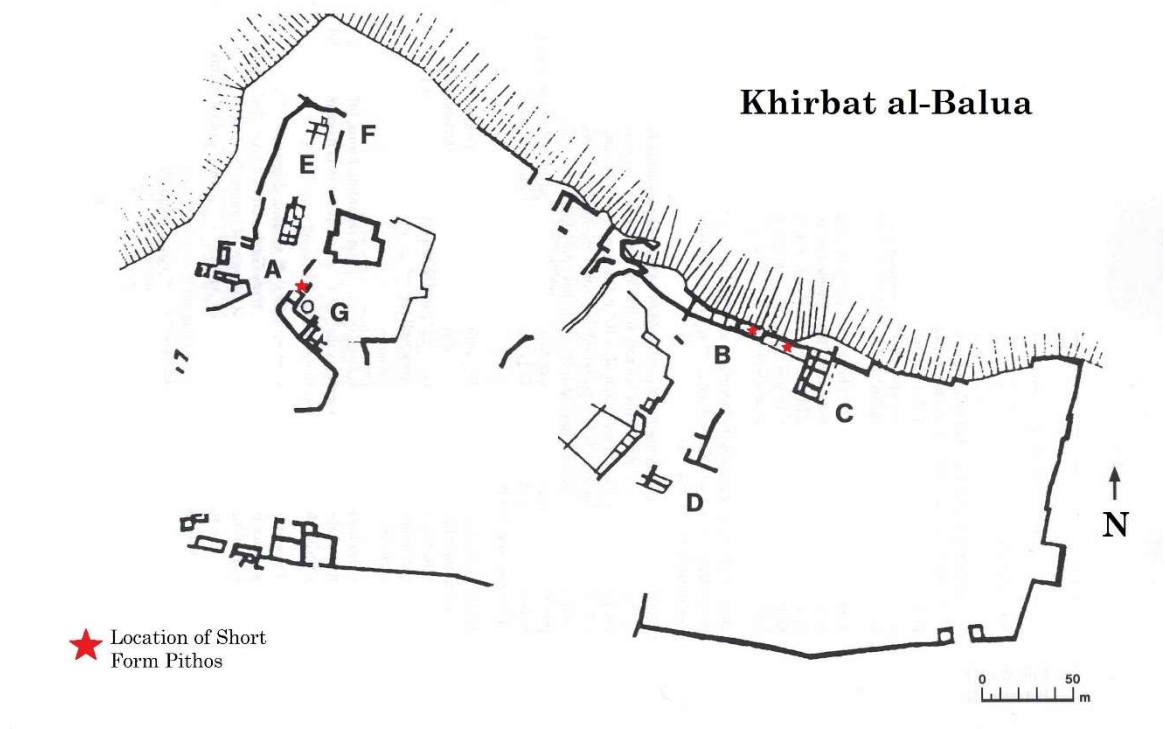


FIGURE 262. Site Map of Khirbat al-Balu'a with locations of Fields and Short Form Pithoi (adapted from Worschech 2014: 6).

Pithos 30.01: Khirbat al-Balu'a, ca. 750 B.C.

Pithos 30.01 (figure 264) originated in Field B, Room 1. This room did not have any clear stratigraphy (Worschech 2014: 5) but contained a layer of a 30.0 cm of grey ash within the casemate wall (Worschech 2014: 115,17). This layer was rich with ceramic remains (Worschech 2014: 115,17). In the adjacent room to the south-east, a 30.0 cm long iron spearhead was found (Worschech 2014: 127). Also from Room 2, were Classic Form Pithoi 11.02 and 11.03. Consult those entries in Chapter 2 further for more information. Pithos 30.01 has been dated to the mid-eighth century B.C. based upon its ceramic affiliations and the date suggested by the excavator (Worschech

1992: 151).

Pithos 30.01 is an excellent example of a Short Form collared pithos. Aside from its unusually prominent, square collar and the slight edge to its thickened rim, this vessel's features are all within standard for this form. Dimensions for this pithos were obtained solely from a published plate.

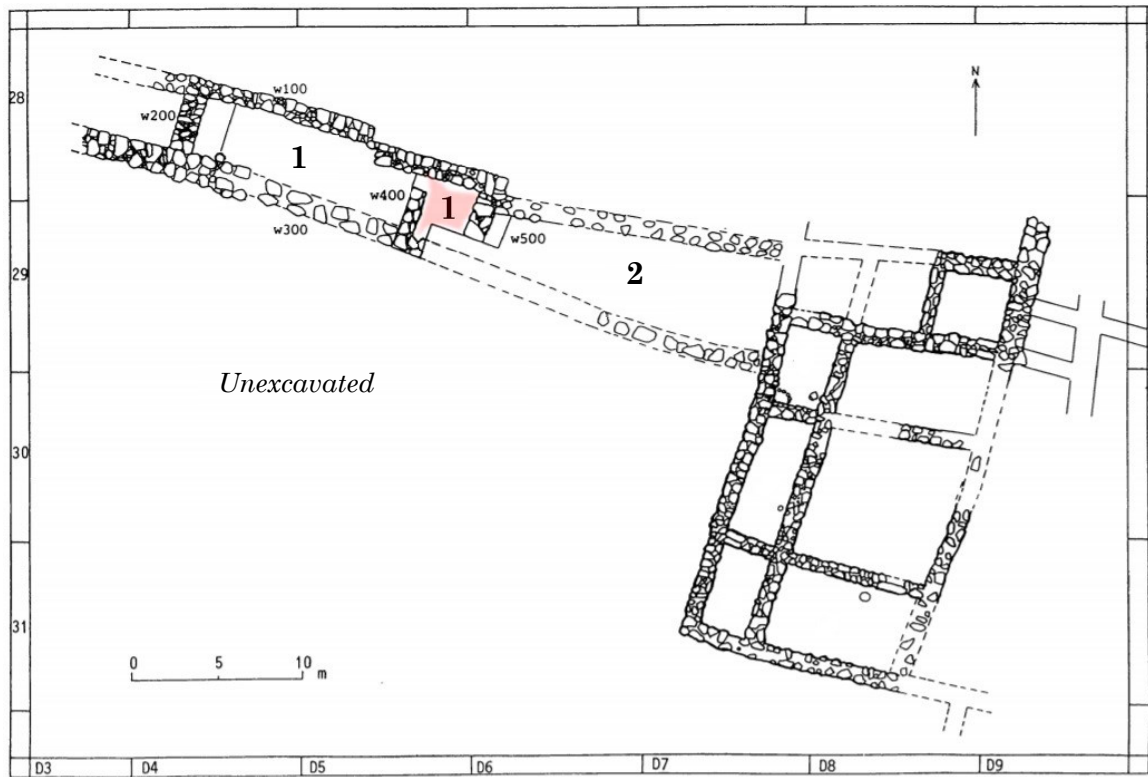


FIGURE 263. Khirbat al-Balu'a Field B Top Plan (Casemate Room numbers indicated; Shaded area represents the find location of the collared pithoi according to Worschech 1992: 149; Top Plan adapted from Worschech 1992: 150, fig. 1).

TABLE 175. Comparable Data for Khirbat al-Balu‘a Short Form Pithos 30.01.

	Pithos 30.01	μ Pithos in Group (σ)
Neck Height in cm	1.80	1.40 (0.32)
Rim Thickness in cm	2.40	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T1: Edged, OT	Round, OT/IT
Rim Height in cm	3.20	2.56 (0.70)
Rim Circumference in cm	56.55	65.58 (14.94)
Exterior Rim Diameter in cm	18.00	20.00 (4.76)
Collar Shape	Square	Triangular
Rim-to-Collar Angle	20.00° Inside	31.52° Inside (19.60)
Collar Prominence in mm	9.00 (55%)	4.06 (3.06)
Firing	Underfired	Underfired, Core Present
Exterior Munsell Reading	5 YR 6/6, Reddish Yellow	Pink

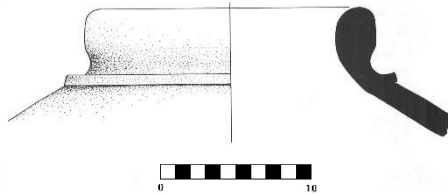


FIGURE 264. Pithos 30.01, Khirbat al-Balu‘a BC39 (Worschech 1992: 154; fig. 2.1; Worschech 2014: 116-17).

Pithos 30.02: Khirbat al-Balu‘a, ca. 750 B.C.

Pithos 30.02 (figure 265) originated from one of the two rooms within the casemate wall of Field B at Khirbat al-Balu‘a. These rooms are described in more detail in the entries for Pithoi 11.02, 11.03, and 30.01. Please consult those entries further for more information.

The thickened, edged rim of Pithos 30.02 is its most unusual feature. It resembles a scalene triangle with its widest angle set on the outside face, rather than a true thickened, edged shape – which is usually thicker and rounder at the top. Nevertheless, it does not possess the points of a true

triangle and is thus classified as a thickened, edged shape. This rim is 35% thinner than average, and somewhat taller as well, although this latter dimension is still within one standard deviation from the mean for the Short Form group. This rim also has a more upright position in relation to its collar than usual, but it is still within standard. The same is true for its remaining features, as well. Dimensions for Pithos 30.02 were obtained solely from a published plate.

TABLE 176. Comparable Data for Khirbat al-Balu'a Short Form Pithos 30.02.

	Pithos 30.02	μ Pithos in Group (o)
Neck Height in cm	1.60	1.40 (0.32)
Rim Thickness in cm	1.60 (35%)	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Thickened, T1: Edged, OT	Round, OT/IT
Rim Height in cm	2.90	2.56 (0.70)
Rim Circumference in cm	66.10	65.58 (14.94)
Ext. Rim Diameter in cm	21.10	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	15.00° Inside	31.52° Inside (19.60)
Collar Prominence in mm	4.00	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	unknown	Pink

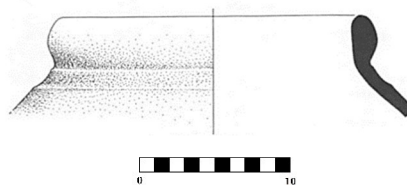


FIGURE 265. Pithos 30.02, Khirbat al-Balu'a (Worschech 1992: 155; fig. 3.4).

Pithos 30.03: Khirbat al-Balu'a, ca. 750 B.C.

Pithos 30.03 (figure 267) originated in Room 12 in the western portion of Field G at Khirbat al-Balu'a. This room is very small, 2.1 m square, and fairly inaccessible. It is understood to be a longer-term storage room. As with the other collared pithoi at Khirbat al-Balu'a, this one also belongs to the Iron Age 2B (Worschech 1992: 151).

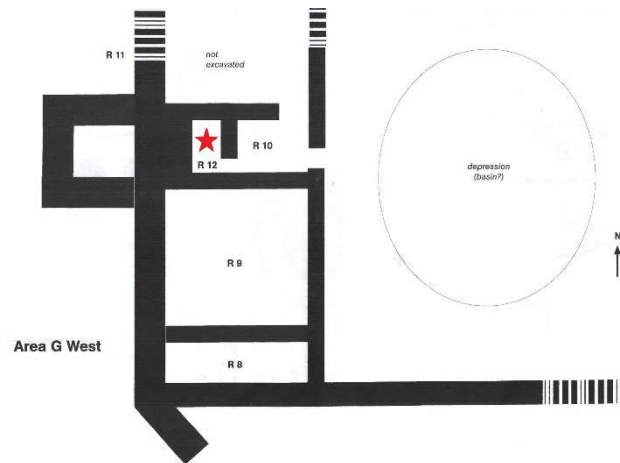


FIGURE 266. Khirbat al-Balu'a, Field G West, Top Plan (Pithos 30.03 indicated by star; plan adapted from Worschech 2014: 266).

Pithos 30.03 has a 1.0 cm neck, a feature present on only 4% ($n = 10$) of the pithoi in the Short Form group. Its round, thickened rim is statistically average, though it is slightly thicker has a smaller diameter than usual for this group. It has a straighter neck and is nearer to alignment with the collar than is typically seen in the Short Form. Its diminutive collar has the lowest prominence seen among collared pithoi – a dimension it shares with six other examples in this group. While many of these collars have an indeterminate

shape and are thus classified as vestigial, Pithos 30.03 has a collar with a clear triangular edge, despite its small size. The remaining features of this pithos are within one standard deviation from the mean and considered typical Short Form features. Dimensions for Pithos 30.03 were obtained solely from a published plate.

TABLE 177. Comparable Data for Khirbat al-Balu'a Short Form Pithos 30.03.

	Pithos 30.03	μ Pithos in Group (σ)
Neck Height in cm	1.00 (29%)	1.40 (0.32)
Rim Thickness in cm	2.80	2.45 (0.54)
Rim Inflection	Straight	Everted
Rim Shape	Round, OT	Round, OT/IT
Rim Height in cm	2.40	2.56 (0.70)
Rim Circumference in cm	64.70	65.58 (14.94)
Exterior Rim Diameter in cm	20.60	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	8.00° Inside (75%)	31.52° Inside (19.60)
Collar Prominence in mm	1.00	4.06 (3.06)
Firing	Underfired	Underfired, Core Present
Exterior Munsell Reading	7.5 YR 7/4, Pink	Pink

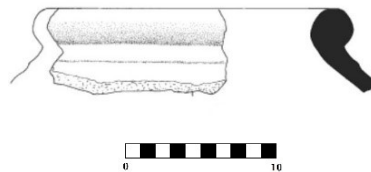


FIGURE 267. Pithos 30.03, Khirbat al-Balu'a, R12G-11 (Worschech 2014: 293; fig. G094).

Umm al-Biyara, Southern Transjordan

There is one example presented below of a Short Form collared pithos from Umm al-Biyara. The site was introduced in Chapter 3, directly before the summary of Pithos 12.01. Please consult that information for site contextualization of the example presented below.

Pithos 31.01: Umm al-Biyara, ca. 830 B.C.

This vessel (figure 269) originated in Room 12, Locus 9 at Umm al-Biyara. No other ceramics from this locus have been located in publications. Therefore, apart from an understanding of this space on the south end of the central area of the building complex, there is little detail about this vessel's context. It is dated to the beginning of the Iron Age 2B in harmony with the other forms at the site, though it is possible that it dates somewhat earlier or later.¹⁵⁶

¹⁵⁶ For further commentary on the challenges to the chronology of Umm al-Biyara, see Bienkowski 2011: 77-78.

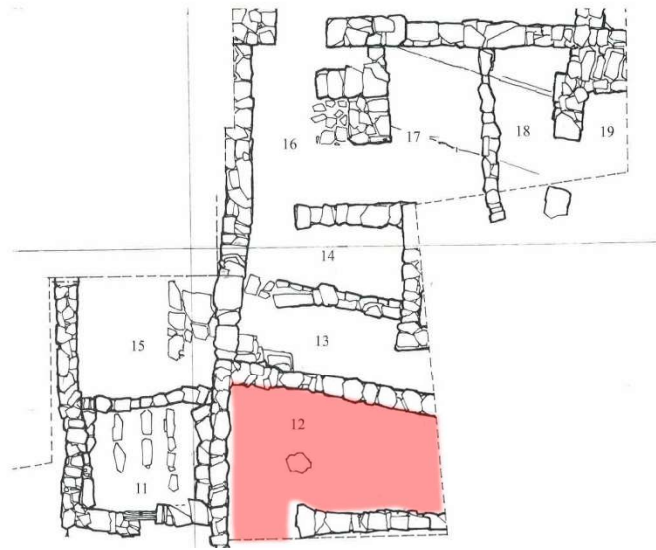


FIGURE 268. Top Plan of Umm al-Biyara, Room 12 and surrounding areas (adapted from Bienkowski 2011: 23; fig. 2.29).

At 46% beyond average, Pithos 31.01 has the widest rim circumference and exterior rim diameter of any vessel in the Short Form group. Its square shaped rim is nearly average in its dimensions, however, making it look smaller than expected for such a large pithos. The neck height of this example is just under average for a Short Form vessel, as is the collar prominence. Perhaps due to these two latter features and its average sized rim, Pithos 31.01 has a rim that stands nearer to alignment than is typical for this group. The other features of this vessel are standard for the Short Form. Dimensions for Pithos 31.01 were obtained solely from a published plate.

TABLE 178. Comparable Data for Umm al-Biyara Short Form Pithos 31.01.

	Pithos 31.01	μ Pithos in Group (σ)
Neck Height in cm	1.30	1.40 (0.32)
Rim Thickness in cm	2.50	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Square, OT	Round, OT/IT
Rim Height in cm	2.50	2.56 (0.70)
Rim Circumference in cm	122.50 (46%)	65.58 (14.94)
Exterior Rim Diameter in cm	39.00 (46%)	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	19.00° Inside	31.52° Inside (19.60)
Collar Prominence in mm	2.00	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	unknown	Pink

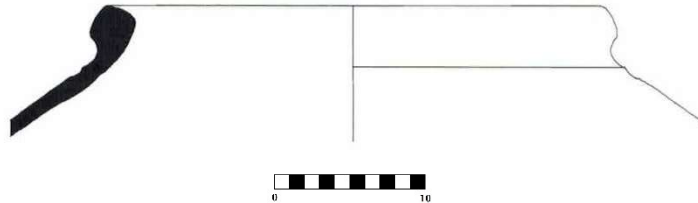


FIGURE 269. Pithos 31.01, Umm al-Biyara (Bienkowski 2011: 68; fig. 4.5.10).

Busayra, Southern Transjordan

There is one example presented below of a Short Form collared pithos from Busayra. The site was introduced in Chapter 3, directly before the summary of Pithos 13.01. Consult that information further for site contextualization of the examples presented below.

Pithos 32.01: Busayra, Unstratified

This pithos (figure 272) originated in Area B, Locus 2.2.c, at Busayra. The stratigraphy of Square 2.2 is unclear in the publications, in regard to this locus. It is not mentioned in the description of the trench or placed in the Harris matrix of the area (Bienkowski 2011: 111-28). Square 2.2 is located near the exterior perimeter wall on the south-west side of the site. It is possible that this locus was a clean-up, in which case it would be considered unstratified.

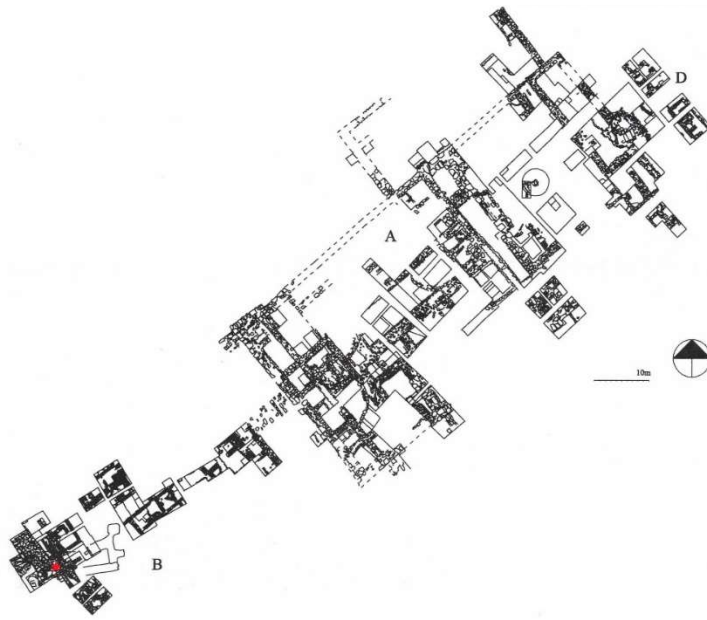


FIGURE 270. Busayra, Composite Top Plan of Areas D, A, and B with the location of Short Form Pithos 32.01 (indicated by a star; adapted from Bienkowski 2011, 43; Fig.

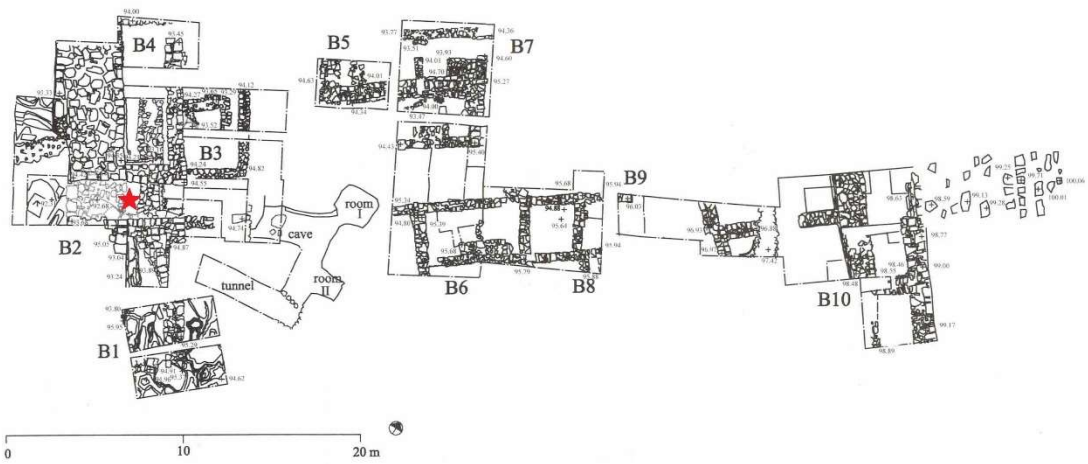


FIGURE 271. Busayra, Area B with the location of Pithos 32.01 (indicated by a star; adapted from Bienkowski 2011: 112; Fig. 5.1).

Pithos 32.01 (figure 272) is one of 4% (n = 10) of the Short Form group that has a 1.0 cm neck height. It is the shortest neck height represented in this group. This vessel is topped with a thickened, hook-shaped rim that is slightly larger than usual, but still within one standard deviation of the mean for the Short Form. It does, however, have a rim circumference and associated exterior rim diameter that are 35% larger than average. The remainder of the features of this vessel are within standard for the Short Form. Dimensions for this pithos were obtained solely from a published plate.

TABLE 179. Comparable Data for Busayra Short Form Pithos 32.01.

	Pithos 32.01	μ Pithos in Group (σ)
Neck Height in cm	1.00 (29%)	1.40 (0.32)
Rim Thickness in cm	2.50	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T3: Hook, OT	Round, OT/IT
Rim Height in cm	3.00	2.56 (0.70)
Rim Circumference in cm	103.70 (36%)	65.58 (14.94)
Exterior Rim Diameter in cm	33.00 (36%)	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	25.00° Inside	31.52° Inside (19.60)
Collar Prominence in mm	3.00	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	unknown	Pink

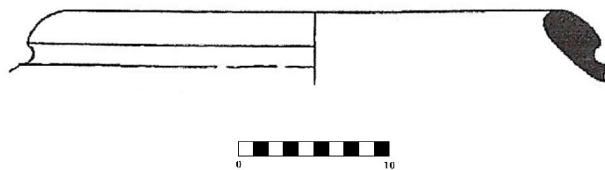


FIGURE 272. Pithos 32.01, Busayra TS563 (Bienkowski 2002: 315. fig. 9.43.6).

Tall Hisban, Central Plateau

There is one example presented below of a Short Form collared pithos from Tall Hisban. This site has been explored in greater depth in Chapter 3, prior to the discussion of Pithos 15.01. Consult that section further for more information regarding the broader context of this vessel.

Pithos 33.01: Tall Hisban, Unstratified

This pithos (figure 273) was unearthed at the bottom of the reservoir at Tall Hisban, in a compact clay silt layer that averaged 35.0 cm deep (Ray 2001: 137). It is unknown whether this rim found its way there as sediment during the last period of use or in the post-occupational period prior to the Hellenistic period. In either event, it must be considered unstratified for the purposes of dating analysis.

Pithos 33.01 is among the 23% ($n = 8$) of Short Form examples with a 1.80 cm neck height. They represent the longest necks in this group. This vessel's rim is also exceptionally tall, nearly 27% taller than average. Its thickened edgeless shape and straight inflection are likewise atypical for the Short Form. The remaining features of this example, however, are within standard and considered usual for the Short Form group. Dimensions for this pithos were obtained solely from a published plate.

TABLE 180. Comparable Data for Tall Hisban Short Form Pithos 33.01.

	Pithos 33.01	μ Pithos in Group (σ)
Neck Height in cm	1.80 (22%)	1.40 (0.32)
Rim Thickness in cm	3.30 (26%)	2.45 (0.54)
Rim Inflection	Straight	Everted
Rim Shape	Thickened, T2: Edgeless, OT/IT	Round, OT/IT
Rim Height in cm	2.80	2.56 (0.70)
Rim Circumference in cm	53.40	65.58 (14.94)
Ext. Rim Diameter in cm	17.00	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	47.00° Inside	31.52° Inside (19.60)
Collar Prominence in mm	5.00	4.06 (3.06)
Firing	Oxidation	Underfired, Core Present
Exterior Munsell Reading	5 YR 7/4, Pink	Pink

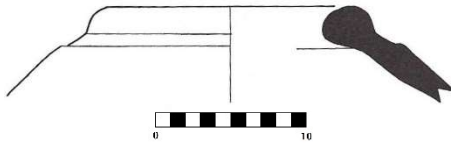


FIGURE 273. Pithos 33.01, Tall Hisban 13100 (Sauer and Herr 2012: 119; fig. 2.28.7).

Iraq el-Emir, Central Plateau

There is one example presented below of a Short Form collared pithos from 'Iraq el-Emir. The site was introduced in Chapter 3, prior to the discussion of Pithos 16.01. Consult that section for further information regarding the details of this site and the wider context of Pithos 34.01.

Pithos 34.01: 'Iraq el-Emir, ca. 732 B.C.

Pithos 34.01 (figure 274) was found at 'Iraq el-Emir in Field I, Square 1, Locus 67. This locus is described by the excavator as a sealed Iron Age locus (Ulvoczky 2017: 16, 97) and should be considered safely stratified with a high level of confidence (Ulvoczky 2017: 26). In his survey of the Iron Age at 'Iraq el-Emir, Ulvoczky dates this pithos to the Iron Age 2C (Ulvoczky 2017: 45). He also compares this pithos to Pithos 30.01 from Khirbat al-Balu'a (Ulvoczky 2017: 45) and indeed the two vessels are remarkably similar and share many features. According to the evaluation of the excavator at Tall al-Balu'a, Pithos 30.01 is best assigned to the mid-eighth century B.C. (Worschech 1992: 151). A similar date, from the start of the Iron Age 2C, is assigned here for Pithos 34.01.

With this reasoning in mind, it should also be mentioned that the only other published sherd from Locus 67 in Square 1 at 'Iraq el-Emir is a cooking pot that finds parallels in the Iron Age 1B through the Iron Age 2A (Ulvoczky 2017: 29, pl. 1:3; 32, table 5). Cooking pots are not generally considered long-

lived forms, so the association of Pithos 34.01 with a tenth century B.C. cooking pot in a stratigraphically secure context, may certainly be considered an influence on the date of this vessel. While an Iron Age 2C date has been assigned to Pithos 34.01, it must be considered an estimate with an acknowledgment that this pithos may date as early as the Iron Age 2A.

Pithos 34.01 has a unique rim shape that is difficult to categorize. It could be classified as a Thickened, Type 2: Edged shape, due to the slight edge on the lower exterior. However, a subtle concave shape on the exterior face is also reminiscent of the Profiled, Type 1: Kidney shape rim style. Due to the difficulty in identifying a single profile shape, this rim has been assigned a miscellaneous thickened classification. This rim is also unusual in its width, being 26% thinner than the average Short Form rim. Its collar is remarkable as well, rising to nearly double the typical prominence of a collar in this group. The rest of the features of this example are standard, however, when compared to those of other vessels within this form group. Dimensions for this vessel were obtained in person and confirmed with a computer-generated plate.

TABLE 181. Comparable Data for 'Iraq el-Emir Short Form Pithos 34.01.

	Pithos 34.01	μ Pithos in Group (σ)
Neck Height in cm	1.20	1.40 (0.32)
Rim Thickness in cm	1.80 (26%)	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Thickened: Misc, OT	Round, OT/IT
Rim Height in cm	2.00	2.56 (0.70)
Rim Circumference in cm	53.00	65.58 (14.94)
Exterior Rim Diameter in cm	17.00	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	20.00° Inside	31.52° Inside (19.60)
Collar Prominence in mm	8.00 (49%)	4.06 (3.06)
Firing	Oxidation	Underfired, Core Present
Exterior Munsell Reading	unknown	Pink

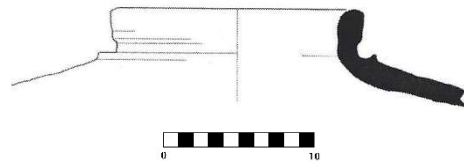


FIGURE 274. Pithos 34.01, 'Iraq el-Emir I.1.67.1 (Ulvoczky 2017: 40; pl. 4.4).

Tall Jalul, Central Plateau

There are eight examples presented below of Short Form collared pithoi from Tall Jalul. Five of these examples originated from datable stratified loci belonging to the Iron Age 2C, or 732 – 586 B.C. The rims in this collection are equally likely to have a thickened, edged shape as they are to be round. Most likely attributable to that fact is the slightly shorter and thinner measurement of the Tall Jalul rims than the average rim in the Short Form group. The rim circumference and exterior rim diameter of these vessels are also slightly smaller than the mean. The collars are most commonly triangular in shape, as is expected for this form group, and are about 1.0 mm less prominent than average. The rims lean more than 3° further in from alignment with the collar than is typical in the Short Form group. Since no complete vessels in this group have yet been found from Tall Jalul, no data is present for the bodies, bases, and handles of the collared pithoi at this time.

The excavations of Tall Jalul are presented in more detail in Chapter 3, prior to the introduction of Pithos 17.01. Consult that description further for more general details about the site.

Pithos 35.01: Tall Jalul, ca. 732 B.C.

Pithos 35.01 (figure 276) originated in Field G, Square 4, Locus 41.

This locus, from the southwestern portion of the square, was part of a destruction fill layer in Room 5. It was composed of yellowish-brown earth with several brick fragments and ash pockets. This room was located in the eighth century B.C. pillared building. Eleven crates of pottery originated in this room, earning it the informal designation of “the pottery room.” Objects include two pounders, two grinders, and a figurine. The ceramics from this locus date to the late eighth century B.C. This layer was sealed under approximately 1.0 m of burnt debris that had fallen in from the upper portion of the structure at the time of its demise (Gregor et al. 2011: 358).

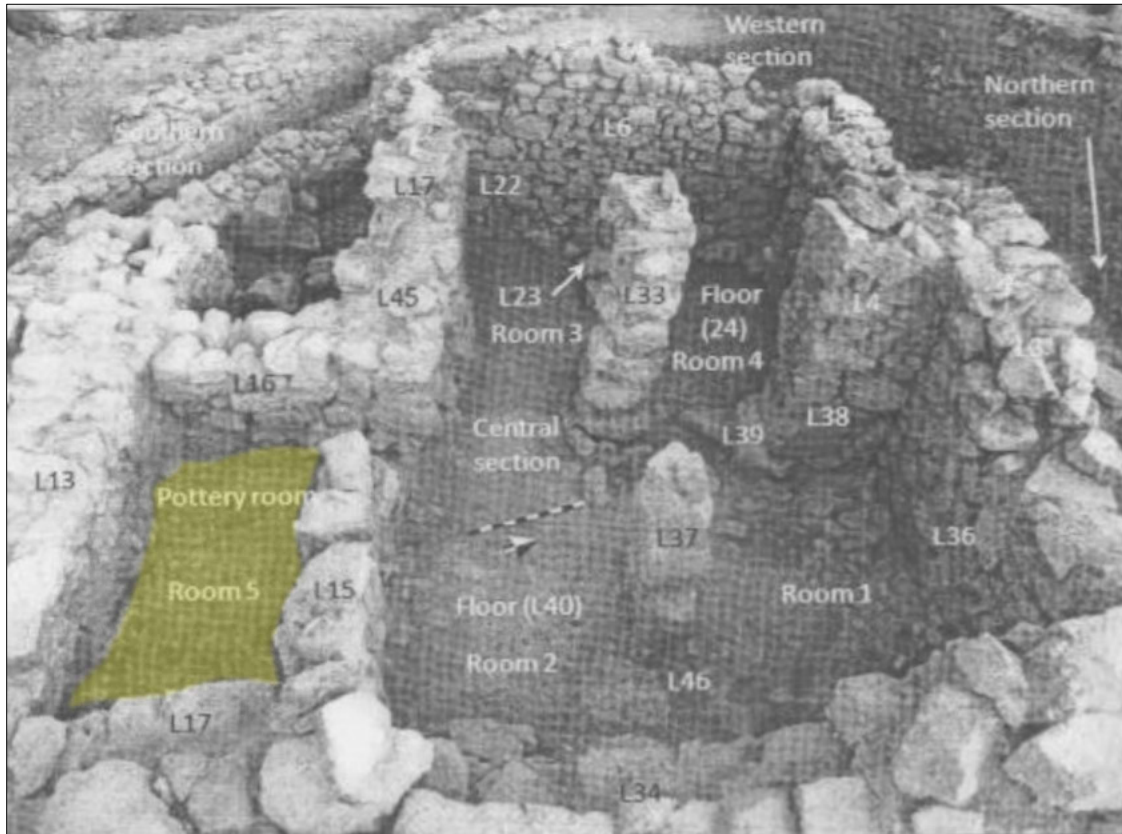


FIGURE 275. Tall Jalul, Field G, Building Complex (with Room 5 highlighted; adapted from Gregor et al. 2011:355; fig. 5).

All of the dimensions of Pithos 35.01 are within one standard deviation from the mean for the Short Form group. Its rim, however, shows some characteristics that are atypical. Its square shape is shared with only two other examples and the internal thickening gives this rim an appearance of an inward offset. The remaining features are typical and present this pithos as an excellent example of the Short Form collared pithos. Dimensions for this vessel were obtained in person and confirmed with a computer-generated plate.

TABLE 182. Comparable Data for Tall Jalul Short Form Pithos 35.01

	Pithos 35.01	μ Pithos in Group (σ)
Neck Height in cm	1.50	1.40 (0.32)
Rim Thickness in cm	2.50	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Square, IT	Round, OT/IT
Rim Height in cm	2.60	2.56 (0.70)
Rim Circumference in cm	72.30	65.58 (14.94)
Exterior Rim Diameter in cm	23.00	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	45.00° Inside	31.52° Inside (19.60)
Collar Prominence in mm	4.00	4.06 (3.06)
Firing	Oxidation	Underfired, Core Present
Exterior Munsell Reading	7.5 YR 7/3, Pink	Pink

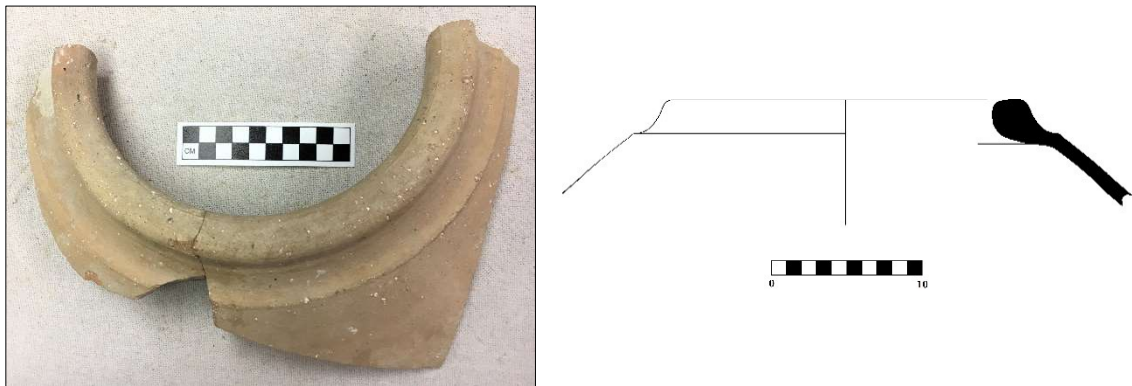


FIGURE 276. Pithos 35.01, Tall Jalul J09.G4.64.342-343.loc41 (Publication Forthcoming).

Pithos 35.02: Tall Jalul, ca. 650 B.C.

This pithos (figure 277) originated in Field G, Square 12, Locus 2 at Tall Jalul. This locus is an earth fill locus directly above and around the fragmentary Wall 3 of the Iron Age 2C/Persian Period structure in that field (cf. Gregor et al 2011: 359). Wall 3 projected out from the northeast corner in the direction of the middle of the southern balk. Locus 2 began about 16.0 cm

below the top of the square and about 1.0-2.0 cm above the top of the wall. It followed the face of Wall 3 down about 20.0 cm. The locus covered the entire square to an average depth of 16.0 cm. There were plentiful ceramics in Locus 2, totaling 573 sherds. The ceramic forms dated from the Iron Age 2C/Persian Period.

Pithos 35.02 has few dimensions that are not standard for the Short Form group. Its thickened, edged shaped rim is relatively common, seen on 17% of the vessels in this group. Together with the thickened, edgeless rims, these comprise the second most common rim shapes. This pithos has a rim-to-collar angle that is 65% nearer to alignment than is typical. In combination with the rim's shape, these features may be reminiscent of the longer necked Classic Form shapes, possibly indicating this vessel as an example of transition between the forms. The rest of the attributes of this vessel are typical for the Short Form group. Dimensions for Pithos 35.02 were obtained in person.

TABLE 183. Comparable Data for Tall Jalul Short Form Pithos 35.02.

	Pithos 35.02	μ Pithos in Group (σ)
Neck Height in cm	1.50	1.40 (0.32)
Rim Thickness in cm	1.90	2.45 (0.54)
Rim Inflection	Straight	Everted
Rim Shape	Thickened: Edged, OT	Round, OT/IT
Rim Height in cm	2.20	2.56 (0.70)
Rim Circumference in cm	62.80	65.58 (14.94)
Exterior Rim Diameter in cm	20.00	20.00 (4.76)
Collar Shape	Teardrop	Triangular
Rim-to-Collar Angle	11.00° Inside (65%)	31.52° Inside (19.60)
Collar Prominence in mm	4.00	4.06 (3.06)
Firing	Oxidation	Underfired, Core Present
Exterior Munsell Reading	10 YR 7/3, Very Pale Brown	Pink



FIGURE 277. Pithos 35.02, Tall Jalul J11.G12.7.1.loc2 (Publication Forthcoming).

Pithos 35.03: Tall Jalul, ca. 732 B.C.

Pithos 35.03 (figure 278) was unearthed in Field W, Square 3, Locus 3. This is best described as an earth layer against the outside of the eastern wall of the water channel, as it cuts across the northwest corner of that square. This locus followed the top of the wall down, but did not reach the foundation of the wall. The ceramics in Locus 3 included Iron Age 2C forms. Those belonging best to the earlier part of this period included six hole-mouth kraters, four bowls, and two jars. There were also four bowls with parallels better placed at the end of the Iron Age 2C. A large loaf grinder was found in Locus 3 as well. This pithos has been given a date at the beginning of the

Iron Age 2C, aligning with the majority of the forms in the associated locus, though it is possible that it dates to later in the period.

Beyond the thickened, edged rim shape present on Pithos 35.03, nothing about this example is outside of standard. This vessel stands as an excellent example of the Short Form type. Dimensions for this pithos were obtained in person.

TABLE 184. Comparable Data for Tall Jalul Short Form Pithos 35.03.

	Pithos 35.03	μ Pithos in Group (σ)
Neck Height in cm	1.70	1.40 (0.32)
Rim Thickness in cm	2.65	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Thickened: Edged, OT	Round, OT/IT
Rim Height in cm	2.00	2.56 (0.70)
Rim Circumference in cm	63.00	65.58 (14.94)
Exterior Rim Diameter in cm	22.00	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	20.00° Inside	31.52° Inside (19.60)
Collar Prominence in mm	1.00	4.06 (3.06)
Firing	Underfired	Underfired, Core Present
Exterior Munsell Reading	5 YR 7/3, Pink	Pink

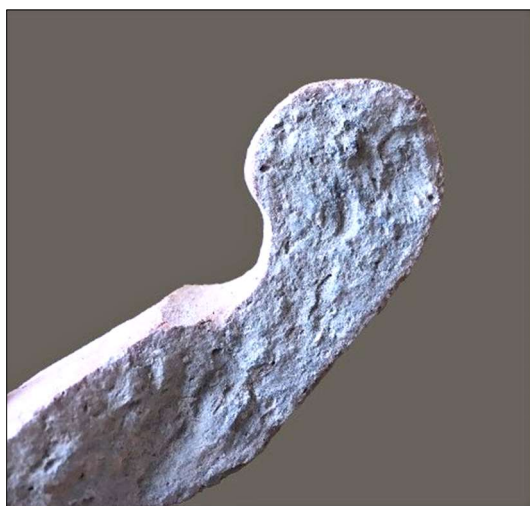


FIGURE 278. Pithos 35.03, Tall Jalul J10.W3.3.1.loc3 (Publication Forthcoming).

Pithos 35.04: Tall Jalul, Unstratified

Pithos 35.04 (figure 279) originated in Field W, Square 5, Locus 9. This locus is defined by post-occupational debris above the interior of the open-air cistern. As such, it is considered an unstratified context for the purpose of this study and does not assist in better understanding either the vessel's date or original use context. The ceramics recovered from this locus show a mix from several periods of the site's occupation. Based on form alone, it would seem to best fit in the seventh century B.C. ceramic horizon at Tall Jalul. However, this cannot be verified from this context.

The short height of this vessel's thickened, edged rim is the only aspect Pithos 35.04 possesses outside of the standard for the Short Form group. While this rim is 39% shorter than average, its thickened shape is among the

second most common Short Form profiles. The other features of Pithos 35.04 also align well with the mean and are considered typical for this group.

Dimensions for this vessel were obtained in person.

TABLE 185. Comparable Data for Tall Jalul Short Form Pithos 35.04.

	Pithos 35.04	μ Pithos in Group (σ)
Neck Height in cm	1.70	1.40 (0.32)
Rim Thickness in cm	2.10	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Thickened: Edged, OT	Round, OT/IT
Rim Height in cm	1.56 (39%)	2.56 (0.70)
Rim Circumference in cm	63.00	65.58 (14.94)
Exterior Rim Diameter in cm	20.00	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	30.00° Inside	31.52° Inside (19.60)
Collar Prominence in mm	3.00	4.06 (3.06)
Firing	Underfired	Underfired, Core Present
Exterior Munsell Reading	5 YR 7/2, Pinkish Gray	Pink



FIGURE 279. Pithos 35.04, Tall Jalul J11.W5.16.1.loc9 (Publication Forthcoming).

Pithos 35.05: Tall Jalul, ca. 650 B.C.

Pithos 35.05 (figure 280) originated in Field A, Square 18, Locus 14. This square is the southernmost section of Field A. Locus 14 was directly below a locus that included an Ottoman period burial. It is possible that this locus was somewhat disturbed by this intrusion as well. Locus 14 was adjacent to an Iron Age 2C/Persian Period pavement, identified as Locus 10, and is considered to be the robbed out remains of that surface.

Locus 14 had an average depth of 11.0 cm and included 81 ovine/caprine bones and 2 bovine bones. Ceramic remains included 589 sherds, 111 of which were considered diagnostic. With the exception of two Persian Period bowls, which could possibly be attributed to contamination from the disturbance of the aforementioned grave, all of the diagnostic sherds belonged to forms originating in the Iron Age 2C. Taking this dating of the locus into consideration as well as the longevity of some of the forms, a mid-seventh century B.C. date has been assigned to this pithos. It must be acknowledged, however that the remains of Pithos 35.05 show signs of post-destruction wear. The breaks are not clean nor the surface fresh. This may indicate a somewhat earlier date for this vessel is also a possibility.

Despite the wear on the sherd, the general shapes and dimensions of Pithos 35.05 are still discernable. The only feature that is not considered typical for the Short Form is the rounded shape of the collar. On close inspection, it appears that the collar may once have actually been closer to a

square shape. However, perhaps due to wear of the sherd, it is now rounder. Round collars comprise 11% (n = 4) of the total Short Form collar shapes. The remaining features and measurements are average for a Short Form pithos. Dimensions for Pithos 35.05 were obtained in person and confirmed with a computer-generated plate.

TABLE 186. Comparable Data for Tall Jalul Short Form Pithos 35.05.

	Pithos 35.05	μ Pithos in Group (σ)
Neck Height in cm	1.30	1.40 (0.32)
Rim Thickness in cm	2.40	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Round, OT/IT	Round, OT/IT
Rim Height in cm	2.10	2.56 (0.70)
Rim Circumference in cm	72.30	65.58 (14.94)
Exterior Rim Diameter in cm	23.00	20.00 (4.76)
Collar Shape	Round	Triangular
Rim-to-Collar Angle	42.00° Inside	31.52° Inside (19.60)
Collar Prominence in mm	3.00	4.06 (3.06)
Firing	Underfired	Underfired, Core Present
Exterior Munsell Reading	5 YR 6/4, Light Reddish Brown	Pink

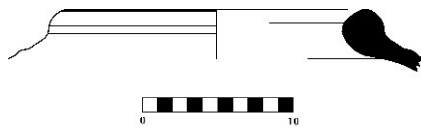


FIGURE 280. Pithos 35.05, Tall Jalul J07.A18.19.1.loc14 (Publication Forthcoming).

Pithos 35.06: Tall Jalul, ca. Unstratified

Pithos 35.06 (figure 281) originated in Field B, Square 18, Locus 3.

Square 18 is in the southwestern portion of Field B and contains a part of the city gate. Locus 3 was a yellowish-brown earth layer that covered the northern half of the square, beginning approximately half a meter below the ground surface and ending about half a meter above the top of the gate pylon found later in the season. The locus had an average depth of 27.0 cm and was not associated with any architectural features. Locus 3 is thus best understood as post-occupational fill. It had significant faunal remains and ash lenses. Several tabun fragments were also uncovered here. In the locus immediately under Locus 3, a 19th century burial was discovered in the eastern portion of the locus, indicating the disturbed nature of Locus 3.

A total of 644 sherds were found in Locus 3, 19 of which were considered diagnostic. Although the majority of these were dated to the Iron Age 2C, there were several from various other periods, including Persian, Hellenistic, Byzantine, and Islamic. This pithos would seem to best belong to the Iron Age 2C, but Locus 3 is determined to be unstratified for the purpose of this study and cannot assist in the dating of Pithos 35.06.

Pithos 35.06 is another excellent example of the Short Form pithos. All of its features align well with the averages in this group and leave little need for commentary. Dimensions for this pithos were obtained in person and confirmed with a computer-generated plate.

TABLE 187. Comparable Data for Tall Jalul Short Form Pithos 35.06.

	Pithos 35.06	μ Pithos in Group (σ)
Neck Height in cm	1.65	1.40 (0.32)
Rim Thickness in cm	2.20	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Round, OT/IT	Round, OT/IT
Rim Height in cm	2.88	2.56 (0.70)
Rim Circumference in cm	62.80	65.58 (14.94)
Exterior Rim Diameter in cm	20.00	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	50.00° Inside	31.52° Inside (19.60)
Collar Prominence in mm	1.00	4.06 (3.06)
Firing	Underfired	Underfired, Core Present
Exterior Munsell Reading	5 YR 7/2, Pinkish Gray	Pink



FIGURE 281. Pithos 35.06, Tall Jalul J99.B18.12.1.loc3 (Publication Forthcoming).

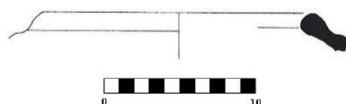
Pithos 35.07: Tall Jalul, ca. 732 B.C.

Pithos 35.07 (figure 282) was unearthed in Field C, Square 5, Locus 28. This square is located in the southwestern portion of the field. Locus 28 is the earth layer directly on top of the pavement in the courtyard of a pillared house (Younker and Merling 2000:48-50). 145 sherds were recovered from this locus. Ten of those are readable diagnostics dating to the Iron Age 2A through the Iron Age 2C/Persian period. Forms include several bowls, jars, one cooking pot, one krater, and one basin. While the house was clearly in use until its demise in the late Iron Age 2C, the variety of earlier forms suggests that it may have been occupied for some time prior to its disuse. This was certainly the situation with the four-room house located directly to the north of this one (Ray 2019: 536). With this in mind, Pithos 35.07 has been dated to the beginning of the Iron Age 2C.

This pithos has several uncharacteristic features, worthy of discussion. While its rim has the usual Short Form round shape, it is 39% thinner and 30% shorter than usual, making it one of the smallest rims in the Short Form group. Its neck height is also smaller than expected with 29% less height than average. The small rim on Pithos 35.07 is neither inverted nor everted from the line of the neck, but stands 50° inside of alignment with the teardrop-shaped collar. The remaining features, while slightly smaller than normal, are well within one standard deviation from the mean for this group. Dimensions for Pithos 35.07 were obtained from a published plate.

TABLE 188. Comparable Data for Tall Jalul Short Form Pithos 35.07

	Pithos 35.07	μ Pithos in Group (σ)
Neck Height in cm	1.00 (29%)	1.40 (0.32)
Rim Thickness in cm	1.50 (39%)	2.45 (0.54)
Rim Inflection	Straight	Everted
Rim Shape	Round, IT/OT	Round, OT/IT
Rim Height in cm	1.80 (30%)	2.56 (0.70)
Rim Circumference in cm	59.70	65.58 (14.94)
Exterior Rim Diameter in cm	19.00	20.00 (4.76)
Collar Shape	Teardrop (broken)	Triangular
Rim-to-Collar Angle	50.00° Inside	31.52° Inside (19.60)
Collar Prominence in mm	unknown	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	unknown	Pink

**FIGURE 282.** Pithos 35.07, Tall Jalul J99.C5.68.2.loc28 (Publication Forthcoming).

Pithos 35.08: Tall Jalul, ca. Unstratified

Pithos 35.08 (figure 283) was found in a mixed locus within the post-occupational reservoir fill of Field W. More specifically it was in Square 3, Locus 6. The locus was excavated at an average depth of 34.0 cm. The ceramics recovered with this locus are from the various periods represented at the site. The context of Pithos 35.08 is thus considered unstratified for the purpose of this study.

At 1.0 cm, 29% below average, Pithos 35.08 has one of the shortest necks in the Short Form group. It also has an unusually inverted rim inflection, seen on only 8% ($n = 3$) of the vessels in this group. Its rectangular

shaped rim is equally unusual with such a short neck height. This vessel's rim is 60° inside of alignment with its collar. Only three other pithoi have more inset rims than what is seen here. Despite its somewhat diminutive features, the triangular collar on this pithos is 42% more prominent than average. The remaining attributes of Pithos 35.08 are within standard for a Short Form example. Dimensions for this vessel were obtained from a published plate.

TABLE 189. Comparable Data for Tall Jalul Short Form Pithos 35.08.

	Pithos 35.08	μ Pithos in Group (σ)
Neck Height in cm	1.00 (29%)	1.40 (0.32)
Rim Thickness in cm	2.90	2.45 (0.54)
Rim Inflection	Inverted	Everted
Rim Shape	Rectangular, OT	Round, OT/IT
Rim Height in cm	1.96	2.56 (0.70)
Rim Circumference in cm	59.70	65.58 (14.94)
Exterior Rim Diameter in cm	19.00	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	60.00° Inside (47%)	31.52° Inside (19.60)
Collar Prominence in mm	7.00 (42%)	4.06 (3.06)
Firing	Underfired	Underfired, Core Present
Exterior Munsell Reading	5 YR 6/3, Light Reddish Brown	Pink



FIGURE 283. Pithos 35.08, Tall Jalul J11.W3.5.1.loc6 (Publication Forthcoming).

Tall Jawa, Central Plateau

There is one example presented below of a Short Form collared pithos from Tall Jawa. The site has been more thoroughly introduced in Chapter 2, before the description of Pithos 2.01. Consult that entry for further general information on this site.

Pithos 36.01: Tall Jawa, ca. 980 BC

Pithos 36.01 (figure 284) originated from the same locus as Pithos 18.03. The details about this locus and the dating of this pithos can be reviewed in Chapter 3.

There are six collared pithoi classified as Short Form examples for which the full vessel is present. This pithos is the tallest example among that group. At 1.8 cm, it is also among the eight Short Form vessels with the longest necks. The inverted inflection of this vessel's triangular rim is unusual as well. Only 8% ($n = 3$) of the Short Form rims are classified as having an inverted inflection. The triangular shape of this rim is truly unique. Pithos 36.01 has a rim with a wedge shape to it that somewhat resembles an inverted isosceles triangle. None of the other pithoi in this study have a rim that is thickened in this way. The other features of this pithos are standard for a Short Form vessel. Dimensions for this pithos were obtained from a published plate with an unclear scale. Measurements should be considered estimates only.

TABLE 190. Comparable Data for Tall Jawa Short Form Pithos 36.01.

	Pithos 36.01	μ Pithos in Group (σ)
Neck Height in cm	<i>1.80 (22%)</i>	1.40 (0.32)
Rim Thickness in cm	3.00	2.45 (0.54)
Rim Inflection	Inverted	Everted
Rim Shape	Triangular, OT/IT	Round, OT/IT
Rim Height in cm	3.00	2.56 (0.70)
Rim Circumference in cm	63.00	65.58 (14.94)
Exterior Rim Diameter in cm	20.00	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	40.00° Inside	31.52° Inside (19.60)
Collar Prominence in mm	1.00	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	unknown	Pink
Full Vessel Height in cm	<i>106.00 (7%)</i>	98.17 (7.90)
Body Circumference in cm	166.50	158.75 (10.25)
Handle Width in cm	unknown	5.63 (0.48)
Handle Height in cm	18.00	18.00 (one example)
Base Shape	Rounded	Rounded
Base Thickness in cm	2.00	2.00 (one example)

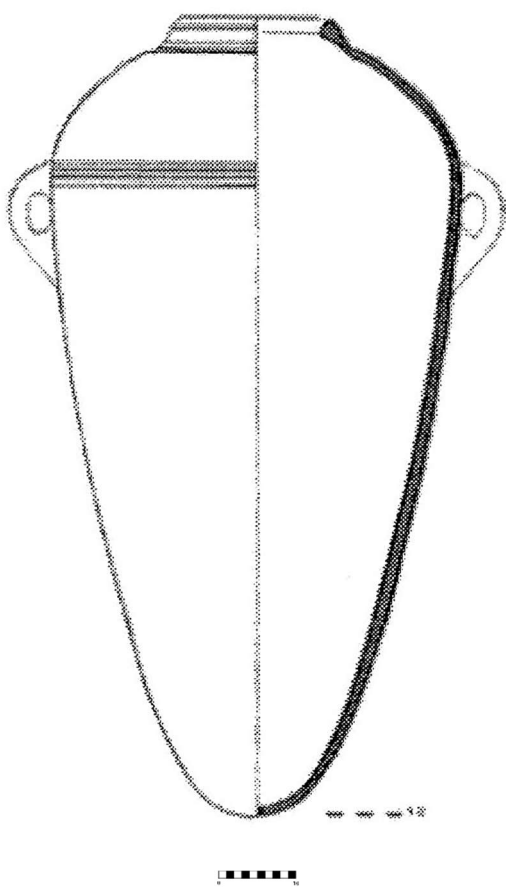


FIGURE 284. Pithos 36.01, Tall Jawa (Daviau 1992, 151; fig. 4, right).

Tall Johfiyeh, Northern Transjordan

There is one example presented below of a Short Form collared pithos from Tall Johfiyeh. The site was introduced in Chapter 3, prior to the discussion of Pithos 19.01. Consult that section for further information regarding the details of this site and the wider context of Pithos 37.01.

Pithos 37.01: Tall Johfiyeh, ca. 732 B.C.

Pithos 37.01 (figure 285) originated from the same locus as the Classic Form Pithos 19.04. Consult that entry for details about this vessel's immediate context.

Pithos 37.01 is the only example in the Short Form group to have a rim outside of alignment with the collar. This is likely due to the high placement of the vessel's vestigial collar and the steep slope of its upper shoulders. Both of these features are uncharacteristic for the standard Short Form collared pithos. This is the only example of the vestigial collar in the Short Form group. The thickened, hook shape of this vessel's rim, with its straight inflection, is also uncommon and is present on only four other Short Form vessels. Pithos 37.01 was found with Pithos 19.04, which has a similarly shaped hooked rim, albeit a longer neck. The remaining features of this vessel are considered standard for the Short Form group. Dimensions for this pithos were obtained from a published plate.

TABLE 191. Comparable Data for Tall Johfiyeh Short Form Pithos 37.01.

	Pithos 37.01	μ Pithos in Group (σ)
Neck Height in cm	1.50	1.40 (0.32)
Rim Thickness in cm	2.80	2.45 (0.54)
Rim Inflection	Straight	Everted
Rim Shape	Thickened, T3: Hook, OT	Round, OT/IT
Rim Height in cm	2.80	2.56 (0.70)
Rim Circumference in cm	72.00	65.58 (14.94)
Exterior Rim Diameter in cm	23.00	20.00 (4.76)
Collar Shape	Vestigial	Triangular
Rim-to-Collar Angle	5.00° <i>Outside</i>	31.52° <i>Inside</i> (19.60)
Collar Prominence in mm	1.00	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	unknown	Pink

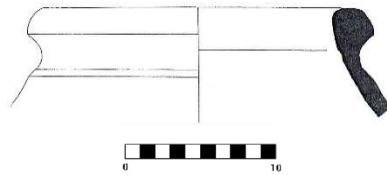


FIGURE 285. Pithos 37.01, Tall Johfiyeh 605209 (Lamprichs 2008: 387; Tafel 3.05).

Tall Madaba

There are two Short Form examples presented below that originated in Field B at Tall Madaba. Collectively, these examples exhibit many of the typical characteristics of the vessels in this group. The rims from Tall Madaba have two of the most frequently seen shapes in the Short Form group. The dimensions of these rims have a collective mean that is somewhat thicker and shorter than average. Their rim circumferences are likewise smaller and their neck heights shorter than the average Short Form rim. Their triangular collars, however, are slightly more prominent than usual.

The occupation in Field B is along the inside of the Iron Age fortification wall. This massive wall was originally 2.0 m wide and was built directly on bedrock. It was later widened to 7.0 m and then reduced to a 5.0 m width in the Iron Age 2. The dates of the initial construction and rebuild are as yet unknown (Harrison et al. 2003: 131-32). The nature of the structure in Field B is still not clear. The ceramics found during its excavation are largely homogenous, with little morphological development, suggestive of a short-lived settlement (Harrison et al. 2003: 132) that likely dated to the Iron Age 2B through Iron Age 2C (Harrison et al. 2003: 135). As no specific information is yet published regarding the loci from which the following vessels originated, these Short Form examples have been dated to the beginning of the Iron Age 2B. Tall Madaba is introduced in Chapter 3,

prior to the discussion of Pithos 21.01. Please consult that section for further information regarding the location and history of this site.

Pithos 38.01: Tall Madaba, ca. 830 B.C.

Nearly all of the characteristics of Pithos 38.01 (figure 286) are typical for a Short Form example. Its thickened, hook-shaped rim is uncommon, but not obscure. Among the Short Form vessels, 13% (n = 5) of the rims have a similar shape. Pithos 38.01 is also one of three Short Form vessels with the diminutive rim height of 1.50 cm, nearly 42% shorter than average. This rim is all around smaller than usual, though the other dimensions are still within one standard deviation from the mean. The remaining features of this pithos are equally within standard for the Short Form group. Dimensions for Pithos 38.01 were obtained from a published plate.

TABLE 192. Comparable Data for Tall Madaba Short Form Pithos 38.01.

	Pithos 38.01	μ Pithos in Group (σ)
Neck Height in cm	1.20	1.40 (0.32)
Rim Thickness in cm	2.00	2.45 (0.54)
Rim Inflection	Straight	Everted
Rim Shape	Thickened, T3: Hook, OT	Round, OT/IT
Rim Height in cm	1.50 (41%)	2.56 (0.70)
Rim Circumference in cm	55.00	65.58 (14.94)
Exterior Rim Diameter in cm	17.50	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	27.00° Inside	31.52° Inside (19.60)
Collar Prominence in mm	6.00	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	unknown	Pink

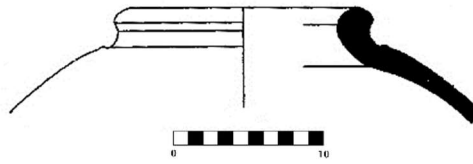


FIGURE 286. Pithos 38.01, Tall Madaba (Harrison et al. 2003: 134; fig. 5.27).

Pithos 38.02: Tall Madaba, ca. 830 BC

Pithos 38.02 (figure 287) has a rim that is uniquely aligned with its collar. It is the only one like this in the Short Form group. This feature, however, is the only one that is unusual. The remaining characteristics of this pithos are standard for a Short Form example. Dimensions for this pithos were obtained from a published plate.

TABLE 193. Comparable Data for Tall Madaba Short Form Pithos 38.02.

	Pithos 38.02	μ Pithos in Group (σ)
Neck Height in cm	1.00 (29%)	1.40 (0.32)
Rim Thickness in cm	3.00	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Round, OT	Round, OT/IT
Rim Height in cm	2.50	2.56 (0.70)
Rim Circumference in cm	62.83	65.58 (14.94)
Ext. Rim Diameter in cm	20.00	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	Aligned	31.52° Inside (19.60)
Collar Prominence in mm	5.00	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	unknown	Pink

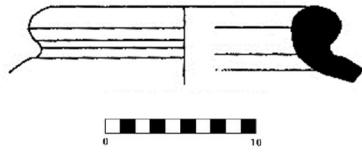


FIGURE 287. Pithos 38.02, Tall Madaba (Harrison et al 2003: 134; fig. 5.28).

Khirbat en-Nahas, Southern Jordan

There is one example presented below of a Short Form collared pithos from Khirbat en-Nahas. The site has been more thoroughly introduced in Chapter 3, prior to the description of Pithos 23.01. Please consult that entry for further general information on this site.

Pithos 39.01: Khirbat en-Nahas, ca. 850 B.C.

Pithos 39.01 (figure 289) originated in Field M, Locus 754 at Khirbat en-Nahas. This locus was one of three¹⁵⁷ together comprising the floor of Room 3 – the partially open courtyard of Structure 1 (Smith and Levy 2014: 140). Also found on this floor was a bowl, a jug, a round pounder and mortar, a large grinding stone, and an Egyptian aegis amulet (Smith and Levy 2014: 140; photograph of the amulet, Smith and Levy 2014:143, fig. 2.73.c). Two Carbon-14 samples were taken from charcoal on this floor, dating it to the end of the ninth century B.C. (Smith and Levy 2014: 151-52). The excavators have placed Pithos 39.01 within Khirbat en-Nahas Integrated Phase III (Smith and Levy 2014: 349), which is the third of four phases within the Iron Age 2A identified at the site. This pithos has thus been assigned a date in the mid-ninth century B.C. for the purposes of this study.

¹⁵⁷ In addition to Locus 754, these are Loci 631 and 756 (Smith and Levy 2014: 140).

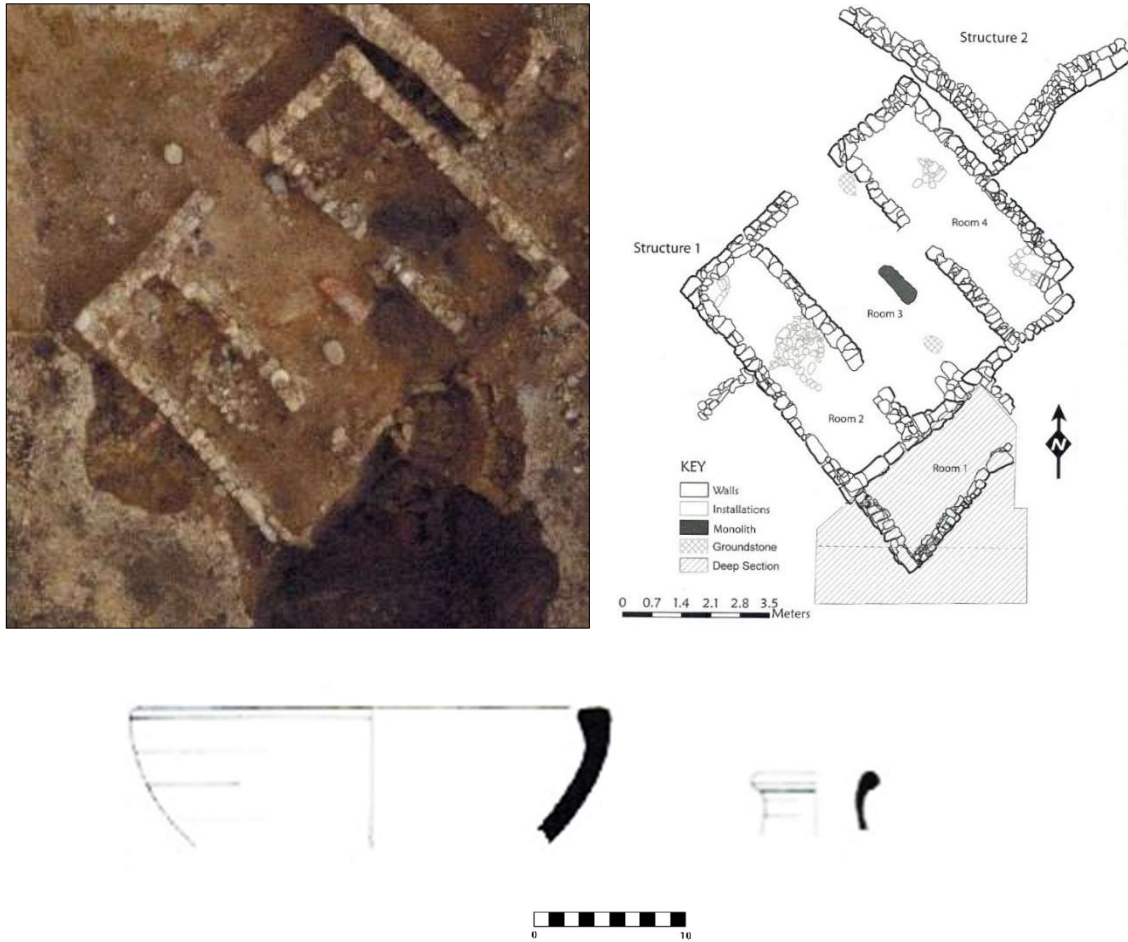


FIGURE 288. Khirbat en-Nahas, Field M and Pottery from the Floor of Room 3 (Top Left: Smith and Levy 2014: 141, Area M, aerial photograph; Top Right: Smith and Levy 2014:138, fig. 2.66, Area M Plan, adapted; Bottom: Smith and Levy 2014: 349; fig.4.7.10, 13, ceramics from Locus 631).

Pithos 39.01 has a rim that is more nearly aligned to the collar than any other of the inward leaning rims in the Short Form group. It also has the third largest rim diameter and circumference in the group, measuring 29% larger than average. These large dimensions visually dwarf the double, triangular collar that rises approximately 9.0 mm above the vessel's surface. The remaining characteristics of Pithos 39.01 are standard for a Short Form example. Dimensions for this pithos were obtained from a published plate.

TABLE 194. Comparable Data for Khirbat en-Nahas Short Form Pithos 39.01.

	Pithos 39.01	μ Pithos in Group (σ)
Neck Height in cm	1.80	1.40 (0.32)
Rim Thickness in cm	3.00	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Round, OT	Round, OT/IT
Rim Height in cm	2.50	2.56 (0.70)
Rim Circumference in cm	92.70 (29%)	65.58 (14.94)
Exterior Rim Diameter in cm	30.00 (29%)	20.00 (4.76)
Collar Shape	Triangular, Double	Triangular
Rim-to-Collar Angle	4.00° Inside (87%)	31.52° Inside (19.60)
Collar Prominence in mm	9.00	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	unknown	Pink

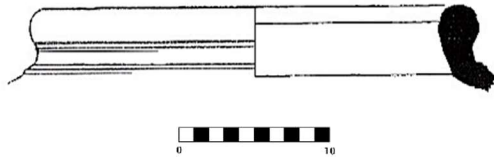


FIGURE 289. Pithos 39.01, Khirbat en-Nahas, 1241 (Smith and Levy 2014, 349; fig. 4.7.17).

Tall Nimrin, Southern Jordan Valley



FIGURE 290. Aerial View of Tall Nimrin.

One Short Form collared pithos presented below was discovered at Tall Nimrin. This site is an archaeological mound in the southern Jordan Valley, approximately 12.0 km north of the Dead Sea and 16.0 km east of Jericho. Four seasons of excavations were undertaken at the site between 1989 and 1995, under the joint direction of David McCreery, James Flanagan, and Khair Yassine. These excavations, largely salvage in nature, revealed that Tall Nimrin was first occupied in the early part of the Middle Bronze Age (Flanagan et al. 1994: 217). After a lengthy hiatus, the city was rebuilt sometime in the Iron Age 1B/early Iron Age 2 (Flanagan et al. 1994: 213-14). Five distinct Iron Age strata were identified, dating between the tenth and sixth centuries B.C. (Flanagan et al. 1994: 216). Based on ceramic evidence, the site's occupation then continued through the subsequent centuries into

the Mamluk period (Flanagan et al 1996: 273-77). The precise context of the following pithos is unclear from publications, though the excavators connected it with the beginning of the Iron Age 2 phase of the site. It has thus been assigned a date which reflects this (Dornemann 1990: 160; Yassine 2011:181).

Pithos 40.01: Tall Nimrin, ca. 980 B.C.

At 26% above average, Pithos 40.01 (figure 291) has the longest neck among the Short Form examples. Relatedly, it also has the widest collar-to-rim angle. The rim is nearly horizontal in relation to the upper shoulder. Beyond these features, however, this pithos is a very good example of a Short Form collared pithos. Dimensions for Pithos 40.01 were obtained from a published plate.

TABLE 195. Comparable Data for Tall Nimrin Short Form Pithos 40.01.		
	Pithos 40.01	μ Pithos in Group (σ)
Neck Height in cm	<i>1.90 (26%)</i>	1.40 (0.32)
Rim Thickness in cm	2.68	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Round, IT/OT	Round, OT/IT
Rim Height in cm	2.68	2.56 (0.70)
Rim Circumference in cm	58.00	65.58 (14.94)
Exterior Rim Diameter in cm	18.50	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	<i>68.00° Inside (54%)</i>	31.52° Inside (19.60)
Collar Prominence in mm	3.00	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	unknown	Pink

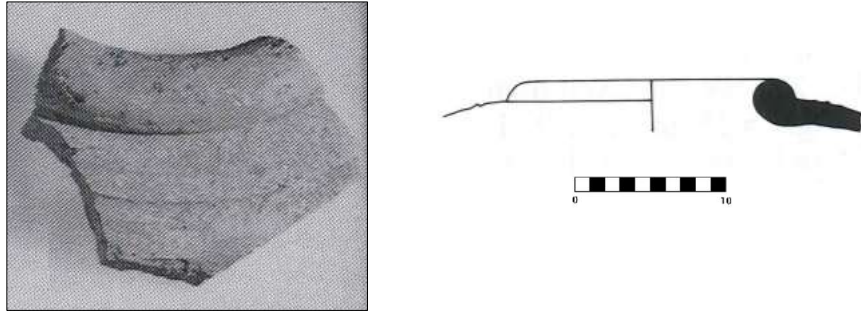


FIGURE 291. Pithos 40.01, Tall Nimrin (Photograph, Left: Dornemann 1990: 177, pl. VI, 1:4 and Yassine 2011:181; Right, Dornemann 1990: 159; fig. 5.1).

Umm al-Qanafid, Central Plateau

There are five examples presented below of Short Form collared pithoi from Umm al-Qanafid. Collectively, these vessels have many of the features expected from this group. They are a little shorter and thinner than the other whole Short Form vessels, but their bases are rounded in the typical style. The thickened, edged rim shape is the most common and is only slightly thicker and shorter than average. These rims are more likely than usual to have a straight inflection and to lean much further in from the line of the collar than the average example. The triangular collars on these pithoi have the expected shape, but are about half as prominent as the typical Short Form collar. Umm al-Qanafid has been more thoroughly introduced in Chapter 2, prior to the description of Pithos 3.01. Please consult that entry for further general information on this site.

Pithos 41.01: Umm al-Qanafid, Unstratified

Pithos 41.01 (figure 292) has the widest handles in this group, even though they are still within one standard deviation from the mean handle width for this group. It is also one of eight (23%) vessels that has a neck height of 1.80 cm, the tallest neck height in this group. Its thickened, edgeless rim is common to only 13% of the Short Form examples. Pithos 41.01 is one of two Short Form examples¹⁵⁸ with bases classified as “pointed.” Together these pointed bases comprise 33% of the bases in the Short Form

¹⁵⁸ The other pointed base Short Form example is Pithos 41.04, also from Umm al-Qanafid.

group. The remaining features of Pithos 41.01 are standard for the Short Form group. Dimensions for this vessel were obtained in person.

TABLE 196. Comparable Data for Umm al-Qanafid Short Form Pithos 41.01.

	Pithos 41.01	μ Pithos in Group (σ)
Neck Height in cm	1.80 (22%)	1.40 (0.32)
Rim Thickness in cm	2.90	2.45 (0.54)
Rim Inflection	Straight	Everted
Rim Shape	Thickened: Edgeless, OT	Round, OT/IT
Rim Height in cm	2.70	2.56 (0.70)
Rim Circumference in cm	66.00	65.58 (14.94)
Exterior Rim Diameter in cm	20.00	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	42.00° Inside	31.52° Inside (19.60)
Collar Prominence in mm	1.00	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	unknown	Pink
Full Vessel Height in cm	98.50	98.17 (7.90)
Body Circumference in cm	154.00	158.75 (10.25)
Handle Width in cm	6.00	5.63 (0.48)
Handle Height in cm	unknown	18.00 (one example)
Base Shape	Pointed	Rounded
Base Thickness in cm	unknown	2.00 (one example)



FIGURE 292. Pithos 41.01, Umm al-Qanafid (Publication Unknown).

Pithos 41.02: Umm al-Qanafid, Unstratified

As with the previous vessel, Pithos 41.02 (figure 293) also has a 1.80-cm neck height. Of the pithoi in the Short Form group for which the whole vessel is available for study, this pithos has the narrowest handles and the widest body – with a body circumference that is 8% larger than average. The thickened, edged rim is 21% thicker than average and is 50% further inside of alignment with the collar than the typical Short Form rim. The remaining features of Pithos 41.02 are standard for this group. Dimensions for this pithos were obtained in person.

TABLE 197. Comparable Data for Umm al-Qanafid Short Form Pithos 41.02.

	Pithos 41.02	μ Pithos in Group (σ)
Neck Height in cm	1.80 (22%)	1.40 (0.32)
Rim Thickness in cm	3.10 (21%)	2.45 (0.54)
Rim Inflection	Straight	Everted
Rim Shape	Thickened: Edged, OT	Round, OT/IT
Rim Height in cm	2.70	2.56 (0.70)
Rim Circumference in cm	69.10	65.58 (14.94)
Exterior Rim Diameter in cm	22.00	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	63.00° Inside (50%)	31.52° Inside (19.60)
Collar Prominence in mm	2.00	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	unknown	Pink
Full Vessel Height in cm	100.51	98.17 (7.90)
Body Circumference in cm	172.00 (8%)	158.75 (10.25)
Handle Width in cm	5.00 (11%)	5.63 (0.48)
Handle Height in cm	unknown	18.00 (one example)
Base Shape	Rounded	Rounded
Base Thickness in cm	unknown	2.00 (one example)



FIGURE 293. Pithos 41.02, Umm al-Qanafid (Publication Unknown).

Pithos 41.03: Umm al-Qanafid, Unstratified

Pithos 41.03 (figure 294) is the shortest pithos in the Short Form group. It is also one of three examples with the thinnest and shortest rim, both dimensions approximately 40% smaller than average. The rest of the characteristics of this pithos are standard for a Short Form example. The dimensions of this vessel were obtained in person.

TABLE 198. Comparable Data for Umm al-Qanafid Short Form Pithos 41.03.

	Pithos 41.03	μ Pithos in Group (σ)
Neck Height in cm	1.80	1.40 (0.32)
Rim Thickness in cm	1.50 (39%)	2.45 (0.54)
Rim Inflection	Straight	Everted
Rim Shape	Round, OT	Round, OT/IT
Rim Height in cm	1.50 (41%)	2.56 (0.70)
Rim Circumference in cm	59.70	65.58 (14.94)
Exterior Rim Diameter in cm	19.00	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	45.00° Inside	31.52° Inside (19.60)
Collar Prominence in mm	2.00	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	unknown	Pink
Full Vessel Height in cm	83.00 (15%)	98.17 (7.90)
Body Circumference in cm	164.00	158.75 (10.25)
Handle Width in cm	5.50	5.63 (0.48)
Handle Height in cm	unknown	18.00 (one example)
Base Shape	Rounded	Rounded
Base Thickness in cm	unknown	2.00 (one example)

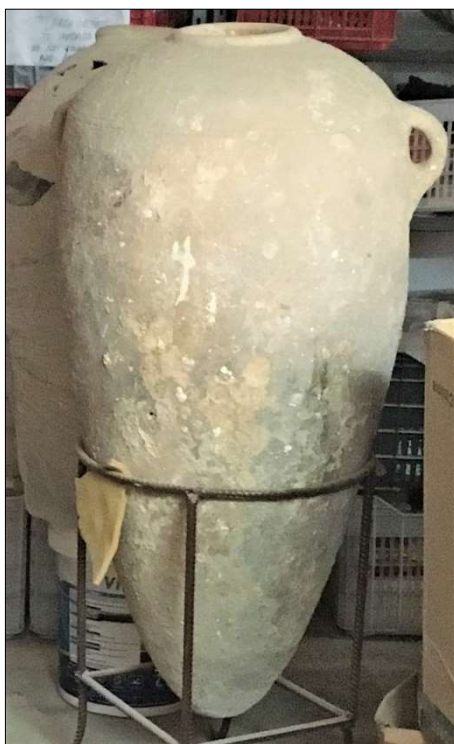


FIGURE 294. Pithos 41.03, Umm al-Qanafid (Publication Unknown).

Pithos 41.04: Umm al-Qanafid, Unstratified

The most remarkable feature of Pithos 41.04 (figure 295) is its body circumference. As the slimmest Short Form example, it is 8% narrower than average. Combined with a slightly above average height, this vessel is very lean in appearance. Its rim-to-collar angle is greater than most in this group, leaning inward 47% more than average. Together with Pithos 41.01, this pithos represents the pointed bases of the Short Form group. The remaining features of Pithos 41.04 are considered standard for the Short Form group. Dimensions for this pithos were obtained in person.

TABLE 199. Comparable Data for Umm al-Qanafid Short Form Pithos 41.04.

	Pithos 41.04	μ Pithos in Group (σ)
Neck Height in cm	1.80	1.40 (0.32)
Rim Thickness in cm	2.50	2.45 (0.54)
Rim Inflection	Straight	Everted
Rim Shape	Rectangular, OT	Round, OT/IT
Rim Height in cm	3.00	2.56 (0.70)
Rim Circumference in cm	59.70	65.58 (14.94)
Exterior Rim Diameter in cm	19.00	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	59.00° Inside (47%)	31.52° Inside (19.60)
Collar Prominence in mm	2.00	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	unknown	Pink
Full Vessel Height in cm	100.00	98.17 (7.90)
Body Circumference in cm	146.00 (8%)	158.75 (10.25)
Handle Width in cm	unknown	5.63 (0.48)
Handle Height in cm	unknown	18.00 (one example)
Base Shape	Pointed	Rounded
Base Thickness in cm	unknown	2.00 (one example)



FIGURE 295. Pithos 41.04, Umm al-Qanafid (Publication Unknown).

Pithos 41.05: Umm al-Qanafid, Unstratified

Beyond a thickened, edged rim, with a straight inflection, which is set inside of alignment with the collar 42% more than average, Pithos 41.05 (figure 296) displays characteristics that align well with the standard Short Form collared pithos. It is well representative of this group. The dimensions for this pithos were obtained in person.

TABLE 200. Comparable Data for Umm al-Qanafid Short Form Pithos 41.05.

	Pithos 41.05	μ Pithos in Group (σ)
Neck Height in cm	1.30	1.40 (0.32)
Rim Thickness in cm	2.80	2.45 (0.54)
Rim Inflection	Straight	Everted
Rim Shape	Thickened T1: Edged, OT	Round, OT/IT
Rim Height in cm	2.60	2.56 (0.70)
Rim Circumference in cm	66.00	65.58 (14.94)
Exterior Rim Diameter in cm	20.00	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	54.00° Inside (42%)	31.52° Inside (19.60)
Collar Prominence in mm	3.00	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	7.5 YR 6/2, Pinkish Gray	Pink
Full Vessel Height in cm	98.00	98.17 (7.90)
Body Circumference in cm	150.00	158.75 (10.25)
Handle Width in cm	6.00	5.63 (0.48)
Handle Height in cm	unknown	18.00 (one example)
Base Shape	Rounded	Rounded
Base Thickness in cm	unknown	2.00 (one example)



FIGURE 296. Pithos 41.05, Umm al-Qanafid (Publication Unknown).

Tall Safut, Central Plateau

There is one example presented below of a Short Form collared pithos from Tall Safut. The site was introduced in Chapter 2, directly before the summary of Pithos 5.01. Please consult that information for site contextualization of the example presented below.

Pithos 42.01: Tall Safut, ca. 732 B.C.

Pithos 42.01 (figure 298) originated in Field B, Square 4, Locus 11 at Tall Safut. This locus is defined as a fill layer in the northwestern corner of the square near Wall 10. While this wall dates to the Iron Age 2C, the ceramics from Locus 11 likely belong to an earlier phase (Chesnut 2019: 192-93). In addition to Pithos 42.01, ten other vessels are published from this locus. About half of these find parallels in the Iron Age 2B/C and the other half in the Iron Age 2C/Persian period. Based on this context, Pithos 42.01 has been assigned a date at the beginning of the Iron Age 2C, for the purpose of this study.

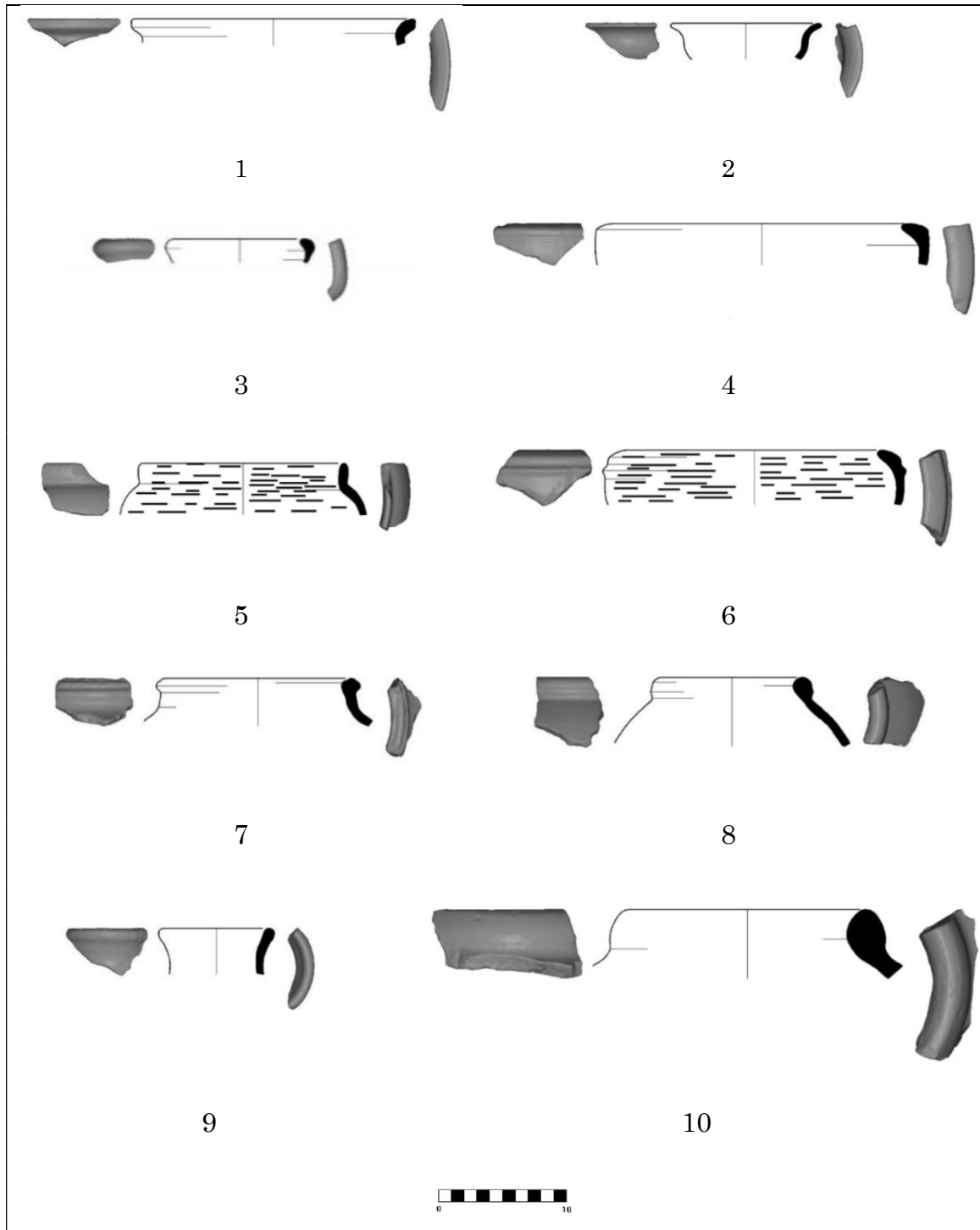


FIGURE 297. Tall Safut, Ceramics from Field B.4, Locus 11. 1) Iron Age 2C/Pers. Bowl (Chesnut 2019: 782; fig.42.16.12); 2) Iron Age 2C/Pers. Bowl (Chesnut 2019: 782; fig. 42.16.11); 3) Iron Age 2B/C Jar (Chesnut 2019: 931; fig. 46.7.5); 4) Iron Age 2B/C Bowl (Chesnut 2019:791; fig. 42.25.9); 5) Iron Age 2B-Pers. Bowl (Chesnut 2019: 800; fig. 42.34.9); 6) Iron Age 2B/C Bowl (Chesnut 2019:791; fig. 42.25.8); 7) Iron Age 2C Cooking Pot (Chesnut 2019: 882; fig. 44.3.11); 8) Iron Age 2C Cooking Pot (Chesnut 2019: 882; fig. 44.3.10); 9) Iron Age 2C/Pers. Jar/Jug (Chesnut 2019: 932; fig. 46.8.15); 10) Iron Age 2B/C Pithos (Chesnut 2019: 976; fig. 47.14.4).

Pithos 42.01 is a very good example of a Short Form pithos. With the exception of its rim-to-collar angle, all of its dimensions are near average for the group. It has a thickened, edgeless rim shape, which is the second most common shape in this group, shared by 13% of the vessels. Due likely to this shape, the rim is somewhat thinner and taller than average, but is still within one standard deviation from the mean. Its triangular-shaped collar is 32% more prominent than the average Short Form collar, but is also still within standard, as are the remaining features of this vessel. Dimensions for this pithos were obtained from a published plate.

TABLE 201. Comparable Data for Tall Safut Short Form Pithos 42.01.

	Pithos 42.01	μ Pithos in Group (σ)
Neck Height in cm	1.50	1.40 (0.32)
Rim Thickness in cm	2.00	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Thickened: Edgeless, OT	Round, OT/IT
Rim Height in cm	3.20	2.56 (0.70)
Rim Circumference in cm	62.80	65.58 (14.94)
Exterior Rim Diameter in cm	20.00	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	10.00° Inside (68%)	31.52° Inside (19.60)
Collar Prominence in mm	6.00	4.06 (3.06)
Firing	Underfired	Underfired, Core Present
Exterior Munsell Reading	7.5 YR 6/4, Light Brown	Pink

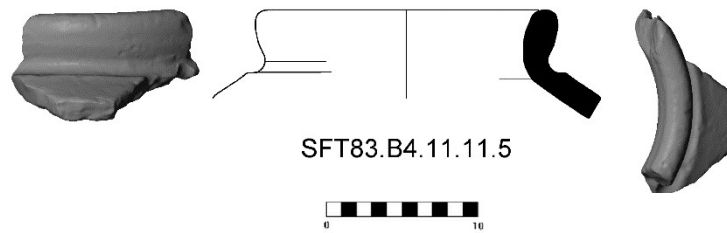


FIGURE 298. Pithos 42.01, Tall Safut SFT83.B4.11.11.5 (Chesnut 2019: 557,59; fig.14.2.2).

Tall Sahab, Central Plateau

Two examples of Short Form pithoi from Tall Sahab are presented below. Collectively, these pithoi have a more upright rim to collar angle than is typically seen in the Short Form group. The rims of these vessels are slightly taller than average with diameters that are smaller than expected. However, their triangular collars appear to be significantly more prominent than usual. According to the excavator, the collared pithoi of Tall Sahab are part of the Iron Age 1 occupation. They have been dated as such below, although it should be noted that the site also has Iron Age 2 occupation and the context of these vessels is yet unclear. The site was introduced in Chapter 3 prior to discussion of Pithos 26.01. Please consult that section for further information about the collared pithoi at Tall Sahab.

Pithos 43.01: Tall Sahab, ca. 1140 B.C.

This pithos (figure 299) has the most prominent collar of any in the Short Form group, nearly 70% more prominent than average. Its profiled rim is nearly aligned with the collar, standing just 5° inside of alignment. Its rim circumference and diameter, however, appear to be smaller than usual. Dimensions were obtained from a published scaled photograph and are meant to be understood as rough approximations only.

TABLE 202. Comparable Data for Tall Sahab Short Form Pithos 43.01.

	Pithos 43.01	μ Pithos in Group (σ)
Neck Height in cm	1.50	1.40 (0.32)
Rim Thickness in cm	unknown	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Profiled: Ridged, OT	Round, OT/IT
Rim Height in cm	3.00	2.56 (0.70)
Rim Circumference in cm	51.80	65.58 (14.94)
Exterior Rim Diameter in cm	16.50	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	5.00° Inside (84%)	31.52° Inside (19.60)
Collar Prominence in mm	13.00 (69%)	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	unknown	Pink



FIGURE 299. Pithos 43.01, Tall Sahab (Ibrahim 1978: 119; pl. 19.11).

Pithos 43.02: Tall Sahab, ca. 1140 B.C.

This pithos (figure 300) is difficult to reliably analyze. It appears to have an unusually shaped rectangular rim that is 84% more upright than usual for the Short Form group. Its collar appears to be triangular in shape and of average prominence. The rim circumference and diameter are smaller than average. Dimensions were obtained from a published scaled photograph and must be considered broad approximations only.

TABLE 203. Comparable Data for Tall Sahab Short Form Pithos 43.02.

	Pithos 43.02	μ Pithos in Group (σ)
Neck Height in cm	1.50	1.40 (0.32)
Rim Thickness in cm	unknown	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Rectangular, OT	Round, OT/IT
Rim Height in cm	3.00	2.56 (0.70)
Rim Circumference in cm	53.00	65.58 (14.94)
Exterior Rim Diameter in cm	17.00	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	5.00° Inside (84%)	31.52° Inside (19.60)
Collar Prominence in mm	5.00	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	unknown	Pink

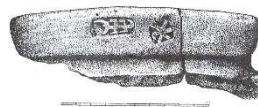


FIGURE 300. Pithos 43.02, Tall Sahab (Ibrahim 1978: 120; pl. 20a).

Tall es-Sa'idiyeh, Northern Jordan Valley

Two Short Form pithoi from Tall es-Sa'idiyeh are presented below.

Both vessels have rims that are among the less common shapes present in the Short Form group. These rims are slightly larger than the group mean in height, thickness, and circumference. The collars, however, are less prominent and are nearer to alignment with the rims than usual.

Tall es-Sa'idiyeh was introduced before the discussion of Pithos 6.01 in Chapter 2. The two Long Form pithoi presented there are from the cemetery off of the west side of the main tell. The vessels presented below are from the Stratum VII deposits of the Iron Age city itself. This stratum represents the late Iron Age 2A/beginning Iron Age 2B phase at the site. It follows a large conflagration and is in turn followed by a substantive period of abandonment, evidenced by a reddish silt deposit (Pritchard 1985:4). The 25 acre city has an upper portion that included about two-thirds of the occupation and a lower shelf on which the other third was located. The upper city was enclosed by a casemate wall of mudbrick set on top of a field stone foundation (Pritchard 1964: 95-96). Stratum VII included the discovery of four complete structures and five partial structures (Pritchard 1985:10). While the specific locations of the following pithoi are unpublished, the square from which they came and the stratum to which they belong are indicated.

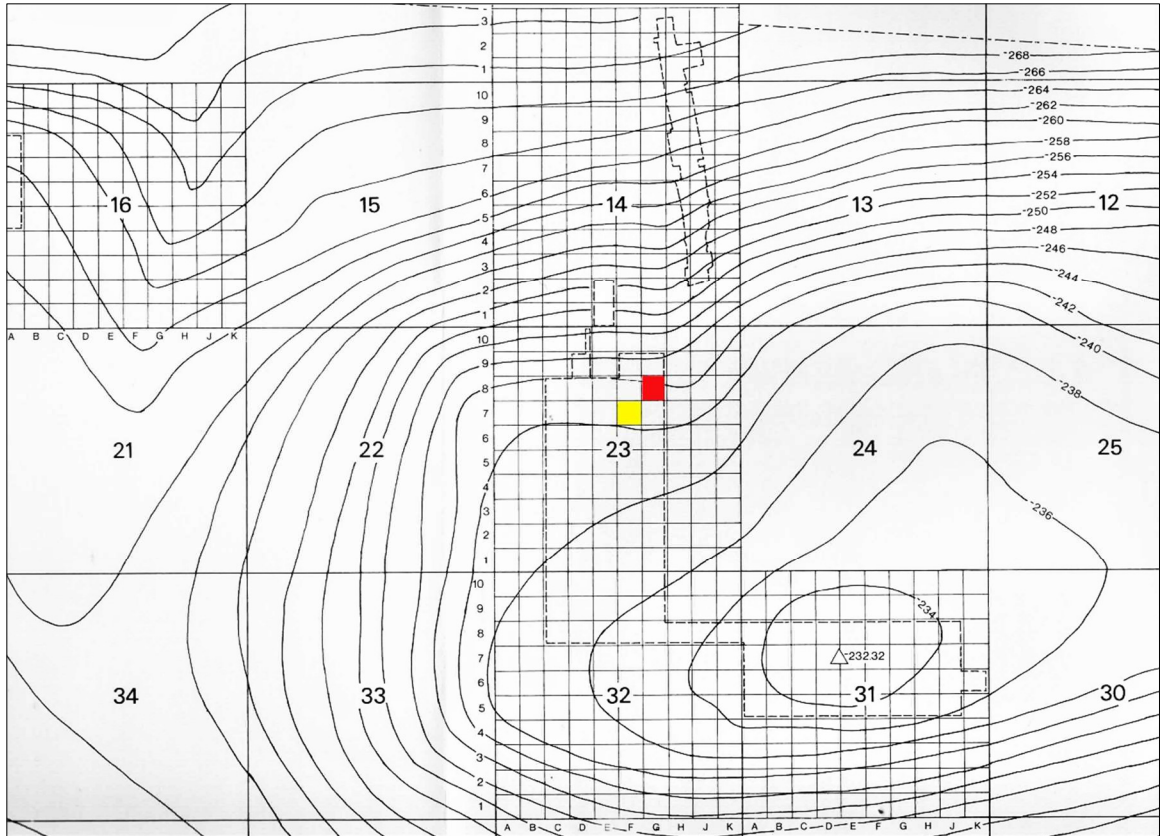


FIGURE 301. Grid Layout and Excavation Areas of Tall es-Sa'idiyeh (pithos locations: Pithos 44.01, Yellow/SW; Pithos 44.02, Red/NE; adapted from Pritchard 1985: fig. 176).

Pithos 44.01: Tall es-Sa'idiyeh, ca. 830 B.C.

This pithos (figure 302) originated from 23-F-7 at Tall es-Sa'idiyeh.

This square is located near the center of the tell, on the slope down from the acropolis, which lies to the southeast. The published ceramics unearthed with Pithos 44.01 include five bowls, three kraters, two cooking pots, three jugs, two juglets, four jars, and one tripod cup (Pritchard 1985: fig. 1-5). These forms date to the beginning of the eighth century B.C., or the first half of the Iron Age 2B (Pritchard 1985: 79). This pithos has thus been dated accordingly.

Pithos 44.01 is a good example of a standard Short Form collared pithos. Its square rim is one of its more unusual features. This shape is shared with two other Short Form examples, Pithos 31.01 from Umm al-Biyara and Pithos 35.01 from Tall Jalul. Pithos 44.01 has a slight hook shape to its lower portion, which the other two rims lack. This pithos also has a shorter than average neck height and collar prominence that accentuate its more upright collar-to-rim stance. The remaining features are standard for a Short Form example. Dimensions for this pithos were obtained from a published plate.

TABLE 204. Comparable Data for Tall es-Sa'idiyeh Short Form Pithos 44.01.

	Pithos 44.01	μ Pithos in Group (σ)
Neck Height in cm	1.00 (29%)	1.40 (0.32)
Rim Thickness in cm	2.50	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Square, OT	Round, OT/IT
Rim Height in cm	2.50	2.56 (0.70)
Rim Circumference in cm	70.10	65.58 (14.94)
Exterior Rim Diameter in cm	22.30	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	13.00° Inside	31.52° Inside (19.60)
Collar Prominence in mm	2.00	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	Buff Ware, Brown Core	Pink

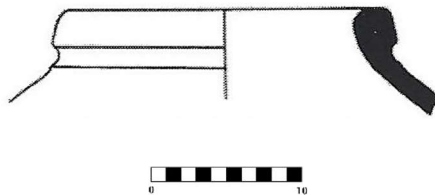


FIGURE 302. Pithos 44.01, Tall es-Sa'idiyeh TS 23-f-7 (Prichard 1985, fig. 4.23).

Pithos 44.02: Tall es-Sa'idiyeh, ca. 830 B.C.

This pithos (figure 303) is from location 23-G-8 at Tall es-Sa'idiyeh.

This excavation area is directly to the northeast of the square in which Pithos 44.01 was located. Both areas are near the center of the tell, northwest of the acropolis. Published ceramics from this square include five bowls, three kraters, four cooking pots, and one jug (Pritchard 1985: fig. 1-5). Much like those found with Pithos 44.01, these forms date to the beginning of the eighth century B.C., or the first half of the Iron Age 2B (Pritchard 1985: 79). This pithos has thus been dated accordingly.

Pithos 44.02 has a rim shape best described as thickened and edgeless, although it does have a bit more of an edge on the lower outer face of the rim than most examples of that rim shape. Like the previous vessel from Tall es-Sa'idiyeh, this pithos has a 1.0 cm neck, placing it among the vessels with the shortest neck heights in the Short Form group. This is, of course, an artificial boundary between this group and the Final Form group. Nevertheless, this cluster of neck heights make up 26% of the Short Form examples. The collar on this pithos is unusual. Round collars and double collars each make up 11% of the collar shapes. This example has a low round shape to its collar with an additional groove on the upper shoulder that resembles a vestigial lower collar. The remaining characteristics of this vessel are considered standard. Dimensions for this pithos were obtained from a published plate.

TABLE 205. Comparable Data for Tall es-Sa'idiyeh Short Form Pithos 44.02.

	Pithos 44.02	μ Pithos in Group (σ)
Neck Height in cm	1.00 (29%)	1.40 (0.32)
Rim Thickness in cm	2.60	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Thickened T2: Edgeless, OT	Round, OT/IT
Rim Height in cm	3.80 (33%)	2.56 (0.70)
Rim Circumference in cm	75.40	65.58 (14.94)
Exterior Rim Diameter in cm	24.00	20.00 (4.76)
Collar Shape	Round	Triangular
Rim-to-Collar Angle	24.00° Inside	31.52° Inside (19.60)
Collar Prominence in mm	2.00	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	Buff	Pink

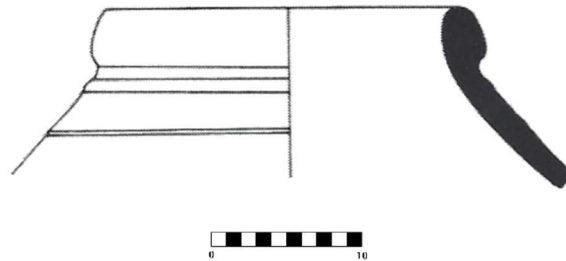


FIGURE 303. Pithos 44.02, Tall es-Sa'idiyeh (Pritchard 1985: fig. 4.22).

Tall al-‘Umayri, Central Plateau

There are five examples of Short Form collared pithoi from Tall al-‘Umayri presented below. Collectively, these vessels have typically round shaped rims that are slightly smaller than average in height, thickness, and circumference. The neck heights are a little taller and the collars somewhat more prominent than usual. Triangular, round, and double collars are all equally common shapes. The rim-to-collar angles of these vessels are collectively near average for the Short Form group.

Tall al-‘Umayri was first introduced in Chapter 2, prior to the description of Pithos 7.01. Consult that section for further information about the broader site context of the vessels presented here.

Pithos 45.01: Tall al-‘Umayri, ca. 1140 B.C.

This pithos (figure 304) originated in Field A, Square 7J79, Locus 14. A group of 18 collared pithoi were found together on this surface in the Phase 10 administrative complex (Herr et al 2014: 52). This surface is representative of the first Iron Age 1B phase in this complex.¹⁵⁹

Pithos 45.01 has one of three rims classified as the thinnest in the Short Form group. However, it is the only example in this group of a simple rim shape. This shape is more common in the Long Form and is typically accompanied by a longer neck. This vessel is unusual in the combination of

¹⁵⁹ In addition to Pithos 45.01, nine other examples are included in this study from this locus. These are the Classic Form Pithoi 27.05 – 27.13. Please refer to the description of Pithos 27.05 for a more specific description of this locus.

its neck height and rim shape. In continuation of its similarities to earlier forms, this pithos also has a rim-to-collar angle that is much more upright than is typical for the Short Form examples. Surprisingly, the remaining features of Pithos 45.01 are standard for the Short Form group. Dimensions for this pithos were obtained from a published plate.

TABLE 206. Comparable Data for Tall al-'Umayri Short Form Pithos 45.01.

	Pithos 45.01	μ Pithos in Group (σ)
Neck Height in cm	1.50	1.40 (0.32)
Rim Thickness in cm	1.50 (39%)	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Simple	Round, OT/IT
Rim Height in cm	2.50	2.56 (0.70)
Rim Circumference in cm	67.50	65.58 (14.94)
Exterior Rim Diameter in cm	21.50	20.00 (4.76)
Collar Shape	Triangular, Double	Triangular
Rim-to-Collar Angle	13.00° Inside	31.52° Inside (19.60)
Collar Prominence in mm	4.00	4.06 (3.06)
Firing	Underfired	Underfired, Core Present
Exterior Munsell Reading	7.5 YR 6/6, Reddish Yellow	Pink

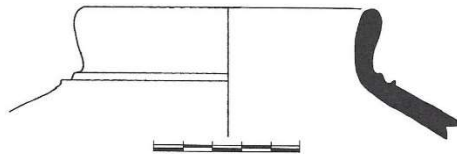


FIGURE 304. Pithos 45.01, Tall al-'Umayri (Herr et al. 2014: 56-57; Fig. 3.31.5).

Pithos 45.02: Tall al-'Umayri, ca. 830 B.C.

Pithos 45.02 (figure 305) originated from one of the eastern rooms in the Iron Age 2B house of Stratum 8 in Field A at Tall al-'Umayri. Consult the description of this house in Chapter 3, within the introduction for Classic Form Pithos 27.14, for further information regarding this context.

Pithos 45.02 is an excellent example of the Short Form pithos. It is within standard for the Short Form group in all of its characteristics.

Dimensions were obtained from a published plate.

TABLE 207. Comparable Data for Tall al-'Umayri Short Form Pithos 45.02.

	Pithos 45.02	μ Pithos in Group (σ)
Neck Height in cm	1.25	1.40 (0.32)
Rim Thickness in cm	2.60	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Round, OT/IT	Round, OT/IT
Rim Height in cm	2.00	2.56 (0.70)
Rim Circumference in cm	56.55	65.58 (14.94)
Exterior Rim Diameter in cm	18.00	20.00 (4.76)
Collar Shape	Double	Triangular
Rim-to-Collar Angle	20.00°	31.52° Inside (19.60)
Collar Prominence in mm	4.00	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	unknown	Pink

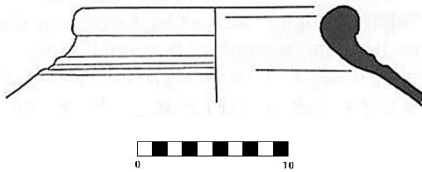


FIGURE 305. Pithos 45.02, Tall al-'Umayri (Herr and Bates 2011: 26; fig. 8.3).

Pithos 45.03: Tall al-'Umayri, ca. 830 B.C.

Pithos 45.03 (figure 306) originated from the Iron Age 2B house in Field A at Tall al-'Umayri. Consult the description of this house in Chapter 3, within the introduction for Classic Form Pithos 27.14, for further information regarding this context.

Pithos 45.03 is another good example of the Short Form. Its round rim is slightly flattened on the inside creating a subtle edge on the top inner portion of the rim. This peculiarity may contribute to the overall straight inflection of the rim. The collar has a rounded shape present on only 11% (n = 4) of the Short Form vessels. Below this collar, with a prominence that is 42% greater than average for this group, is what appears to be a second collar. Unfortunately, the rim is broken at this point making it too difficult to be certain. The remaining features of this vessel are standard for the Short Form collared pithos. Dimensions for this vessel were obtained from a published plate.

TABLE 208. Comparable Data for Tall al-'Umayri Short Form Pithos 45.03.

	Pithos 45.03	μ Pithos in Group (σ)
Neck Height in cm	1.20	1.40 (0.32)
Rim Thickness in cm	2.70	2.45 (0.54)
Rim Inflection	Straight	Everted
Rim Shape	Round, OT	Round, OT/IT
Rim Height in cm	2.80	2.56 (0.70)
Rim Circumference in cm	62.83	65.58 (14.94)
Exterior Rim Diameter in cm	20.00	20.00 (4.76)
Collar Shape	Round	Triangular
Rim-to-Collar Angle	25.00°	31.52° Inside (19.60)
Collar Prominence in mm	7.00	4.06 (3.06)
Firing	unknown	Underfired, Core Present
Exterior Munsell Reading	unknown	Pink

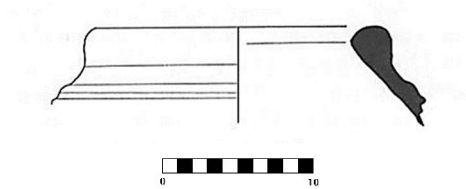


FIGURE 306. Pithos 45.03, Tall al-'Umayri (Herr and Bates 2011: 26; fig. 8.6).

Pithos 45.04: Tall al-'Umayri, ca. 650 B.C.

This pithos (figure 308) originated from Field A, Square 7K51, Locus 30 at Tall al-'Umayri. This locus is a part of Stratum 6 in Building B, located near the southern end of the field. This phase represents the final Iron Age phase in the field (Herr et al. 2000: 47).

All of the dimensions of Pithos 45.04 are considered standard for a Short Form vessel. The round rim has a less typical straight inflection and is further from alignment with the collar than most Short Form examples, but these features are still within one standard deviation from the mean for this group, as are all of those for Pithos 45.04. Dimensions for this vessel were obtained from a published plate.

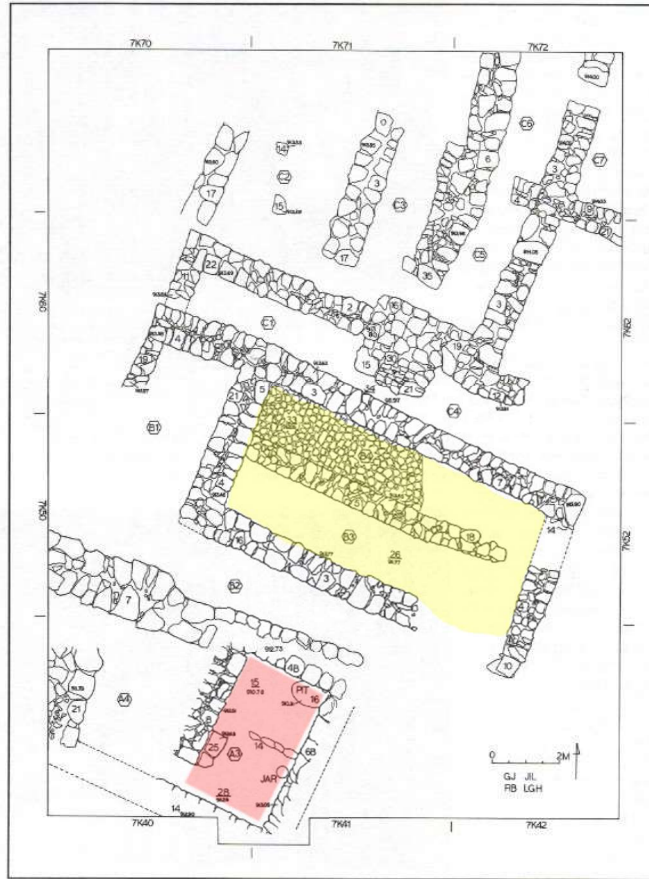


FIGURE 307. Tall al-'Umayri Field A, Phase 6 Plan (Indicating northern Building B, yellow: Pithos 45.04 and southern Building A, red: Pithos 45.05; adapted from Herr et al. 2000: 45; fig. 3.25).

TABLE 209. Comparable Data for Tall al-'Umayri Short Form Pithos 45.04.

	Pithos 45.04	μ Pithos in Group (σ)
Neck Height in cm	2.00	1.40 (0.32)
Rim Thickness in cm	2.50	2.45 (0.54)
Rim Inflection	Straight	Everted
Rim Shape	Round, OT	Round, OT/IT
Rim Height in cm	2.00	2.56 (0.70)
Rim Circumference in cm	69.12	65.58 (14.94)
Exterior Rim Diameter in cm	22.00	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	51.00°	31.52° Inside (19.60)
Collar Prominence in mm	8.00	4.06 (3.06)
Firing	Underfired, Core Present	Underfired, Core Present
Exterior Munsell Reading	2.5 YR 6/6, Light Red	Pink

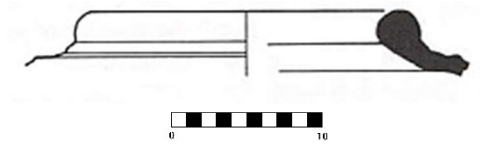


FIGURE 308. Pithos 45.04, Tall al-'Umayri (Herr et al. 2000: 48; fig. 3.29.1).

Pithos 45.05: Tall al-'Umayri, ca. 650 B.C.

Pithos 45.05 (figure 310) originated from Field A, Square 7K41, Locus 15 at Tall al-'Umayri. This locus is defined as the floor of Room 3 in Building A in the southern portion of the field (Herr et al. 2000: 46-47). Three bowls and a small jug or bottle were published with this pithos from Locus 15 (Herr et al. 2000: 48-50; fig. 3.29). This locus is a part of the final Iron Age phase at the site, identified as Stratum 6. Thus this pithos dates to the Late Iron Age 2C.

Pithos 45.05 has a thickened, hook-shaped rim that is common with 13% ($n = 5$) of the Short Form examples. Its rim circumference and diameter are somewhat smaller than average, but are still within standard for this group. In contrast, its collar prominence and rim-to-collar angle are both greater than average. In all of its dimensions, Pithos 45.05 is a good example of a standard Short Form example. Dimensions for this pithos were obtained from a published plate.



FIGURE 309. Tall al-‘Umayri, Field A, Square 7K41, Locus 15 partially excavated, left (Herr et al. 2000: 46; fig. 3.26).

TABLE 210. Comparable Data for Tall al-‘Umayri Short Form Pithos 45.05.

	Pithos 45.05	μ Pithos in Group (σ)
Neck Height in cm	2.00	1.40 (0.32)
Rim Thickness in cm	2.00	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Thickened, T3: Hook, OT	Round, OT/IT
Rim Height in cm	1.50	2.56 (0.70)
Rim Circumference in cm	50.27	65.58 (14.94)
Exterior Rim Diameter in cm	16.00	20.00 (4.76)
Collar Shape	Round	Triangular
Rim-to-Collar Angle	51.00°	31.52° Inside (19.60)
Collar Prominence in mm	10.00	4.06 (3.06)
Firing	Underfired, Core Present	Underfired, Core Present
Exterior Munsell Reading	7.5 YR 7/4, Pink	Pink

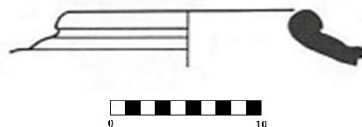


FIGURE 310. Pithos 45.05, Tall al-‘Umayri (Herr et al. 2000: 48; fig. 3.29.2).

Pithos 45.06: Tall al-'Umayri, ca. 650 B.C.

Pithos 45.06 (figure 312) originated in Field B, Square 8K02, Locus 15.

This locus is best defined as earth fill on Surface 16 in the east room of the domestic structure that is a part of Tall al-'Umayri Stratum 6. This locus is classified as very pale brown and contained ceramics related to food storage and preparation, domestic implements, and a few small pieces of metal, including an iron pick fragment (Herr et al. 2014: 136-37). In addition to Pithos 45.06, the diagnostic ceramics in this locus included a collarless pithos, a jar, three jugs, eight bowls, and a cooking pot with a rounded, thickened rim with a ridge directly below it. This cooking pot rim style is peculiar to the Ammonite high plateau during the Iron Age 2C (cf. fig. 311).

Pithos 45.06 has a standard Short Form rim shape and size. Its typical triangular-shaped collar has such a low prominence that it could be considered vestigial. The angle between the rim and collar is 46% greater than average in this group. While the neck height is 22% taller than usual, the rim circumference and diameter are 20% smaller than the Short Form mean. Taken altogether, this vessel possesses many characteristics of the Short and Final Forms, and may be considered transitional. Dimensions for this pithos were obtained from a published plate.



FIGURE 311. Tall al-‘Umayri Phase 6, Field B, Square 8K02, Locus 15. Left: Plan of 8K02 with loci indicated (Herr et al. 2014: 134; fig. 4.40, adapted); Right: Ammonite Iron Age 2C cooking pot from Locus 15 (Herr et al. 2014: 153; fig 4.55.6).

TABLE 211. Comparable Data for Tall al-‘Umayri Short Form Pithos 45.06.

	Pithos 45.06	μ Pithos in Group (σ)
Neck Height in cm	1.80 (22%)	1.40 (0.32)
Rim Thickness in cm	2.30	2.45 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Round, OT/IT	Round, OT/IT
Rim Height in cm	3.20	2.56 (0.70)
Rim Circumference in cm	50.27 (20%)	65.58 (14.94)
Ext. Rim Diameter in cm	16.00 (20%)	20.00 (4.76)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	58.00° Inside (46%)	31.52° Inside (19.60)
Collar Prominence in mm	1.00	4.06 (3.06)
Firing	Oxidation, Thoroughly Fired	Underfired, Core Present
Exterior Munsell Reading	5 YR 6/3, Light Reddish Brown	Pink

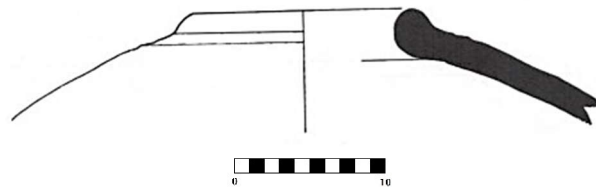


FIGURE 312. Pithos 45.06, Tall al-‘Umayri (Herr et al. 2014:143; fig. 4.50.3).

Conclusions

This chapter sought to reach a clearer understanding of the first group of short-necked collared pithoi in Transjordan. This group of vessels were defined as those with neck heights from 1.0-1.9 cm. Wherever accessible, each of the 39 pithoi in this chapter was analyzed according to 30 different attributes. The archaeological contexts of each of the pithoi were then evaluated for information regarding the vessel's chronological placement, geographic distribution, and use patterns. Based upon the foregoing data, the following conclusions can now be suggested regarding this style of the collared pithos' development in Transjordan.

Chronology

For nearly five hundred years, collared pithoi with neck heights under 2.0 cm were produced in Transjordan. The earliest example of the Short Form, in a stratigraphically clear context, is Pithos 45.01 from Tall al-'Umayri. Dated to the beginning of the Iron Age 1B, this vessel sets the period of origination for the group. However, with the exception of the tentatively dated Pithoi 43.01 and 43.02 from Tall Sahab, it is the only one of its group yet known from that period. In the Iron Age 2A, one more example appears – from Tall Jawa, Pithos 36.01. Despite this handful of examples, it is clear that the shorter-necked collared pithos should be considered rare in Transjordan before the Iron Age 2B.

During the Iron Age 2B, the Short Form really started to reach its peak and became popular enough that it can be classified as a widespread variation of the collared pithos. Nine (32%) of the 28 Short Form collared pithoi, with reliable dates, belong to the Iron Age 2B. Six (21%) belong to the following Iron Age 2C, and five (18%) belong to the late Iron Age 2C/Persian period. The *terminus* dates of the Short Form are represented by five examples, namely, Pithoi 35.02 and 35.05 from Tall Jalul and Pithoi 45.04 – 45.06 from Tall al-‘Umayri. These vessels date to the Late Iron Age 2C/Persian period, in stratigraphically clear contexts, thus characterizing the Short Form as a tradition that continued up to the final days of the Iron Age.

Given this data, it seems fair to posit that the Short Form is a ninth through eighth century B.C. style variant. While the collared pithos Short and Final forms demonstrate some limited contemporaneity and overlap in periods of use, they do have demonstrably independent horizons, as will be seen in the following chapter.

Geographic Distribution

The Short Form collared pithos is found in every geographic region of Transjordan (figure 313). The dispersion trend that started at the beginning of the Classic Form tradition continued into the Short Form. Approximately 72% of the Short Form pithoi originated from the Central Plateau, coming from ten different sites. Comparatively, among the Classic Form group, 77% of the pithoi originated from the Central Plateau, coming from 12 different

sites. This demonstrates a 5% decrease in the Short Form examples originating from the Central Plateau. Concurrently, pithoi originating in the Jordan Valley saw an 8% increase between the Classic Form and the Short Form. The number of examples from Southern Transjordan remained constant and those from the Kerak Plateau saw a 1% increase.

In Northern Transjordan, Tell Johfiyeh has examples of both the Classic and the Short Form, but is not represented in the Long and Final Forms. The same is true for Abu al-Kharaz in the northern Jordan Valley. However, Tall es-Sa'idiyeh, also from the valley, has examples exclusively belonging to the Long Form and the Short Form, with no intermediate styles yet attested. In the southern Jordan Valley, no collared pithoi appear at Tall Deir 'Alla with neck heights below 2.0 cm. But the tradition appears to be assumed by the occupants of Tall Nimrin where only collared pithoi with neck heights shorter than 2.0 cm have been found.

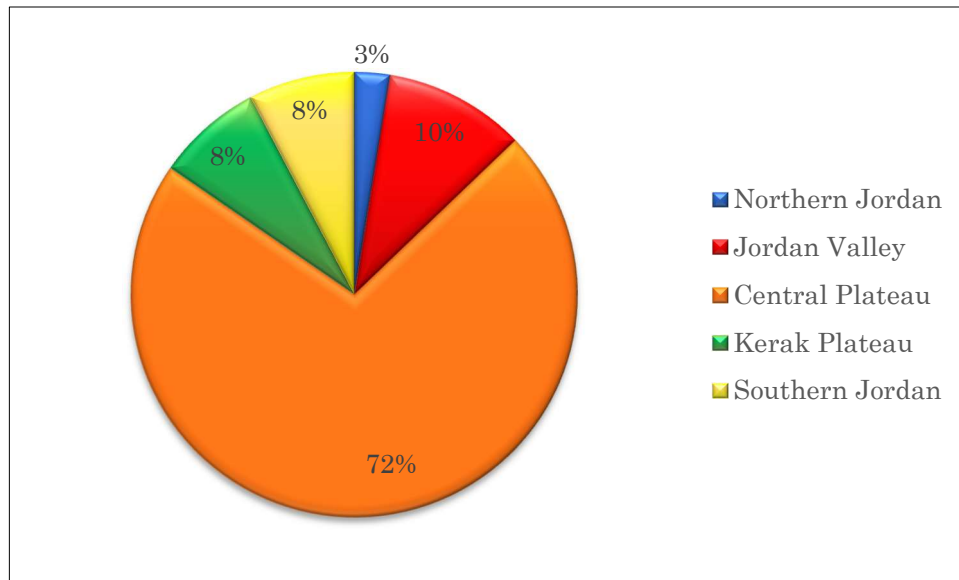


FIGURE 313. Geographic distribution of the Short Form, by region.

On the Kerak Plateau only Khirbat al- Balu'a has examples of pithoi with neck heights under 2.0 cm. This site has collared pithoi representing every form group except the longer-necked Long Form. In southern Transjordan, all three sites that had Classic Form examples also have Short Form pithoi. Each of these sites, however, only have vessels from these two form groups. There are no examples of the longest or the shortest necked collared pithoi in southern Transjordan.

In Chapter 3, a regional analysis of average neck heights and dates was attempted for the Classic Form group. It showed two things. First, that the earliest dates for Classic Form occurred in the Jordan Valley and on the Central Plateau. Second, that the longest neck heights in that group were in northern Transjordan and in the Jordan Valley. As a side note, this analysis

also demonstrated that neck height and date of archaeological context are not correlated.

The number of examples available from the various regions in the Short Form group may limit the effectiveness of a similar analysis for this group. Nevertheless, these averages have been collected in Table 212, below. It does appear that, at least with the Short Form, the earliest average dates occur in the Jordan Valley and on the Central Plateau. The margin, however, is much smaller. In the Short Form, neck heights are above average in length in Northern Transjordan, the Central Plateau, and the Kerak Plateau, while dropping below average in Southern Transjordan and the Jordan Valley.

Table 212. Mean Neck Heights and Dates for the Short Form, by region¹⁶⁰

Geographic Region	Neck Height	Date
Northern Jordan	<i>1.50</i>	<i>730</i>
Jordan Valley	1.05	878
Central Plateau	1.47	813
Kerak Plateau	1.47	750
Southern Jordan	1.55	840

¹⁶⁰ The average Short Form neck height is 1.40 cm and the average date is 814 B.C.. The average Final Form neck height is 0.51 cm and the average date is 734 B.C.. Italicized numbers are based on only one example and therefore do not represent a true mean.

Use Patterns

Nothing in the data collected from the Short Form pithoi above indicates any other use than the storage of dry goods, most likely in a domestic setting. While the lack of many whole vessels with clear archaeological contexts indicates a probable secondary location of most of the stratified examples, context analysis will still be ventured in an effort to evaluate the use patterns for this group of collared pithoi.

These vessels come from a variety of settings, similar to those seen with the previous forms. Many pithoi were unearthed in small rooms, interpreted generally as storage rooms. Examples of vessels in this setting include Pithoi 30.01 – 30.03 from Khirbat al-Balu'a, Pithoi 35.01 and 50.01 from Tall Jalul, Pithos 36.01 from Tall Jawa, and Pithoi 45.03 – 45.05 from Tall al-'Umayri.

Similar to the Classic Form, these storage room settings were not the exclusive location of the Short Form examples. Several were located in open areas such as courtyards or larger rooms. Pithos 28.01 from Abu al-Kharaz was found in an alley between two buildings. From Tall Jalul, Pithos 35.07 was found on the floor of a paved courtyard. Pithos 39.01 from Khirbat en-Nahas and Pithos 31.01 from Umm al-Biyara were both similarly located in the larger rooms of buildings or houses.

Several vessels were located in open spaces near other artifacts which might indicate a proximity to domestic activities. Pithos 35.03, from Tall

Jalul, was discovered out in the open, beside the water channel, near a loaf-shaped grinder. Pithos 37.01, from Tall Johfiyeh, was unearthed near a basalt pestle, and Pithos 45.06, from Tall al-'Umayri, was found with several food preparation implements and other ceramic forms.

Characteristic Analysis

The Short Form collared pithos is a developmental innovation of the Classic Form. As such, the two styles share many features. There are, however, a few characteristics, beyond neck height, that differ between these groups. The thickened, edgeless rim that reached its peak popularity with the Classic Form, was shortened and widened to create the more cylindrical round rim of the Short Form. The triangular-shaped collar common on the Classic Form vessels continued to be typical in the Short Form group, but the angle between the collar and rim nearly doubled in the Short Form as the neck dropped closer to horizontal. This shift also created a slightly smaller rim circumference in the Short Form than was seen on the Classic Form. The pointed base remained common with both groups, but the overall vessel height and body circumference diminished in the Short Form.

In the Long Form group there are twelve different discernable rim shape types. This variety peaked in the Classic Form group, with thirteen different shapes. However, in the Short Form group, only ten different rim styles can be distinguished. In the following chapter, the shortest-necked pithoi will be examined.

Chapter 5: The Final Form Collared Pithos

The second of the two short-necked variations of the collared pithos discussed in this chapter is here termed the Final Form. While the name has chronological connotations, this is only meant to be understood generally rather than categorically. Some individual pithoi in this group may in reality have pre-dated some of the specific vessels in the Short Form group. Some chronological overlap of form styles will be seen, especially between these two groups. Final Form pithoi are those with neck heights of less than 1.0 cm. Twenty-seven examples in this study meet this requirement and are included in this group. Together with the Short Form group, these represent just over 28% of the total number of pithoi in this study. The Final Form examples were discovered at eight different sites, with two additional examples included with unknown provenance.

A typical Final Form collared pithos,¹⁶¹ represents the last developmental stage of the collared pithos in the Iron Age of Transjordan. This pithos originates in an archaeological context that dates to the late

¹⁶¹ As with previous form introductions, this description is a summary of the Final Form's statistical averages. It is intended to present a hypothetical picture of the standard Final Form pithos and not to represent any particular vessel.

eighth century B.C., or the beginning of the Iron Age 2C.¹⁶² It stands just over a meter in height¹⁶³ with a body circumference that is roughly 30%¹⁶⁴ greater than its overall height. It has a round rim,¹⁶⁵ a pointed¹⁶⁶ base, and a triangular¹⁶⁷ collar, which stands out 5.0 mm¹⁶⁸ from the surface of the pithos. It has a neck with a height of less than 1.0 cm¹⁶⁹ and an inward inclination of 50°¹⁷⁰ from the line of the collar. Its elliptical loop handles are 6.0 cm¹⁷¹ wide and 14.0 cm¹⁷² in height. They are positioned on either side of the body's widest point, usually in the upper quarter the vessel. The ware of

¹⁶² The mean date for the Final Form group is 734 B.C. with a standard deviation of 100 years. 90% (n = 17) of the pithoi fall in this range. This is based upon the 19 Final Form examples for which there are reliable context date assignments. This would mean that the majority of datable Final Form examples belong to the Late Iron Age 2B and the Iron Age 2C. The complete range of actual dates for the Final Form examples is 980 – 650 B.C., with the most common date of 732 B.C.

¹⁶³ There are four whole vessels in this group with available heights. The mean of these is 113.50 cm, with a standard deviation of 6.24 cm.

¹⁶⁴ The mean body circumference is 168.50 cm, with a standard deviation of 21.92 cm.

¹⁶⁵ Of the Final Form rims, 46% (n = 13) are best described as round, 29% (n = 8) as thickened-edgeless, 11% (n = 3) as square, 7% (n = 2) as thickened-hook, and 8% as thickened-edged (n = 1), and thickened-miscellaneous (n = 1). There are no rim shapes that are profiled, rectangular, simple, thickened-offset, or triangular in the Final Form group.

¹⁶⁶ 24 of the Final Form pithoi do not have bases available for study. Of the four that are available, three (75%) are rounded and one (25%) is pointed. There are no flat bases in this group.

¹⁶⁷ 25% (n = 7) of the Final Form collars are described as triangular. If the double collars (n = 5) are included in that count, as they are all triangular as well, then 43% are classified as having triangular-shaped collars. Other collar shapes include round (n = 5, 18%), teardrop (n = 5, 18%), vestigial (n = 5, 18%) and square (n = 1, 4%).

¹⁶⁸ The mean collar prominence for the Final Form collared pithos is 4.84 mm, with a standard deviation of 3.40 mm.

¹⁶⁹ The mean neck height for the Final Form collared pithos is 0.51 cm, with a standard deviation of 0.21 cm.

¹⁷⁰ All of the Final Form examples have rims inside of the line of the collar. The mean angle of this inclination is 49.96°, with a standard deviation of 11.82°.

¹⁷¹ The mean handle width for the Final Form is 5.62 cm, with a standard deviation of 0.62 cm.

¹⁷² The mean handle height is 13.70 cm, with a standard deviation of 0.52 cm.

the Final Form collared pithos is usually thoroughly fired¹⁷³ with an exterior surface,¹⁷⁴ best described as “pink.” This pithos is most likely to be found¹⁷⁵ at a site on Jordan’s central plateau. The following Final Form examples are presented by site and arranged alphabetically.

Khirbat al-Balu’a, Kerak Plateau

Two Final Form pithoi are presented below from Khirbat al-Balu’a, Area E, located on the far north-west side of the site. Area E consists of a single building with a possible total of three back rooms and two courtyards or larger rooms. Unfortunately, the structure is partially lost on the south side and only remnants of the walls remain. Area E has one apparent occupation stratum (Worschech 2014: 133).

Collectively, the Final Form examples from Khirbat al-Balu’a are slightly longer necked than the average vessel in this group. They have rims that are smaller and nearer to alignment with their nearly vestigial collars. These rims, however, have a somewhat larger rim circumference and diameter than the mean for the Final Form. The vessels at Khirbat al-Balu’a

¹⁷³ 19 of the vessels studied in this group were available for analysis or were published with such data. Of these, 74% (n = 14) are oxidized and thoroughly fired, 16% (n = 3) are underfired, and 10% (n = 2) show signs of reduction.

¹⁷⁴ Munsell color readings are available for 20 of the pithoi in this group. 55% (n = 11) of these are best described as “pink,” 20% (n = 4) as “reddish yellow,” 15% (n = 3) as very pale brown, and 2% as “light reddish brown” (n = 1) and “light gray” (n = 1).

¹⁷⁵ The Final Form pithoi came from eight sites. Of these, 63% (n = 5) are located on the central plateau, and 37% are located on the Kerak plateau (n = 1), in northern Transjordan (n = 1), and in the Jordan Valley (n = 1).

originate in contexts that are less than a quarter of a century older than the statistical average year of deposition for the Final Form. This site is introduced in Chapter 3 prior to the description for Classic Form Pithos 11.01. Consult the information found there for more details regarding the general nature of this site.

Pithos 46.01: Khirbat al-Balu'a, ca. 732 B.C.

Pithos 46.01 (figure 315) originated in Area E, Locus 4300. This locus is defined as the earth layer on and in the floor of Room 430, which has been laid directly on bedrock and leveled with sand. The walls of the building were built directly on the bedrock as well (Worschech 2014: 133). Ceramics originating from this floor include two bowls, one krater, four pithoi, one storage jar, one jug, and a worked ceramic disk – or jar stopper (Worschech 2014: 178-83). These vessels all have their best parallels in the Iron Age 2B/C. This pithos has thus been dated to the beginning of the Iron Age 2C.

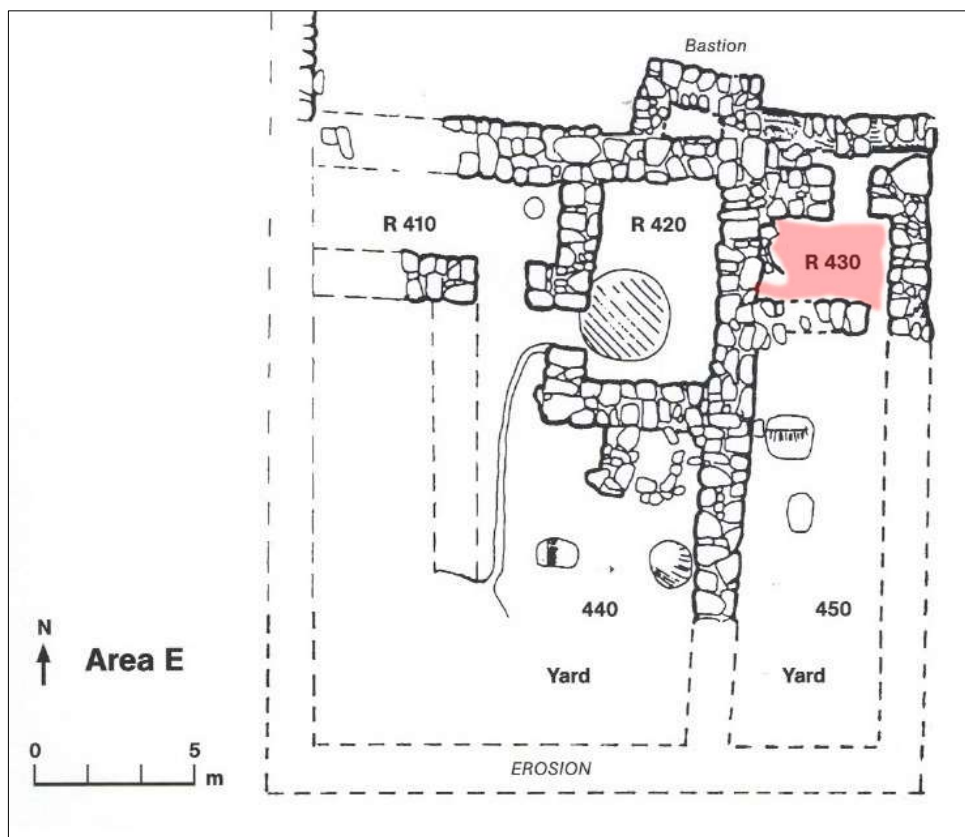
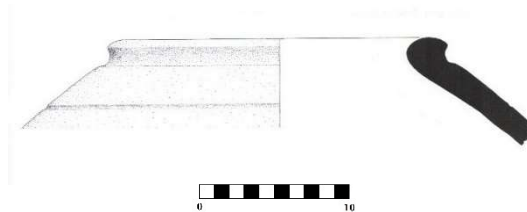


FIGURE 314. Khirbat al-Balu'a, Area E, Room 430 (with Pithoi 46.01 & 46.02 location indicated; adapted from Worschech 2014: 132).

Pithos 46.01 has a thickened, hook-shaped rim. This shape is shared, in the Final Form group, only with Pithos 50.06 from Tall Jalul. Characteristic of this shape, both rims have above average thickness, and below average height. They also both have above average rim circumference and diameter and are nearer to alignment with their vestigial collars than is typical for the Final Form. The hook-shaped rim does not appear in the Long Form group and is most frequent among the 1.0-2.0 cm necked Short Form examples. Chronologically, the 15 hook-shaped rims in this study have a mean archaeological context date of 820 B.C. Dimensions for this pithos were obtained from a published plate.

TABLE 213. Comparable Data for Khirbat al-Balu'a Final Form Pithos 46.01.

	Pithos 46.01	μ Pithos in Group (σ)
Neck Height in cm	0.80 (38%)	0.50 (0.20)
Rim Thickness in cm	2.80	2.39 (0.54)
Rim Inflection	Straight	Everted
Rim Shape	Thickened: Hook, OT	Round, IT/OT
Rim Height in cm	1.00 (58%)	2.41 (0.56)
Rim Circumference in cm	73.51 (18%)	59.98 (10.95)
Exterior Rim Diameter in cm	23.40 (18%)	19.10 (3.48)
Collar Shape	Vestigial	Triangular
Rim-to-Collar Angle	25.00° Inside (50%)	49.96° Inside (11.92)
Collar Prominence in mm	1.00 (79%)	4.80 (3.38)
Firing	Oxidation	Oxidation, Thoroughly Fired
Exterior Munsell Reading	10 YR 8/3, Very Pale Brown	Pink

**FIGURE 315.** Pithos 46.01, Khirbat al-Balu'a E079 (Worschech 2014: 178-79).

Pithos 46.02: Khirbat al-Balu'a, ca. 732 B.C.

Pithos 46.02 (figure 316) originated in the same locus as Pithos 46.01. Consult the description above for more information regarding this vessel's context.

Pithos 46.02 has a uniquely thickened rim. It appears to be offset toward the interior of the vessel, with edges at the highest and lowest points of the rim. These edges preclude it from categorization as a thickened edgeless shape. Its height and thickness are equal, nearly qualifying it for a

“square” classification. However, its outer face lacks any of the edges usually associated with that shape. Due to the ambiguous nature of this rim’s shape, it has been labeled as a miscellaneous, thickened rim. A fairly average distance and angle below this rim is a double, triangular collar, which is 78% less prominent than average for this group. About 18% (n = 5)¹⁷⁶ of the Final Form collars can be described as double. This occurrence of the double collar represents a significantly more frequent appearance of the style than can be observed in any other form group. While the other forms have mixed shape double collars, the Final Form examples are exclusively double-triangular in shape. There may be a stylistic connection between this feature and the double groove which appears on the upper shoulder of many pithoi at the end of the Iron Age and the early Persian period. Dimensions for this pithos were obtained from a published plate.

TABLE 214. Comparable Data for Khirbat al-Balu‘a Final Form Pithos 46.02.

	Pithos 46.02	μ Pithos in Group (σ)
Neck Height in cm	0.40	0.50 (0.20)
Rim Thickness in cm	2.00	2.39 (0.54)
Rim Inflection	Inverted	Everted
Rim Shape	Thickened: Misc, IT	Round, IT/OT
Rim Height in cm	2.00	2.41 (0.56)
Rim Circumference in cm	52.20	59.98 (10.95)
Exterior Rim Diameter in cm	16.60	19.10 (3.48)
Collar Shape	Double	Triangular
Rim-to-Collar Angle	50.00° Inside	49.96° Inside (11.92)
Collar Prominence in mm	1.00 (79%)	4.80 (3.38)
Firing	Underfired	Oxidation, Thoroughly Fired
Exterior Munsell Reading	7.5 YR 7/6, Reddish Yellow	Pink

¹⁷⁶ There are fifteen collared pithoi in this study with double collars. In addition to Pithos 46.02, Final Form examples include Pithoi 47.01, 48.05, 50.02, and 53.01.

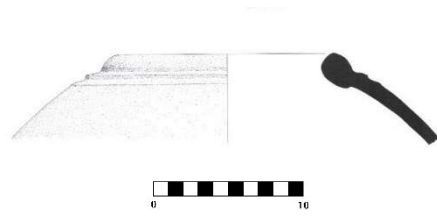


FIGURE 316. Pithos 46.02, Khirbat al-Balu'a E080 (Worschech 2014: 178-79).

Um al-Hedamus, Northern Transjordan



FIGURE 317. Aerial View of Um al-Hedamus.

Um al-Hedamus is located near the Ajloun Forest Reserve in northern Transjordan, roughly 4.0 km north of Ajloun and 30.0 km southwest of Irbid. Surface surveys conducted in 1989 indicated site occupation from the Early Bronze Age, Iron Age, and the Roman through Umayyid periods. Exploratory soundings were conducted in 1990 by the University of Rome, under the direction of Gaetano Palumbo. These studies revealed Pre-Roman period use of the site, consisting only of a single period of Iron Age occupation, founded on the bedrock, which began in the early Iron Age 2B (Palumbo 1992: 25, 32).

Pithos 47.01: Um al-Hedamus, ca. 830 B.C.

Pithos 47.01 (figure 319) was discovered in M51 at Um al-Hedamus. This is best defined as a 2.0 m test unit on the southeastern side of the upper terrace (Palumbo 1992: 26). This pithos was located about 50.0 cm below the surface on a hard, compact earth floor amid wall tumble, likely from Wall 005 to the southwest of the vessel. The excavators interpreted this space as belonging to a storage room (Palumbo 1992: 28). The area around Pithos 47.01 was largely unexcavated, although the remains of at least three other pithoi were identified. The southern face of Wall 005, however, was excavated down to its foundation on bedrock (Palumbo 1992: 26). Ceramics here belonged exclusively to the Iron Age 2B. Calibrated radiocarbon dates obtained from wood charcoal from inside of Pithos 47.01 give a date range of 973 – 828 B.C. (Palumbo 1992: 28). These dates harmonize with the ceramics recovered from the south side of Wall 005. This vessel is thus dated to the beginning of the Iron Age 2B.

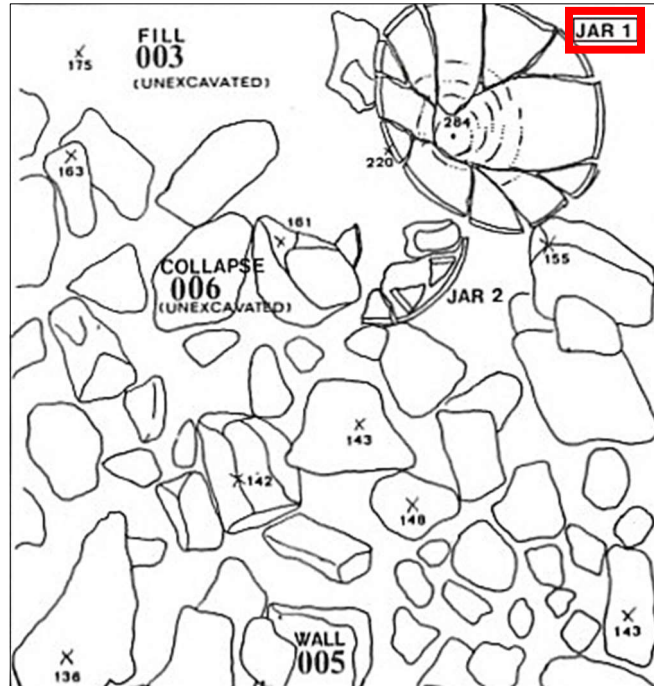


FIGURE 318. Top Plan of M51 with Pithos 47.01/Jar 1 in situ (Palumbo 1992: 27; fig. 1, adapted).

Pithos 47.01 is one of four examples of whole vessels in the Final Form group. It stands 7% shorter than the mean of those vessel heights, and has a body circumference that is 16% larger than average. This broad body gives Pithos 47.01 a distinctly top-heavy appearance. This vessel has a thickened, edgeless rim. The everted inflection of this rim may be a contributing factor to the smaller than average angle this rim has in relation to its collar. Reaching nearly a centimeter, Pithos 47.01 has the longest neck in the Final Form group. It also is among the 15% of Final Form examples that have a double collar. All the other features of this vessel are standard for this group. Dimensions for this pithos were obtained from a published plate.

TABLE 215. Comparable Data for Um al-Hedamus Final Form Pithos 47.01.

	Pithos 47.01	μ Pithos in Group (σ)
Neck Height in cm	<i>0.90 (44%)</i>	0.50 (0.20)
Rim Thickness in cm	2.00	2.39 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Thickened, T2: Edgeless, OT	Round, IT/OT
Rim Height in cm	2.30	2.41 (0.56)
Rim Circumference in cm	69.12	59.98 (10.95)
Exterior Rim Diameter in cm	22.00	19.10 (3.48)
Collar Shape	Double	Triangular
Rim-to-Collar Angle	<i>22.00° Inside (56%)</i>	49.96° Inside (11.92)
Collar Prominence in mm	6.00	4.80 (3.38)
Firing	unknown	Oxidation
Exterior Munsell Reading	unknown	Pink
Full Vessel Height in cm	<i>106.00 (7%)</i>	113.50 (6.24)
Body Circumference in cm	<i>201.00 (16%)</i>	168.50 (21.92)
Handle Width in cm	unknown	5.62 (0.62)
Handle Height in cm	14.00	13.70 (0.52)
Base Shape	Rounded	Rounded
Base Thickness in cm	1.35	1.35 (1 example)

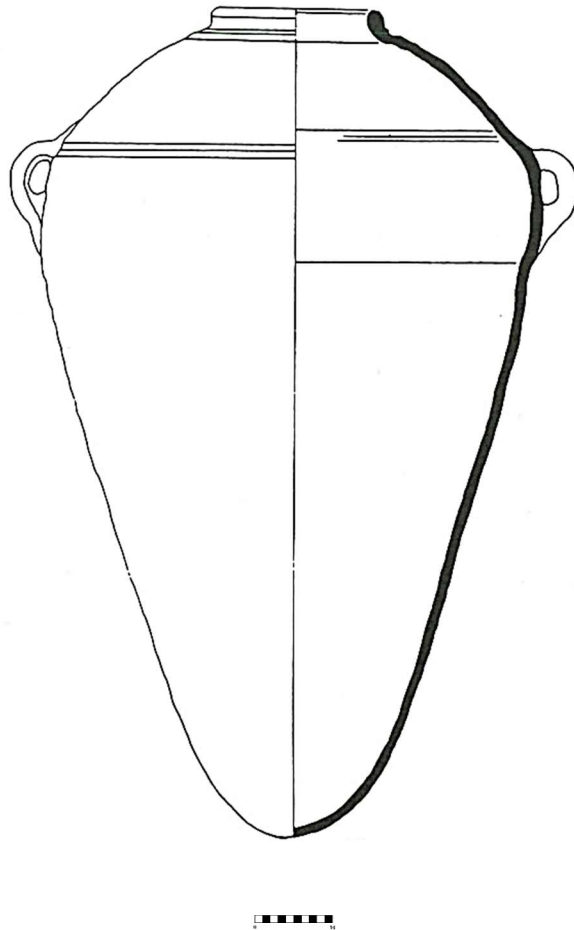


FIGURE 319. Pithos 47.01, Um al-Hedamus M51 S-E, Jar 1 (Palumbo 1992: 31; fig. 4.2).

Tall Hisban, Central Plateau

Presented below are five Final Form pithoi discovered at Tall Hisban. Collectively, these pithoi have shorter necks and larger rims than usual for the Final Form group. These round rims are set in from alignment with the collar at an angle 18% greater than average – a feature likely contributing to their below average rim circumferences and diameters. There are a variety of collar shapes observable on the Final Form pithoi from Tall Hisban, but collectively they average nearly twice the standard prominence for this group. Unfortunately, none of the following pithoi originate in archaeological contexts that contribute to a better understanding of the dates associated with these vessels. For more contextual information about Tall Hisban, refer to Chapter 3, prior to the discussion of Classic Form Pithos 15.01.

All of the pithoi presented below came from the same locus, namely Field B, Square 1, Locus 143.¹⁷⁷ This locus is at the bottom of the reservoir at Tall Hisban, in a compact clay silt layer that averaged 35.0 cm deep (Ray 2001: 137). It is impossible to determine when these pithoi were deposited there. Although most likely belonging to Stratum 16A at Tall Hisban, the ceramics in Locus 143 come from all periods of the Iron Age (Ray 2001: 185). Given the range of possible dates of origin and the certainty that these vessels are not near their original use locations, they will be treated as unstratified for the purpose of this study.

¹⁷⁷ Locus 143 is the same locus from which Short Form Pithos 33.01 was unearthed.

Pithos 48.01: Tall Hisban, Unstratified

Pithos 48.01 (figure 320) has one of the longest neck heights among the Final Form examples. Its large, round rim is further inside of alignment with the collar than most in this group. However, it is still within one standard deviation from the Final Form mean collar-to-rim angle. Its rim circumference and diameter are 27% smaller than average, but the remaining features of Pithos 48.01 are typical for a Final Form example. Dimensions for this pithos were obtained from a published plate.

TABLE 216. Comparable Data for Tall Hisban Final Form Pithos 48.01.

	Pithos 47.01	μ Pithos in Group (σ)
Neck Height in cm	<i>0.80 (38%)</i>	0.50 (0.20)
Rim Thickness in cm	2.80	2.39 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Round, IT/OT	Round, IT/OT
Rim Height in cm	2.50	2.41 (0.56)
Rim Circumference in cm	<i>44.00 (27%)</i>	59.98 (10.95)
Exterior Rim Diameter in cm	<i>14.00 (27%)</i>	19.10 (3.48)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	60.00° Inside	49.96° Inside (11.92)
Collar Prominence in mm	5.00	4.80 (3.38)
Firing	Reduction	Oxidation, Thoroughly Fired
Exterior Munsell Reading	7.5 YR N4, Dark Gray	Pink

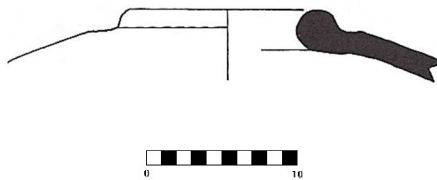


FIGURE 320. Pithos 48.01, Tall Hisban 13165 (Sauer and Herr 2012: 119, 120; fig. 2.28.2).

Pithos 48.02: Tall Hisban, Unstratified

Pithos 48.02 (figure 321) has many of the standard features of a Final Form collared pithos. The average round rim tops a typical 0.5 cm neck. The rim circumference and diameter are likewise average. It's interior thickening gives the appearance of a rim that is offset toward the interior of the vessel. The rim-to-collar angle is 21% greater than is usual for the Final Form. While the collar is nearly twice as prominent as the average Final Form collar, it is still within one standard deviation from the mean – as are all of the remaining features of this vessel. Dimensions for this pithos were obtained from a published plate.

TABLE 217. Comparable Data for Tall Hisban Final Form Pithos 48.02.

	Pithos 48.02	μ Pithos in Group (σ)
Neck Height in cm	0.50	0.50 (0.20)
Rim Thickness in cm	2.50	2.39 (0.54)
Rim Inflection	Straight	Everted
Rim Shape	Round, IT/OT	Round, IT/OT
Rim Height in cm	2.30	2.41 (0.56)
Rim Circumference in cm	59.70	59.98 (10.95)
Exterior Rim Diameter in cm	19.00	19.10 (3.48)
Collar Shape	Teardrop	Triangular
Rim-to-Collar Angle	63.00° Inside (21%)	49.96° Inside (11.92)
Collar Prominence in mm	8.00	4.80 (3.38)
Firing	Oxidation	Oxidation, Thoroughly Fired
Exterior Munsell Reading	5 YR 7/6, Reddish Yellow	Pink

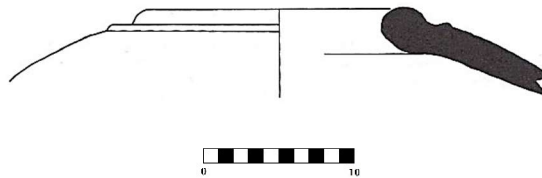


FIGURE 321. Pithos 48.02, Tall Hisban 13148 (Sauer and Herr 2012: 119, 120; fig. 2.28.3).

Pithos 48.03: Tall Hisban, Unstratified

Pithos 48.03 (figure 322) has the shortest neck height in this study, a distinction it shares with only three other vessels.¹⁷⁸ At 0.20 cm, this neck is 60% shorter than the average Final Form example. The rim on this vessel is described as square, despite lacking the bottom edge on its outer face, usually seen on square rims. It is an averaged size Final Form rim, with the usual everted inflection, typical rim circumference, and average diameter. Its triangular collar is nearly twice as prominent as usual, but is still within one standard deviation from the mean for the Final Form group. This is also true of the vessel's remaining features. Dimensions for this pithos were obtained from a published plate.

¹⁷⁸ The other examples with this neck height are Pithos 48.04 from Tall Hisban and Pithoi 53.05 and 53.06 from Tall al-Umayri.

TABLE 218. Comparable Data for Tall Hisban Final Form Pithos 48.03.

	Pithos 48.03	μ Pithos in Group (σ)
Neck Height in cm	0.20 (60%)	0.50 (0.20)
Rim Thickness in cm	2.40	2.39 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Square, IT/OT	Round, IT/OT
Rim Height in cm	2.00	2.41 (0.56)
Rim Circumference in cm	53.40	59.98 (10.95)
Exterior Rim Diameter in cm	17.00	19.10 (3.48)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	50.00° Inside	49.96° Inside (11.92)
Collar Prominence in mm	8.00	4.80 (3.38)
Firing	Oxidation	Oxidation, Thoroughly Fired
Exterior Munsell Reading	5 YR 7/3, Pink	Pink

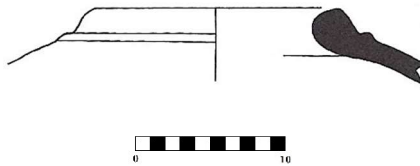


FIGURE 322. Pithos 48.03, Tall Hisban 13336 (Sauer and Herr 2012: 119, 120; fig. 2.28.4).

Pithos 48.04: Tall Hisban, Unstratified

Pithos 48.04 (figure 323), together with the previous example, is one of the four shortest-necked vessels in the Final Form group. Its round rim is 20% thinner than average, with a 23% greater angle in relation to its collar. The collar on Pithos 48.04 is 56 times more prominent than usual. Its teardrop shape is present on 18% of the Final Form examples. The rest of the features of this pithos are standard for the Final Form group. Dimensions for this vessel were obtained from a published plate.

TABLE 219. Comparable Data for Tall Hisban Final Form Pithos 48.04.

	Pithos 48.04	μ Pithos in Group (σ)
Neck Height in cm	<i>0.20 (60%)</i>	0.50 (0.20)
Rim Thickness in cm	<i>3.00 (20%)</i>	2.39 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Round, IT/OT	Round, IT/OT
Rim Height in cm	3.00	2.41 (0.56)
Rim Circumference in cm	66.00	59.98 (10.95)
Exterior Rim Diameter in cm	21.00	19.10 (3.48)
Collar Shape	Teardrop	Triangular
Rim-to-Collar Angle	<i>65.00° Inside (23%)</i>	49.96° Inside (11.92)
Collar Prominence in mm	<i>11.00 (56%)</i>	4.80 (3.38)
Firing	Oxidation	Oxidation, Thoroughly Fired
Exterior Munsell Reading	5 YR 7/3, Pink	Pink

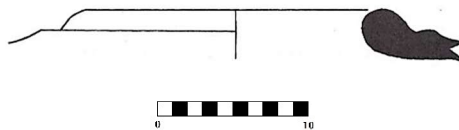


FIGURE 323. Pithos 48.04, Tall Hisban 13231 (Sauer and Herr 2012: 119, 120; fig. 2.28.5).

Pithos 48.05: Tall Hisban, Unstratified

Pithos 48.05 (figure 324) is a good Final Form example. Its round rim is about 20% larger than average, but has the typical shape. This rim is further from alignment with the collar than usual. Its prominent double collar is one of five in the Final Form group with this shape. The other features of this example are typical and within standard for a Final Form pithos. Dimensions for this pithos were obtained from a published plate.

TABLE 220. Comparable Data for Tall Hisban Final Form Pithos 48.05.

	Pithos 48.05	μ Pithos in Group (σ)
Neck Height in cm	0.50	0.50 (0.20)
Rim Thickness in cm	3.00 (20%)	2.39 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Round, IT/OT	Round, IT/OT
Rim Height in cm	3.00 (20%)	2.41 (0.56)
Rim Circumference in cm	50.30	59.98 (10.95)
Exterior Rim Diameter in cm	16.00	19.10 (3.48)
Collar Shape	Double	Triangular
Rim-to-Collar Angle	65.00° Inside (23%)	49.96° Inside (11.92)
Collar Prominence in mm	8.00	4.80 (3.38)
Firing	Oxidation	Oxidation, Thoroughly Fired
Exterior Munsell Reading	5 YR 7/4, Pink	Pink

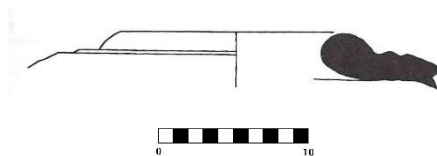


FIGURE 324. Pithos 48.05, Tall Hisban 13066 (Sauer and Herr 2012: 119, 120; fig. 2.28.6).

‘Iraq el-Emir, Central Plateau

There is one Final Form pithos from ‘Iraq el-Emir presented below. The site was first introduced in Chapter 3, prior to the discussion of Classic Form Pithos 16.01. Consult that section for general site information.

Pithos 49.01: ‘Iraq el-Emir, ca. 650 B.C.

Pithos 49.01 (figure 325) was discovered in Square 1, Basket 42 at ‘Iraq el-Emir. This pithos rim is probably a stratified sherd (Ulvoczky 2017: 26, 98). It has been identified as belonging to the Iron Age 2C/Persian period (Ulvoczky 2017: 44). Pithos 49.01 is from the same general area as Pithoi 16.01 and 34.01. Those vessels were dated to the Iron Age 1B and 2B, respectively. However, there are no other published sherds from Basket 42, and Pithos 49.01 has become disassociated from its accompanying excavation data in reports. This vessel is tentatively dated to the late Iron Age 2C based solely upon the suggestion of the publication.

Pithos 49.01 is one of the six examples that possess the longest necks among the Final Form examples. This neck is topped with a thickened, edged rim shape, the only one of its kind in the Final Form group. Bordering the bottom of the neck, is a rounded collar that is slightly less prominent than usual, but is still within one standard deviation of the mean. The remaining features of this pithos are also average for the Final Form. Dimensions for this vessel were obtained from a published plate.

TABLE 221. Comparable Data for 'Iraq el-Emir Final Form Pithos 49.01.

	Pithos 49.01	μ Pithos in Group (σ)
Neck Height in cm	0.80 (38%)	0.50 (0.20)
Rim Thickness in cm	2.00	2.39 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Thickened: Edged, IT/OT	Round, IT/OT
Rim Height in cm	2.00	2.41 (0.56)
Rim Circumference in cm	53.00	59.98 (10.95)
Ext. Rim Diameter in cm	17.00	19.10 (3.48)
Collar Shape	Round	Triangular
Rim-to-Collar Angle	48.00° Inside	49.96° Inside (11.92)
Collar Prominence in mm	3.00	4.80 (3.38)
Firing	unknown	Oxidation, Thoroughly Fired
Exterior Munsell Reading	unknown	Pink

**FIGURE 325.** Pithos 49.01, 'Iraq el-Emir I.1.42.10/I.1.35.46 (Ulvoczky 2017: 40; pl. 4.2).

Tall Jalul, Central Plateau

Presented below are six examples of the Final Form collared pithos from Tall Jalul. When considered collectively, in comparison to the Final Form averages, the pithoi from Tall Jalul are very standard in most ways. Their rims are of average size, and their necks of typical height. The rims are slightly nearer to alignment with the collars than usual, and consequently their circumferences and diameters are larger than average. The collars of these pithoi are also less prominent than usual. The Final Form pithoi of Tall Jalul originate in contexts that have an average context date, approximately 25 years later than the mean for the group. For a general introduction the details of the site as a whole, consult Chapter 3, prior to the description of Classic Form Pithos 17.01.

Pithos 50.01: Tall Jalul, ca. 980 B.C.

Pithos 50.01 (figure 327) originated in Field A, Square 8, Locus 41 at Tall Jalul. Locus 41 covers the majority of the southern quarter of the square. It is a part of the tenth century B.C. fill layer, underneath the major building complex in Field A. The eighth century B.C. building above this layer was later rebuilt in the seventh century B.C., leaving two major super-imposed structures. Pithos 17.10 also came from this square, in a locus below and to the north of Locus 41. Pithos 17.15 originated in Locus 43, a few centimeters below this locus. Locus 41 is the uppermost of these three layers.



FIGURE 326. Tall Jalul, Field A, Seventh Century B.C. Tripartite Building above Eighth Century B.C. Building and Tenth Century B.C. Fills.

Of the 169 sherds originating in Locus 41, eight were readable diagnostics. In addition to Pithos 50.01, these diagnostics included eight bowls and one storage jar belonging to the Iron Age 1B through Iron Age 2A. Based on the stratigraphic location of this pithos and the ceramics with which it was found, it has been dated to the beginning of the Iron Age 2A.

Pithos 50.01 shows the wear of exposure, typical in a fill layer. Nevertheless, its features are still discernable. It has the largest rim circumference and exterior rim diameter in the Final Form group and is 36% larger than the mean. It also has the smallest rim to collar angle, making it

the most upright of the Final Form group. Both of these features, and the rim's thickened, edgeless shape, imply this vessel's earlier date, despite its very short neck and low-profile collar. Indeed, most of the features of this vessel, aside from neck height, would better place it with the Classic Form. Dimensions for this pithos were obtained in person.

TABLE 222. Comparable Data for Tall Jalul Final Form Pithos 50.01.

	Pithos 50.01	μ Pithos in Group (σ)
Neck Height in cm	0.50	0.50 (0.20)
Rim Thickness in cm	1.70 (29%)	2.39 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Thickened: Edgeless, OT	Round, IT/OT
Rim Height in cm	3.00	2.41 (0.56)
Rim Circumference in cm	94.30 (36%)	59.98 (10.95)
Ext. Rim Diameter in cm	30.00 (36%)	19.10 (3.48)
Collar Shape	Teardrop	Triangular
Rim-to-Collar Angle	15.00° Inside (70%)	49.96° Inside (11.92)
Collar Prominence in mm	4.00	4.80 (3.38)
Firing	Oxidation	Oxidation, Thoroughly Fired
Exterior Munsell Reading	10 YR 8/2, Very Pale Brown	Pink



FIGURE 327. Pithos 50.01, Tall Jalul J99.A8.53.1.loc41 (Publication Forthcoming).

Pithos 50.02: Tall Jalul, ca. 650 B.C.

Pithos 50.02 (figure 328) was found in Field D, Square 7, Locus 12.

This locus is identified as balk removal and consisted of the removal of the 1.0 x 5.0 m east balk of Square 7, down to the level of the top of Wall 13. The depth of this locus varied from 8.0 to 48.0 cm, due to the interseasonal wash-out of the balk. Wall 13 connects with Wall 5, forming the south-eastern corner of Room 1 (in Square 1) in a Late Iron Age 2/Persian period domestic complex (Gane et al. 2010: 185-89).

Over 1000 sherds were recovered from Locus 12, 164 of which are diagnostic. Ceramic forms identified in this large corpus include jars, hole-mouth kraters, lamps, plates, bowls, cooking pots, jugs, storage jars, and kraters. All of these vessels find their best parallels in the late Iron Age 2C. Pithos 50.02 has therefore been assigned a date from that period.

Pithos 50.02 is a good example of the Final Form collared pithos. Its round rim is larger than average, but has a circumference and diameter that are somewhat smaller than usual. While its rim stands 35° inside the line of the collar, this angle is still 30% smaller than average, revealing this rim to be significantly nearer to alignment than is typical for a Final Form example. The double collar is one of four in this group described as such. Double collars are present among every form group, but become more frequent in the Short and Final Forms. The other features of this vessel are standard for a Final Form pithos. Dimensions for this vessel were obtained in person.

TABLE 223. Comparable Data for Tall Jalul Final Form Pithos 50.02.

	Pithos 50.02	μ Pithos in Group (σ)
Neck Height in cm	0.40	0.50 (0.20)
Rim Thickness in cm	2.60	2.39 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Round, IT/OT	Round, IT/OT
Rim Height in cm	3.10 (24%)	2.41 (0.56)
Rim Circumference in cm	56.60	59.98 (10.95)
Exterior Rim Diameter in cm	18.00	19.10 (3.48)
Collar Shape	Double	Triangular
Rim-to-Collar Angle	35.00° Inside (30%)	49.96° Inside (11.92)
Collar Prominence in mm	5.00	4.80 (3.38)
Firing	Oxidation	Oxidation, Thoroughly Fired
Exterior Munsell Reading	10YR 7/4, Very Pale Brown	Pink

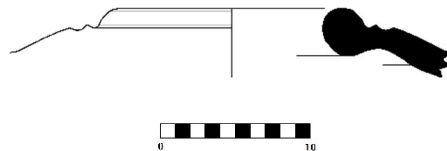


FIGURE 328. Pithos 50.02, Tall Jalul J09.D7.39.1.loc12 (Publication Forthcoming).

Pithos 50.03: Tall Jalul, ca. 650 B.C.

This pithos (figure 329) originated in Field A, Square 18, Locus 5, which is a post-occupational fill locus, with an average depth of 11.0 cm, covering the entire square. In the northwest corner a pit was found that contained the remains of an Ottoman-period burial in Locus 6, directly below this locus. In the northeast corner of the square, the top of the upper course of an Iron 2C period wall emerged in Locus 5. This locus is approximately 0.25 meters above Locus 14, from which the Short Form Pithos 35.05 originated. In addition to Pithos 50.03, the ceramics from Locus 5 include a jar and a bowl together with 80 body sherds. All these forms date to the Iron Age 2C/Persian period. This pithos has thus been dated to the middle of the seventh century B.C. in harmony with this data.

Although the sherd is damaged from ancient exposure, it can still be confidently determined that Pithos 50.03 has all of the features and dimensions of a typical Final Form collared pithos. There is little to discuss in regard to this example, as it is standard for the Final Form in all of its shapes and measurements. Dimensions for this pithos were obtained in person.

TABLE 224. Comparable Data for Tall Jalul Final Form Pithos 50.03.

	Pithos 50.03	μ Pithos in Group (σ)
Neck Height in cm	0.50	0.50 (0.20)
Rim Thickness in cm	2.50	2.39 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Round, OT	Round, IT/OT
Rim Height in cm	2.50	2.41 (0.56)
Rim Circumference in cm	69.00	59.98 (10.95)
Exterior Rim Diameter in cm	22.00	19.10 (3.48)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	50.00° Inside	49.96° Inside (11.92)
Collar Prominence in mm	4.00	4.80 (3.38)
Firing	Oxidation	Oxidation, Thoroughly Fired
Exterior Munsell Reading	5 YR 7/3, Pink	Pink

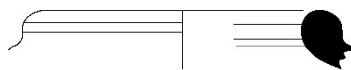


FIGURE 329. Pithos 50.03, Tall Jalul J07.A18.8.loc5 (Publication Forthcoming).

Pithos 50.04: Tall Jalul, ca. 650 B.C.

This pithos (figure 330) originated in Field C, Square 7, Locus 30 at Tall Jalul. Locus 30 is a 1.5 by 2.5 m area to the northwest of the center of Square 7. It was excavated at an average depth of 20.0 cm. Locus 30 is best defined as destruction debris and fill accumulated after a brief period of abandonment.

Of the 170 sherds recovered from Locus 30, 13 were determined to be diagnostic. In addition to Pithos 50.04, these include bowls, jars, plates, jugs, and a hole-mouth krater. All of the forms belong to the Iron Age 2C through the Late Iron Age 2C/Persian period. Taking this context and the vessel's stratigraphy into account, a late Iron Age 2C date seems most appropriate for this pithos.

Pithos 50.04 has many of the standard features and dimensions of a typical Final Form pithos. It has a slightly inverted square-shaped rim with an equal height and thickness. The square shape is seen on 11% ($n = 3$) of the Final Form rims. While the rim is nearly horizontal to the line of the shoulder, the large rim and vestigial collar still create an angle of 58° . This angle is within one standard deviation from the mean collar-to-rim angle. Six of the Final Form collars have prominences of only 1.0 mm. Pithos 50.04 is among them. These collars occasionally have a minimally detectable shape, but are considered vestigial due to their diminutive size. The remaining

features of this vessel are within standard for a Final Form example.

Dimensions for this pithos were obtained from a plate.

TABLE 225. Comparable Data for Tall Jalul Final Form Pithos 50.04.

	Pithos 50.04	μ Pithos in Group (σ)
Neck Height in cm	0.50	0.50 (0.20)
Rim Thickness in cm	2.00	2.39 (0.54)
Rim Inflection	Inverted	Everted
Rim Shape	Square, IT/OT	Round, IT/OT
Rim Height in cm	2.00	2.41 (0.56)
Rim Circumference in cm	69.10	59.98 (10.95)
Exterior Rim Diameter in cm	22.00	19.10 (3.48)
Collar Shape	Vestigial	Triangular
Rim-to-Collar Angle	58.00° Inside	49.96° Inside (11.92)
Collar Prominence in mm	1.00 (79%)	4.80 (3.38)
Firing	unknown	Oxidation, Thoroughly Fired
Exterior Munsell Reading	unknown	Pink

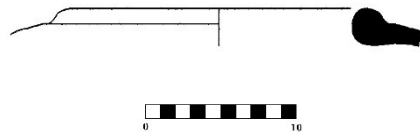


FIGURE 330. Pithos 50.04, Tall Jalul J09.C7.85.3.loc30 (Publication Forthcoming).

Pithos 50.05: Tall Jalul, Unstratified

Pithos 50.05 (figure 331) originated in Field C, Square 8, Locus 11.

Locus 11 is best defined as a layer of post-occupational fill and debris that covered the entire square to an average depth of about 0.50 meter. Over 1200 sherds were recovered from Locus 11, nearly 200 of which were diagnostic.

The forms varied widely and the periods represented ranged across all phases of occupation known at the site. Due to the mixed nature of this locus, this

pithos is identified as unstratified for the purpose of this study.

Pithos 50.05 displays a thickened, edgeless rim shape that is common to 26% (n = 7) of the Final Form vessels, making it the second most frequently observed rim shape in the group. This rim tops a neck that is 30% longer than usual, but which terminates in a typically shaped triangular collar of nearly average prominence. The remaining features of this vessel are likewise typical for a Final Form example. Dimensions for this pithos were obtained from a plate.

TABLE 226. Comparable Data for Tall Jalul Final Form Pithos 50.05.

	Pithos 50.05	μ Pithos in Group (σ)
Neck Height in cm	<i>0.80 (38%)</i>	0.50 (0.20)
Rim Thickness in cm	2.00	2.39 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Thickened: Edgeless, IT/OT	Round, IT/OT
Rim Height in cm	2.30	2.41 (0.56)
Rim Circumference in cm	59.70	59.98 (10.95)
Ext. Rim Diameter in cm	19.00	19.10 (3.48)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	58.00° Inside	49.96° Inside (11.92)
Collar Prominence in mm	3.00	4.80 (3.38)
Firing	unknown	Oxidation, Thoroughly Fired
Exterior Munsell Reading	unknown	Pink

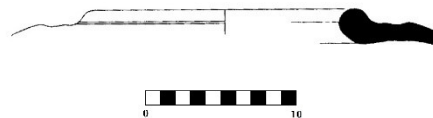


FIGURE 331. Pithos 50.05, Tall Jalul J05.C8.35.4.loc11 (Publication Forthcoming).

Pithos 50.06: Tall Jalul, ca. 750 B.C.

Pithos 50.06 (figure 332) was discovered in Field C, Square 4, Locus 17. This locus is just outside of the eastern wall of the Phase 2, four-room house, from which Classic Form Pithos 17.06 originated. Only 21 pottery sherds were retrieved from this locus, six of which are diagnostic. These all date to the Iron Age 2B. Based upon these ceramics and the stratigraphy of the Field, this vessel has been dated to the later Iron Age 2B.

Pithos 50.06 has a thickened, hook-shaped rim, a feature only shared, in the Final Form group, with Pithos 46.01, from Khirbat al-Balu'a. This shape is attributable for this rim's thickness, which is 32% wider than usual, and its height, which is 38% shorter than average for the Final Form group. Pithos 50.06 has a vestigial collar at the top of a flat, angled shoulder. Nevertheless, the remaining features of this vessel are standard for a Final Form example. Dimensions for this pithos were obtained from a plate.

TABLE 227. Comparable Data for Tall Jalul Final Form Pithos 50.06.

	Pithos 50.06	μ Pithos in Group (σ)
Neck Height in cm	0.30	0.50 (0.20)
Rim Thickness in cm	3.50 (32%)	2.39 (0.54)
Rim Inflection	Straight	Everted
Rim Shape	Thickened, T3: Hook, OT	Round, IT/OT
Rim Height in cm	1.50 (38%)	2.41 (0.56)
Rim Circumference in cm	69.20	59.98 (10.95)
Exterior Rim Diameter in cm	22.00	19.10 (3.48)
Collar Shape	Vestigial	Triangular
Rim-to-Collar Angle	39.00° Inside	49.96° Inside (11.92)
Collar Prominence in mm	1.00 (79%)	4.80 (3.38)
Firing	unknown	Oxidation, Thoroughly Fired
Exterior Munsell Reading	unknown	Pink

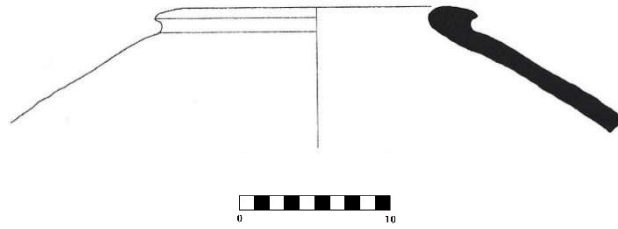


FIGURE 332. Pithos 50.06, Tall Jalul J94.C4.33.3.loc17 (Publication Forthcoming).

Tall Nimrin, Southern Jordan Valley

There is one Final Form example from Tall Nimrin evaluated below. This pithos originated from the same context as Short Form Pithos 40.01, above. Consult that discussion for more information regarding Pithos 51.01, its dating, and the known details of its context.

Pithos 51.01: Tall Nimrin, ca. 980 B.C.

Pithos 51.01 (figure 333) has a thickened, edgeless rim, the second most common Final Form rim shape. 29% (n = 8) of rims in this group are classified as thickened, edgeless. Apart from this feature, and this vessel's rounded, rather than triangular, shaped collar, Pithos 51.01 is a standard Final Form example. Dimensions for this pithos were obtained from a published plate.

TABLE 228. Comparable Data for Tall Nimrin Final Form Pithos 51.01.

	Pithos 51.01	μ Pithos in Group (σ)
Neck Height in cm	0.50	0.50 (0.20)
Rim Thickness in cm	2.14	2.39 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Thickened: Edgeless, IT/OT	Round, IT/OT
Rim Height in cm	2.14	2.41 (0.56)
Rim Circumference in cm	56.50	59.98 (10.95)
Ext. Rim Diameter in cm	18.00	19.10 (3.48)
Collar Shape	Round	Triangular
Rim-to-Collar Angle	40.00° Inside	49.96° Inside (11.92)
Collar Prominence in mm	2.00	4.80 (3.38)
Firing	unknown	Oxidation, Thoroughly Fired
Exterior Munsell Reading	unknown	Pink

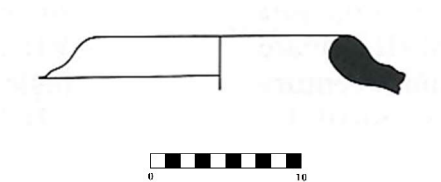


FIGURE 333. Pithos 51.01, Tall Nimrin, (Dornemann 1990: 159; fig. 5.2).

Umm al-Qanafid, Central Plateau

There is one Final Form example from Umm al-Qanafid discussed below. The site was presented in Chapter 2, prior to the evaluation of Long Form Pithos 3.01. Consult that description for more information regarding the nature of this site.

Pithos 52.01: Umm al-Qanafid, Unstratified

Pithos 52.01 (figure 334) is a standard Final Form example in nearly every aspect. It stands as the tallest in this group, about 5% taller than the Final Form mean. Together with its neck height, which is 37% taller than

average, these features represent the only elements of this example that are atypical for this group. The remaining characteristics align with the averages of a Final Form collared pithos in this study. Dimensions for this vessel were obtained in person.

TABLE 229. Comparable Data for Umm al-Qanafid Final Form Pithos 52.01.

	Pithos 52.01	μ Pithos in Group (σ)
Neck Height in cm	0.80 (37%)	0.50 (0.20)
Rim Thickness in cm	2.00	2.39 (0.54)
Rim Inflection	Straight	Everted
Rim Shape	Round, OT	Round, IT/OT
Rim Height in cm	2.00	2.41 (0.56)
Rim Circumference in cm	53.40	59.98 (10.95)
Exterior Rim Diameter in cm	17.00	19.10 (3.48)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	54.00° Inside	49.96° Inside (11.92)
Collar Prominence in mm	2.00	4.80 (3.38)
Firing	unknown	Oxidation, Thoroughly Fired
Exterior Munsell Reading	10 YR 7/3, Very Pale Brown	Pink
Full Vessel Height in cm	120.00 (5%)	113.50 (6.24)
Body Circumference in cm	160.00	168.50 (21.92)
Handle Width in cm	6.00	5.62 (0.62)
Handle Height in cm	unknown	13.70 (0.52)
Base Shape	Pointed	Rounded
Base Thickness in cm	unknown	1.35 (1 example)



FIGURE 334. Pithos 52.01, Umm al-Qanafid, Publication Unknown.

Tall al-'Umayri

There are nine Final Form pithoi from Tall al-'Umayri presented below. This site has the richest collection of collared pithoi in Transjordan. From Tall al-'Umayri pithoi have been unearthed from each of the site's seven Iron Age phases (or eight, if you count the early Persian period represented in stratum 5), revealing the complete development of the vessel form at that site. The pithoi presented below belong to the last two phases of that development, dating from ca. 732 – 586 B.C.

Collectively, the Final Form pithoi from Tall al-'Umayri have slightly shorter necks than average for this group. Their round rims are slightly thinner and taller than usual and are further from alignment with their collars than the others Final Form vessels. Consequently, their rim circumferences and diameters are smaller than average. Their collars are also somewhat less prominent than the form mean. The archaeological contexts from which these vessels originated have an average date that is approximately a quarter of a century later than the form mean. This site was first introduced in Chapter 2, prior to Long Form Pithos 7.01. Consult that section for more general details for this site.

Pithos 53.01: Tall al-'Umayri, ca. 732 B.C.

Pithos 53.01 (figure 336) originated in Field H, Square 7K11, Locus 15 at Tall al-'Umayri. Field H is located on the southwestern edge of the acropolis. Square 7K11 is just to the south of the center of the Field. Locus 15 is defined as the threshold created between Walls 5 and 6 (Herr et al. 2014: 198, 201). It is 1.25 m wide and 0.9 m across. The threshold was composed of a variety of pebbles, as well as small, and medium boulders (Herr et al. 2014: 201). This is a part of Tall al-'Umayri Stratum 7, which dates to the Iron Age 2C.

Pithos 53.01 is a typical Final Form example. It has the usual round rim with an everted inflection which stands 43° from alignment with the collar. In fact, the rim's slightly oversized dimensions and the double triangular collar are the only features that this vessel possesses that are not standard for a pithos in this form group. Dimensions for this example were obtained from a published plate.

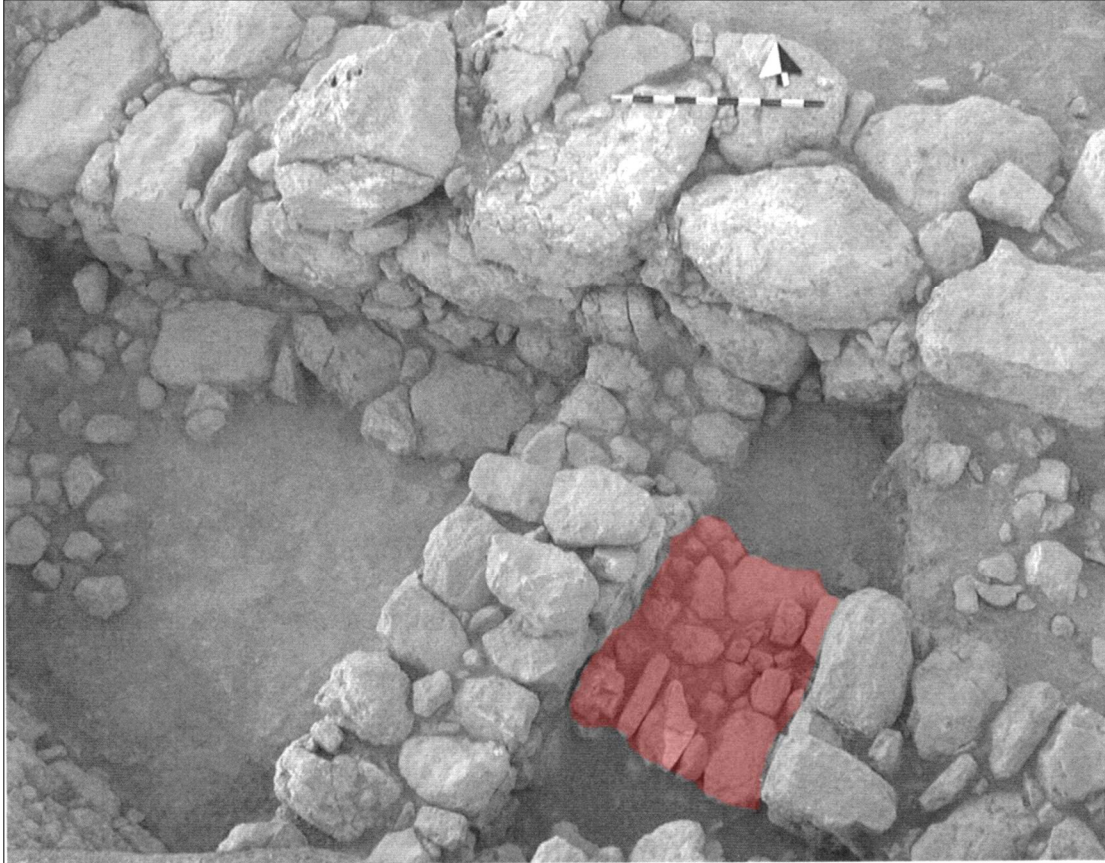


FIGURE 335. Tall al-‘Umayri, Threshold H.7K11:15, where Pithos 53.01 was unearthed (Herr et al. 2014: 203; fig. 5.19, adapted).

TABLE 230. Comparable Data for Tall al-‘Umayri Final Form Pithos 53.01.

	Pithos 53.01	μ Pithos in Group (σ)
Neck Height in cm	0.50	0.50 (0.20)
Rim Thickness in cm	2.50	2.39 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Round, OT/IT	Round, IT/OT
Rim Height in cm	3.00 (20%)	2.41 (0.56)
Rim Circumference in cm	59.69	59.98 (10.95)
Ext. Rim Diameter in cm	19.00	19.10 (3.48)
Collar Shape	Double	Triangular
Rim-to-Collar Angle	43.00° Inside	49.96° Inside (11.92)
Collar Prominence in mm	6.00	4.80 (3.38)
Firing	Underfired, Core Present	Oxidation, Thoroughly Fired
Exterior Munsell Reading	5 YR 8/4, Pink	Pink

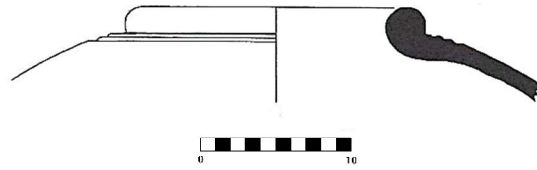


FIGURE 336. Pithos 53.01, Tall al-‘Umayri (Herr et al. 2014: 206; fig. 5.23.6).

Pithos 53.02: Tall al-‘Umayri, ca. 732 B.C.

Pithos 53.02 (figure 338) was unearthed in Field H, Square 7K11, Locus 10 at Tall al-‘Umayri. This locus is defined as the uppermost of the earth layers in the western room of the square (Herr et al. 2014: 198, 202). Similar to the context of Pithos 53.01, this locus is a part of Tall al-‘Umayri Stratum 7 and dates to the Iron Age 2C.

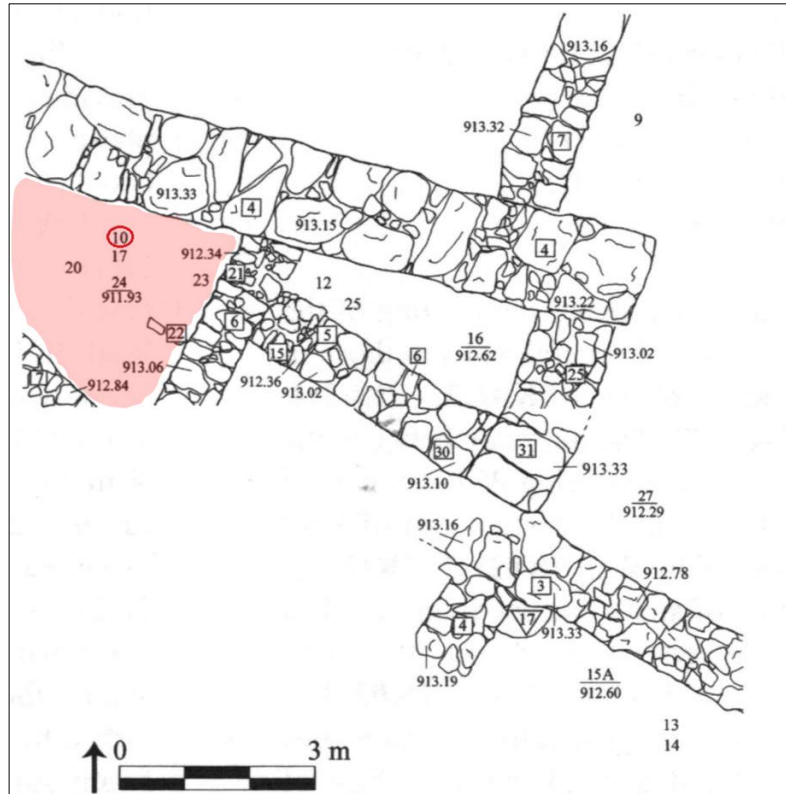
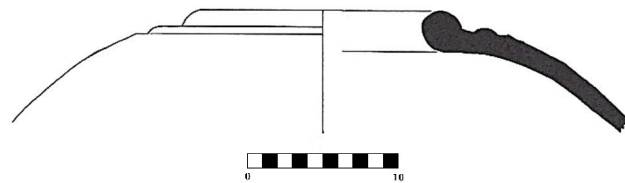


FIGURE 337. Tall al-'Umayri, Stratum 7 in the southeastern quadrant of Field H. Locus H.7K11.10 is highlighted (Herr et al. 2014: 202; fig. 5.18, adapted).

At first glance, Pithos 53.02 is very typical for a Final Form vessel. It has many of the usual features of a vessel in this group. The round rim and raised shoulders are both common for the Final Form. There are, however, a few characteristics of this pithos that are remarkable. In addition to one of the longest necks in the Final Form group, this vessel also has the most prominent collar. Of the 233 collared pithoi in this study, Pithos 53.02 has the most prominent collar with a round shape, and the fifth most prominent overall. At 1.5 cm, it certainly stands out in the Final Form group. The remaining features of this example are standard. Dimensions for this pithos were obtained from a published plate.

TABLE 231. Comparable Data for Tall al-'Umayri Final Form Pithos 53.02.

	Pithos 53.02	μ Pithos in Group (σ)
Neck Height in cm	0.80 (38%)	0.50 (0.20)
Rim Thickness in cm	2.40	2.39 (0.54)
Rim Inflection	Straight	Everted
Rim Shape	Round, OT/IT	Round, IT/OT
Rim Height in cm	2.60	2.41 (0.56)
Rim Circumference in cm	54.98	59.98 (10.95)
Exterior Rim Diameter in cm	17.50	19.10 (3.48)
Collar Shape	Round	Triangular
Rim-to-Collar Angle	69.00° Inside (28%%)	49.96° Inside (11.92)
Collar Prominence in mm	15.00 (68%)	4.80 (3.38)
Firing	Underfired, Core Present	Oxidation, Thoroughly Fired
Exterior Munsell Reading	5 YR 6/6, Reddish Yellow	Pink

**FIGURE 338.** Pithos 53.02, Tall al-'Umayri (Herr et al. 2014:206; fig. 5.23.7).

Pithos 53.03: Tall al-'Umayri, ca. 732 B.C.

Pithos 53.03 (figure 340) and the following example, Pithos 53.04 (figure 341), both originated in Field F, Square 6L98, Locus 45. Square 6L98 is directly west of the chambered gate in Field F. Locus 45 is an earth fill layer beneath ashy Surface 39. These layers seal against the fragmentary Wall 44. This two-row wall segment is approximately 1.0 m wide and 2.3 m long (Herr et al. 1991: 187). Both the surface and the earth fill beneath it have ceramics that date exclusively to the Iron Age 2C (Herr et al. 1991: 187). These layers belong to Tall al-'Umayri Stratum 7.

Pithos 53.03 has a round rim that is larger than average and a collar that is 79% less prominent than is typical for a Final Form pithos. This vessel is nevertheless a nearly standard example of its form. Dimensions for this pithos were obtained from a published plate.

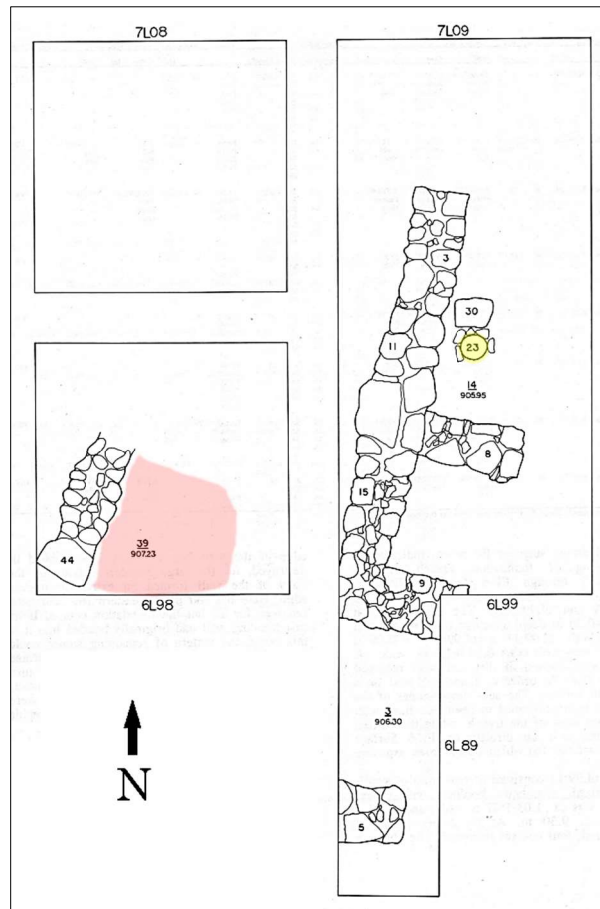
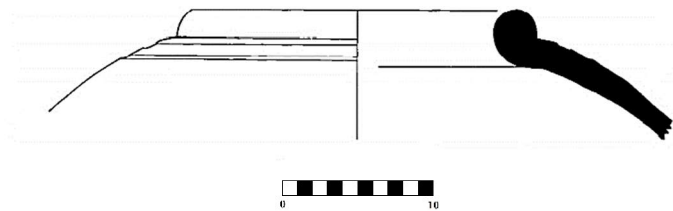


FIGURE 339. Top Plan of Tall al-Umayri, Field F, Stratum 7. (Pithos 53.03 and 53.04 location indicated in red and Pithos 53.05 location indicated in yellow; Herr et al. 1991: 186; fig. 8.10, adapted).

TABLE 232. Comparable Data for Tall al-'Umayri Final Form Pithos 53.03.

	Pithos 53.03	μ Pithos in Group (σ)
Neck Height in cm	0.50	0.50 (0.20)
Rim Thickness in cm	2.60	2.39 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Round, OT	Round, IT/OT
Rim Height in cm	2.60	2.41 (0.56)
Rim Circumference in cm	68.17	59.98 (10.95)
Ext. Rim Diameter in cm	21.70	19.10 (3.48)
Collar Shape	Vestigial	Triangular
Rim-to-Collar Angle	42.00° Inside	49.96° Inside (11.92)
Collar Prominence in mm	1.00 (79%)	4.80 (3.38)
Firing	Oxidation, Thoroughly Fired	Oxidation, Thoroughly Fired
Exterior Munsell Reading	7.5 YR 7/4, Pink	Pink

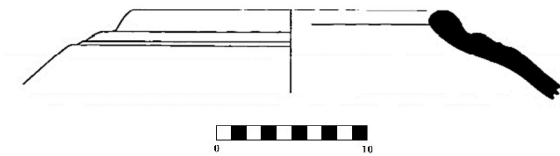
**FIGURE 340.** Pithos 53.03, Tall al-'Umayri (Herr et al. 1991:188; fig. 8.12.1).

Pithos 53.04: Tall al-'Umayri, ca. 732 B.C.

Pithos 53.04 (figure 341) is a typical Final Form example in most ways. However, its thickened, edgeless rim (the second most common rim shape in this group) is 29% thinner than usual. While its collar is of average prominence, it has a rounded “bump” shape only present on 18% ($n = 5$) of the Final Form examples. All of its remaining features, however, are standard for a Final Form pithos. Dimensions were obtained from a published plate.

TABLE 233. Comparable Data for Tall al-'Umayri Final Form Pithos 53.04.

	Pithos 53.04	μ Pithos in Group (σ)
Neck Height in cm	0.40	0.50 (0.20)
Rim Thickness in cm	1.70 (29%)	2.39 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Thickened, T2: Edgeless, OT	Round, IT/OT
Rim Height in cm	2.10	2.41 (0.56)
Rim Circumference in cm	65.57	59.98 (10.95)
Ext. Rim Diameter in cm	20.87	19.10 (3.48)
Collar Shape	Round	Triangular
Rim-to-Collar Angle	50.00° Inside	49.96° Inside (11.92)
Collar Prominence in mm	4.00	4.80 (3.38)
Firing	Oxidation, Thoroughly Fired	Oxidation, Thoroughly Fired
Exterior Munsell Reading	5 YR 6/6, Reddish Yellow	Pink

**FIGURE 341.** Pithos 53.04, Tall al-'Umayri (Herr et al. 1991:188; fig. 8.12.2).

Pithos 53.05: Tall al-'Umayri, ca. 732 B.C.

Pithos 53.05 (figure 343) was discovered in Field F, Square 6L99, Locus 23. This locus is within the city entry, in a secondary use as a basin (Herr et al. 1991: 187). The base of a pithos, most likely that of Pithos 53.05, was placed in a cobble lined supporting pit (Herr et al. 1991: 187). Directly to the north of this basin was a rectangular standing stone and a stone with a 7.0 cm wide hole drilled through it, near the top. It is suggested that this drilled stone may have been used for the tethering of animals (Herr et al. 1991: 187). A similar standing stone with an associated basin was found

within the Iron Age gate at Tell el-Far'ah, North (Herr et al. 1991: 187).

According to the excavation report, the ceramics found in the Tall al-'Umayri installation date to the Iron Age 2C (Herr et al. 1991: 187).

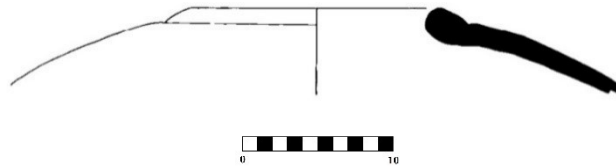
Pithos 53.05 has several unusual features. It is one of four vessels that share the shortest neck heights in this study. It also has a thickened, edgeless rim that is 29% thinner than average, while its height is 7% greater than average for the Final Form group, but still within one standard deviation from the mean. Its vestigial collar is among the least prominent examples in this group. The remaining features of this pithos are standard for a Final Form pithos. Dimensions for this vessel were obtained from a published plate.



FIGURE 342. Tall al-'Umayri, Field F, Standing Stone, Pithos base, and possible tethering stone in the gate area (Herr et al. 1991: 187; fig. 8.11, adapted).

TABLE 234. Comparable Data for Tall al-‘Umayri Final Form Pithos 53.05.

	Pithos 53.05	μ Pithos in Group (σ)
Neck Height in cm	0.20 (60%)	0.50 (0.20)
Rim Thickness in cm	1.70 (29%)	2.39 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Thickened, T2: Edgeless, IT	Round, IT/OT
Rim Height in cm	2.60	2.41 (0.56)
Rim Circumference in cm	51.84	59.98 (10.95)
Ext. Rim Diameter in cm	16.50	19.10 (3.48)
Collar Shape	Vestigial	Triangular
Rim-to-Collar Angle	56.00° Inside	49.96° Inside (11.92)
Collar Prominence in mm	1.00 (79%)	4.80 (3.38)
Firing	Oxidation, Thoroughly Fired	Oxidation, Thoroughly Fired
Exterior Munsell Reading	7.5 YR 7/4, Pink	Pink

**FIGURE 343.** Pithos 53.05, Tall al-‘Umayri (Herr et al. 1991:188; fig. 8.12.3).

Pithos 53.06: Tall al-‘Umayri, ca. 650 B.C.

Pithos 53.06 (figure 344) was found in Field B, Square 8K02, Locus 7 at Tall al-‘Umayri. This is the same square from which Short Form Pithos 45.06 was unearthed, though that example was found in the east room in an earlier phase than this one.¹⁷⁹ Locus 7 is best described as a light yellowish-brown earth layer covering the center of the square (Herr et al. 2014: 118, 138). It had an average depth of 30.0 to 40.0 cm, with ceramics dating to the

¹⁷⁹ See the description of Pithos 45.06 for more information regarding its spatial relationship and visualization in a top plan.

late Iron Age 2C/Persian period (Herr et al. 2014: 138). This locus belongs to Tall al-'Umayri Stratum 6.

Pithos 53.06 is a good example of a Final Form collared pithos. It has the typical round rim that is slightly larger than usual, but still within one standard deviation from the mean for this group. In fact, aside from the short neck, this vessel is a typical version of a Final Form pithos. Dimensions were obtained from a published plate.

TABLE 235. Comparable Data for Tall al-'Umayri Final Form Pithos 53.06.

	Pithos 53.06	μ Pithos in Group (σ)
Neck Height in cm	0.20 (60%)	0.50 (0.20)
Rim Thickness in cm	2.50	2.39 (0.54)
Rim Inflection	Straight	Everted
Rim Shape	Round, OT/IT	Round, IT/OT
Rim Height in cm	3.00	2.41 (0.56)
Rim Circumference in cm	56.55	59.98 (10.95)
Ext. Rim Diameter in cm	18.00	19.10 (3.48)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	55.00° Inside	49.96° Inside (11.92)
Collar Prominence in mm	5.00	4.80 (3.38)
Firing	Oxidation, Thoroughly Fired	Oxidation, Thoroughly Fired
Exterior Munsell Reading	5 YR 7/4, Pink	Pink

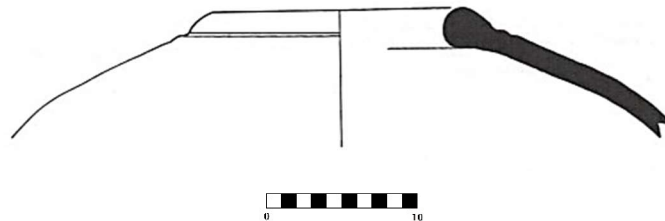


FIGURE 344. Pithos 53.06, Tall al-'Umayri (Herr et al. 2014:143; fig. 4.50.2).

Pithos 53.07: Tall al-'Umayri, ca. 650 B.C.

The next three Final Form examples, Pithoi 53.07, 53.08, and 53.09, were all discovered in the same locus – namely Field F, Square 7L08, Locus 21. This locus is defined as a surface which suffered exposure at the end of that period of domestic occupation in that area of the site (Herr et al. 1991: 189). This surface, and the others beneath it, were cut by a robber's trench and subsequently back-filled during the land leveling efforts of the later occupants (Herr et al. 1991: 228).¹⁸⁰ Locus 21 belongs to Tall al-'Umayri Stratum 6, or the late Iron Age 2C/Persian period.

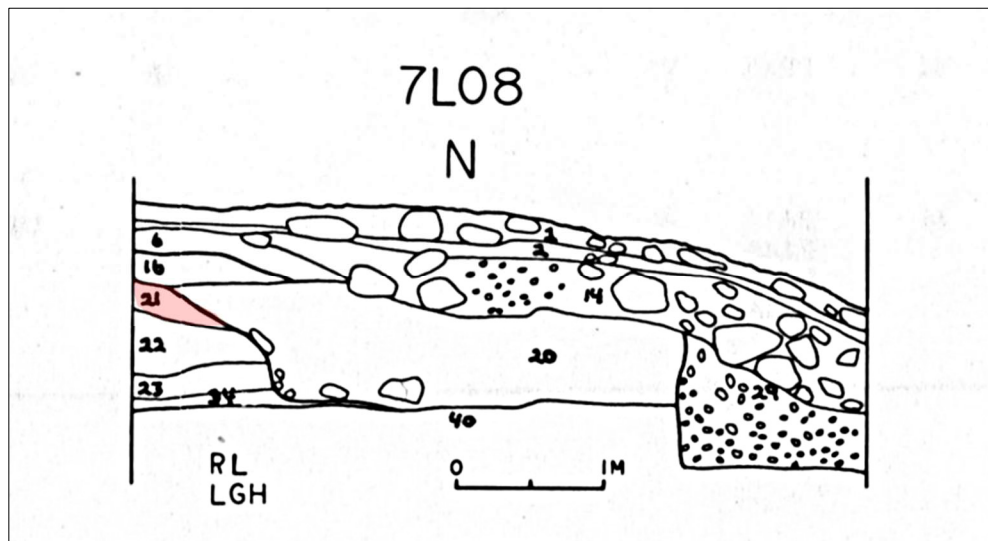


FIGURE 345. North Balk drawing of Square 7L08. (Locus 21 highlighted in red; Herr et al. 1991: 228; fig. 8.26, adapted).

¹⁸⁰ Fig. 344 illustrates the north balk of this square for a visualization of these activities.

Pithos 53.07 (figure 346) has some very unusual shapes and dimensions for a Final Form collared pithos. Its square rim is 20% thicker than average. It is one of three in the Final Form group with a square shape, but this example is by far the most defined. The shape is mirrored in the vessel's very prominent square collar as well. This collar is almost a double collar, as it has a heavy ledge on the lower edge of the collar. Beyond these features, however, the dimensions of this pithos are within standard for the Final Form group. Dimensions for this vessel were obtained from a published plate.

TABLE 236. Comparable Data for Tall al-'Umayri Final Form Pithos 53.07.

	Pithos 53.07	μ Pithos in Group (σ)
Neck Height in cm	0.44	0.50 (0.20)
Rim Thickness in cm	3.00 (20%)	2.39 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Square, OT	Round, IT/OT
Rim Height in cm	2.20	2.41 (0.56)
Rim Circumference in cm	71.00 (15%)	59.98 (10.95)
Ext. Rim Diameter in cm	22.60 (15%)	19.10 (3.48)
Collar Shape	Square	Triangular
Rim-to-Collar Angle	51.00° Inside	49.96° Inside (11.92)
Collar Prominence in mm	8.70 (45%)	4.80 (3.38)
Firing	Oxidation, Thoroughly Fired	Oxidation, Thoroughly Fired
Exterior Munsell Reading	5 YR 7/4, Pink	Pink

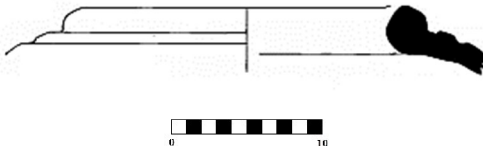


FIGURE 346. Pithos 53.07, Tall al-'Umayri (Herr et al. 1991:191; fig. 8.13.3).

Pithos 53.08: Tall al-'Umayri, ca. 650 B.C.

Pithos 53.08 (figure 347) has all of the standard features expected in a Final Form example. Its teardrop-shaped collar is the only characteristic that is not among the most common features for this group. It is a shape shared by 18% (n = 5) of the Final Form examples. Beyond this shape, all of this vessel's dimensions are typical. Dimensions for this pithos were obtained from a published plate.

TABLE 237. Comparable Data for Tall al-'Umayri Final Form Pithos 53.08.

	Pithos 53.08	μ Pithos in Group (σ)
Neck Height in cm	0.40	0.50 (0.20)
Rim Thickness in cm	2.60	2.39 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Round, OT	Round, IT/OT
Rim Height in cm	2.60	2.41 (0.56)
Rim Circumference in cm	50.27	59.98 (10.95)
Exterior Rim Diameter in cm	16.00	19.10 (3.48)
Collar Shape	Teardrop	Triangular
Rim-to-Collar Angle	44.00° Inside	49.96° Inside (11.92)
Collar Prominence in mm	6.00	4.80 (3.38)
Firing	Reduction, Gray	Oxidation, Thoroughly Fired
Exterior Munsell Reading	5 YR 7/4, Pink	Pink

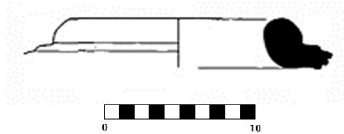


FIGURE 347. Pithos 53.08, Tall al-'Umayri (Herr et al. 1991:191; fig. 8.13.4).

Pithos 53.09: Tall al-'Umayri, ca. 650 B.C.

All of the dimensions of Pithos 53.09 (figure 348) are within one standard deviation of the mean for the Final Form group. Its only less-typical features are the shapes of its rim and collar. Its rim has a thickened, edgeless shape shared with 29% (n = 8) of the rims in this group. It is the second most common Final Form rim shape. This particular example is nearly square, though the edges are rounded and undefined enough that it is classified instead as an edgeless, thickened shape. The collar on this pithos has a teardrop shape. While this was the most frequent shape in the Long Form, it is only present on 18% (n = 5) of the Final Form examples. Both the rim and the collar on this pithos are of average size and prominence for the Final Form group. The same is true for this vessel's remaining features. Dimensions for this pithos were obtained from a published plate.

TABLE 238. Comparable Data for Tall al-'Umayri Final Form Pithos 53.09.

	Pithos 53.09	μ Pithos in Group (σ)
Neck Height in cm	0.40	0.50 (0.20)
Rim Thickness in cm	2.20	2.39 (0.54)
Rim Inflection	Everted	Everted
Rim Shape	Thickened, T2: Edgeless, OT	Round, IT/OT
Rim Height in cm	2.80	2.41 (0.56)
Rim Circumference in cm	55.92	59.98 (10.95)
Ext. Rim Diameter in cm	17.80	19.10 (3.48)
Collar Shape	Teardrop	Triangular
Rim-to-Collar Angle	55.00° Inside	49.96° Inside (11.92)
Collar Prominence in mm	6.00	4.80 (3.38)
Firing	Oxidation, Thoroughly Fired	Oxidation, Thoroughly Fired
Exterior Munsell Reading	7.5 YR 7/4, Pink	Pink



FIGURE 348. Pithos 53.09, Tall al-'Umayri (Herr et al. 1991:191; fig. 8.13.6).

Unknown Provenance

There are two Final Form pithoi described below for which there is no connected provenance data. They are thus silent on matters of chronology, geographic distribution, or patterns of use. The contribution of these examples is ultimately only toward an understanding of the details of the form. Despite this handicap, these vessels are very valuable as they are two of the four full form examples in the Final Form group.

Pithos 54.01: Unknown Provenance

Pithos 54.01 (figure 349) has an inverted, thickened, edgeless rim. This shape is the second most frequent among the Final Form examples. Beyond this feature, and the slightly shorter than average handle height seen on this vessel's handles, this pithos is a great example of the Final Form characteristics. With the exception just mentioned, all of the dimensions of this example are within one standard deviation from the mean for this group. Dimensions for this pithos were obtained in person.

TABLE 239. Comparable Data for Unknown Provenance Final Form Pithos 54.01.

	Pithos 54.01	μ Pithos in Group (σ)
Neck Height in cm	0.50	0.50 (0.20)
Rim Thickness in cm	2.90	2.39 (0.54)
Rim Inflection	Inverted	Everted
Rim Shape	Thickened: Edgeless, OT	Round, IT/OT
Rim Height in cm	2.15	2.41 (0.56)
Rim Circumference in cm	62.80	59.98 (10.95)
Ext. Rim Diameter in cm	20.00	19.10 (3.48)
Collar Shape	Round	Triangular
Rim-to-Collar Angle	53.00° Inside	49.96° Inside (11.92)
Collar Prominence in mm	6.00	4.80 (3.38)
Firing	unknown	Oxidation, Thoroughly Fired
Exterior Munsell Reading	10 YR 7/2, Light Gray	Pink
Full Vessel Height in cm	111.00	113.50 (6.24)
Body Circumference in cm	160.00	168.50 (21.92)
Handle Width in cm	5.96	5.62 (0.62)
Handle Height in cm	13.10 (4%)	13.70 (0.52)
Base Shape	Rounded	Rounded
Base Thickness in cm	unknown	1.35 (1 example)



FIGURE 349. Pithos 54.01, Unknown Provenance #J1489 (Publication Unknown, Located in the Amman Citadel Museum Collection, as of June 2018).

Pithos 54.02: Unknown Provenance

Pithos 54.02 (figure 350) has an enlarged round rim with a straight inflection from the line of its neck. This rim is approximately 30% larger than the average Final Form rim. Nevertheless, it has the typical shape. This can also be said of the remaining features, which are all standard, and the remaining measurements, which are all within one standard deviation from the mean for the Final Form. Dimensions for this pithos were obtained in person.

TABLE 240. Comparable Data for Unknown Provenance Final Form Pithos 54.02.

	Pithos 54.02	μ Pithos in Group (σ)
Neck Height in cm	0.60	0.50 (0.20)
Rim Thickness in cm	3.35 (29%)	2.39 (0.54)
Rim Inflection	Straight	Everted
Rim Shape	Round, OT	Round, IT/OT
Rim Height in cm	3.50 (31%)	2.41 (0.56)
Rim Circumference in cm	62.80	59.98 (10.95)
Exterior Rim Diameter in cm	20.00	19.10 (3.48)
Collar Shape	Triangular	Triangular
Rim-to-Collar Angle	38.00° Inside	49.96° Inside (11.92)
Collar Prominence in mm	4.00	4.80 (3.38)
Firing	unknown	Oxidation, Thoroughly Fired
Exterior Munsell Reading	unknown	Pink
Full Vessel Height in cm	117.00	113.50 (6.24)
Body Circumference in cm	153.00	168.50 (21.92)
Handle Width in cm	4.90	5.62 (0.62)
Handle Height in cm	14.00	13.70 (0.52)
Base Shape	Pointed	Rounded
Base Thickness in cm	unknown	1.35 (1 example)



FIGURE 350. Pithos 54.02, Unknown Provenance, DOA #J1419 (Publication Unknown, Located in the University of Jordan Archaeological Museum Collection, as of June 2018).

Conclusions

This chapter endeavored to establish a fuller picture of the shortest-necked collared pithoi in Transjordan. The Final Form group is defined as those with neck heights under 1.0 cm. Wherever accessible, each of the 28 pithoi in this chapter was analyzed according to 30 different attributes. The archaeological contexts of each of the pithoi were then evaluated for information regarding the vessel's chronological placement, geographic distribution, and use patterns. Based upon the foregoing data, the following conclusions can now be suggested regarding the shortest-necked phase of the collared pithos' development in Transjordan.

Chronology

In the Iron Age 2A, two examples appear, one from Tall Jalul, Pithos 50.01, and the other from Tall Nimrin, Pithos 51.01. These vessels represent the earliest occurrence of the Final Form in Transjordan. The exact archaeological context of Pithos 51.01 is unknown, but Pithos 50.01 is from a clearly stratified locus. Despite their early appearance, they both have neck heights that are average for this group. Five other Final Form pithoi have neck heights that are longer than these two examples. This further illustrates the importance of stratigraphic context in dating a collared pithos. Neck height alone cannot determine chronology. Even when the more reliable rim-to-collar angle is considered, only Pithos 50.01, set a short 15° inside of

alignment, fits the expectation of an earlier phase vessel. Pithos 51.01, however, is even more inclined than average for this group.

In the Iron Age 2B, another two Final Form examples, Pithos 47.01 from Um al-Hedamus and Pithos 50.06 from Tall Jalul, are attested. However, it wasn't until the beginning of the Iron Age 2C that this shortest-necked pithos really became popular. Eight (42%) of the Final Form pithoi date to the Iron Age 2C, quadrupling the numbers seen in the previous period and marking the peak of the short-necked collared pithos tradition. During the late Iron Age 2C/Persian period the form continued its pattern of common use. Seven (37%) of the Final Form pithoi originate in late Iron Age 2C contexts. By the middle of the seventh century B.C. the last examples of this group appeared. In this study, these *terminus* examples of the Final Form consist of seven vessels from Iraq el-Amir,¹⁸¹ Tall Jalul,¹⁸² and Tall al-'Umayri.¹⁸³

Given this data, it seems fair to posit that the Final Form represents the last stage in the development of the collared pithos. When compared to the Short Form, best conceived as a style belonging to the Iron Age 2B, it is clear that the Final Form is primarily a part of the Iron Age 2C. Put another way, the Short Form is a ninth through eighth century B.C. variant and the Final Form was a tradition popularized during the seventh century B.C.

¹⁸¹ Pithos 49.01

¹⁸² Pithoi 50.02 and 50.03

¹⁸³ Pithoi 53.06 – 53.09

While the collared pithos styles demonstrate some limited contemporaneity and overlap in periods of use, they do have demonstrably independent horizons.

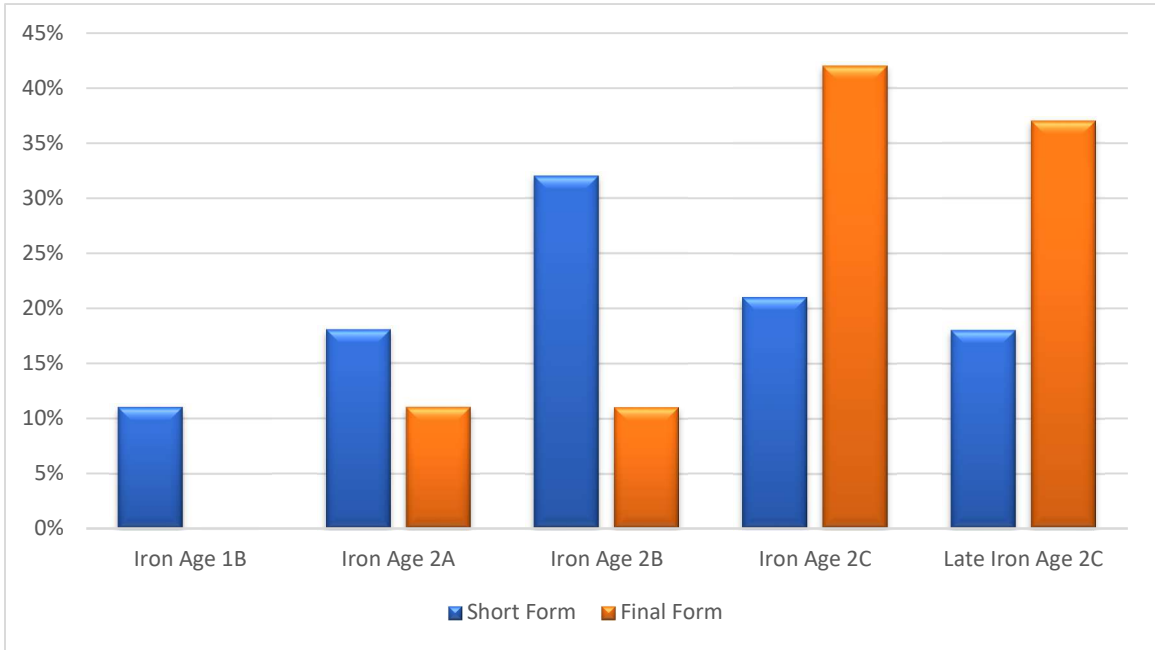


FIGURE 351. Comparative Distribution of the Short and Final Form Pithoi Across Archaeological Periods.

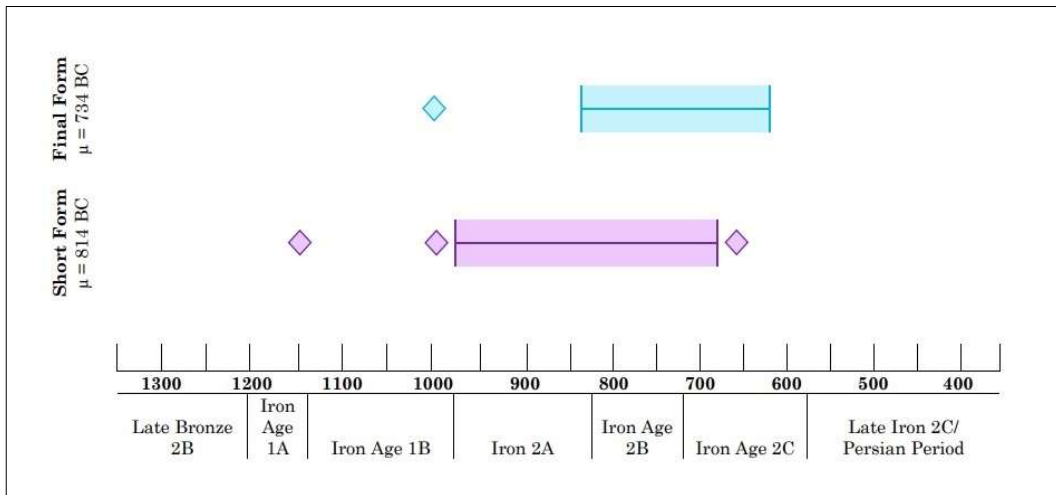


FIGURE 352. Statistical comparison of the chronological ranges for Short Form and Final Form pithoi (the shaded range indicates one standard deviation from the mean; the diamonds mark the dates that lie outside of one standard deviation for that form).

Geographic Distribution

The regional distribution of the Final Form projects a reversal of the distribution trend displayed in the Classic and Short Form groups, as the collared pithos traditions fade out toward the end of the Iron Age. Nearly 85% of the Final Form pithoi originated on the Central Plateau, coming from only five sites. Northern Transjordan saw a slight increase in numbers as well. While Final Form continued in popularity on the Kerak Plateau, the examples from the Jordan Valley decreased by more than half. This pattern of disbursement appears to indicate a greater propensity toward style innovations among the ceramic traditions of the Central Plateau.

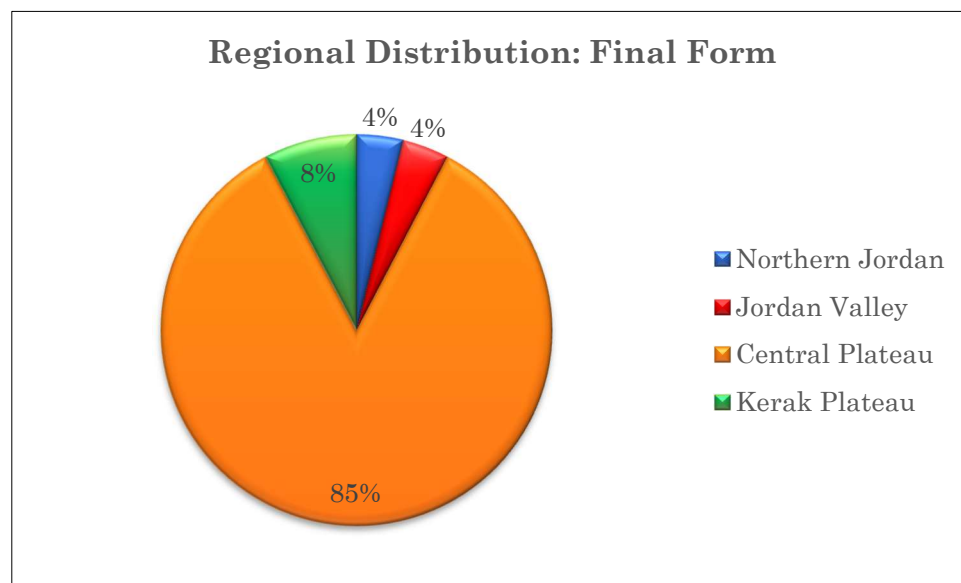


FIGURE 353. Geographic distribution of the Final Form, by region.

In Chapter 3, a regional analysis of average neck heights and dates was attempted for the Classic Form group. It showed two things. First, that

the earliest dates for Classic Form occurred in the Jordan Valley and on the Central Plateau. Second, that the longest neck heights in that group were in northern Transjordan and in the Jordan Valley. As a side note, this analysis also demonstrated that neck height and date of archaeological context are not correlated.

The number of examples available from the various regions in the Short and Final Form groups may limit the effectiveness of a similar analysis for these groups. Nevertheless, these averages have been collected in Table 241, below. It does appear that, at least with the Final Form examples, pithoi from the Central Plateau have the only below-average neck heights, while those from the Jordan Valley are near the mean, and those from northern Transjordan and the Kerak Plateau are longer than usual. The collared pithos first appeared on the Central Plateau in Transjordan, and from the average regional dates, it would seem reasonable to suggest that it is also last seen in that region.

Table 241. Mean Neck Heights and Dates for the Final Form, by region¹⁸⁴

Geographic Region	Neck Height	Date
Northern Jordan	<i>0.90</i>	<i>830</i>
Jordan Valley	<i>0.50</i>	<i>980</i>
Central Plateau	0.46	707
Kerak Plateau	0.60	750

¹⁸⁴ The average Short Form neck height is 1.40 cm and the average date is 814 B.C.. The average Final Form neck height is 0.51 cm and the average date is 734 B.C.. Italicized numbers are based on only one example and therefore do not represent a true mean.

Use Patterns

Nothing in the data collected from the Final Form pithoi above indicates any other use than the storage of dry goods, most likely in a domestic setting. While the lack of any whole vessels with clear archaeological contexts indicates a probable secondary location of most of the stratified examples, context analysis will still be ventured in an effort to evaluate the use patterns of the Final Form collared pithoi.

These vessels come from an equal variety of settings, similar to those seen with the previous forms. Half of the pithoi were unearthed in small rooms, interpreted generally as storage rooms. Likely examples of vessels in this setting include Pithoi 46.01 and 46.02 from Khirbat al-Balu'a, Pithos 47.01 from Um al-Hedamus, and Pithoi 53.01 and 53.06 from Tall al-'Umayri.

Similar to the Classic and Short Forms, these storage room settings were not the exclusive location of the Final Form examples. Several were located in open areas such as courtyards or larger rooms, or even outside of any building altogether. Pithos 50.06 from Tall Jalul and Pithoi 53.02-53.04 from Tall al-'Umayri were all located in the larger rooms of buildings or houses. Pithos 50.05 was found in a secondary location, repurposed as a basin beside a city entrance. All of the pithoi were found in spaces near other ceramic forms and artifacts which might indicate a proximity to domestic activities.

Characteristic Analysis

The Final Form style continued to exhibit the popularity of the trend of round rims seen among the Short Form vessels. The triangular collar and the pointed base shapes continued as well. The rim circumference and diameter continued to shrink as the rim to collar angle progressively deepened, nearly reaching an average of 50° in from alignment with the collar. The variety of rim shapes diminished significantly by the Final Form, as well. In the Long Form group there are twelve different discernable rim shape types. This variety peaked in the Classic Form group, with thirteen different shapes. However, in the Short Form group, only ten different rim styles can be distinguished. A number which drops to only six rim shapes in the Final Form group.

In the following chapter, all four forms will be reviewed together in an effort to elucidate the characteristics inherent with each development of the collared pithos. The pithoi of Cisjordan will also be included in the comparisons between the vessel's development in each region. Finally, a conclusion will be presented, outlining the major phases of the collared pithos in Transjordan.

Chapter 6: Analysis and Conclusions

The collared pithos of Transjordan is a large storage container peculiar to the Iron Age. Data for 233 collared pithos examples have been obtained, recorded, and analyzed for the purpose of this study. The form is ubiquitous at sites on the Central Plateau, but is attested in all regions of Transjordan. The collared pithos is present in every phase of the Iron Age, from the beginning of the Iron Age 1A through the late Iron Age 2C/Persian period.

Just over 11% (n = 26) of the collared pithoi presented in the foregoing chapters were classified as unstratified, and thus could not be dated. For the purpose of this study, a pithos is determined to be unstratified if it is from an unsealed or mixed locus, or is a vessel that has been published without or has become separated from its excavation data since its discovery. The developmental horizons outlined below are based solely on the stratified collared pithoi presented earlier in this study and their direct ceramic contexts. The vessels that could not be dated cannot be included in this analysis.

Developmental Horizons

Iron Age 1A, ca. 1200 – 1140 B.C.

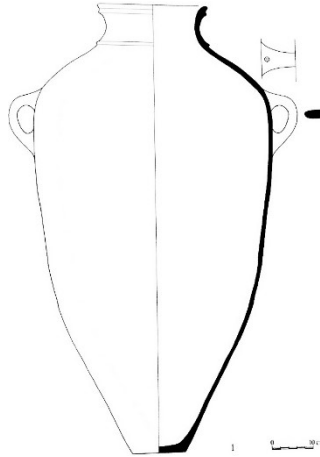


FIGURE 354. Pithos 7.03, representing the most features of a typical Iron Age 1A pithos (Tall al-‘Umayri, #3; Herr et al. 2014: 339-57).

Description

The earliest examples of collared pithoi in Transjordan appear at Tall al-‘Umayri on the Central Plateau and in two tombs in the cemetery at Tall es-Sa‘idiyeh in the Jordan Valley. Two examples come from the latter site, and 70 from the former. The earliest collared pithoi typically have piriform bodies and tall concave necks.¹⁸⁵ A few have pointed bases, but most have narrow flat bases. The rims of these pithoi display 12 distinct styles, and they are more likely to have rim and neck profiling at this phase than at any other. The shoulders have a gentle s-curve from the concave neck to the swell of the body beneath the shoulder. Roughly half of the vessels at this stage

¹⁸⁵ Only three of the 72 pithoi dated to the Iron Age 1A have neck heights shorter than 5.0 cm. These are Pithoi 27.01-27.03 from Tall al-‘Umayri.

have handles that begin at the bottom of the shoulder and about 44% have handles that span the shoulder. A small number – two in this sample group¹⁸⁶ – have handles that are positioned entirely above the widest part of the shoulder.

The vessels from Tall es-Sa‘idiyeh have straighter lines and sharper angles than most of those at Tall al-‘Umayri. Pithos 6.01 in particular has a tall straight neck that joins the top of the shoulder at a 140° angle. The shoulder slopes down, with no obvious curvature, to the top of the body wall, where it joins it at an opposite 140° angle. The handles begin beneath this second join and run along the sides of the vessel’s upper body. Collared pithoi typically have shoulders that turn a 120° angle from the join of the neck to the top of the body wall. While the shoulder becomes less curved over time, this angle remains fairly constant. These examples from Tall es-Sa‘idiyeh, therefore, present an unusual angle in the shoulder.

Pithos 7.54, from Tall al-‘Umayri, has a straight neck that is similar to that of Pithos 6.01, but unfortunately the body and shoulder are not present to determine whether or not it shares other characteristics with Pithos 6.01. The second vessel from Tall es-Sa‘idiyeh, Pithos 6.02, is similar to Pithos 6.01, only in its angled shoulder and triangular collar. Its neck is about half as tall as that of the former example and, rather than a triangular rim, Pithos 6.02 has a concave neck gently curving up to a simple, thickened rim.

¹⁸⁶ These vessels are Pithos 7.60 and Pithos 7.61 from Tall al-‘Umayri.

The most similar vessel in the study collection to Pithos 6.02 is Pithos 3.01 from Umm al-Qanafid – although the latter has a slightly longer neck and more rounded shoulder. Pithoi 3.01 and 6.02 both have triangular-shaped collars and share the simplicity of their rim and neck profiles. Unfortunately, the original context of Pithos 3.01 is unknown, so it is impossible to say whether or not it belongs to the Iron Age 1A.

The Tall al-‘Umayri rims from this period can be grouped into twelve distinct shape classifications.¹⁸⁷ Represented by 17 (24%) of the rims, the most frequent Iron Age 1A rim style is the Profiled, Type 1: Kidney rim, with a single concavity around the center of its outer face. This shape is followed in frequency by the Thickened, Type 1: Edged rim, with a single edge around the lower side of the rim’s outer face.

Unlike the uniformity apparent in the collar shapes of the two examples from Tall es-Sa‘idiyeh, the Tall al-‘Umayri collars can be organized into five different styles. The most common shape is the teardrop, represented by 54% of the examples, and the second is the triangular collar, which has been pinched into a pointed shape. This variety implies that sites with smaller sample sizes, such as that seen at Tall es-Sa‘idiyeh, might also have wider artistic repertoires yet to be discovered, should more examples be found.

¹⁸⁷ This count treats sub-categories of the profiled and thickened shapes as independent classifications.

TABLE 242. Distribution of Rim and Collar Styles Occurring on Iron Age 1A Pithoi.

Rim Shape	Example Count
Profiled, Type 1: Kidney	17
Profiled, Type 2: Ridged	5
Profiled, Type 3: Double Grooved	1
Profiled, Type 4: Upper Groove	2
Profiled, Type 5: Simple Grooved	1
Rectangular	7
Simple	1
Thickened, Type 1: Edged	13
Thickened, Type 2: Edgeless	11
Thickened, Type 4: Offset	9
Thickened, Type 5: Miscellaneous	1
Triangular	4

Collar Shape	Example Count
Double	3
Round	3
Square	2
Teardrop	39
Triangular	25

Contexts and Associated Ceramics

All of the studied collared pithoi, which dated to the Iron Age 1A, were unearthed in one of two archaeological contexts. The pithoi at Tall es-Sa'idiyeh came from two contemporary and adjacent tombs in the cemetery near the tell. These vessels are thus in a secondary context that can contribute to their dating and form, but not to a better understanding of their originally intended use. The pithoi from Tall al-'Umayri, however, were discovered *in situ* within the back room of a building connected to the city's fortification wall. The nature of the room and the plethora of full-form pithoi found in it may be suggestive of a storage room for food stuffs or seed grain.

Whether this is indicative of hierarchy, and the amassed wealth of one household, or is representative of a communal storage area is unknown.

The ceramic horizon of the Iron Age 1A collared pithoi includes a number of Late Bronze Age/Iron Age 1A transitional forms, such as cooking pots with carinated bodies and triangular rims, carinated bowls, globular kraters, squat amphorae resembling jugs, small globular jugs with flaring necks, long-necked handleless jars with ovoid bodies, and jugs with flaring rims. Also attested are rimmed lamps with rounded bases.

Cooking Pots

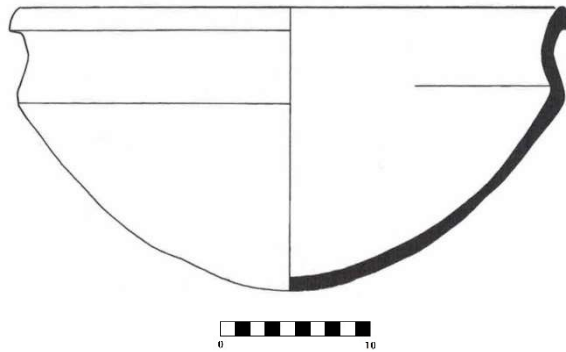


FIGURE 355. Tall al-‘Umayri, Field Phase 11: Cooking Pot. This cooking pot was found among mud brick detritus in the eastern room of the four-room house designated as Building B. This material is equivalent to the destruction debris in the western room of the building (Herr et al. 2014: 114-15; fig. 4.28.1, adapted).

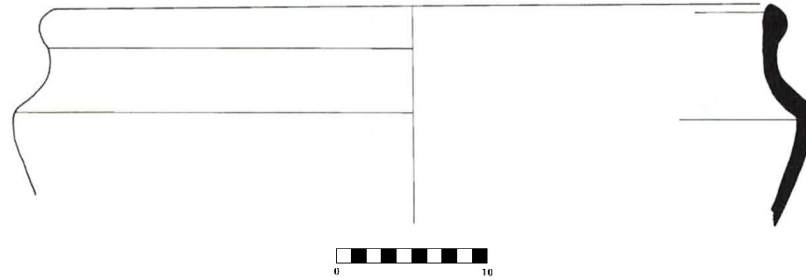


FIGURE 356. Tall al-‘Umayri, Field Phase 11: Cooking Pot. This vessel was found among the destruction debris in the western room of the four-room house designated as “Building B” (Herr et al. 2002: 76-77; fig. 4.16.6, adapted). This is the room where most of the Iron Age 1A collared pithoi were unearthed.

Cups, Bowls, and Kraters

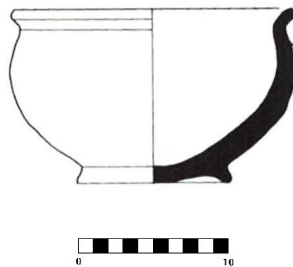


FIGURE 357. Tall al-‘Umayri, Field Phase 11: Bowl. This bowl was found in the western room of the four-room house designated as “Building B.” It belonged to the same locus as the majority of the Iron Age 1A pithoi (Herr et al. 2002: 76-77; fig. 4.16.2, adapted).

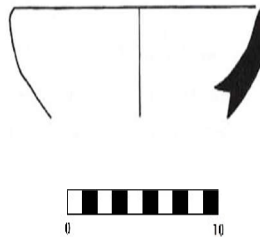


FIGURE 358. Tall al-‘Umayri, Field Phase 11: Bowl. This bowl was found in the central courtyard of the four-room house designated as “Building B.” This area is adjacent to the room in which the majority of the Iron Age 1A pithoi were unearthed (Herr et al. 2014: 112-13; fig. 4.27.7, adapted).

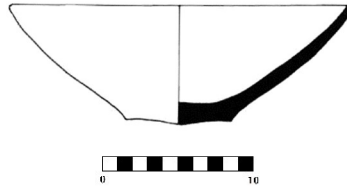


FIGURE 359. Tall es-Sa‘idiyeh, Cemetery, Tomb 117: Bowl. This bowl was found in Tomb 117 with six others like it. This is the context shared by Pithos 6.01 (Pritchard 1980: 58-59; fig. 21.9, adapted. See also Stern 2015: 449; fig. 4.1.2:1 for an Iron Age parallel from Samaria).

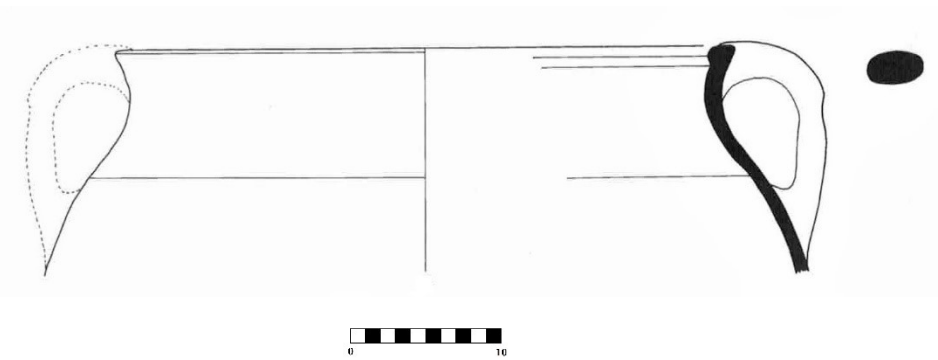


FIGURE 360. Tall al-‘Umayri, Field Phase 11: Krater. This krater was found in a context near to that of the Early Form pithoi in the structure designated “Building B” (Herr et al. 2002: 74-75; fig. 4.15.5, adapted).

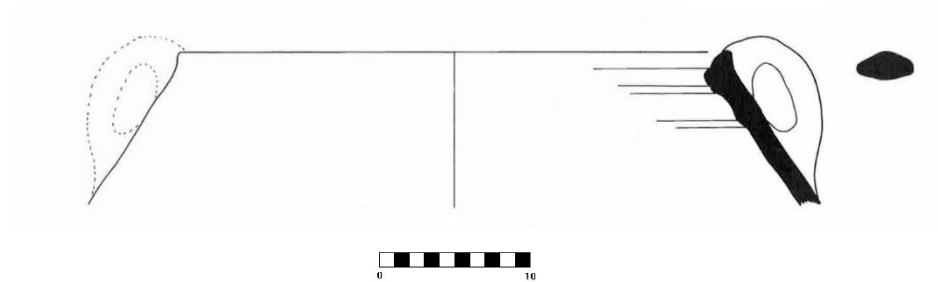


FIGURE 361. Tall al-‘Umayri, Field Phase 11: Krater. This krater was found in the same context as the majority of the Early Form pithoi (Herr et al. 2002: 74-75; fig. 4.15.7, adapted).

Juglets, Jugs, and Jars

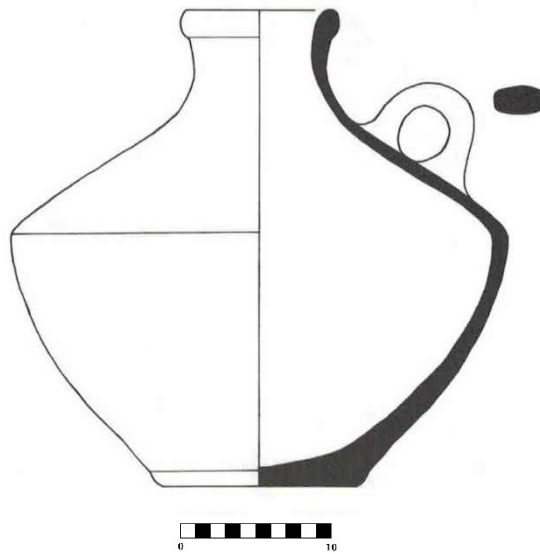


FIGURE 362. Tall al-‘Umayri, Field Phase 11: Jug. This vessel was found among the destruction debris in the western room of the four-room house designated as “Building B” (Herr et al. 2000: 82, 84; fig. 4.30.16, adapted). This is the room where most of the Iron Age 1A collared pithoi were unearthed. This vessel may alternatively be described as an amphora (see Herr 2015a: 100, 108-109; pl. 1.3.6:5).

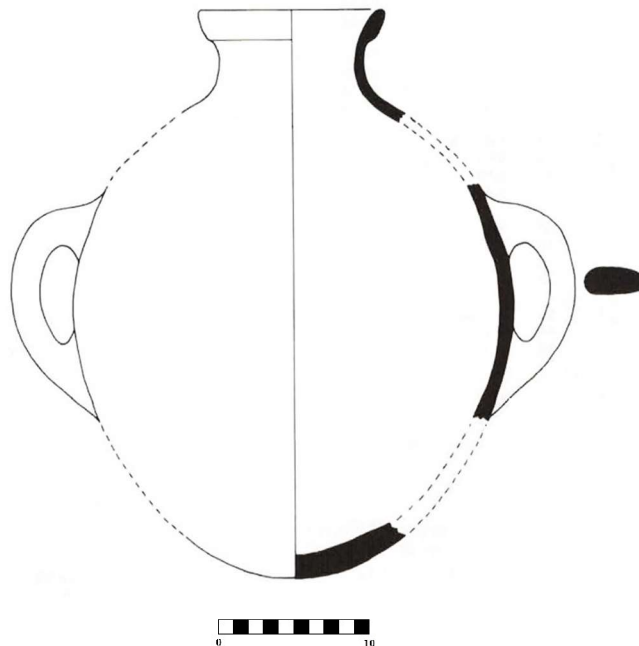


FIGURE 363. Tall al-‘Umayri, Field Phase 11: Jar. This jar was found among the destruction debris in the western room of the four-room house designated as “Building B” (Herr et al. 1997: 80, 81; fig. 4.26.6, adapted). This is the room where most of the Iron Age 1A collared pithoi were found.

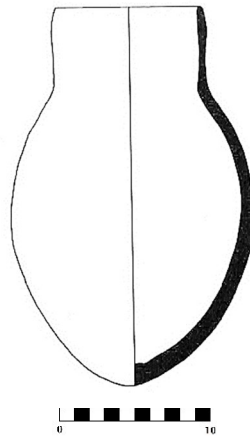


FIGURE 364. Tall es-Sa‘idiyeh, Cemetery, Tomb 102: Jar. This handless jar was found in Tomb 102. This tomb is both contemporary and adjacent to Tomb 117, in which Pithos 6.01 was discovered. A similar, incomplete example of this style was also found in Tomb 117 (Pritchard 1980: 42-43; fig. 5.2, adapted). These straight, high-necked jars are, thus far, peculiar to the cemetery of Tall es-Sa‘idiyeh (Herr 2015a: 100).

Lamps

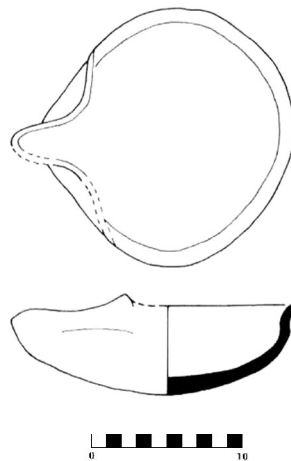


FIGURE 365. Tall al-‘Umayri, Field Phase 11: Lamp. This lamp was found among the destruction debris in the western room of the four-room house designated as “Building B” (Herr et al. 1997: 85; fig. 4.28.1, adapted). Also originating from this locus were 16 of the Iron Age 1A collared pithoi presented in Chapter 2 (Pithos 7.46 – Pithos 7.61).

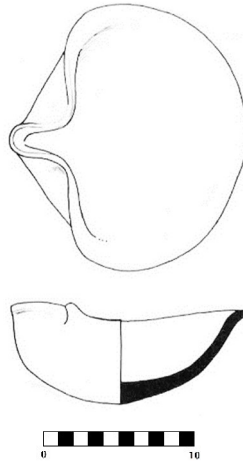


FIGURE 366. Tall es-Sa‘idiyeh, Cemetery, Tomb 102: Lamp. The tomb in which this lamp was found is both contemporary and adjacent to Tomb 117, in which Pithos 6.01 was discovered (Pritchard 1980: 42-43; fig. 5.7, adapted).

Summary

In the Iron Age 1A, the collared pithos is limited in its geographic range to two sites – one on the Central Plateau and the other in the Jordan Valley. It first appears in the earliest phase of the period and, as a transitional form, is still accompanied by the occasional Late Bronze Age vessel. It is characterized by a kidney-shaped rim, a teardrop or triangular-shaped collar, rim and neck profiling, and a long neck – averaging around 7.0 cm. Its body shape is generally piriform with a small, flat base. It is primarily found in a mass storage context, with secondary funerary use attested. The associated ceramics include Late Bronze Age through early Iron Age 1 forms.

Iron Age 1B, ca. 1140 – 980 B.C.

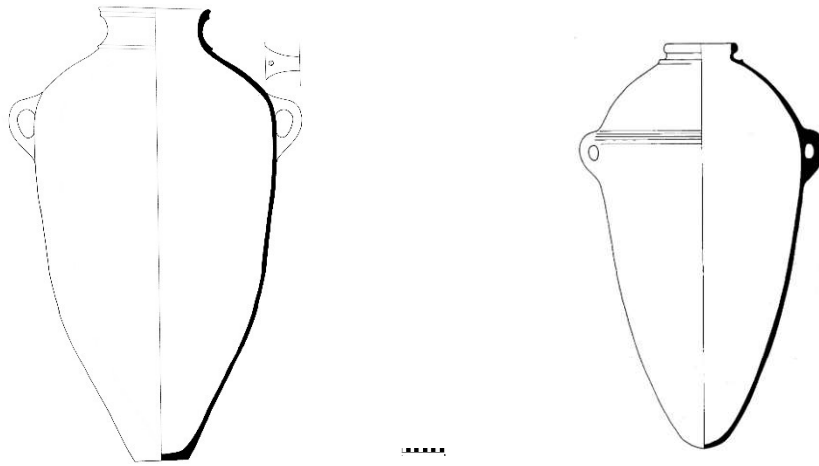


FIGURE 367. Pithos 7.03 (left), representing the greatest number of the typical features of an Iron Age 1A pithos (Tall al-‘Umayri, #3; Herr et al. 2014: 339, 357). Pithos 26.01 (right), representing the greatest number of the typical features of an Iron Age 1B pithos (Tall Sahab; Ibrahim 1978: 116; fig 1).

Description

In the Iron Age 1B, the collared pithos tradition experienced a broad growth. In contrast to the limited range the form had in the Iron Age 1A, the collared pithos is found at eleven sites¹⁸⁸ in Iron Age 1B contexts – across the Central and Kerak Plateaus and in the Jordan Valley. The examples from the Iron Age 1B represent 23% (n = 47) of the total number of collared pithoi in this study.

The most obvious change in the form of the collared pithos from the Iron Age 1A to the Iron Age 1B is the shortening of its neck. In the previous

¹⁸⁸ These are Abu al-Kharaz, Tall Deir ‘Alla, Tall Hisban, ‘Iraq el-Emir, Tall Jawa, Khirbat Lahun, Khirbat al-Mudayna al-‘Aliya, Khirbat Safra, Tall Safut, Tall Sahab, and Tall al-‘Umayri.

period, the neck heights averaged around 7.0 cm tall. In the Iron Age 1B, they are less than half of their earlier height, averaging around 3.0 cm tall. Demonstrative of this transition, 83% (n = 39) of the Iron Age 1B pithoi are classified as Classic Form. Smaller groups of vessels representing the Long (n = 5) and Short (n = 3) Forms are attested in this period as well.

Other features of the pithos also evolved during this period. The profiled rims and teardrop collars were replaced in their majority by thickened, edgeless rims and triangular shaped collars. Rims that once stood only 9° inside the line of their collars became an average of 13° inside of alignment. There are four vessels from the Iron Age 1B which have been well enough preserved to appraise their full form for comparison with those of the earlier examples. These vessels are Pithoi 1.01 and 14.01 from Tall Deir 'Alla, Pithos 26.01, from Tall Sahab, and Pithos 27.04, from Tall al-'Umayri. All of these vessels have small rounded or pointed bases. The flat base that predominated the Iron Age 1A is no longer present in the Iron Age 1B. The flat base is likely a style that was carried over from the Late Bronze Age.

The pithoi from Tall Deir 'Alla show a great similarity in general shape to many of the Iron Age 1A examples. They have piriform bodies with gently rounded angles, similar to that of Pithos 7.17. Both vessels have rounded shoulders, a trend that continues through the rest of the collared pithos' development. The handles on Pithos 14.01 appear to straddle the shoulder, while Pithos 1.01 has handles that begin on the lower part of the shoulder.

The vessels from Tall Sahab and Tall al-‘Umayri are more similar to each other than they are to the pithoi from Tall Deir ‘Alla. They both show trends from a piriform toward a more ovoid shape. Their bodies are slimmer, tapering at a more direct line from the shoulder to the small, rounded base. This body shape is not unattested in the Iron Age 1A, observable in Pithoi 7.12 and 7.13. However, the Iron Age 1B vessels have handles that are positioned lower on the shoulder than their earlier counterparts. Pithos 26.01 and Pithos 27.04 both have an incised line decoration running horizontally around the body near the top of the handle, likely achieved with string. This characteristic began with these vessels during the Iron Age 1B and continued for the rest of their development in Transjordan.

Interestingly, all five of the Iron Age 1B pithoi which were not found at sites on the Central Plateau have rims that are triangular in shape, very similar to the rim of Pithos 6.01, from Iron Age 1A Tall es-Sa‘idiyeh. The only other vessels from Iron Age 1B contexts with comparably triangular rims are Pithos 5.02, from Tall Safut, Pithos 20.01, from Khirbat al-Lahun, and to a lesser extent Pithos 27.05, from Tall al-‘Umayri. Apart from this unique attribute, and the other differences noted above, there do not appear to be any major permutations peculiar to any of the geographic regions where the Iron Age 1B pithoi are found. The variations are relatively uniform in their distribution across all regions.

Contexts and Associated Ceramics

Not all of the Iron Age 1B pithoi were found in archeological contexts that provide sufficient information from which to draw conclusions about the way these vessels may have been used. About 62% of the Iron Age 1B examples in this study were either from secondary contexts or have not been published with data concerning their immediate context. However, 18 of the pithoi are published with adequate data regarding their context in what can be interpreted as their original location – or at least near to it. Seventy-two percent of these (n = 13) were discovered in rooms abutting or nearby the city's perimeter fortification wall. Sixty-seven percent (n = 12) come from a small room, probably best understood as a storage area. Twenty-two percent (n = 4) originated in open spaces¹⁸⁹ such as the large or main room of the building within which they were found. Pithos 8.01 from Abu al-Kharaz comes from a context best interpreted as a food preparation area. Numerous cooking pots and two ovens were found in the immediate vicinity among several ash pockets.

The horizons of the ceramics accompanying the Iron Age 1B pithoi almost exclusively include Iron Age 1 forms, such as cooking pots with flanged rims, carinated bowls, round-sided bowls, with simple, thickened,

¹⁸⁹ For the purpose of this study, small rooms are those that are small by comparison to the building's other rooms, usually with much more limited access. Small rooms are most frequently classified as storage rooms in excavation reports. Large rooms, or courtyards, are rooms or spaces within a building that are large by comparison to the building's other spaces. Rooms (roofed) and courtyards (unroofed) are not here distinguished from one another.

inverted rims, handleless kraters with simple, thickened, everted rims, small ovoid jugs, and jars with simple, flaring necks and rims. Simple rims are common in this period, as well as thickened, inverted rims, particularly on bowls. The only lamp found in a context with an Iron Age 1B collared pithos has a flat base. The rim, however, is unfortunately missing.

Cooking Pots

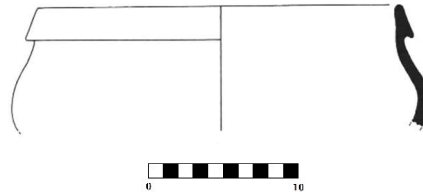


FIGURE 368. Tall Abu al-Kharaz, Phase 11: Cooking Pot. This cooking pot was found in a context near to that of Iron Age 1B Pithos 8.01 (Fischer 2013: 116-17; fig. 108:6, adapted).

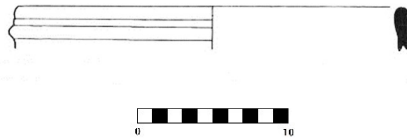


FIGURE 369. Tall al-‘Umayri, Field Phase 10: Cooking Pot. This cooking pot was found in the same location as all eleven of the Iron Age 1B collared pithoi from Tall al-‘Umayri, presented in this study (Herr et al. 2014: 58; fig. 3.32.3, adapted).

Cups, Bowls, and Kraters

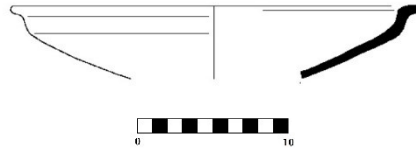


FIGURE 370. Tall Jawa, Stratum X: Bowl. This bowl was found near the location where Iron Age 1B Pithoi 18.01 and 18.02 were discovered (Daviau 2003: 38-39; fig. 4.8:2, adapted).

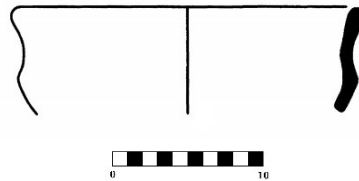


FIGURE 371. Khirbat al-Mudayna al-‘Aliya: Bowl. This bowl was found on the north-west side of the courtyard from which Iron Age 1B Pithos 22.02 was recovered (Routledge 2000: 42-43; fig. 5.4, adapted).



FIGURE 372. Tall al-‘Umayri, Field Phase 10: Bowl. This bowl was found in the same location as all eleven of the Iron Age 1B collared pithoi, presented in this study, from Tall al-‘Umayri (Herr et al. 2014: 58; fig. 3.32:2, adapted).

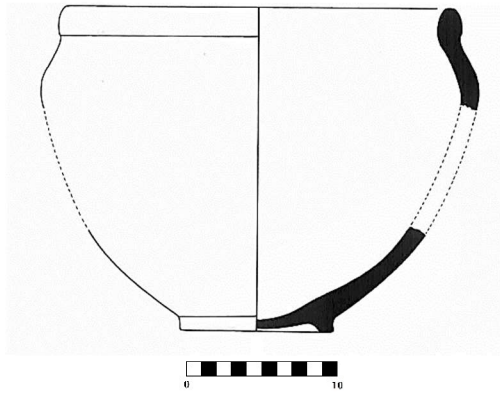


FIGURE 373. Tall Abu al-Kharaz, Phase 11: Krater. This krater was found in a locus adjacent to that in which Iron Age 1B Pithos 8.01 was discovered (Fischer 2013: 111-13; fig. 105:2, adapted).

Juglets, Jugs, and Jars

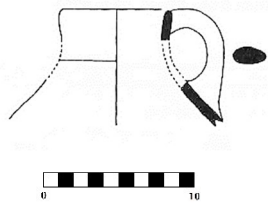


FIGURE 374. Tall al-‘Umayri, Field Phase 10: Jug. This jug was found in the same location as all eleven of the Iron Age 1B collared pithoi, presented in this study, from Tall al-‘Umayri (Herr et al. 2014: 58; fig. 3.32:4, adapted).

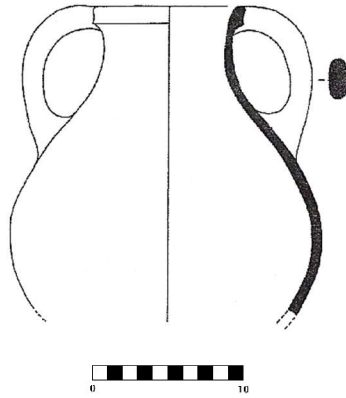


FIGURE 375. Tall Abu al-Kharaz, Phase 11: Jug. This jug was found in a context shared by Iron Age 1B Pithos 8.01 (Fischer 2013: 115-16; fig. 107:1, adapted).

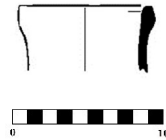


FIGURE 376. Tall Jawa, Field Phase X: Jar. This jar/jug was found near the location where Iron Age 1B Pithoi 18.01 and 18.02 were discovered (Daviau 2003: 38-39; fig. 4.8:5, adapted).

Lamps



FIGURE 377. Tall Abu al-Kharaz, Phase 11: Lamp. This lamp was found in a locus adjacent to that in which Iron Age 1B Pithos 8.01 was found (Fischer 2013: 115-16; fig. 107:10, adapted).

Summary

In the Iron Age 1B, the collared pithos is found at a range of sites across the Central and Kerak plateau, and in the Jordan Valley. It is characterized by a neck that is less than half as tall as it was in the previous period. The flat base is no longer attested and developed fully into the small rounded or pointed base. The angle between the vessel's collar and rim increased by several degrees. The collared pithos continued to have a piriform body shape, but the line between the shoulder and base became more direct. During the Iron Age 1B, the collared pithos is most often found in smaller rooms – which are best interpreted as storage areas – and is primarily associated with later Iron Age 1 forms.

Iron Age 2A, ca. 980 – 830 B.C.

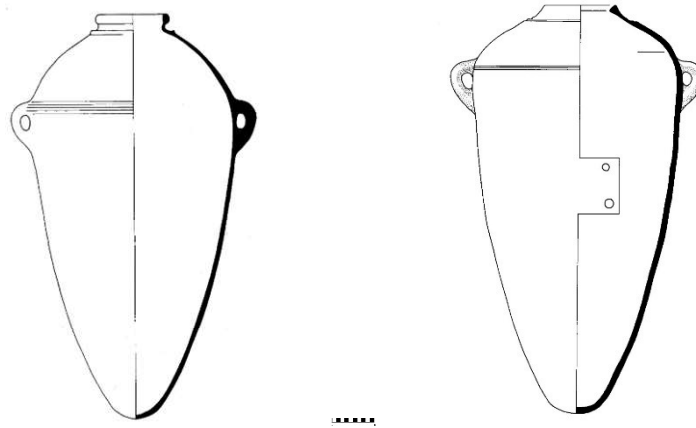


FIGURE 378. Pithos 26.01 (left), representing the greatest number of the typical features of an Iron Age 1B pithos (Tall Sahab; Ibrahim 1978: 116; fig. 1). Pithos 18.03 (right), the vessel most closely resembling the typical features of an Iron Age 2A pithos body. The rim section is atypical (Tall Jawa V189/A13.53.5, Daviau 1992: 151, fig. 4, left).

Description

In the Iron Age 2A the collared pithos appears, according to the accessible data, to have reached an all-time production low in Transjordan. After the frequency of examples from Iron Age 1B contexts, a period yielding 47 pithoi for analysis, it is surprising to note the infrequency of the vessel in Iron Age 2A contexts. The 20 collared pithoi from this period available for analysis are from nine sites – less than half¹⁹⁰ of which are located on the Central Plateau. This shift in geographic distribution may be connected to a phase of de-sedentarization in the Central Plateau. Several sites in this

¹⁹⁰ These are 'Iraq el-Emir, Tall Jawa, Tall Jalul, and Khirbat Safra.

region have observable occupation gaps¹⁹¹ during the Iron Age 2A. The pithoi from this period originating in other regions were discovered at two sites in the Jordan Valley and at two sites in Southern Transjordan.

In the Iron Age 2A, the average neck height nearly dropped another half of a centimeter, now averaging 2.66 cm. The thickened, edgeless rim shape continued to be the dominate rim style during this period. The round-shaped rim continued to grow in popularity, but the simple and triangular-shaped rims became less common than they were in the previous period. Similarly, triangular-collar shapes continued to dominant in the Iron Age 2A, while the round-collar shape became more frequent, and the teardrop shape became increasingly rare. The angle between the rim and the collar continued to deepen, reaching an average of 23° from vertical alignment with the collar.

Included in this analysis are two full-form collared pithoi from Iron Age 2A contexts. These vessels are Pithoi 18.03 and 36.01 from Tall Jawa. These examples have a rim shape that is unattested among other collared pithoi in this study. While generally described as triangular, they are unlike the other triangular rims – perhaps better described as thickened with a flat top and an inner and outer edge. Apart from the rims, these vessels provide

¹⁹¹ A few examples of this pattern include Tall Hisban, which has a hiatus between Stratum 18 and 17, Tall Safut, with a gap between Stratum 6 which ends in the early-mid Iron Age 1B, and Stratum 5 which is founded in the mid-late Iron Age 2B, and Tall al-‘Umayri which has a brief occupational break between the end of Stratum 9 in the early Iron Age 2A and the beginning of Stratum 8 in the Iron Age 2B.

our best understanding of the body of the collared pithos during the Iron Age 2A. From the top of the shoulder down, they largely resemble the Iron Age 1B examples from Tall Sahab and Tall al-‘Umayri. These Iron Age 2A pithoi reveal a continuing trend toward an ovoid body shape and a small, rounded base. The handles on both of the Tall Jawa pithoi begin on the lower portion of the shoulder, bridging it to the upper wall of the body.

Context and Associated Ceramics

One quarter of the Iron Age 2A collared pithoi were found in contexts from which some data can be extrapolated regarding the original use of the vessels. Of these, 60% (n = 3) were located in open spaces, such as the courtyard or main room of a building, and 40% (n = 2) were found in smaller spaces interpreted as storage areas. The remaining three quarters of the examples were also split between those originating in fill loci (60%) and those with unknown archaeological contexts (40%).

The ceramic horizon associated with the Iron Age 2A collared pithos is represented by vessels with parallels in the late Iron Age 1 – early Iron Age 2. These forms include cooking pots with inverted, triangular rims that are flanged or ridged, bowls with inverted, triangular rims, round-sided bowls with simple thickened, flat-topped rims, and wide-necked, globular juglets and jugs. Multiple vessels were unearthed in loci that also contained implements most commonly associated with food preparation, such as mortars, pestles, and grinders.

Cooking Pots

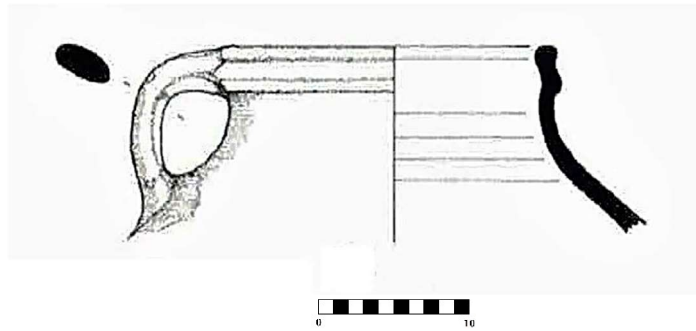


FIGURE 379. Khirbat en-Nahas, Area M, Integrated Phase 3: Cooking Pot. This cooking pot, or cooking jug, was found in a context near Iron Age 2A Pithos 39.01 (Smith and Levy 2014: 349; fig. 4.7:16, adapted).

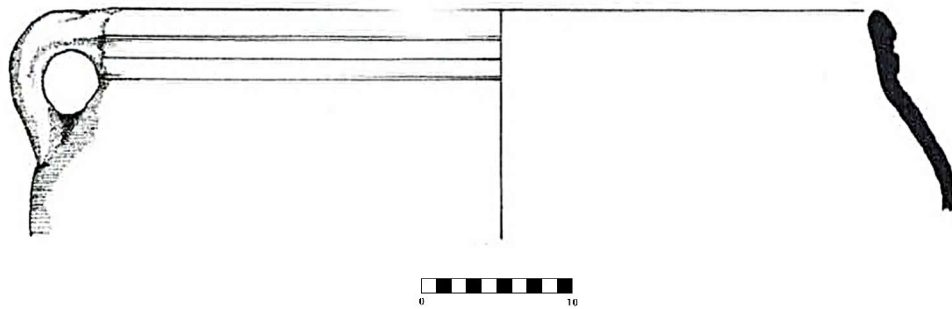


FIGURE 380. Khirbat en-Nahas, Area T, Integrated Phase 3: Cooking Pot. This cooking pot was found in a context near Iron Age 2A Pithos 23.02 (Smith and Levy 2014: 348; fig. 4.6:1, adapted).

Cups, Bowls, and Kraters

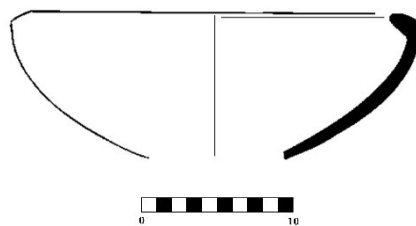


FIGURE 381. Tall Jawa, Field A, Stratum VIII: Bowl. This bowl was found in a context near that of Iron Age 2A Pithos 18.03 and Pithos 36.01 (Daviau 2003: 470; fig. 12.1:3, adapted).

Juglets, Jugs, and Jars

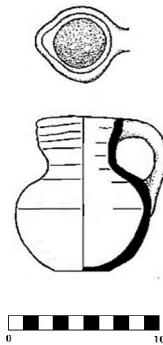


FIGURE 382. Tall Jawa, Field A, Stratum VIII: Juglet. This red-slipped juglet was found in a context near that of Iron Age 2A Pithos 18.03 and Pithos 36.01 (Daviau 2003: 470; fig. 12.1:4, adapted).

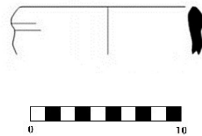


FIGURE 383. 'Iraq el-Emir, Field I, Stratum V: Jar. This jar/jug was found in a context with Iron Age 2A Pithos 16.02 (Ulvoczky 2017: 67; pl. 10:5, adapted).

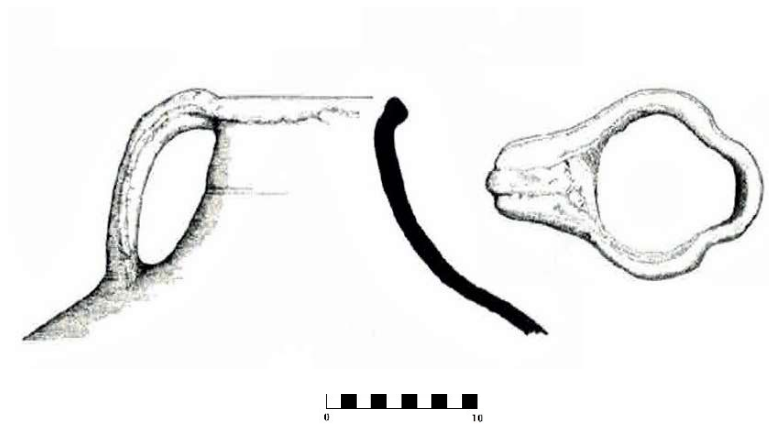


FIGURE 384. Khirbat en-Nahas, Area M, Integrated Phase 3: Jug. This jug was found in a context near Iron Age 2A Pithos 39.01 (Smith and Levy 2014: 349; fig. 4.7:12, adapted).

Summary

In the Iron Age 2A, the collared pithos is found at sites in the Jordan Valley and in Southern Transjordan as frequently as it is found on the Central Plateau. This is the only period in the vessel's development for which this is true. The neck of the collared pithos continued to diminish in height through the Iron Age 2A, and the edgeless, thickened rim shape continued to dominate. The same is true of the small, rounded base. The context of the vessels in this period is still split between those found in larger rooms or courtyards and those in smaller rooms, best interpreted as storage areas. Implements of food preparation continue to be found in associated contexts with the collared pithos. Ceramics include forms from the late Iron Age 1 through the early Iron Age 2.

Iron Age 2B, ca. 830 – 732 B.C.

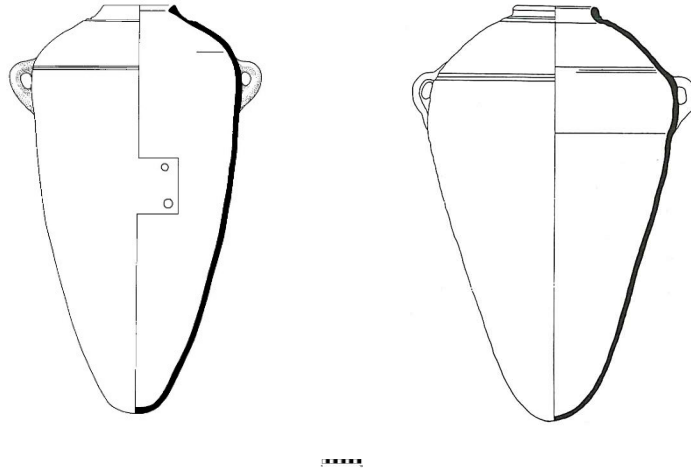


FIGURE 385. Pithos 18.03 (left), the vessel most closely resembling the typical features of an Iron Age 2A pithos body (Tall Jawa V189/A13.53.5, Daviau 1992: 151; fig. 4, left). Pithos 47.01 (right), representing the most typical features of the Iron Age 2B collared pithos (Um al-Hedamus M51 S-E, Jar 1, Palumbo 1992: 31; fig. 4.2).

Description

In contexts dated to the Iron Age 2B, there are 26 examples of the collared pithos, discovered at nine sites throughout every geographic region of Transjordan. Nearly 66% (n = 17) of the examples from this period are found on the Central Plateau, a region which began making a comeback from the decline in the frequency of the collared pithos during the Iron Age 2A. About 23% (n = 6) of the examples were unearthed on the Kerak Plateau. Northern Jordan, the Jordan Valley, and Southern Jordan each have one representative example of Iron Age 2B collared pithoi. None of the characteristics or features of these pithoi appear to be concentrated or unique

to any particular region. However, the small sample sizes in some of the regions may obscure possible patterns.

In the Iron Age 2B, the neck of the collared pithos shortened by another half of a centimeter in average height from the previous period and the round-shaped rim surpassed the thickened, edgeless shape in frequency. For the first time in the vessel's history, reddish-yellow became the most common exterior color, replacing pink. The dominant collar shape remained triangular, and the average rim-to-collar angle increased by 1°. Collared pithoi with neck heights in the 2.0 – 5.0 cm range, defined here as the Classic Form, comprise 58% (n = 15) of the Iron Age 2B pithoi, followed by the Short Form, with 1.0 – 2.0 cm neck heights, making up 35% (n = 9) of the pithoi from this period.

Two vessels in this study from Iron Age 2B contexts have full forms available for study. These are Pithos 10.01 from Khirbat Ataruz and Pithos 47.01 from Um al-Hedamus. Both examples have ovoid body shapes and small rounded bases. The pithos from Um al-Hedamus has handles that rest slightly higher on its extraordinarily wide shoulders, bridging the upper and lower portions of the shoulder. Pithos 10.01 from Khirbat Ataruz, however, has the typical handle placement beginning on the lower portion of the shoulder and connecting it with the wall of the upper body.

Context and Associated Ceramics

There are 14 of the 26 Iron Age 2B examples (54%) that were discovered in archaeological contexts that are likely to have been at or nearby their original location. Four of these vessels (29%) were found in open areas – such as the large room of a building, a courtyard, or (in the case Pithos 28.01) the shared courtyard or alley between two buildings. Ten of the pithoi (71%) were found in small rooms that are best interpreted as storage areas. Nearly half of those are rooms were located within the interior of a casemate wall system. The remaining twelve of the twenty-six examples (46%) are from earth fill loci (n = 5), or are not published with specific data relating to their contexts (n = 7).

The ceramic horizon associated with the Iron Age 2B collared pithos is composed of vessels with Iron Age 2 parallels. These forms include ridged-rim cooking pots, carinated and round-sided bowls, hole-mouth kraters, tripod cups, dipper juglets with elongated bodies and everted rims, wide-necked jugs, storage jars, and lamps with flanged rims. Other objects found in contexts with the Iron Age 2B collared pithoi include basalt mortars, stone weights, and pounders.

Cooking Pots

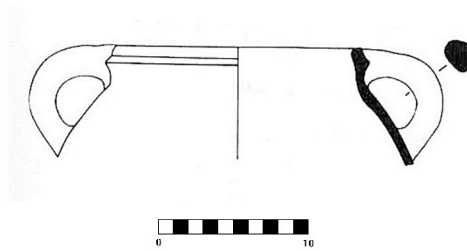


FIGURE 386. Tall es-Sa'idiyeh, Stratum VII: Cooking Pot. This cooking pot was found in the same context as Iron Age 2B Pithos 44.01 (Pritchard 1985: fig. 3.20, adapted).

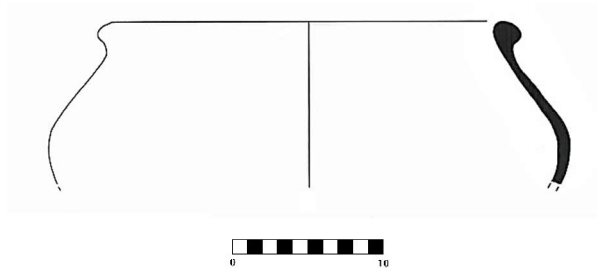


FIGURE 387. Tall Abu al-Kharaz, Area 7, Phase 13: Cooking Pot. This cooking pot was found in a context near to that of Iron Age 2B Pithos 28.01 (Fischer 2013: 185-86; fig. 177:7, adapted).



FIGURE 388. Tall Madaba, Field B: Cooking Pot. This cooking pot rim was found in a context near to that of Iron Age 2B Pithoi 38.01 and 38.02 (Harrison 2003: 134; fig. 5.21, adapted).

Cups, Bowls, and Kraters

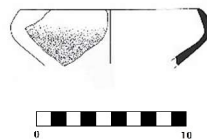


FIGURE 389. Khirbat al-Balu'a, Area G, Room 4: Bowl. This bowl was found in the same context as Iron Age 2B Pithos 11.01 (Worschech 2014: 253; fig. G 027, adapted).



FIGURE 390. Khirbat al-Balu'a, Area G, Room 10: Bowl. This bowl was found in the same context as Iron Age 2B Pithos 30.03 (Worschech 2014: 269; fig. G 054, adapted).

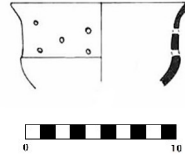


FIGURE 391. Tall es-Sa'idiyeh, Stratum VII: Tripod Cup. This tripod cup was found in the same context as Iron Age 2B Pithos 44.01 (Pritchard 1985: fig. 1.19, adapted).

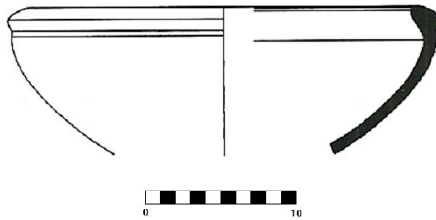


FIGURE 392. Tall Madaba, Field B: Bowl. This Judean bowl was found in a context near to that of Iron Age 2B Pithoi 38.01 and 38.02 (Harrison 2003: 133; fig. 4.15, adapted).

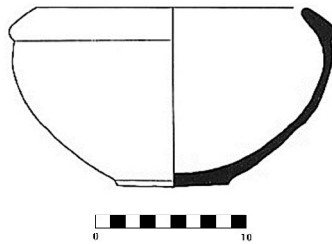


FIGURE 393. Tall al-'Umayri, Field A, Phase 8: Bowl. This bowl was found in a context near to that of Iron Age 2B Pithoi 27.14, 27.15, 45.02, and 45.03 (Herr and Bates 2011: 30; fig. 12.101, adapted).

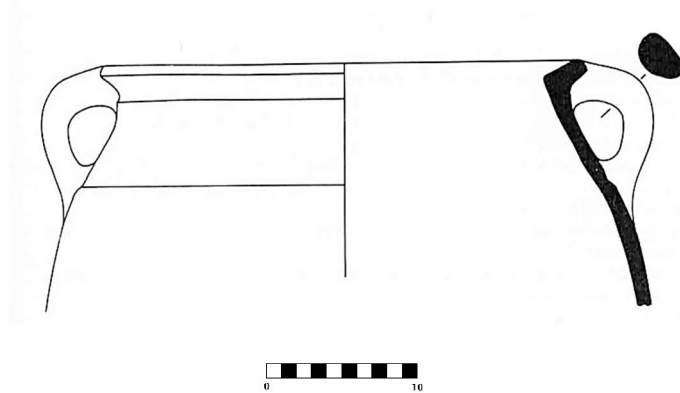


FIGURE 394. Tall es-Sa'idiyeh, Stratum VII: Krater. This krater was found in the same context as Iron Age 2B Pithos 44.02 (Pritchard 1985: fig. 1.1, adapted).

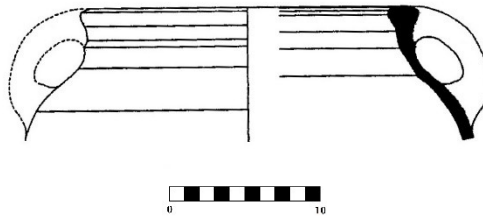


FIGURE 395. Tall Madaba, Field B: Krater. This krater was found in a context near to that of Iron Age 2B Pithoi 38.01 and 38.02 (Harrison 2003: 134; fig. 5.19, adapted).

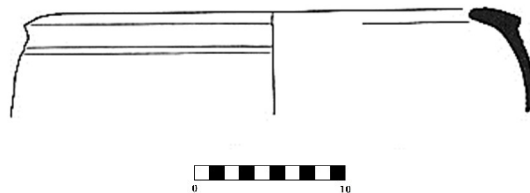


FIGURE 396. Tall al-Umayri, Field A, Phase 8: Krater. This krater was found in a context near to that of Iron Age 2B Pithoi 27.14, 27.15, 45.02, and 45.03 (Herr and Bates 2011: 27; fig. 9:28, adapted).

Juglets, Jugs, and Jars

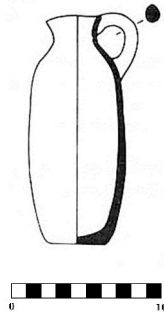


FIGURE 397. Tall es-Sa'idiyeh, Stratum VII: Juglet. This juglet was found in the same context as Iron Age 2B Pithos 44.01 (Pritchard 1985: fig. 5.7, adapted).

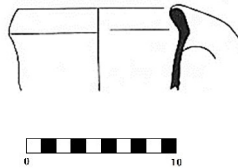


FIGURE 398. Tall al-'Umayri, Field A, Phase 8: Jug. This jug was found in a context near to that of Iron Age 2B Pithoi 27.14, 27.15, 45.02, and 45.03 (Herr and Bates 2011: 26; fig. 8.12, adapted).

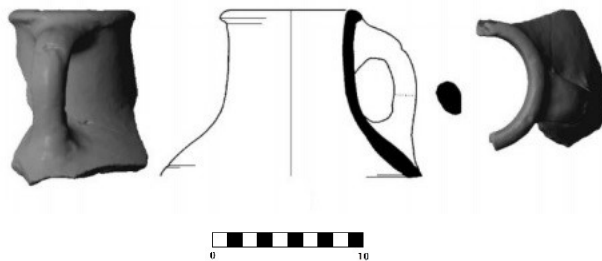


FIGURE 399. Tall Safut, Field B: Jug. This jug was found in the same context as Iron Age 2B Pithoi 25.03 – 25.05 (Chesnut 2019: 553; pl. 13.9, adapted).

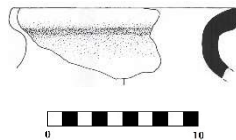


FIGURE 400. Khirbat al-Balu'a, Area G, Room 4: Jar. This jar/jug was found in the same context as Iron Age 2B Pithos 11.01 (Worschech 2014: 263; fig. G 045, adapted).

Lamps

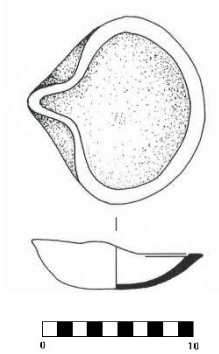


FIGURE 401. Tall Abu al-Kharaz, Area 7, Phase 13: Lamp. This lamp was found in a context near to that of Iron Age 2B Pithos 28.01 (Fischer 2013: 185-86; fig. 177:9, adapted).

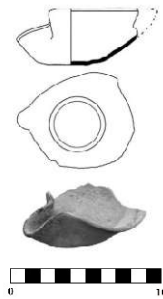


FIGURE 402. Khirbat Ataruz, Field F: Lamp. This lamp was found in the same context as Iron Age 2B Pithos 10.01 (Ji and Bates 2014: 78; fig. 17, adapted).

Summary

The collared pithos can be found in Iron Age 2B contexts across every region in Transjordan. Its ovoid body has a small, rounded base and, most frequently, a round rim. Its collar is typically pointed in a triangular shape, and its neck is just over 2.0 cm tall. Its exterior is generally described as reddish-yellow in color. This vessel is most commonly found in an enclosed space, such as a smaller room – best interpreted as a storage area. The Iron Age 2B collared pithos is associated with Iron Age 2 ceramics and occasionally with implements connected with food preparation.

Iron Age 2C, ca. 732 – 586 B.C.

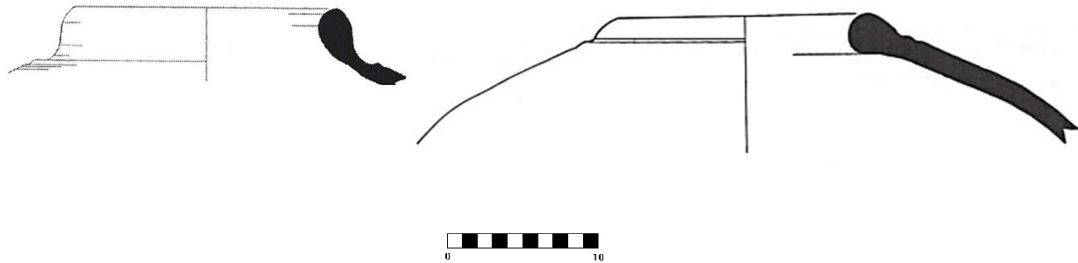


FIGURE 403. Pithos 16.03 (left), as an example of the typical collared pithos at the beginning of the Iron Age 2C (Iraq el-Emir #I.5.35.497, Ulvoczky 2017: 40, pl. 4.3). Pithos 53.06, (right) as an example of the typical collared pithos at the end of the Iron Age (Tall al-‘Umayri, Herr et al. 2014: 143; fig. 4.50.2).

Description

Around 42 collared pithoi in this study were unearthed in contexts which date to the Iron Age 2C. There are two phases of the Iron Age 2C. For the purposes of this study, these have been identified as the early Iron Age 2C, ranging from approximately 732 B.C. – 650 B.C. and the late Iron Age 2C, a transitional period between the Iron Age and the early Persian Period, here identified as about 650 B.C. – 586 B.C. The date of this split of the Iron Age 2C, set at 650 B.C., is arbitrary and meant to be equitable for the purpose of discussion and is not reflective of true absolute dates. The analysis that follows will address each phase of this period independently, as well as assess the period as a whole.

The early Iron Age 2C collared pithos has been found at seven sites across Northern Transjordan, the Central and Kerak Plateaus, and Southern Transjordan. Just over half of these sites are located on the Central Plateau.

After the Iron Age 2B, the collared pithos is no longer found in the Jordan Valley. In the final years of the Iron Age 2C, the collared pithos seems to have been limited to just three sites, all on the Central Plateau. The earliest and final phases in the development of this vessel occur in the same region of Transjordan.

There are no examples of complete or restorable vessels among the Iron Age 2C collared pithoi in this study from stratified contexts. Consequently, the only data available for the study of this final phase of the collared pithos' development is drawn from rim-to-shoulder segments. From these rims a continued shortening of the neck height is evident. The average neck height dropped a quarter of a centimeter from the Iron Age 2B to the beginning of the Iron Age 2C and another full centimeter by the later part of the period. In its final form, the collared pithos had an average neck height just under 1.0 cm.

As in the Iron Age 2B, the dominant rim shapes of the Iron Age 2C are thickened/edgeless and round. The thickened/edgeless rims make up 23% (n = 7) of the examples dating to the early Iron Age 2C, while the round rims comprised about 17% (n = 5) of the rims in this period. This rim shape distribution shifted, however, as the Iron Age 2C drew to a close – with the round-shaped rims becoming dominate, making up 58% (n = 7) of the late Iron Age 2C rims, and the thickened/edgeless rims dropping to only 8% (n = 2).

The external color of the collared pithos also demonstrates variation over time. In the Iron Age 2B the most frequent color description was reddish-yellow. In the Iron Age 2C this shifted back to pink. Collar shapes are more constant, however. The triangular collar was the most frequent shape in every period after the Iron Age 1A. Beyond this prevalence, however, the other five collar shapes (to lesser varying degrees) are all attested during the Iron Age 2C. Vestigial collars are common during the first part of the period, with round and teardrop-shaped collars becoming more common toward the close of the Iron Age. Average prominence of these collars remains fairly constant throughout the entire Iron Age 2.

The rim-to-collar angle continued to gradually increase throughout the Iron Age 2C. At the beginning of this period, the rim was an average of 10° further inside of alignment with the collar than the typical Iron Age 2B rim-to-collar angle. By the end of the Iron Age 2C this difference of inclination doubled, revealing an average of approximately 47° from vertical alignment with the collar by the final phase of the Iron Age. This marks the culmination of this aspect of the collared pithos' development, from the flaring, nearly aligned rims of the beginning of the Iron Age to these short-necked pithoi, with nearly horizontal lines between the rim and collar.

Context and Associated Ceramics

The majority of the 30 early Iron Age 2C collared pithoi in this study were found in earth fills and are published without information regarding their exact context. These vessels together comprise 57% (n = 17) of the examples from the early Iron Age 2C. Of the 13 pithoi from clear archaeological contexts, 62% (n = 8) were unearthed in the smaller rooms of buildings, best interpreted as storage areas; 38% (n = 5) were located in open areas, such as the main rooms of buildings, their courtyards, or near the city's water system.

At the end of the Iron Age 2C there appears to be a shift. Approximately 67% (n = 8) of the late Iron Age 2C pithoi were discovered in clear archaeological contexts. These vessels were divided nearly in half between those found in small spaces (n = 3) and those originating in open spaces (n = 5). Given the small sample size of pithoi from the Late Iron Age 2C, it seems reasonable to postulate that the use locations of the collared pithos in the Iron Age 2C did not differ significantly from that of the earlier periods. The data in this study has thus demonstrated that no observable trend is existent in Iron Age Transjordan regarding the type of space in which the collared pithos is found. This vessel was as likely to be kept in a small-enclosed space as it was in an open communal area. The small variations in the distribution of discovered collared pithoi are likely attributable to the accident of preservation alone. This indicates the

remarkable reality that the collared pithos continued to serve the same cultural purpose in 586 B.C. that it had in 1200 B.C. A nearly 700-year continuity of domestic tradition across tribal and national borders, while not elsewhere unknown, is certainly fascinating.

The ceramic horizon of the vessels that accompany the collared pithoi in Iron Age 2C contexts comprise those belonging to the Iron Age 2B through the early Neo-Babylonian/Persian Period. Represented forms include ridged-rim cooking pots, globular cooking pots with bulbous rims, bowls with sharply everted rims and often carinated bodies, black burnished bowls, handleless mortaria with wavy sidewalls, hole-mouth kraters, narrow-mouthed jars/jugs with everted rims, oval-bodied jars with slightly everted necks and rounded, thickened rims, large jars with ridged rims, and lamps with a flat, wide rims and rounded, flat bases. Other objects found with collared pithoi in multiple locations include mortars, basalt pestles, and grinding stones.

Cooking Pots

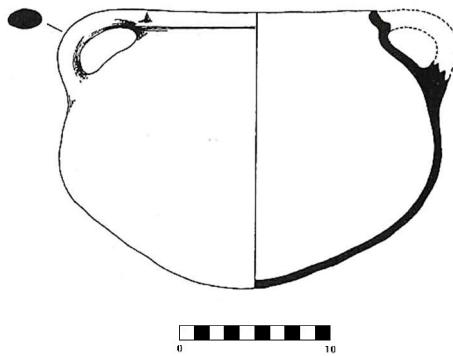


FIGURE 404. Busayra, Area B: Cooking Pot. This vessel was found in a context near to that of Pithoi 13.02 – 13.04 (Bienkowski et al. 2002: 309; fig. 9.39:1, adapted).

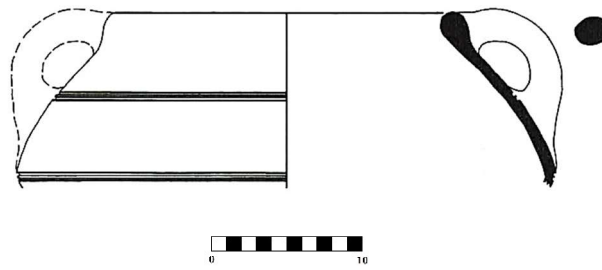


FIGURE 405. Tall al-Umayri, Field H, Phase 7: Cooking Pot. This cooking pot was found in near proximity to Pithoi 53.01 and 53.02 (Herr et al. 2014: 228; fig. 5.31.3, adapted).

Cups, Bowls, and Kraters

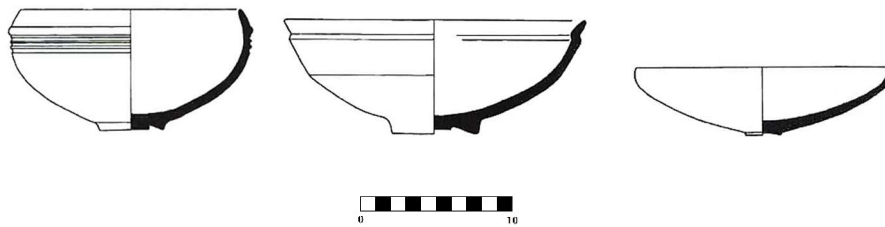


FIGURE 406. Tall al-Umayri, Field H, Phase 7: Bowls. These bowls were found in the same context as that of Pithos 53.02 and in close proximity to that of 53.01 (Left to right: Herr et al. 2014: 222; fig. 5.29.6, Herr et al. 2014: 214; fig. 5.26.8; and Herr et al. 2014: 225; fig. 5.30.1, all adapted).

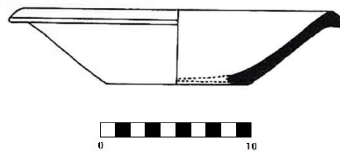


FIGURE 407. Busayra, Area B: Bowl. This bowl was found in the same context as that of Pithoi 13.02 – 13.04 (Bienkowski et al. 2002: 242; fig. 9.4:6, adapted).



FIGURE 408. Busayra, Area B: Bowl. This bowl was found in the same context as that of Pithoi 13.02 – 13.04 (Bienkowski et al. 2002: 280; fig. 9.23:10, adapted).

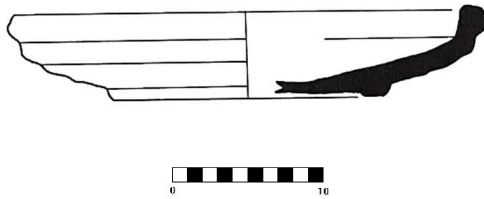


FIGURE 409. Tall al-'Umayri, Field B, Phase 6: Mortarium. This vessel was found in the same context as that of Pithos 53.06 (Herr et al. 2014: 151; fig. 4.54.10, adapted).

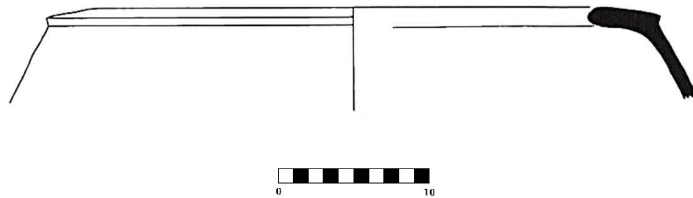


FIGURE 410. Tall al-'Umayri, Field H, Phase 7: Krater. This vessel was found in a context near to that of Pithoi 53.01 – 53.02 (Herr et al. 2014: 211; fig. 5.25.14, adapted).

Juglets, Jugs, and Jars

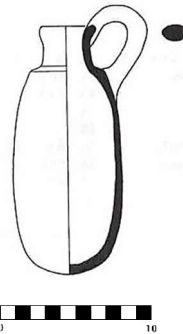


FIGURE 411. Tall al-'Umayri, Field H, Phase 7: Juglet. This juglet was found in a context near to that of Pithoi 53.01 – 53.02 (Herr et al. 2014: 211; fig. 5.25.10, adapted).

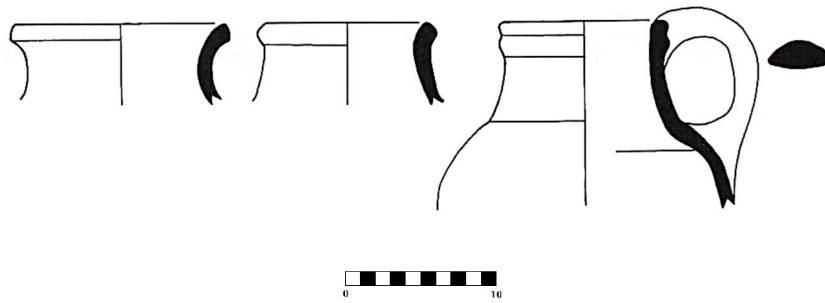


FIGURE 412. Tall al-'Umayri, Field B, Phase 6: Jugs. These jugs/jars were found in the same context as that of Pithos 45.06 (Herr et al. 2014: 145; fig. 4.51.2-4, adapted).



FIGURE 413. Khirbat al-Balu'a, Area E, Room 430: Jar. This jar was found in the same context as Pithoi 46.01 and 46.02 (Worschech 2014: 179; fig. E 078, adapted).

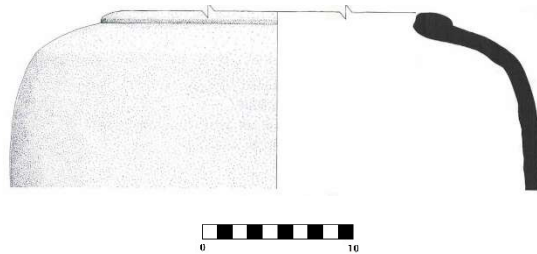


FIGURE 414. Khirbat al-Balu'a, Area E, Room 430: Storage Jar. This storage jar/pithos was found in the same context as Pithoi 46.01 and 46.02 (Worschech 2014: 181; fig. E 081, adapted).

Lamps

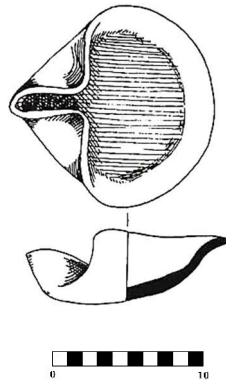


FIGURE 415. Busayra, Area B: Lamp. This lamp was found in a context near to that of Pithoi 13.02 – 13.04 (Bienkowski et al. 2002: 341; fig. 9.62:4, adapted).

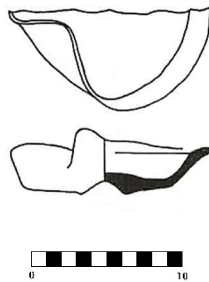


FIGURE 416. Tall al-Umayri, Field A, Phase 6: Lamp. This lamp was found in the same context as that of Pithos 45.04 (Herr et al. 2000: 56; fig. 3.33.20, adapted).

Summary

In contexts dating to the early Iron Age 2C, or more generally the 7th century B.C., the collared pithos has been found in every region of Transjordan, except for the Jordan Valley. No full forms are attested from this period, but the rims of the pithoi available for study display predominately thickened, edgeless and round shapes with triangular pinched collars. Neck heights average just under 2.0 cm, and exterior surface colors are most frequently described as pink. Seventh century B.C. collared pithoi are most frequently found in fills. Pithoi found in contexts nearer to that of their original position are more likely to be located in smaller, enclosed spaces, best interpreted as storage areas.

Late Iron Age 2C, or more generally 6th century B.C., collared pithoi have been found only at sites on the Central Plateau, most commonly with a round rim and a triangular collar. Average neck heights dropped below 1.0 cm, and the rim-to-collar angle increased to nearly 50° from alignment during this period. The 6th century B.C. collared pithos, from a stratified context, is just as likely to be unearthed in a small space as it is in an open area or main room.

The ceramic horizon of the Iron Age 2C collared pithos includes the forms typically associated with the final years of the Iron Age in Transjordan, as well as a few of those usually seen in the transitional decades leading into the Persian Period. Implements associated with food preparation and

domestic activities are often found near collared pithoi during the Iron Age 2C, as they were in previous periods.

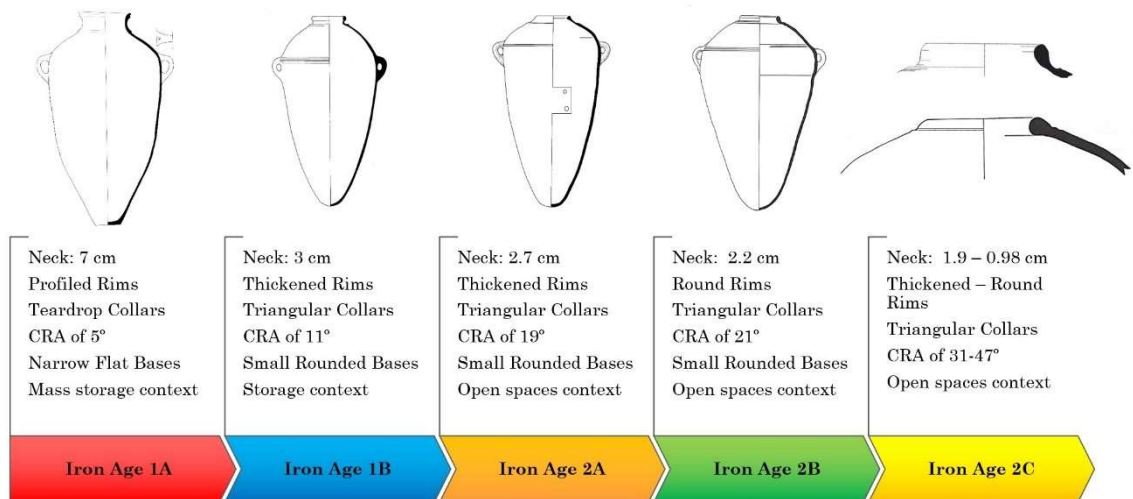


FIGURE 417 Progression of statistically dominant collared pithos characteristics through time, with representative examples.

Form Parallels in Cisjordan

The Classic Form collared pithos is ubiquitous in Cisjordan – most particularly in the central highlands. For comparison with the Transjordan corpus, 46 collared pithoi from 14 sites¹⁹² within Cisjordan were cursorily evaluated from publications. Additionally, eight large hole-mouth style pithoi from Khirbet Marjameh, Jerusalem, Lachish, Tel Shunem, and Shechem, were examined as possible equivalents to the Final Form examples in Transjordan. The aim of this investigation is to identify the main similarities and differences of the vessel type as it is found within the two regions.

Characteristics of the Collared Pithos in Cisjordan

The Rim Shapes

The rim of the collared pithos is without a doubt its single most informative aspect. Ten of the 14 rim shapes outlined in the previous chapters can be identified among the study vessels from Cisjordan. The only shapes present in Transjordan that are not attested in the Cisjordan group are three of the profiled shapes¹⁹³ and the thickened, hook shape. The profiled shapes do not appear frequently, even in Transjordan, but the hook shape is fairly common and can thus be identified as a significant regional

¹⁹² These sites include Beth-el, Tell Dan, Mt. Ebal, 'Izbet Sartah, Tell Keisan, Khirbet Marjameh, Megiddo, Tel Mevorakh, Tell Qasile, Tell Qiri, Samaria, Shiloh, Tel Shunem, and Taanach.

¹⁹³ Specifically, these vessels are the Type 2: Ridged, Type 4: Upper-Grooved, and Type 5: Multi-Grooved. Cumulatively, these shapes account for 14 of the rims in the Transjordan study group and can best be interpreted as stylistic variants without any clear regional affiliations.

variant. The hook-shaped rim is the second – third most frequently identifiable rim shape throughout the Iron Age 2B – 2C, and constitutes 7% of the rim samples in the Transjordan study group. The absence of this shape in Cisjordan may be due to the relative scarcity of Iron Age 2 examples of collared pithoi in that region.

Of the shared rim shapes, distribution of the most popular shapes is surprisingly similar between the two groups. The four most frequent shapes are the thickened, edged and edgeless shapes, the triangular shapes, and the profiled, kidney-shaped rims. These rim profiles share similar percentages of occurrence among the Cisjordan and Transjordan study groups in the Iron Age 1.

Figure 418, below, outlines the distribution of the shared rim shapes in the study groups. Due to the fact that 90% of the pithoi from Cisjordan were found at sites dated to the Iron Age 1, the examples from Transjordan are here distinguished between those from the Iron Age 1 and the Iron Age 2. This should clarify differences that may be chronologically tied with those that are geographic in nature.

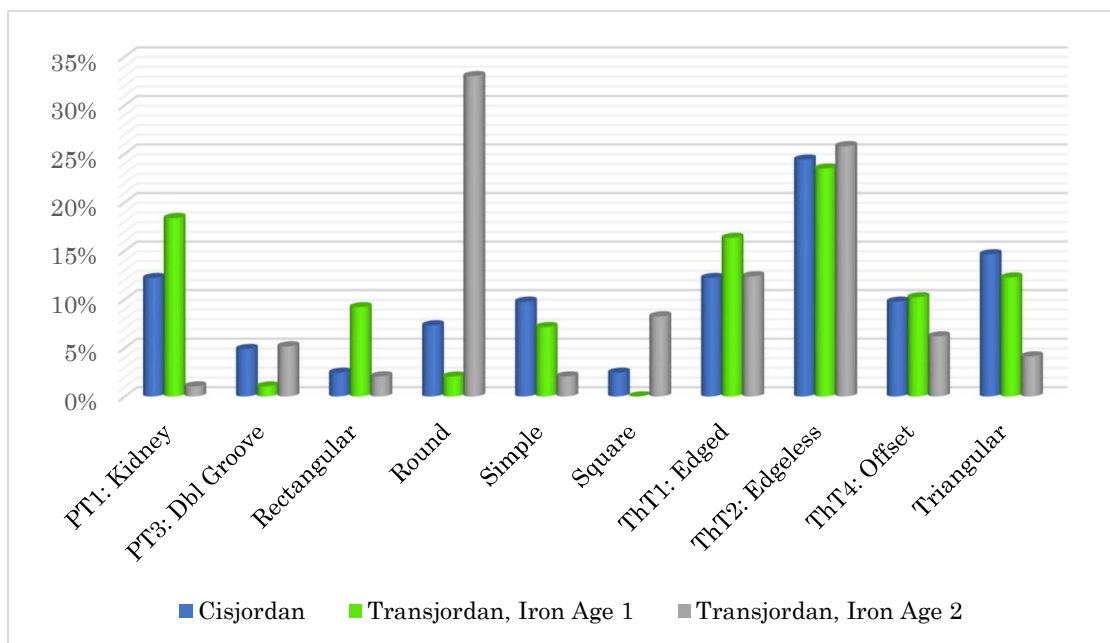


FIGURE 418. Comparative rim shape distribution between the shared shapes identified in the Cisjordan and Transjordan study sample groups.

Despite their similarities, the rims in both groups have differences between them – even when sharing similar shapes. For example, the rims of the Cisjordan study group demonstrate a much greater proclivity to an upright stance, while the parallel rims from Transjordan are more likely to be everted. The necks of the former are typically straight while the latter demonstrate a greater curvature that cannot be accounted for by neck height. Figures 419 – 421 illustrate this dichotomy with the comparison of three sets of parallel pithoi with thickened, edgeless rims from the Iron Age 1.



FIGURE 419. Comparison of neck and rim stance between Pithos 7.54, Left (Herr et al. 1997: 71-72; fig. 4.19.8), from Tall al-'Umayri and a parallel vessel from Shiloh, Right (Finkelstein 1993: 166; fig. 6.48.2).



FIGURE 420. Comparison of neck and rim stance between Pithos 7.61, Left (Herr et al. 1997: 65, 70; fig. 4.14.1), from Tall al-'Umayri and a parallel vessel from Tell Keisan, Right (Briend and Humbert 1980: pl. 68.1).



FIGURE 421. Comparison of neck and rim stance between Pithos 27.04, Left (Herr et. al. 2014: 54, 57; fig. 3.29.1), from Tall al-'Umayri and a parallel vessel from Taanach, Right (Rast 1978: 135; fig. 35.1).

In Transjordan, the rims of the earliest pithoi often flare outside of the perpendicular line of the collar. As the form progressed through its development, the rim became more upright and eventually leaned in significantly from this line. Among the Transjordan vessels dating to the Iron Age 1A, 72% of the rims are inside of the collar line, 10% are aligned, and

18% are outside of alignment. In the Iron Age 1B, 83% of the rims are inside of the collar line, 6% are aligned, and 11% are outside of alignment.

The examples in this study from Cisjordan were primarily found in contexts dated to the Iron Age 1B; 68% of the vessels belong to this period. Another 21% of the collared pithoi were discovered in Iron Age 1A contexts and 11% from Iron Age 2 A/B contexts. Of these pithoi collectively, 78% possess rims that are inside the line of the collar, 20% exhibit alignment between the collar and the outer face of the rim, and only 2% have rims outside of alignment with their collars. This distribution indicates that the rims in the Transjordan group that lean outside of alignment with their collars are seemingly replaced in frequency with rims in the Cisjordan group that stand in alignment with their collars. The rims in the Cisjordan group that are inside of alignment with their collars are roughly equivalent in their frequency to those in the Transjordan group.

The Collar Shapes

The collar of the collared pithos is unquestionably its signature feature. Although it did not change as noticeably through time and space as the rim, there is a detectable, statistical reduction in collar prominence from the Iron Age 1 to the Iron Age 2 in Transjordan. As the collared pithos had a shorter period of existence in Cisjordan than it did to the east, this trend is not as apparent in that region. If the comparison between the geographic

groups is limited to the Iron Age 1 examples, the collars from Cisjordan have a mean prominence that is approximately 0.25 cm greater than the mean of the collars in the Transjordan group.

There is a notable shift in Transjordan between the collar shapes of the Iron Age 1A and the Iron Age 1B. In the former period, the teardrop collar represents more than half of the shapes represented. In the Iron Age 1B, however, this developed into a preference for a more pointed, triangular-shaped collar. The triangular collar accounts for 67% of the Iron Age 1B collar examples, while teardrop collars make up only 21% of the total shapes. Analysis of the collars from the Cisjordan group reveals a similar trend. There is an even split between the teardrop and triangular shape among the Iron Age 1A collars from Cisjordan. However, among the Iron Age 1B pithoi, the split is 62% triangular collars and 23% teardrop, with an introduction of 16% new shapes, such as round and double.

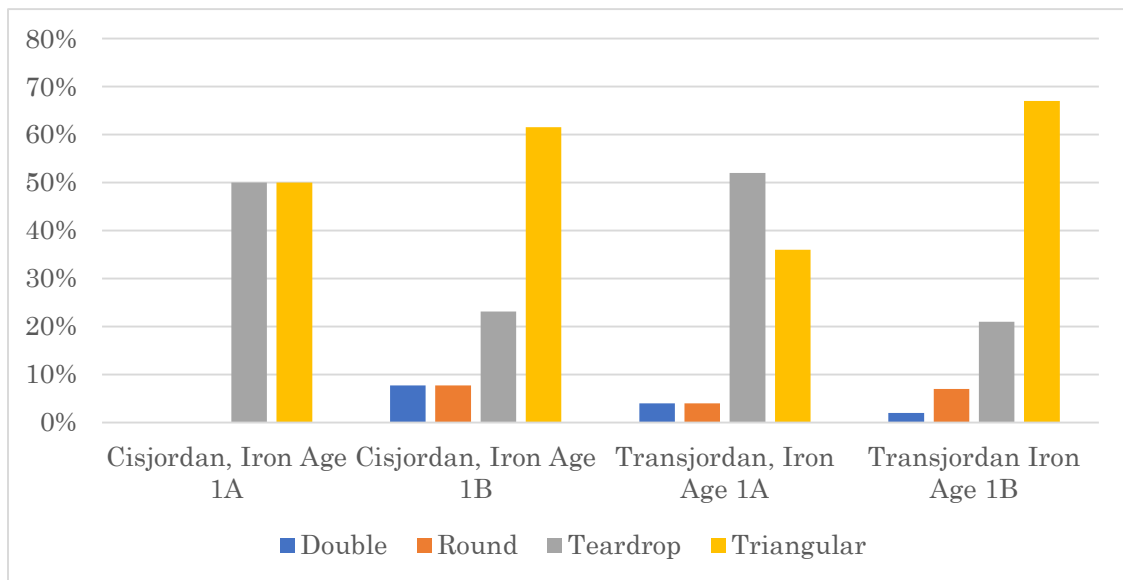


FIGURE 422. Collar Shapes Through the Iron Age 1.

The Base Shapes

The base of the collared pithos is naturally only observable on reconstructed or whole vessels. There are 19 such examples among the Cisjordan pithoi studied. These bases were evaluated using the same classification method as that applied to the bases from Transjordan.¹⁹⁴ Application of this method resulted in the categorization of 53% (n = 10) of the bases as pointed, 42% (n = 8) as round, and one as flat. In Transjordan the Iron Age 1B the studied pithoi are 75% round and only 25% pointed. This dissimilarity does not change when comparing the Cisjordan bases to the Iron Age 1A collection from Transjordan – for which 48% of bases are flat, 14% are rounded, and 3% are pointed. While the statistics of each group are limited by the small sample size, it seems cursorily evident that the pointed base is a tradition more closely associated with Cisjordan and the rounded base is more frequently observed in Transjordan. Further research with larger sample sizes will better elucidate this preliminary finding.

The Evolution of the Form

In addition to the trends discussed above, certain features of the collared pithos in Cisjordan developed in a manner similar to that seen in the progression of the form in Transjordan. A reduction in neck height over time is a key marker of this transition. The average neck height of the pithoi from Iron Age 1A contexts in the Cisjordan group is 4.76 cm with a standard

¹⁹⁴ Consult Chapter 1 and Appendix C for further details about this method.

deviation of 1.45 cm. Among the Iron Age 1B vessels this drops to a mean neck height of 3.59 cm with a standard deviation of 1.35 cm. With the Iron Age 2A/B group, the average neck height is 2.01 cm with a standard deviation of 0.64 cm. While the difference in neck height over time is more drastic between the Iron Age 1A – Iron Age 2A pithoi in the Transjordan group, the overall trend in decreasing neck height over time is one shared with the Cisjordan group.

The majority of the examples in the Cisjordan study group are collared pithoi with neck heights between 2.0 – 5.0 cm, and would thus be classified as Classic Form vessels in this study. These pithoi comprise the ceramic tradition most frequently encountered in the region. Vessels with longer necks, which would be identified with the Long Form classification, and those with shorter necks, best placed in the Short Form group, are also attested in Cisjordan, albeit in significantly smaller quantities. The question then arises, is there a parallel in Cisjordan to the Final Form development in Transjordan? Are there any collared pithoi with neck heights shorter than 1.0 cm that have been unearthed at Iron Age sites in Cisjordan? If not, what form replaced the collared pithos in that region?

Eight vessels were included in this study to explore this possibility. They were found at Lachish, Shechem, Khirbet Marjameh, Tel Shunem, and Jerusalem. Two of these vessels are full forms with cylindrical, “bag-shaped” bodies and wide bases that are tipped with a small point. Six of the examples

are rim sections only. While most would not consider these vessels to be collared pithoi, they do share some important similarities which may indicate a possible parallel form evolution.

A holemouth pithos from Shechem (figure 423.1) has a rim with a very similar stance to that of Final Form pithoi from Tall Jalul and Tall al-‘Umayri. The profiled rim shape of this example from Shechem (also seen in other holemouth pithoi of Cisjordan) is not attested among the Final Form collared pithos in Transjordan – whose rims are round and bulbous. The rim shape is seen, however, on Long Form Pithos 7.08, from Tall al-‘Umayri (figure 424). This shared shape may be indicative of an evolutionary connection between the earlier collared pithos and this final developmental stage.

Admittedly, evidence for the continued evolution of the collared pithos beyond the early Iron Age 2B in Cisjordan is speculative at best. The possible examples are so few that they could be comprehensively presented and discussed here. Conversely, the pattern of development is clear in Transjordan – particularly in the stratified progression evident at Tall al-‘Umayri. It thus seems reasonable to speculate that the pithoi in Cisjordan resembling the later vessels in Transjordan may have been copied or imported from the latter region. It is also possible, of course, that they are altogether unrelated.

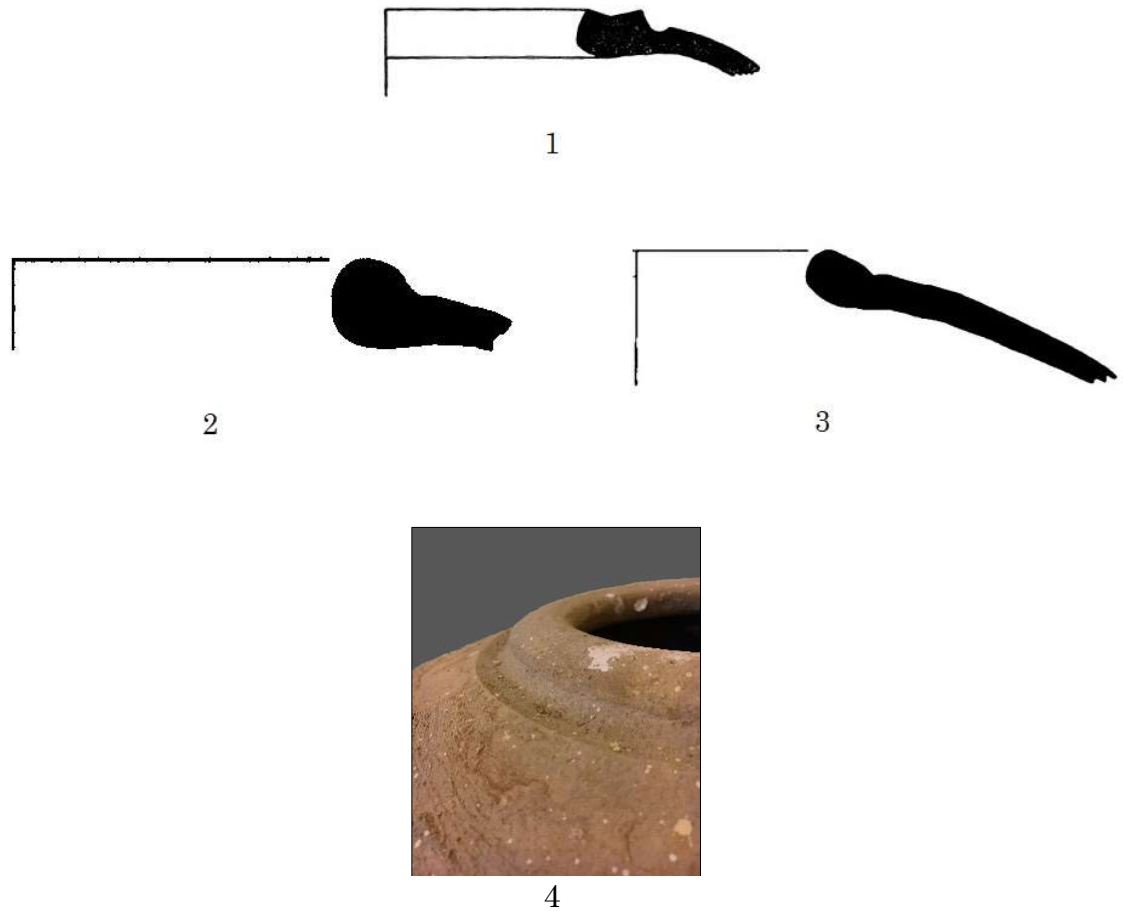


FIGURE 423. Comparative Rim-Neck Profiles of Final Form Pithoi. Vessels not shown to scale. 1. Shechem (Toombs and Wright 1963: 52; fig. 22.8). 2. Tall Jalul, Pithos 50.04. 3. Tall al-'Umayri, Pithos 53.05. 4. Umm al-Qanafid, Pithos 41.04.



FIGURE 424. Rim Shape Comparable to the Late Iron Age 2 Hole-mouth Pithos from Shechem, fig. 421.1, above (Vessels not shown to scale. Tall al-'Umayri, Long Form Pithos 7.08).

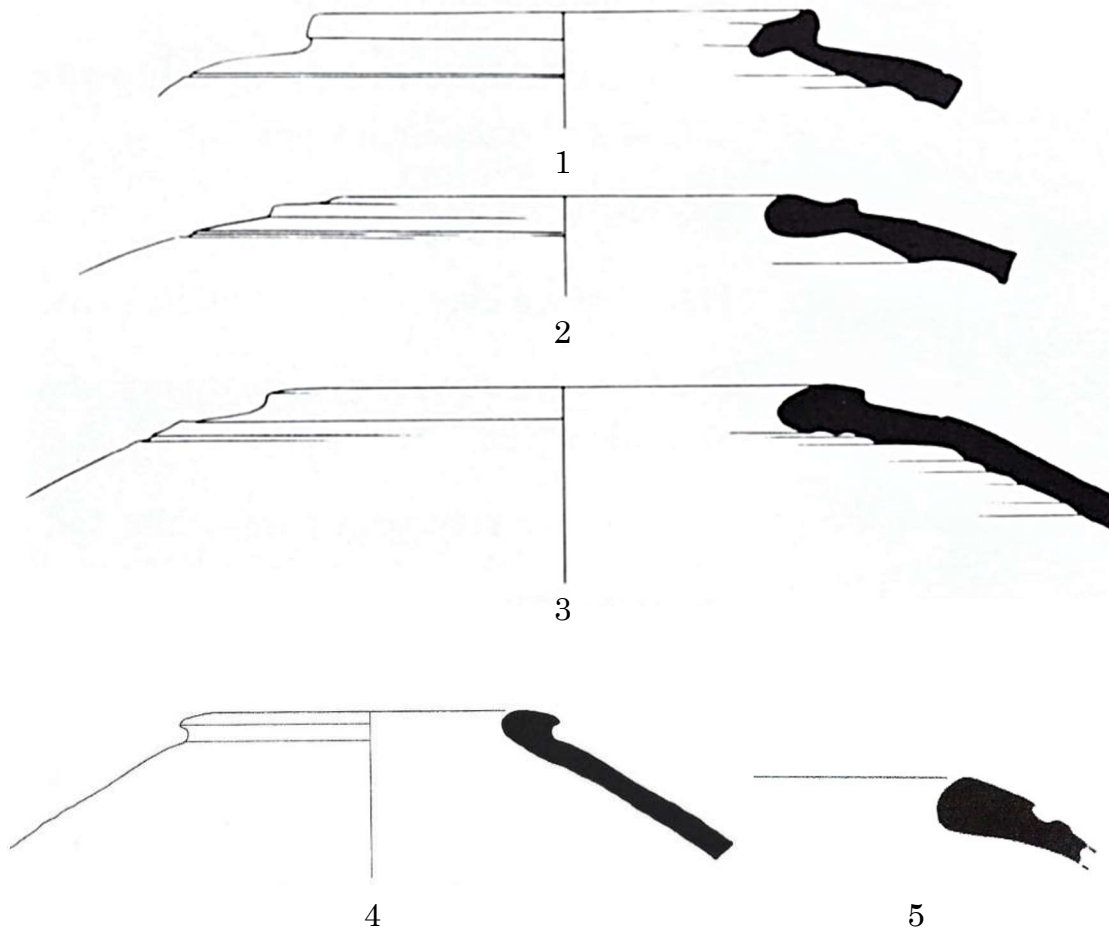


FIGURE 425. Proposed Final Form Collared Pithoi from 1-3. Khirbet Marjameh (Mazar 1995: 110; fig. 21.2-4). 4. Tall Jalul Pithos 50.06. 5. Abu al-Kharaz, Pithos 28.01.

Summary: The Collared Pithos in Cisjordan

In comparison to the collared pithoi of Transjordan, those in Cisjordan are largely limited to the Iron Age 1B. While examples are attested in the Iron Age 1A through the Iron Age 2B, those periods see a significantly reduced concentration of collared pithoi. While the evidence is currently tenuous, the possibility of continued evolution of the collared pithos

throughout the Iron Age 2 in Cisjordan exists and is worthy of future study as further excavation leads to greater ceramic repertoires.

The collared pithoi of Cisjordan and Transjordan have surprising similarities in rim and collar shapes and in the developmental trends that occurred in the Iron Age 1. The Cisjordan pithoi, however, are more likely to have rims atop straight necks which align with their collars. The collars of these vessels are most likely to be triangular in shape with a slightly greater prominence than their Transjordanian counterparts. Significantly, the collared pithoi of Cisjordan are most commonly observed with pointed bases, while those in Transjordan seem to be more closely associated with rounded base shapes.

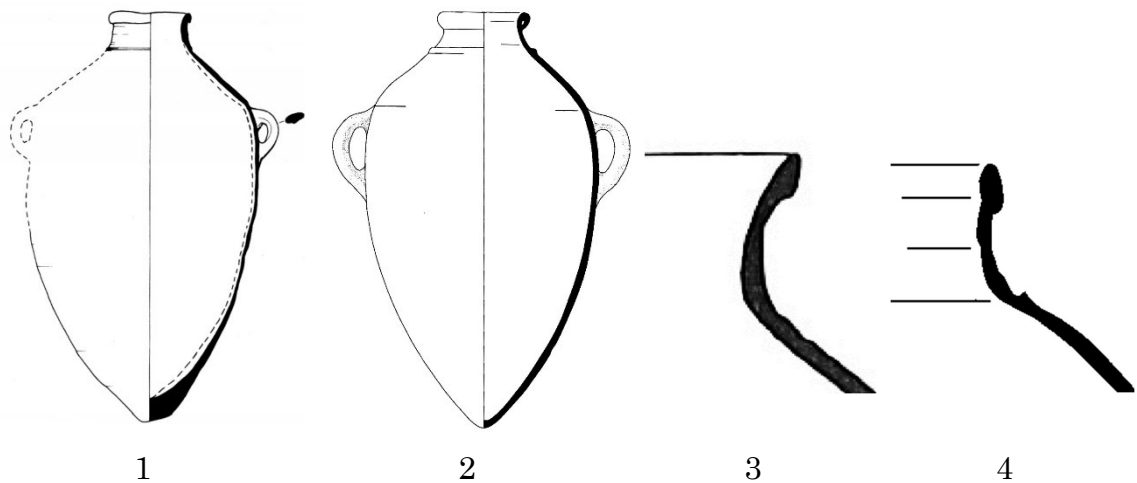


FIGURE 426. Long Form Collared Pithoi of Cisjordan. Vessels not shown to scale. 1. Tell Dan (Biran 1989: 72; fig. 4.1.6). 2: Megiddo (Loud 1939: pl. 83.4). 3: Tel Qiri (Ben-Tor and Portugali 1987: 157; fig. 36.6). 4: Tell Keisan (Briand and Humbert 1980: pl. 68).

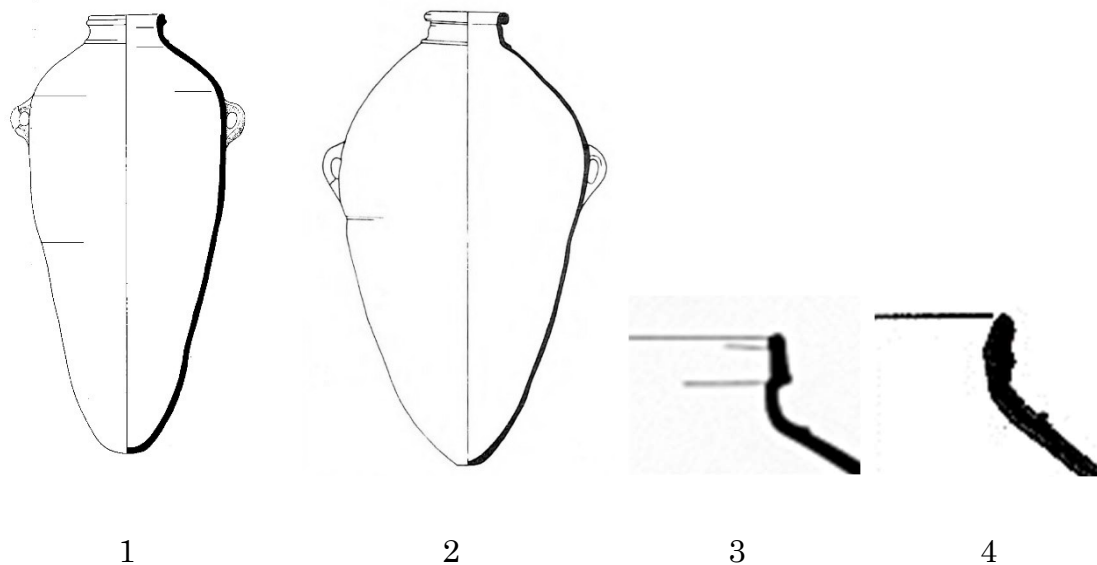


FIGURE 427. Classic Form Collared Pithoi of Cisjordan. Vessels not shown to scale. 1. Tell Qasile (Mazar and Harpazi-Ofer 1994: 24; fig. 15.15). 2. 'Izbet Sartah (Finkelstein 1986: 51; fig. 9.4). 3. Tel Mevorakh (Stern 1978: fig. 15.4). 4. Shiloh (Finkelstein 1993: fig. 4.49.4).

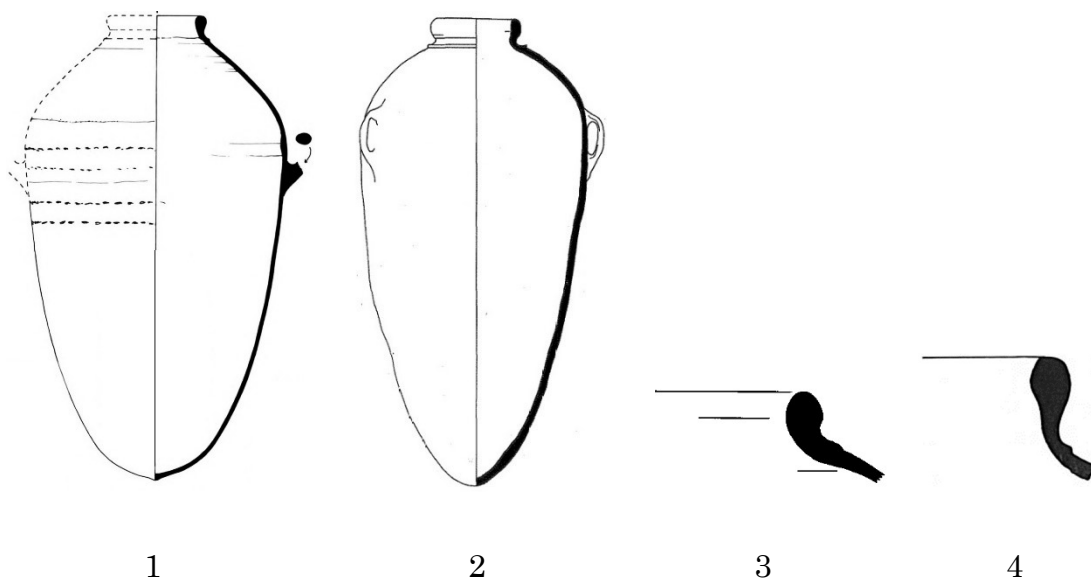


FIGURE 428. Short Form Collared Pithoi of Cisjordan. Vessels not shown to scale. 1. Taanach (Rast 1978: 135; fig. 35.1). 2. Shiloh (Finkelstein 1993: 170; fig. 6.51.6). 3. Samaria (Crowfoot et al. 1957: fig. 1.16). 4. Beth-Shean (James 1966: 283; fig. 70.6).

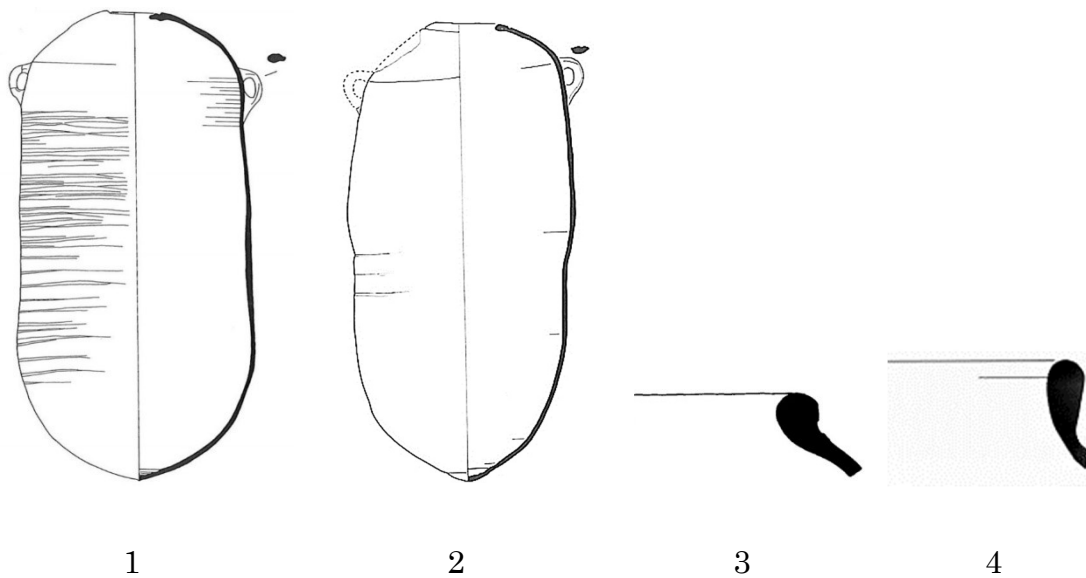


FIGURE 429. Proposed Final Form Collared Pithoi of Cisjordan. Vessels not shown to scale. 1: Lachish (Ussishkin 2004: 1880; fig. 26.50.6. 2: Jerusalem, Ophel (Mazar and Mazar 1989: 85; pl. 12.8. 3: Khirbet Marjameh (Mazar 1995: 100; fig. 17.6. 4: Tel Shunem (Covello-Paran and Arie 2016: 54; fig. 28.8).

Conclusions and Interpretations

The collared pithos of Transjordan is the primary large-type ceramic storage vessel in the region during the Iron Age. As such it provides information about large quantity domestic storage during that period. The collared pithos is just as often found in open communal spaces as it is in closed interior spaces. Remarkably, this characteristic does not appear to be significantly altered by the passage of time. This speaks to long-lived, and wide-spread, traditions of domestic grain storage and food preparation. Despite this notable continuity of use, the style and physical features of the collared pithos do subtly change over the six centuries of its existence. One of the most prominent of these changes can be seen in the vessel's neck height.

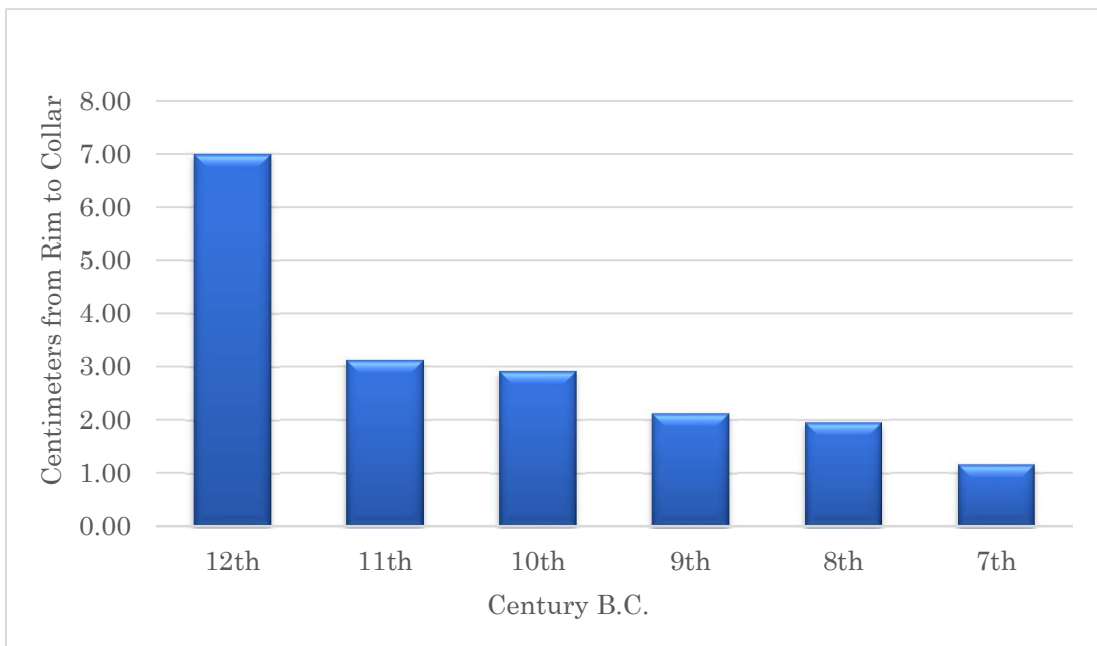


FIGURE 430. Mean Neck Heights of Collared Pithoi in Transjordan, by Century B.C.

Another feature of significant change across time is the position of the rim in relation to the collar, or the rim-to-collar angle. As time progresses this angle becomes more pronounced. The difference between the mean rim-to-collar angle in the Iron Age 1A and the Iron Age 2C is nearly 43°. This trend is illustrated below in figure 431.

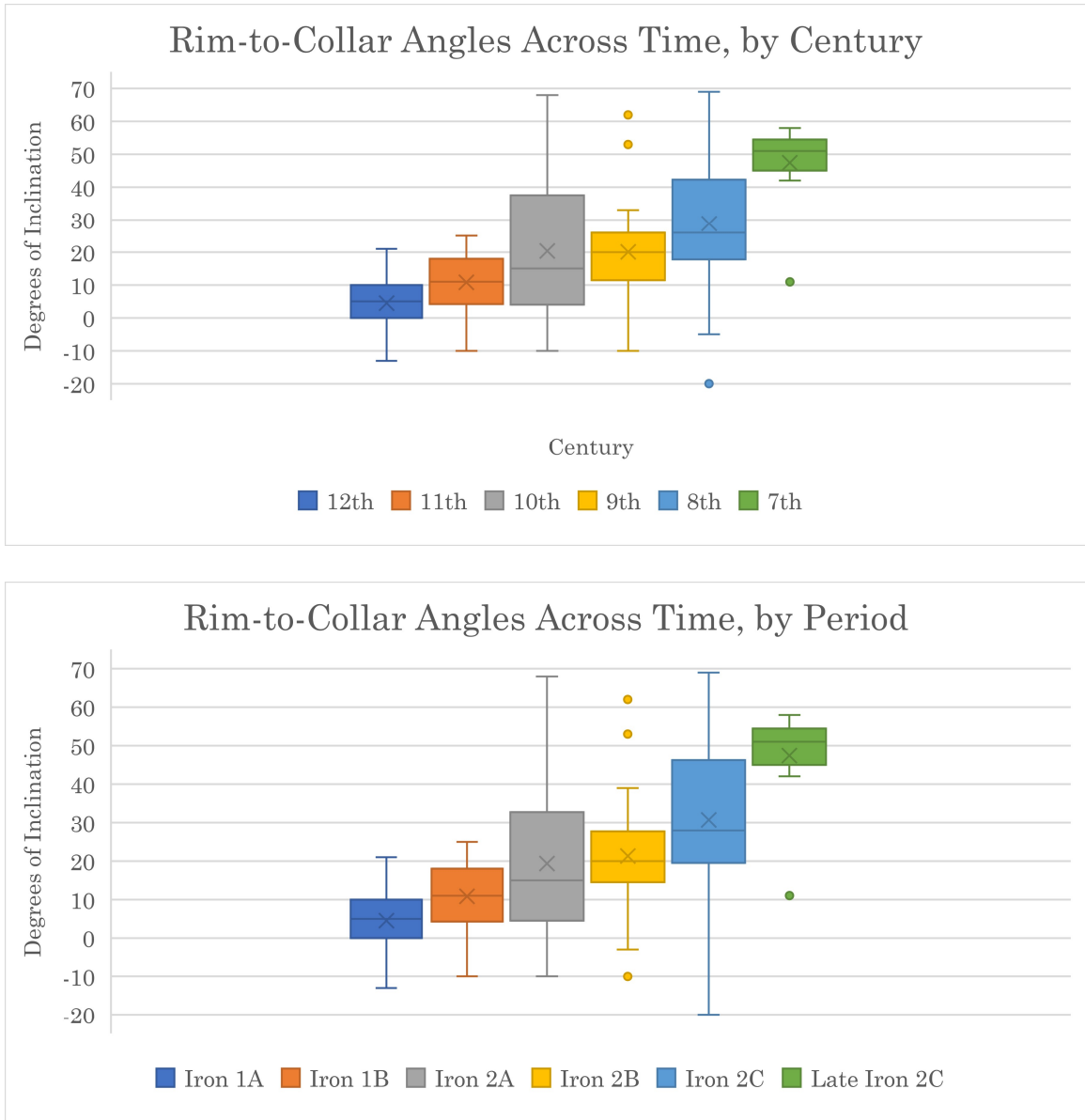


FIGURE 431. Progression of rim-to-collar angles of collared pithos examples across time.

The Long Form

The Long Form vessels are the longest necked collared pithoi in Transjordan, with neck heights equal to or exceeding 5.0 cm. This classification group is represented in this study by 77 examples. Based on the archaeological contexts of these pithoi, the Long Form tradition began during the earliest years of the Iron Age 1 and endured through the early Iron Age 2A. These vessels are associated on the respective ends of the tradition with forms belonging to the Late Bronze 2B and those that belong to the Iron Age 2A – with a mean context date of ca. 1193 B.C. ±29 years. Analysis of the contexts in which the Long Form vessels were found indicates that collared pithoi with neck heights of 5.0 cm or greater do not occur in the Iron Age 2B and subsequent periods.

Distribution of the vessels in the Long Form study group indicates that the earliest development of the collared pithos occurred in the Jordan Valley and on the central Transjordanian plateau. These are the only regions of Transjordan from which the long-necked collared pithoi have been found. All of the examples from this group – which came from stratified contexts in these regions – were located within rooms that included implements of domestic activity, such as cooking pots, jars, spindle whorls, etc. Despite the fact that the vast majority of these pithoi were discovered in the smaller rooms of the structures in which they were located, this association with domestic implements may be indicative of a living, breathing space, rather

than a closed off storeroom entered infrequently or only for the retrieval of goods. Alternatively, and more probably, the items were simply stored with the pithoi when not in use.

Within the Long Form group there are a variety of styles and dimensions. Five primary rim types were identified among the Long Form examples in this study, with another nine sub-categories represented. The unique shapes of these rims are nearly as heterogenous as the Munsell color readings of their exteriors. There are five distinct collar shapes, three clear base types, and a 13.0 cm spread between the narrowest rim diameter and the widest. Of the complete vessels included, the tallest is 113.0 cm tall and the shortest is only 75.0 cm tall. Neck height – the defining characteristic of the form classification – varies from 5.0 - 14.0 cm. This variety within a single ceramic tradition, while still maintaining the characteristic integrity of the form, speaks to the personality of the vessels and the creative freedom of the potters.

The Classic Form

The Classic Form collared pithos possesses a neck height between 2.0-5.0 cm. This classification group includes 89 vessels. While the Long Form pithos dates almost primarily to the Iron Age 1A, the Classic Form group is most concentrated in the Iron Age 1B. However, unlike the Long Form, the Classic Form continues (to a somewhat diminished degree) through the Iron Age 2. Thus the Classic Form tradition enjoys the most enduring popularity

of the collared pithos styles in Transjordan. These vessels appear in nearly all ceramic horizons throughout the entire Iron Age.

The Classic Form group includes pithoi found at locations in every region of Transjordan, from 20 different sites. This geographic diversity demonstrates a much wider tradition than that of the Long Form group. The sites with Classic Form collared pithoi range from Tall Johfiyeh in the north to Umm al-Biyara in the south. Of the 23 Transjordanian sites in this study, only Tall Nimrin, Umm al-Qanafid, and Tall es-Sa'idiyeh do not have known representative Classic Form examples. The number of sites with Classic Form collared pithoi is more than triple that of those with Long Form examples.¹⁹⁵ The majority of the Classic Form vessels are still found at locations in the Central Plateau. However, the number of sites from which those examples originate in that region more than doubles in the Classic Form group. This dispersal of the form likely indicates both its growth in cultural relevance and the increase in centralization of authority – permitting the subsequent growth of trade and craft methodology exchange between artisans.

In conjunction with the greater number of sites from which they came, the Classic Form pithoi have also been discovered in a wider variety of archaeological contexts than those of the Long Form group. These spaces include the smaller rooms of buildings and the inner rooms of casemate walls,

¹⁹⁵ Only seven sites are known to have the longer-necked Long Form collared pithoi. Of these, five are on the central plateau and two are in the Jordan Valley.

as well as the floors of courtyards and the larger or main rooms of buildings. Some Classic Form collared pithoi were even found in outdoor communal areas. From these settings it is apparent that while some collared pithoi were placed in smaller, less accessible spaces, many were found in open areas – most likely to see daily activity and use. This variety of context suggests that many pithoi may have been utilized as regularly accessed food storage containers. This implies that these very large ceramic vessels were not only used for closed and less accessible storage – such as long-term, seed-grain preservation, but in living, breathing spaces full of daily activity. This inference is further substantiated by Classic Form examples found in areas associated with implements of food preparation, including ovens, grinding stones, pestles, mortars, and cooking pot remains.

The Classic Form collared pithos is closely related to the longer-necked Long Form in its physical characteristics. There are a few features, however, aside from the shorter neck, that show a shift in traditions and innovation of new styles. While the concave, kidney-shaped profiled rim was the most frequent shape seen in the Long Form group,¹⁹⁶ the Classic Form pithoi are more likely to have a thickened, ovoid rim. The round and square rim shapes were unknown in the Long Form, but in the Classic Form are introduced and continue to grow in popularity through the remainder of the Iron Age and the collared pithos' subsequent development.

¹⁹⁶ This rim shape is peculiar in the Long Form group to the pithoi from Tall al-Umayri and may be representative of a local style.

A similar shift is seen in the shapes of the collars and bases from the Long Form to the Classic Form groups. The teardrop-shaped collar dominated the styles of the Long Form collars. However, the triangular-shaped collar becomes the most frequent in the Classic Form. The collar decreases in prominence between forms and the bases shift in shape, from flat to a narrow, rounded style. However, it should be noted that these trends are largely statistical in nature and require a substantial sample group to observe. Unfortunately, they are not unilaterally applicable. The data collected from these two groups makes it evident that categorizing, or dating, a single pithos on the basis of its features is an unreliable method of identification.

The Short Form

The Short Form group are those vessels with necks that are 1.0 – 2.0 cm long. There are 39 collared pithoi in this classification group. The earliest example is dated to the Iron Age 1B. However, the occurrence of the Short Form collared pithos is quite limited until the Iron Age 2B, when the form increases substantially in production. It is during this period that this collared pithos style reaches its zenith of use. While examples continue to be unearthed in contexts dating to the end of the Iron Age, it is the middle of the Iron Age 2 in which the group experiences its greatest popularity. Thus the Short Form is best conceived as a style development belonging to the Iron Age 2B.

The Short Form collared pithos is found in every geographic region of Transjordan. The dispersal trend that started at the beginning of the Classic Form continues with the Short Form. While the majority of Short Form pithoi still originate on the Central Plateau, this majority is the smallest one seen among any of the form groups. Examples of Short Form vessels come from all of the geographic regions of Transjordan.

The Short Form collared pithos is a developmental continuation of the Classic Form. As such, the two forms share many features, though there are a few characteristics, beyond neck height, that experience change between these forms. The thickened, edgeless rim that reached its peak popularity with the Classic Form is shortened and widened to create the more cylindrical, round rim of the Short Form. The common triangular-shaped collar is still typical in the Short Form, but the angle between the collar and rim nearly doubles as the neck becomes more horizontal. This shift in the angle between the rim and the collar creates a slightly smaller rim circumference in the Short Form. The round base remains common, but the overall vessel height and body circumference diminish in the Short Form.

The Final Form

The Final Form pithoi are those with necks under 1.0 cm in height. There are 28 vessels identified as Final Form pithoi in this study. This group does not enjoy the long span of existence observable with the Classic and Short Forms. The first Final Form examples appear in Iron Age 2A contexts –

although they are rare during that period. This scarcity of examples continues until the beginning of the Iron Age 2C, when the number of examples quadruples. The style continues until the end of the Iron Age and into the early Persian Period. This context best associates the Final Form as a popularized innovation of the Iron Age 2C.

The regional distribution of the Final Form indicates a reversal of the distribution trend displayed in the Classic and Short Form groups. The number of sites with representative examples decreases significantly, though the Final Form pithoi continue to be found in all regions except southern Transjordan. More than three quarters of the Final Form pithoi originate on the Central Plateau.

The Final Form marks the final developmental stage of the collared pithos in Transjordan. While many of its characteristics are a continuation of the Short Form, it does have distinctive features that set it apart from the Short Form style. The round rim shape, the triangular-shaped collar, and the narrow, rounded base all remain dominant over other shapes, as they were in the Short Form group. The rim circumference and diameter continue to shrink as the rim drops further than ever before, reaching an average of nearly 50° inside of alignment with the collar. The variety of rim shapes diminishes significantly by the Final Form as well. In the Long Form there are 12 different discernable rim shapes (taking the sub-categories as independent shapes for this purpose). This variety peaks in the Classic Form,

with 13 different shapes. By the Short Form only ten distinct rim types can be identified, further dropping to six rim styles among the Final Form examples.

Theory on the Ethnic Associations of the Collared Pithos

Two assumptions have been made regarding the origins of the collared pithos. The first of these is the most frequently questioned and well-discussed aspect of the form – namely whether or not the vessel should be associated with the Israelites. Numerous theories, well-reasoned arguments, and rejoinders have been put forth on this ethnic correlation. The second assumption has never been thoroughly vetted. This supposition presumes that the collared pithos originated in the highlands of Cisjordan – which acted as the epicenter for the tradition – with the direction of cultural influence radiating out from this point. This assumption likely stems from the fact that the highland sites first, in archaeological history, produced examples of the collared pithos– coupled with the abundance of examples discovered in this region. However, working from a model with this origination point causes an awkwardness to the theories of distribution that could well be eliminated with a different paradigm.

There are two patterns of collared pithos distribution that have puzzled archaeologists. The first is in space, the other in time. Why is the collared pithos so abundant at sites traditionally identified as Israelite? Why is it also found in significant quantities in non-Israelite sites and strata? Why

did the collared pithos in Cisjordan go out of use by the Iron Age 2B, with no other form apparently replacing it? Why did the collared pithos of Transjordan, particularly at sites on the central plateau, continue throughout the Iron Age?

Consider for a moment a theory that the collared pithos originated with the culture of the central plateau in Transjordan and maintained cultural associations with that region across time. This hypothesis is supported by four clear assertions.

1. *Examples of the earliest collared pithoi can be found in Transjordan.*

While it is impossible to say which pots from the same phase were first created, it is safe to assert that the collared pithoi unearthed in Transjordan are present in the earliest contexts of the Iron Age. This appearance is particularly remarkable at Tall al-Umayri.

2. *The collared pithos only appears at traditionally Israelite sites during the most fluid and formative period in this group's history.* Once the monarchical nation is established, concretizing their shared identity, the collared pithos disappears. The opposite would be expected if the vessel maintained meaningful connections to Israelite cultural identity.
3. *The collared pithos is an enduring tradition in Transjordan alone.* The central plateau is the only region in the southern levant with an unbroken record of collared pithos use throughout the entirety of the

Iron Age. This longevity in relation to such a common and ordinary item implies deep cultural associations – particularly in the absence of satisfactory environmental or functional explanations.

4. *The biblical record supports the paradigm of early Israelite ethos idolizing the surrounding cultures.* The Israelites had a propensity for assimilating the local cultural practices of their neighbors, contrary to the divine directive.¹⁹⁷ They are described as having a longing to be like the people around them. This desire and the accompanying cultural assimilation, according to the biblical record, was the eventual spiritual cause for the exile.

Perhaps an example from modern cultural interactions will help to illustrate the suggested processes occurring here. Denim jeans, or “blue jeans,” were originally invented as durable pants for factory, farm, and mine workers in the United States. During the 1950s public figures of teenage rebellion, such as Marlon Brando and James Dean, popularized the style for casual wear. By the 1960s and 1970s jeans were an icon of casual, everyday American culture. After the collapse of the Soviet Union in the late 1980s, jeans became, to the Russians, such a powerful symbol of western culture – along with the attached allusions of freedom and economic success – that

¹⁹⁷ See for example, Numbers 25:3, Judges 2:12, 3:6, 1 Samuel 8:20, 2 Kings 17:15, 1 Chronicles 5:25, Ezekiel 36:17-19, among others. While this observation is certainly not meant to imply that the collared pithos was a vessel of any religious meaning or significance, it simply demonstrates the inclination of the Israelites toward openness to or even preference for the cultural practices of their new neighbors.

they developed into a precious commodity in the former soviet state. Russian manufacturers tried to copy the famous styles of the American brands. Some risked and even experienced imprisonment for illegally importing the authentic items.

The Russian attuned to popular culture coveted these common place, everyday pants much more than the average American of the time did. It was a remarkable cultural enthusiasm that led to widespread use of the item in that region. Nevertheless, despite the Russian cultural assimilation of the garment, jeans have never been globally identified with that people group. If today Russians stopped wearing jeans altogether, it would not change the American cultural practice of wearing them, nor the underlying association they still have with western culture.

The parallels to be drawn here begin with the lack of direct correlation between intensity of use and cultural association, in fact the inverse is often true. A group may be attracted to a material object, or its style, *because* it is not a part of their culture. They may obtain it even more frequently for the exotic nature of its popularity. This is particularly true when the adopting culture admires a quality of the originating group. As the Russians aspired to achieve their ideals of western culture, a concept symbolized for them by American jeans, so the early nomadic Israelites may have admired the sedentary lifestyles of the Transjordanian groups they encountered. What,

after all, could embody the idea of a settled lifestyle more than an enormous ceramic vessel!

According to this hypothesis, it is unsurprising that the Israelites of the Iron Age 1 used the collared pithos ubiquitously. It is equally unsurprising that they would abandon the form, no longer having a need for that symbol, once they had become established in the region and developed a distinct national identity. The groups in Transjordan, however, for whom that symbol had never existed, continued to use the collared pithos as they had prior to the Israelite interest in the vessel. It is thus here summarily proposed that the collared pithos was a form native to the cultural tradition of Transjordan's central plateau and was temporarily – and indeed enthusiastically – utilized by the Israelites to fulfill a unique ideological need.

Summary

In the Iron Age 1A, the collared pithos is limited in its geographic range to two sites, one on the Central Plateau and one in the Jordan Valley. It first appears in the earliest phase of the period and, as a transitional form, is accompanied by remnants of the Late Bronze Age. It is characterized by a long neck, averaging around 7.0 cm, a teardrop or triangular shaped collar, with frequent rim and neck profiling. It is generally piriform with a flat base and is primarily found in a small room farthest from the building's entrance.

In the Iron Age 1B the collared pithos is found in a range of sites across the Central and Kerak plateaus and in the Jordan Valley. It is

characterized by a neck with an average height just over 3.0 cm. The flat base is no longer attested and has developed fully into the narrow rounded or pointed base. The vessel's rim has increased to an average of 13° inside of alignment with the collar. It continues to have a piriform body shape, but the line between the shoulder and base has become more direct. The collared pithos is more often found in smaller rooms, best interpreted as storage areas, than open spaces in the Iron Age 1B. This vessel is primarily associated with later Iron Age 1 forms.

In the Iron Age 2A, the collared pithos is found at sites in the Jordan Valley and in Southern Transjordan as frequently as it is found on the Central Plateau. This is the only period in the vessel's development for which this is true. The neck of the collared pithos continues to diminish in height through the Iron Age 2A, to an average of 2.7 cm. The edgeless, thickened rim style and the narrow, rounded base continue to dominate. The context of the vessels in this period is still divided between those examples found in larger rooms or courtyards and those in smaller spaces. Implements of food preparation continue to be associated with the collared pithos. Ceramics associated with the Iron Age 2A collared pithos include forms from the late Iron Age 1 through the early Iron Age 2.

In the Iron Age 2B, the collared pithos can be found in every region across Transjordan. Its ovoid body continues to have a narrow, rounded base. A round rim becomes more frequent than the thickened, edgeless style of the

previous period, though both are still attested. The vessel's collar is typically pointed in a triangular shape, and its neck height averages 2.2 cm tall. The surface of the collared pithos is generally described as reddish-yellow, during this period. Although various contexts are attested, the vessel is most commonly found in a smaller room, best interpreted as a storage area, with Iron Age 2 ceramics and occasionally with implements for food preparation.

At the beginning of the Iron Age 2C, the collared pithos is found in every region of Transjordan, except for the Jordan Valley. No complete vessels have yet been found from secure stratigraphic contexts dated to the Iron Age 2C. Nevertheless, the rims display predominately thickened, edgeless and round shapes with triangular-shaped collars – much as in the previous periods. Neck heights average 1.9 cm and exterior surface colors are most frequently described as pink. During this period the collared pithoi are most frequently found in fill layers. Pithoi in unmixed loci are usually found in smaller spaces, though open spaces are attested as well.

As the Iron Age draws to a close, the collared pithos is found only on the Central Plateau. It is most commonly discovered with a round rim and a triangular collar.¹⁹⁸ Average neck heights drop just below 1.0 cm. The rim-to-collar angle increases to nearly 50° from alignment. The collared pithos of the Late Iron Age 2C/Persian Period is equally likely to be unearthed in a small space as it is in an open area or main room. The ceramic horizon of the Iron

¹⁹⁸ This collar is often ledge-like and may also be considered vestigial.

Age 2C collared pithos is typical for Transjordan during that period. Implements associated with food preparation and domestic activities continue to be near to many collared pithoi during the Iron Age 2C, as they were in previous periods.

In comparison to the collared pithoi of Transjordan, those in Cisjordan are largely limited to contexts dated to the Iron Age 1B. While examples are attested in the Iron Age 1A through the Iron Age 2B, those peripheral periods see a significantly reduced concentration of collared pithoi. While the evidence is speculative, the possibility of continued evolution of the collared pithos through the Iron Age 2 in Cisjordan is worthy of future study as further excavation leads to greater ceramic repertoires. If the use of the collared pithos was based on a physical need, there must have been a replacement for the form fulfilling that need. Regardless, it is evident that the tradition of the collared pithos maintained a mainstream cultural relevance for nearly 300 years longer in Transjordan than it did in Cisjordan.

The collared pithoi of Cisjordan and Transjordan have surprising similarities in rim and collar shapes and in the developmental trends that occur in the Iron Age 1. The Cisjordan pithoi, however, have straighter necks and rims that, consequently, align with their collars. The collars of these vessels are usually triangular in shape with a slightly greater prominence than their Transjordanian counterparts. Significantly, the collared pithoi of Cisjordan are most commonly observed with pointed bases, while those in

Transjordan seem to be more closely associated with narrow, rounded base styles.

In conclusion, the following definition can be confidently suggested. The collared pithos of Transjordan is a large jar best identified as a storage vessel peculiar to the Iron Age. Its development began in the earliest stages of that period and continued without interruption until its final phase. While the collared pithos is a form which is prolific on the Central Plateau, it is attested in every region of Transjordan. At the beginning of its development, the collared pithos generally had a long neck with a flaring rim and a teardrop-shaped collar. Its piriform body concluded in a flat base. As the vessel continued through its development, its neck became progressively shorter and its now rounder rim fell further inside of alignment with its triangular-shaped collar. Its body slimmed down and its base became narrow and rounded. Although the collared pithos of Transjordan differs in its characteristics and development from the collared pithos of Cisjordan, the two forms are parallel and share many features. It is suggested that the vessel was originally developed in Transjordan and replicated for a period of time in Cisjordan before no longer meeting a symbolic need of the latter group and falling out of use there. Further research will continue to elucidate this relationship and test the viability of this theory.

APPENDIX A

RIM SHAPE ANALYSIS AND INDEX

Creating categories for any specific characteristic of a ceramic vessel according to its particular shape is a highly subjective process. Nevertheless, the exercise is a useful one. By creating a system in which rim shapes can be evaluated according to their style, more global studies, such as geographic technique distribution patterns and analysis of shared aesthetic traditions can be conducted. The purpose of this appendix is to lay out the previously discussed vessels according to their assigned rim shape. It is hoped that this will facilitate the ease with which these rims can be located effectively and comparatively analyzed, according to their shape classifications. The rims presented below are not shown to scale, as they were in the previous text. In this index they have been standardized in size to make comparisons of their shape more visually accessible.

There are seven classifications of rim style employed in this study. They are organized alphabetically below. Within each style category the rims are arranged first according to their sub-type, if applicable, their form group classification, and finally their appearance in the previous text.

The style categories are as follows:

1. Profiled: Types 1-5, 19% of rims studied
 - a. Type 1: Kidney, singular concavity on center of outer rim face
 - b. Type 2: Ridged, simple rim with a ridge at its base

- c. Type 3: Double groove on the outer rim face
 - d. Type 4: Singular upper groove at the top of the outer rim face
 - e. Type 5: Simple rim with grooves on the outer rim face
- 2. Rectangular: Elongated, 2-3 edges and flat faces, 5% of rims studied
- 3. Round: Even thickness, no edges or flat faces, 15% of rims studied
- 4. Simple: Minimal or no thickening, 4% of rims studied
- 5. Square: Even thickness, 2-3 edges and flat faces, 4% of rims studied
- 6. Thickened: Types 1-5, 43% of rims studied
 - a. Type 1: Edged
 - b. Type 2: Edgeless
 - c. Type 3: Hook
 - d. Type 4: Off-set
 - e. Type 5: Miscellaneous
- 7. Triangular: Double edges and faces, Pointed lip, 7% of rims studied

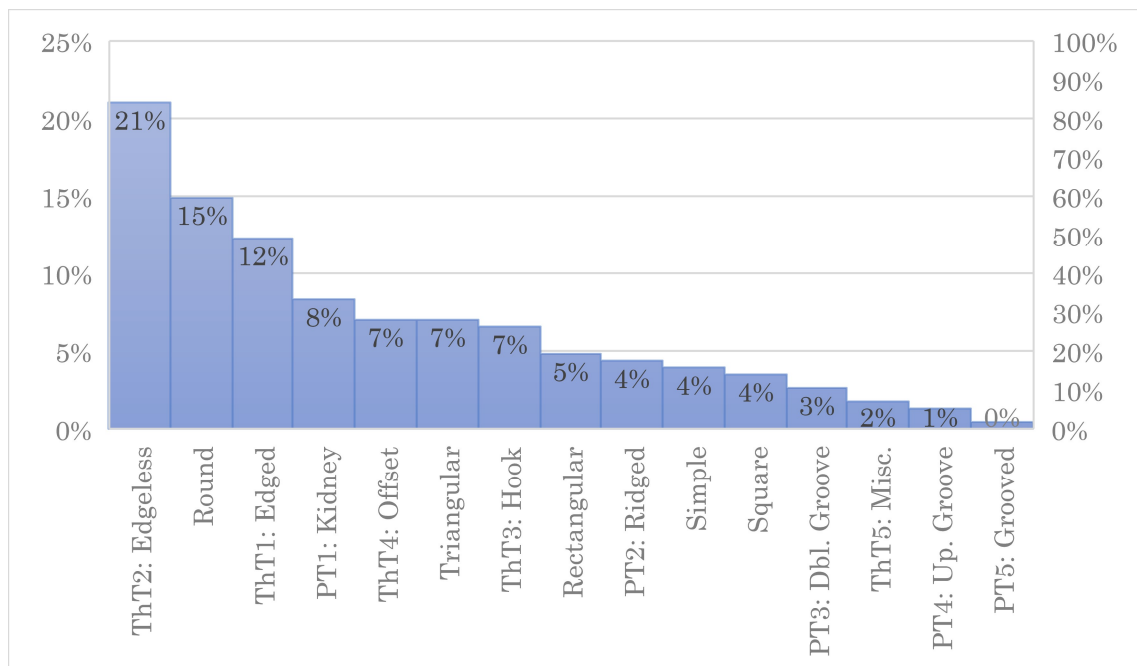


FIGURE 432. Collared Pithos Rim Style Distribution.

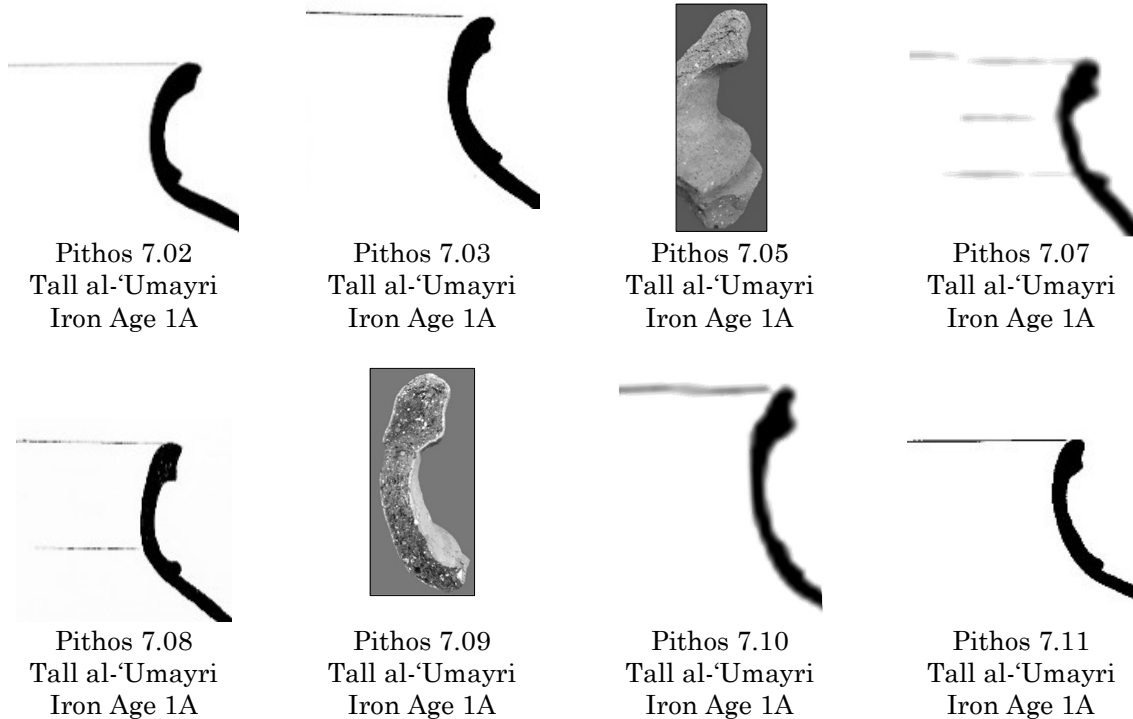
The Profiled Rim

The profiled rim is created by the addition of decorative grooves, rings, or ridges to the outer rim face. Rim profiling is the most common style during the Iron Age 1A. While it continues throughout the Iron Age, the frequency of the shape greatly diminishes in the Iron Age 2. The profiled rim is a style closely associated with longer-necked pithoi. With the exception of Type 3, the double-groove rim shape, which is found in southern Transjordan, all of the profiled-rim examples are exclusively found at sites on the Central Plateau. The following rims are divided into five sub-type classifications.

Type 1: The Kidney-Shaped Rim

The kidney-shaped rim has a broad groove around the middle line of the rim's outer face. This gives the rim a profile that resembles a kidney or bean shape. There are 19 examples of this rim shape included in this study. This style is most prevalent in the Long Form, as is typical with profiled rims. All of the Long Form examples are from Tall al-'Umayri. There are only two examples in this category from the Classic Form group. With one exception, this rim shape is peculiar to the Iron Age 1. The kidney-shaped, profiled rim is only found on the Central Plateau and is most abundant at Tall al-Umayri in the Iron Age 1A.

The Long Form

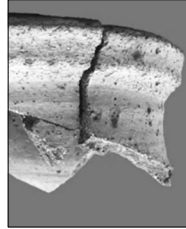




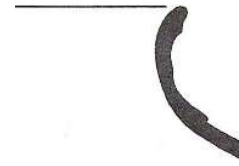
Pithos 7.12
Tall al-'Umayri
Iron Age 1A



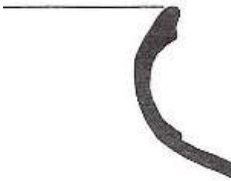
Pithos 7.13
Tall al-'Umayri
Iron Age 1A



Pithos 7.16
Tall al-'Umayri
Iron Age 1A



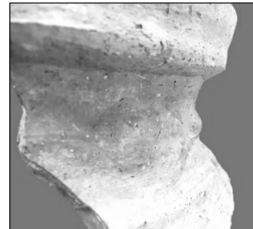
Pithos 7.19
Tall al-'Umayri
Iron Age 1A



Pithos 7.27
Tall al-'Umayri
Iron Age 1A



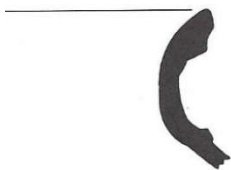
Pithos 7.28
Tall al-'Umayri
Iron Age 1A



Pithos 7.36
Tall al-'Umayri
Iron Age 1A



Pithos 7.43
Tall al-'Umayri
Iron Age 1A

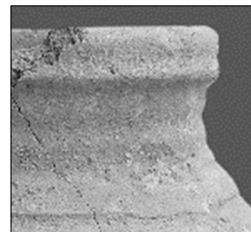


Pithos 7.46
Tall al-'Umayri
Iron Age 1A

The Classic Form



Pithos 17.16
Tall Jalul
Iron Age 2C

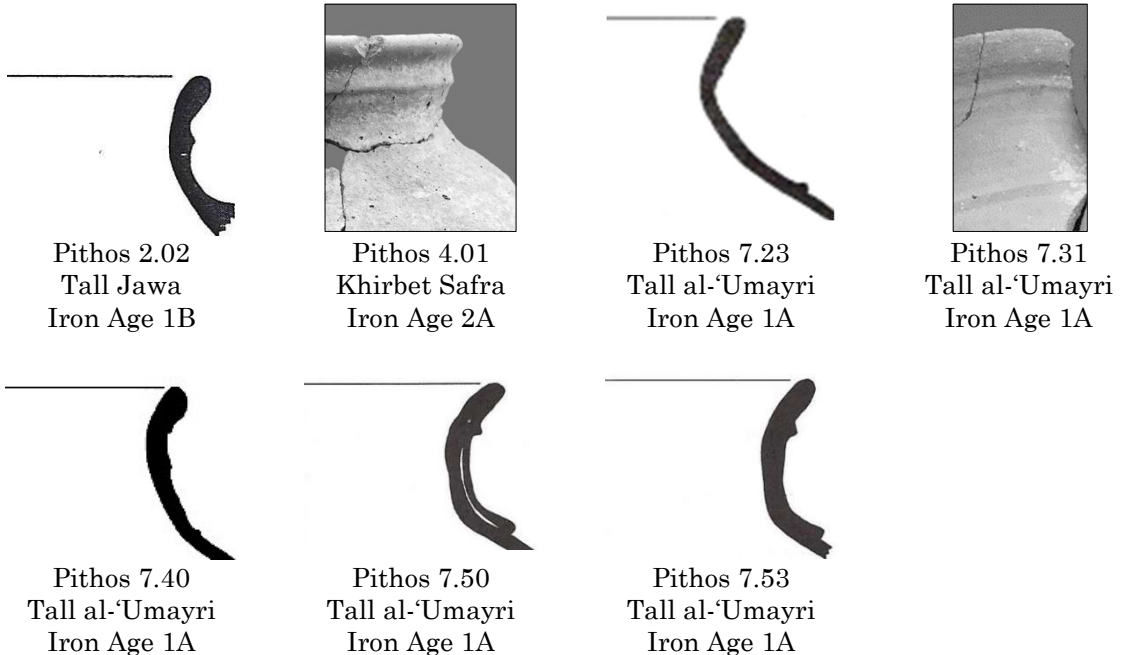


Pithos 24.01
Khirbat Safra
Iron Age 1B

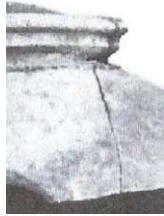
Type 2: The Ridged Rim

The profiled, ridged rim is usually of simple or oval shape with a ridge, or ring of clay, directly below it – at the top of the vessel’s neck. The ridged rim differs from the kidney-shaped rim in the location of the outer groove or concavity and the sharpness, or pointedness, of the lower ridge. In every example of this style included below, there is no prominent neck profiling present. These features make visually identifying this rim shape reasonably uncomplicated. There are nine examples of this rim shape included in this study – from four sites located on the Central Plateau. Two-thirds of the rims presented belong to Long Form vessels.

The Long Form



The Classic Form

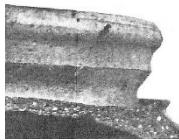


Pithos 26.02
Tall Sahab
Iron Age 1B



Pithos 26.05
Tall Sahab
Iron Age 1B

The Short Form



Pithos 43.01
Tall Sahab
Iron Age 1B

Type 3: The Double Groove Rim

The double-groove rim, much like it sounds, has two concavities, or grooves, around its outer face. About half of the examples of this rim shape have a sharply pointed lip and the other half have a rounded lip. There are six examples of this rim shape included in this study. With the exception of one Long Form example, they are all in the Classic Form group. This style is found at two sites on the Central Plateau and two sites in Southern Transjordan. The grooves on the southern examples are deeper and more pronounced while the rims from the Central Plateau have more subtle profiling.

The Long Form



Pithos 7.63
Tall al-'Umayri
Iron Age 1A

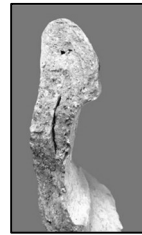
The Classic Form



Pithos 12.01
Umm al-Biyara
Iron Age 2A



Pithos 13.03
Busayra
Iron Age 2C



Pithos 17.01
Tall Jalul
Iron Age 2A



Pithos 17.04
Tall Jalul
Iron Age 2A



Pithos 17.06
Tall Jalul
Iron Age 2B

Type 4: The Upper Groove Rim

The upper groove, profiled rim has a thickened shape with a singular groove around the top portion of the outer face. There are three examples of this rim shape below. This shape is apparently peculiar to the Central Plateau, as there are two examples in this study from Tall al-'Umayri and

one from 'Iraq el-Emir. All three of the rims are from contexts which date to the Iron Age 1.

The Long Form

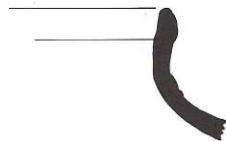


Pithos 7.47
Tall al-'Umayri
Iron Age 1A

The Classic Form



Pithos 16.01
'Iraq el-Emir
Iron Age 1B



Pithos 25.02
Tall al-'Umayri
Iron Age 1A

Type 5: The Simple Grooved Rim

This rim style is simple, or slightly thickened, with a flat lip and multiple grooves on the outer face of the rim. There is only one example of this rim style in this study. It is an Long Form vessel, dating to the Iron Age 1A, and originating from the Central Plateau at Tall al-'Umayri.

The Long Form



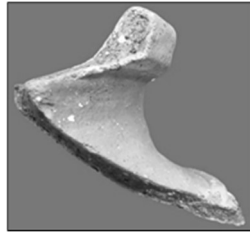
The Rectangular Rim

The rectangular rim is similar to the square rim in that it possesses at least two corners, or edges, a flat outer face, and a flat lip. The difference is in the proportions of the height and width of the rims. The square rim has nearly identical ratios of height to width, while the rectangular rim is disproportionate in its ratios. The most defined rectangular rims belong to the Long Form and typically take the shape of tall rectangles. Those more likely belonging to later contexts have edges or corners that are more rounded. The rectangular rims of the Short Form are usually shorter and more horizontal rectangles. There are 11 rims here assigned to the rectangular rim group. They all originate from sites on the Central Plateau. All of the examples from datable contexts belong to the Iron Age 1. Two rims are from unstratified contexts that most likely belong to the Iron Age 2B/C.

The Long Form



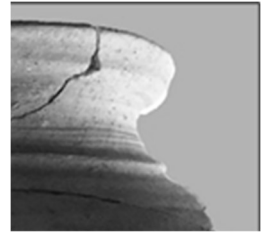
Pithos 5.01
Tall Safut
Iron Age 1B



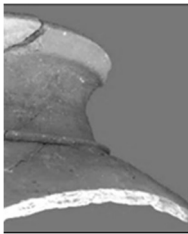
Pithos 7.15
Tall al-'Umayri
Iron Age 1A



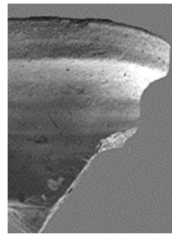
Pithos 7.18
Tall al-'Umayri
Iron Age 1A



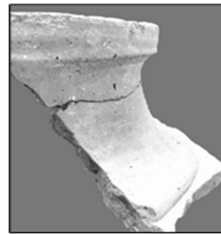
Pithos 7.33
Tall al-'Umayri
Iron Age 1A



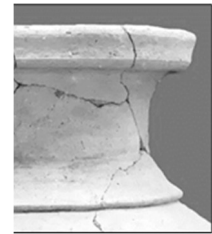
Pithos 7.35
Tall al-'Umayri
Iron Age 1A



Pithos 7.37
Tall al-'Umayri
Iron Age 1A

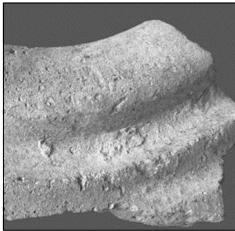


Pithos 7.38
Tall al-'Umayri
Iron Age 1A

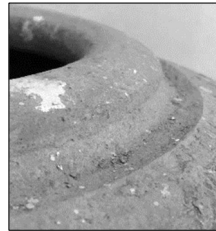


Pithos 7.41
Tall al-'Umayri
Iron Age 1A

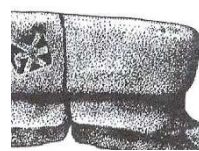
The Short Form



Pithos 35.08
Tall Jalul
Unstratified



Pithos 41.04
Umm al-Qanafid
Unstratified

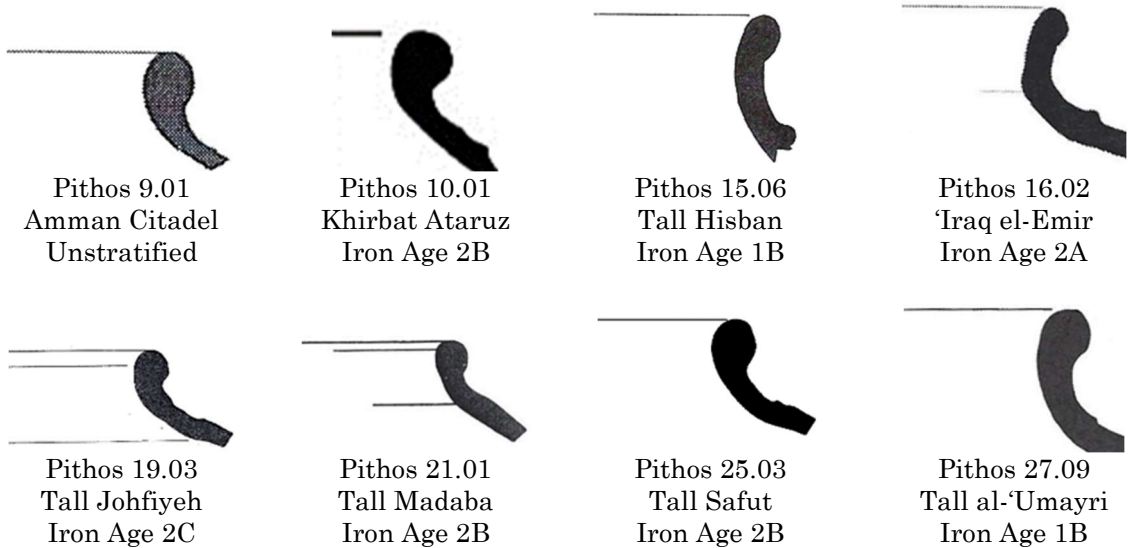


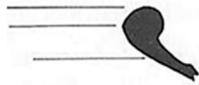
Pithos 43.02
Tall Sahab
Iron Age 1B

The Round Rim

The round rim is edgeless and is generally evenly distributed in its dimensions of height and width. It is this characteristic that distinguishes it from the edgeless, thickened rim shape, the latter of which possesses a variety of height to width ratios. There are 34 examples of round rims in this study. This shape first appears in an Iron Age 1B context, albeit rarely, and continues until the end of the Iron Age with increasing frequency. It dominates the rim shapes in the Iron Age 2B and at the end of the Iron Age 2C. With a few exceptions, these rims are proportionally small in the Classic Form group and become increasingly larger and more bulbous as they progress to the shorter-necked Short Form. Round rims have a wide geographic range, appearing in every region in Transjordan.

The Classic Form





Pithos 27.15
Tall al-'Umayri
Iron Age 2B

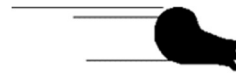
The Short Form



Pithos 30.03
Khirbat al-Balu'a
Iron Age 2B



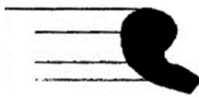
Pithos 35.05
Tall Jalul
L. Iron Age 2C



Pithos 35.06
Tall Jalul
Unstratified



Pithos 35.07
Tall Jalul
Iron Age 2C



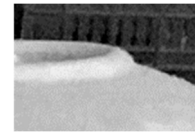
Pithos 38.02
Tall Madaba
Iron Age 2B



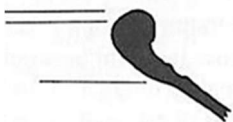
Pithos 39.01
Khirbat en-Nahas
Iron Age 2A



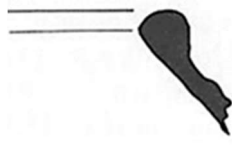
Pithos 40.01
Tall Nimrin
Iron Age 2A



Pithos 41.03
Umm al-Qanafid
Unstratified



Pithos 45.02
Tall al-'Umayri
Iron Age 2B



Pithos 45.03
Tall al-'Umayri
Iron Age 2B

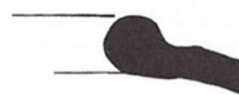


Pithos 45.04
Tall al-'Umayri
L. Iron Age 2C



Pithos 45.06
Tall al-'Umayri
L. Iron Age 2C

The Final Form



Pithos 48.01
Tall Hisban
Unstratified



Pithos 48.02
Tall Hisban
Unstratified



Pithos 48.04
Tall Hisban
Unstratified



Pithos 48.05
Tall Hisban
Unstratified



Pithos 50.02
Tall Jalul
L. Iron Age 2C



Pithos 50.03
Tall Jalul
L. Iron Age 2C



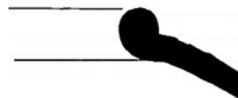
Pithos 52.01
Umm al-Qanafid
Unstratified



Pithos 53.01
Tall al-'Umayri
Iron Age 2C



Pithos 53.02
Tall al-'Umayri
Iron Age 2C



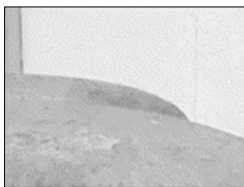
Pithos 53.03
Tall al-'Umayri
Iron Age 2C



Pithos 53.06
Tall al-'Umayri
L. Iron Age 2C



Pithos 53.08
Tall al-'Umayri
L. Iron Age 2C

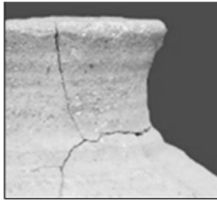


Pithos 54.02
Unknown Prov.
Unstratified

The Simple Rim

The simple rim lacks decoration and has little to no thickening. Some examples flare slightly, others are nearly vertical. It is usually difficult to determine where the bottom of the rim ends and the neck begins, as the two are not distinct from one another. In a few cases, the neck appears to simply continue to the lip. There are nine rims in this study identified as having a simple rim. With one exception from an early Iron Age 2 context, all of these rims belong to the Iron Age 1. Consequently, they are primarily found on the Central Plateau, with one example originating from the Jordan Valley.

The Long Form



Pithos 3.01
Umm al-Qanafid
Unstratified



Pithos 6.02
Tall es-Sa'idiyeh
Iron Age 1A

The Classic Form



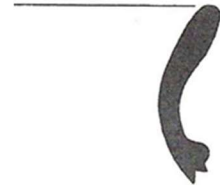
Pithos 15.03
Tall Hisban
Iron Age 1B



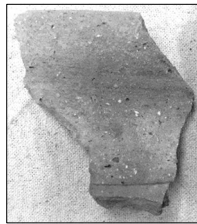
Pithos 15.04
Tall Hisban
Iron Age 1B



Pithos 15.05
Tall Hisban
Iron Age 1B



Pithos 15.07
Tall Hisban
Iron Age 1B



Pithos 17.0
Tall Jalul
Iron Age 2A



Pithos 27.12
Tall al-'Umayri
Iron Age 1B

The Short Form



Pithos 45.01
Tall al-'Umayri
Iron Age 1B

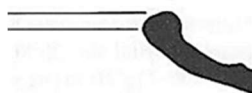
The Square Rim

The square rim, like the rectangular rim, is defined by two to three edges and two to three flat sides or faces. Square rims are generally equal in height and width. There are eight examples of square rims in this study. They occur in all Iron Age 2 contexts, but increase in frequency in the later part of the period. These rims range from the northern Jordan Valley site of Tall Sa'idiyeh to Umm al-Biyara, in southern Transjordan. They are most common, however, on the Central Plateau, from which 75% of these rims originated.

The Classic Form



Pithos 17.19
Tall Jalul
Iron Age 2C



Pithos 27.14
Tall al-'Umayri
Iron Age 2B

The Short Form



Pithos 31.01
Umm al-Biyara
Iron Age 2B

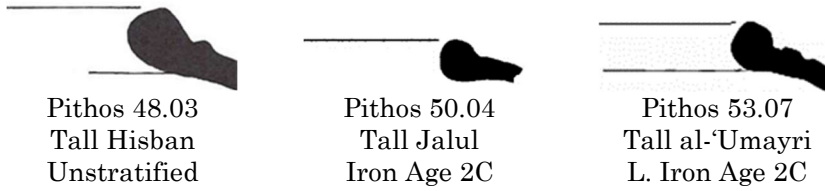


Pithos 35.01
Tall Jalul
Iron Age 2C



Pithos 44.01
Tall Sa'idiyeh
Iron Age 2A

The Final Form

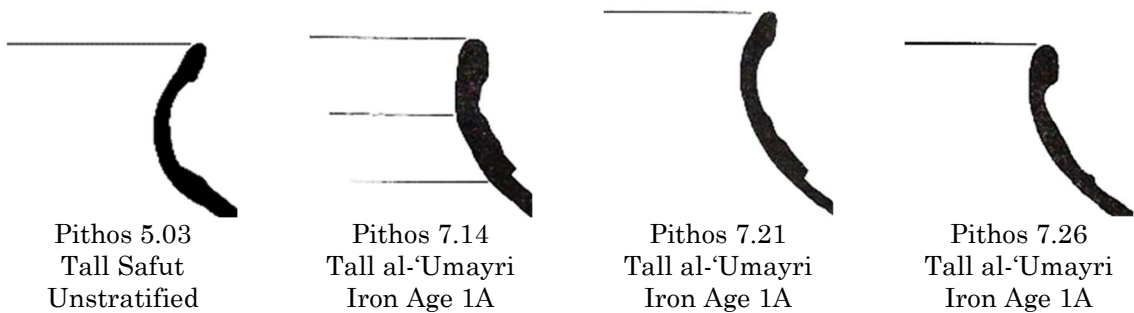


The Thickened Rim

Type 1: The Edged Rim

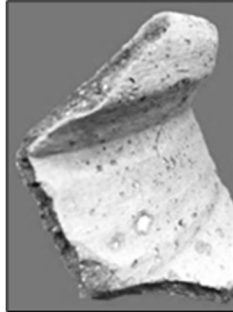
The edged rim is a basic thickened rim style with a rounded top and an edge around the lower portion of its outer face. There are 28 examples of this rim shape presented in this study. Edged rims are attested in every period throughout the Iron Age. The rims that occur later tend to be thicker than those found in earlier contexts. These rims are found exclusively at sites on the Central and Kerak Plateaus.

The Long Form





Pithos 7.32
Tall al-'Umayri
Iron Age 1A



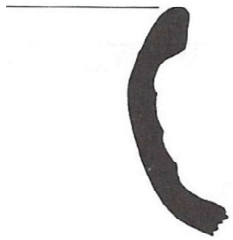
Pithos 7.34
Tall al-'Umayri
Iron Age 1A



Pithos 7.45
Tall al-'Umayri
Iron Age 1A



Pithos 7.51
Tall al-'Umayri
Iron Age 1A



Pithos 7.55
Tall al-'Umayri
Iron Age 1A



Pithos 7.56
Tall al-'Umayri
Iron Age 1A



Pithos 7.57
Tall al-'Umayri
Iron Age 1A



Pithos 7.58
Tall al-'Umayri
Iron Age 1A



Pithos 7.60
Tall al-'Umayri
Iron Age 1A

The Classic Form



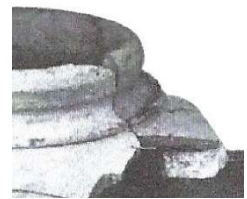
Pithos 17.15
Tall Jalul
Iron Age 2A



Pithos 17.20
Tall Jalul
Unstratified



Pithos 25.01
Tall Safut
Unstratified



Pithos 26.04
Tall Sahab
Iron Age 1B



Pithos 26.06
Tall Sahab
Iron Age 1B



Pithos 27.02
Tall al-'Umayri
Iron Age 1A



Pithos 27.07
Tall al-'Umayri
Iron Age 1B

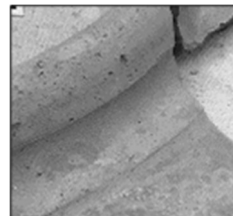
The Short Form



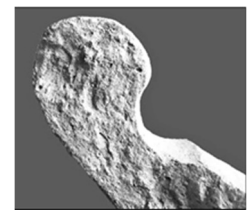
Pithos 30.01
Khirbat al-Balua
Iron Age 2B



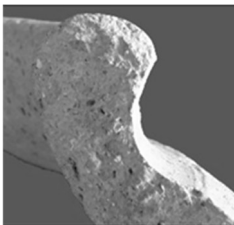
Pithos 30.02
Khirbat al-Balua
Iron Age 2B



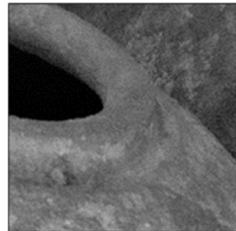
Pithos 35.02
Tall Jalul
L. Iron Age 2C



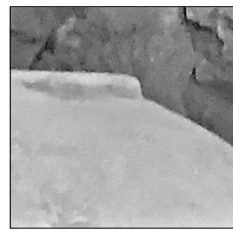
Pithos 35.03
Tall Jalul
Iron Age 2C



Pithos 35.04
Tall Jalul
Unstratified



Pithos 41.02
Umm al-Qanafid
Unstratified



Pithos 41.05
Umm al-Qanafid
Unstratified

The Final Form



Pithos 49.01
Iraq el-'Emir
L. Iron Age 2C

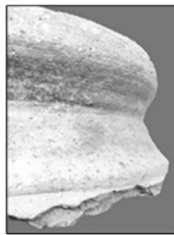
Type 2: The Edgeless Rim

The thickened, edgeless rim is smoothed and generally does not possess any clear edges or flat sides. It usually has an ovoid shape, but a diversity of irregular profiles fulfilling the above qualifications are also attested. Consequently, this classification group contains the greatest variety of permutations. There are 48 collared pithoi with rims classified as thickened and edgeless. Half of these are from the Classic Form group but they are extant in every form. This rim style can be found in every geographic region and is most common on the Central Plateau. The thickened, edgeless rim is present in all Iron Age periods and is the most frequent shape in most periods except for the Iron Age 1A, when profiled shapes are more common, the Iron Age 2B and the end of the Iron Age 2C, when round rims become more prevalent.

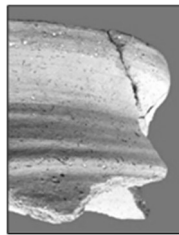
The Long Form



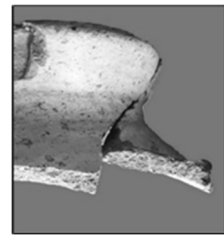
Pithos 2.01
Tall Jawa
Iron Age 1B



Pithos 7.20
Tall al-'Umayri
Iron Age 1A



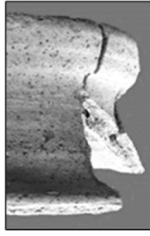
Pithos 7.25
Tall al-'Umayri
Iron Age 1A



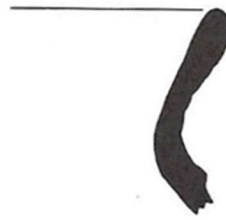
Pithos 7.29
Tall al-'Umayri
Iron Age 1A



Pithos 7.39
Tall al-'Umayri
Iron Age 1A



Pithos 7.42
Tall al-'Umayri
Iron Age 1A



Pithos 7.49
Tall al-'Umayri
Iron Age 1A



Pithos 7.54
Tall al-'Umayri
Iron Age 1A



Pithos 7.59
Tall al-'Umayri
Iron Age 1A



Pithos 7.61
Tall al-'Umayri
Iron Age 1A



Pithos 7.64
Tall al-'Umayri
Iron Age 1A

The Classic Form



Pithos 11.02
Khirbat al-Balu'a
Iron Age 2B



Pithos 15.01
Tall Hisban
Iron Age 1B



Pithos 15.02
Tall Hisban
Iron Age 1B



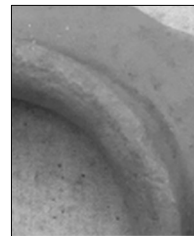
Pithos 16.03
'Iraq el-Emir
Iron Age 2C



Pithos 17.07
Tall Jalul
Iron Age 2C



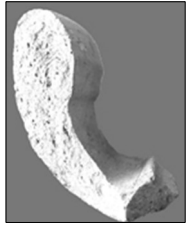
Pithos 17.09
Tall Jalul
Iron Age 2A



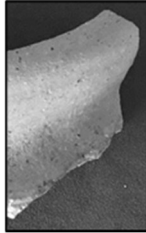
Pithos 17.11
Tall Jalul
Iron Age 2B



Pithos 17.12
Tall Jalul
Iron Age 2C



Pithos 17.13
Tall Jalul
Iron Age 2B



Pithos 17.14
Tall Jalul
Iron Age 2B



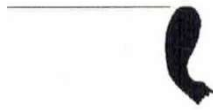
Pithos 17.18
Tall Jalul
Iron Age 2C



Pithos 18.02
Tall Jawa
Iron Age 1B



Pithos 22.02
Khirbat al-
Mudayna al-'Aliya
Iron Age 1B



Pithos 23.01
Khirbat en-Nahas
Iron Age 2A



Pithos 23.02
Khirbat en-Nahas
Iron Age 2A



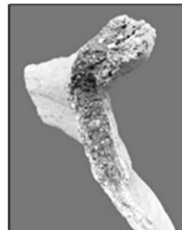
Pithos 25.04
Tall Safut
Iron Age 2B



Pithos 26.01
Tall Sahab
Iron Age 1B



Pithos 26.03
Tall Sahab
Iron Age 1B



Pithos 27.01
Tall al-'Umayri
Iron Age 1A



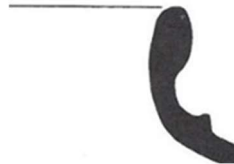
Pithos 27.04
Tall al-'Umayri
Iron Age 1B



Pithos 27.08
Tall al-'Umayri
Iron Age 1B



Pithos 27.10
Tall al-'Umayri
Iron Age 1B

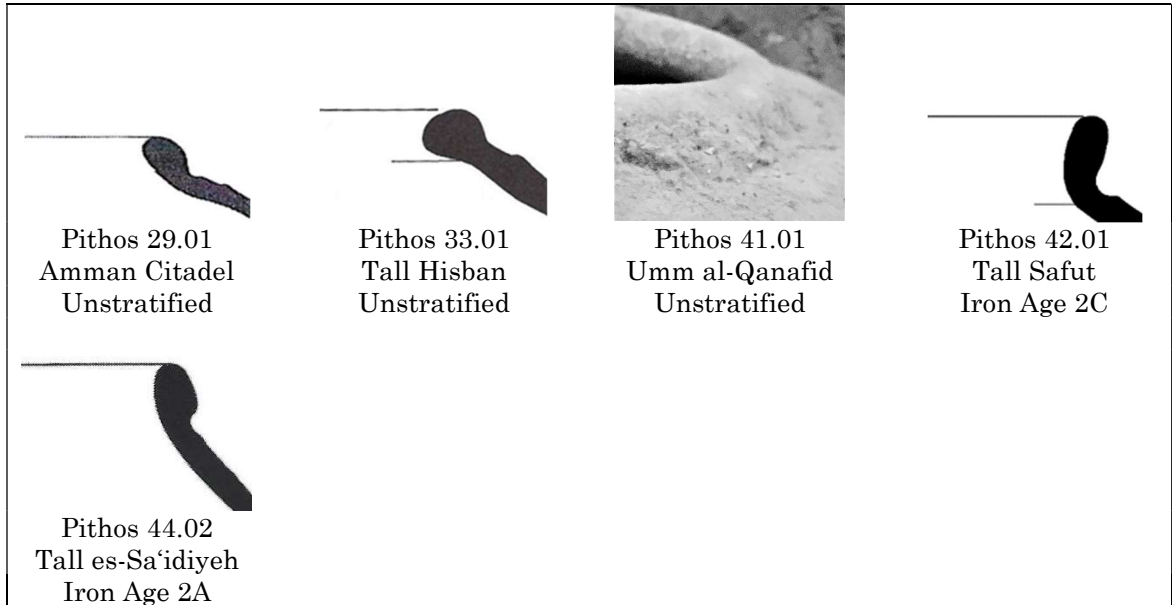


Pithos 27.11
Tall al-'Umayri
Iron Age 1B

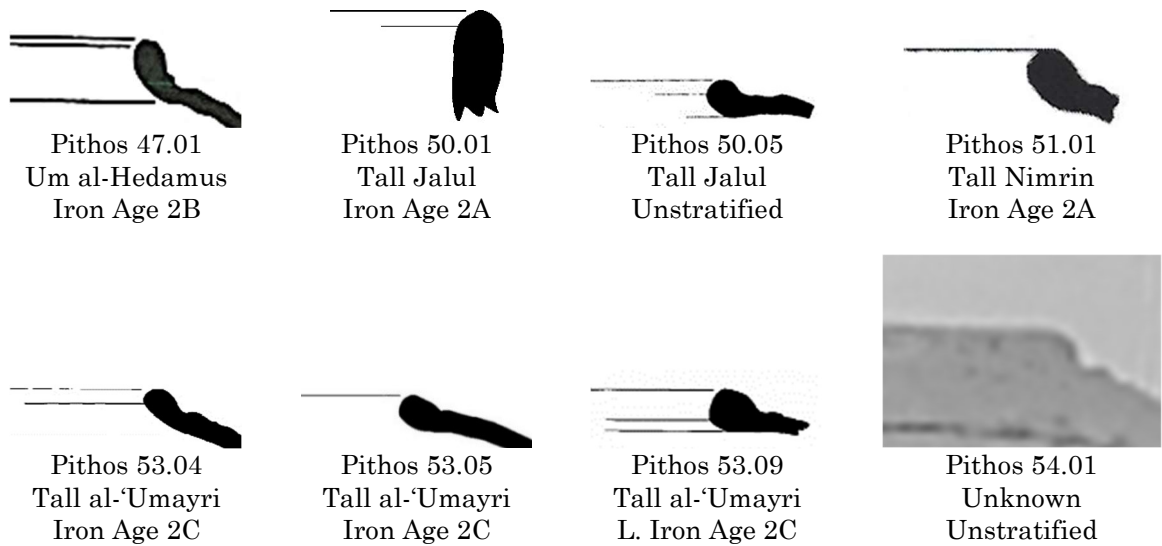


Pithos 27.13
Tall al-'Umayri
Iron Age 1B

The Short Form



The Final Form



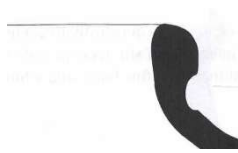
Type 3: The Hook-Shaped Rim

The hook rim is defined by a round or oval top mirrored in a scooping shape on the bottom of the outer face. These curves meet in a point or edge forming the overall appearance of a hanger or hook shape. This rim style is

closely related to the Type 1: Thickened, Edged rim shape. The latter also generally possesses the rounded lip and lower outer rim edge. The distinction is based on the upward scoop of the lower curve, connecting this edge back to the surface of the neck. While first appearing in an Iron Age 1B context, the hooked rim is most commonly found in the Iron Age 2B/C. These rims have a broad geographic range, with a presence in every region of Transjordan.

There are 15 rims categorized as thickened, hook rims.

The Classic Form



Pithos 11.01
Khirbat al-Balu'a
Iron Age 2B



Pithos 11.03
Khirbat al-Balu'a
Iron Age 2B



Pithos 17.17
Tall Jalul
Unstratified



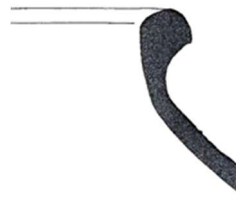
Pithos 18.01
Tall Jawa
Iron Age 1B



Pithos 19.01
Tall Johfiyeh
Iron Age 2C



Pithos 19.02
Tall Johfiyeh
Iron Age 2C



Pithos 19.04
Tall Johfiyeh
Iron Age 2C



Pithos 27.06
Tall al-'Umayri
Iron Age 1B

The Short Form



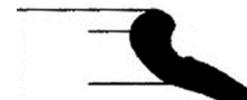
Pithos 28.01
Abu al-Kharaz
Iron Age 2B



Pithos 32.01
Busayra
Unstratified



Pithos 37.01
Tall Johfiyeh
Iron Age 2C



Pithos 38.01
Tall Madaba
Iron Age 2B



Pithos 45.05
Tall al-'Umayri
L. Iron Age 2C

The Final Form



Pithos 46.01
Khirbat Balu'a
Iron Age 2C



Pithos 50.06
Tall Jalul
Iron Age 2B

Type 4: The Offset Rim

The offset rim shape is defined by thickened rims that are shifted off of the neck's axis creating an interior ledge or groove. This rim style is attested at sites in southern Transjordan and on the Central Plateau throughout the Iron Age. There are 15 offset rims presented here. This rim style is seen in every stage of the collared pithos' development, except during the Iron Age 1B.

The Long Form



Pithos 7.04
Tall al-'Umayri
Iron Age 1A



Pithos 7.06
Tall al-'Umayri
Iron Age 1A



Pithos 7.17
Tall al-'Umayri
Iron Age 1A



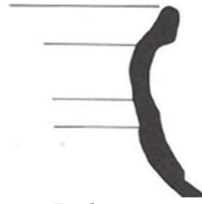
Pithos 7.22
Tall al-'Umayri
Iron Age 1A



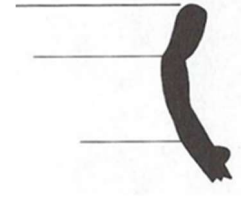
Pithos 7.30
Tall al-'Umayri
Iron Age 1A



Pithos 7.48
Tall al-'Umayri
Iron Age 1A



Pithos 7.52
Tall al-'Umayri
Iron Age 1A

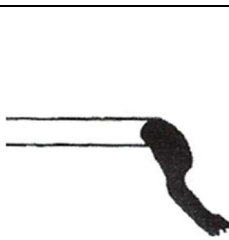


Pithos 7.62
Tall al-'Umayri
Iron Age 1A



Pithos 7.67
Tall al-'Umayri
Iron Age 1A

The Classic Form



Pithos 13.02
Busayra
Iron Age 2C



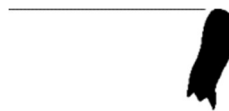
Pithos 13.04
Busayra
Iron Age 2C



Pithos 17.02
Tall Jalul
Iron Age 2A



Pithos 17.05
Tall Jalul
Iron Age 2B



Pithos 17.08
Tall Jalul
Iron Age 2C



Pithos 17.10
Tall Jalul
Iron Age 2A

Type 5: Miscellaneous Rims

This collection of three rims represents those that are thickened but otherwise anomalous in shape. They do not meet the qualifications of any single rim style and are most commonly a conglomerate shape. Taking into consideration the handmade nature of the collared pithos, it is remarkable that there are only three vessels in this study that can be classified as such. The rim of Pithos 13.01 from the southern site of Busayra possesses characteristics of a square, round, or even thickened, edgeless style. Pithos 34.01 from the central site of 'Iraq el-Emir appears to be a mix of the thickened, edged and rectangular styles. Finally, Pithos 46.02 from Khirbat al-Balu'a has a rim with interior thickening that is nearly edgeless and is uniquely offset *inside* the vessel. Interestingly, all of these rims belong to the Iron Age 2C.

The Classic Form



Pithos 13.01
Busayra
Iron Age 2C

The Short Form



Pithos 34.01
Iraq el-Emir
Iron Age 2C

The Final Form



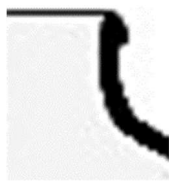
Pithos 46.02
Khirbat Balua'
Iron Age 2C

The Triangular Rim

The triangular rim is identified by the presence of an outer edge and a pointed or narrow lip. The two edges of the triangular rim join two to three flat sides giving this rim its triangular shape. It is this flat-sidedness that distinguishes this shape from the thickened, edged shape. Several of these

rims, such as Pithos 7.24, display indications that this style is the result of a simple fold. Two of the examples, from Tall Jawa, are flat-lipped inverted triangles that are unlike the others. They are placed in this group due to their definite triangular profile, despite their unique shape. The triangular rims presented below originate at sites in every geographic region of Transjordan, except the south. While there are examples of this rim style throughout the Iron Age, it is most frequently found in the Iron Age 1. There are 16 rims in this study classified as triangular.

The Long Form



Pithos 1.01
Tall Deir 'Alla
Iron Age 1B



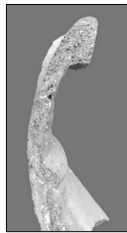
Pithos 5.02
Tall Safut
Iron Age 1B



Pithos 6.01
Tall es-Sa'idiyeh
Iron Age 1A



Pithos 7.24
Tall al-'Umayri
Iron Age 1A



Pithos 7.44
Tall al-'Umayri
Iron Age 1A

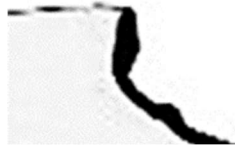


Pithos 7.65
Tall al-'Umayri
Iron Age 1A

The Classic Form



Pithos 8.01
Abu al-Kharaz
Iron Age 1B



Pithos 14.01
Tall Deir 'Alla
Iron Age 1B



Pithos 18.03
Tall Jawa
Iron Age 2A



Pithos 19.05
Tall Johfiyeh
Iron Age 2C



Pithos 20.01
Khirbat Lahun
Iron Age 1B



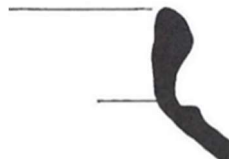
Pithos 22.01
Khirbat al-
Mudayna al-'Aliya
Iron Age 1B



Pithos 25.02
Tall Safut
Iron Age 1B



Pithos 25.05
Tall Safut
Iron Age 2B



Pithos 27.05
Tall al-'Umayri
Iron Age 1B

The Short Form



Pithos 36.01
Tall Jawa
Iron 2A

APPENDIX B

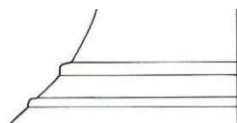
VISUAL GUIDE TO COLLAR STYLE CLASSIFICATION

There are six designated collar styles utilized in this study. These are given the descriptive titles: double, round, square, teardrop, triangular, and vestigial. This appendix will describe these shape categories and define them visually in order that they may be more accessible to the reader. Wherever possible, two examples have been included from each chronological category in which that collar style appears.

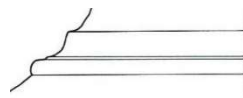
The Double Collar

The double collar is comprised of an upper and lower ring of clay between the base of the neck and the top of the shoulder. These collars are usually triangular in shape, particularly in the later periods, but can take other forms as well. Occasionally the collars can differ in shape – when the upper collar is one shape and the lower collar another. Between the upper and lower collars is a dip, space, or groove that defines and separates them. Every chronological stage of the collared pithos contains examples of this collar style.

Iron Age 1A



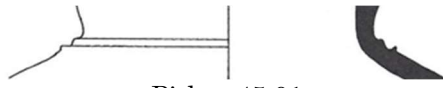
Pithos 6.46
Tall al-'Umayri



Pithos 6.59
Tall al-'Umayri



Iron Age 1B

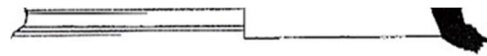


Pithos 45.01
Tall al-'Umayri

Iron Age 2A



Pithos 18.03
Tall Jawa



Pithos 39.01
Khirbat en-Nahas

Iron Age 2B



Pithos 25.03
Tall Safut



Pithos 47.01
Um al-Hedamus

Iron Age 2C



Pithos 50.02
Tall Jalul



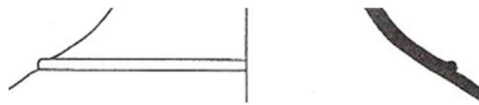
Pithos 53.01
Tall al-'Umayri

The Round Collar

The round collar is free of any edges, flat sides, or points. This collar style is a simple ring of clay joining the base of the neck to the top of the shoulder. The round collar may be diminutive or very prominent. It may be well defined or simply resemble a bump at the bottom of the neck. Regardless of these differences, the round collar style is always free of corners or edges. It is also relatively symmetrical in shape, distinguishing it from the teardrop

shape. Examples of the round shaped collar are present in every period throughout the Iron Age.

Iron Age 1A



Pithos 7.23
Tall al-'Umayri



Pithos 7.54
Tall al-'Umayri

Iron Age 1B



Pithos 14.01
Tall Deir 'Alla

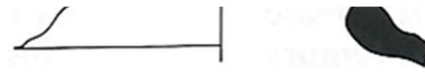


Pithos 27.06
Tall al-'Umayri

Iron Age 2A



Pithos 44.02
Tall es-Sa'idiyeh



Pithos 51.01
Tall Nimrin

Iron Age 2B



Pithos 17.05
Tall Jalul

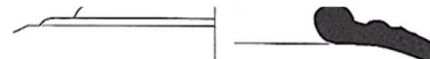


Pithos 45.03
Tall al-'Umayri

Iron Age 2C



Pithos 45.05
Tall al-'Umayri



Pithos 53.02
Tall al-'Umayri

The Square Collar

The square collar has at least two corners or edges and two to three flat sides. This collar style is one of the least frequent shapes. Nevertheless, it is consistently attested throughout every period of the Iron Age.

Iron Age 1A



Pithos 7.08
Tall al-'Umayri



Pithos 7.46
Tall al-'Umayri

Iron Age 1B



Pithos 5.01
Tall Safut

Iron Age 2A



Pithos 12.01
Umm al-Biyara

Iron Age 2B

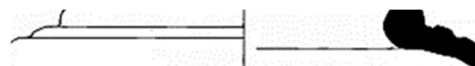


Pithos 28.01
Abu al-Kharaz



Pithos 30.01
Khirbat al-Balu'a

Iron Age 2C



Pithos 53.07
Tall al-'Umayri

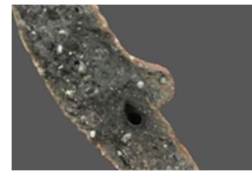
The Teardrop Collar

The teardrop collar is one of the common collar shapes on the collared pithos, particularly in the Iron Age 1. It is thicker and rounded on its lower side giving the illusion of the collar dripping down the neck, onto the shoulder. The characteristic of these collars that distinguishes them from the round or triangular collar styles is the disproportionately lower position of the thickest or most prominent part of the collar. It often looks as though the collar slipped down the neck when the clay was still wet, though it is actually an effect of the overlapping clay of the neck being joined to the body. Interestingly, there are no examples of teardrop collars from the Iron Age 2B. All other periods have representative pithoi with this collar shape.

Iron Age 1A



Pithos 7.15
Tall al-'Umayri

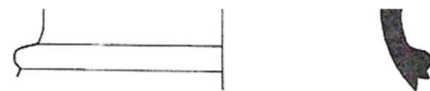


Pithos 7.37
Tall al-'Umayri

Iron Age 1B

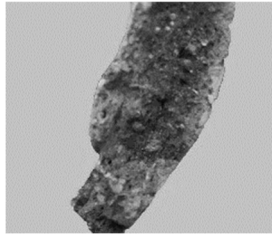


Pithos 5.02
Tall Safut

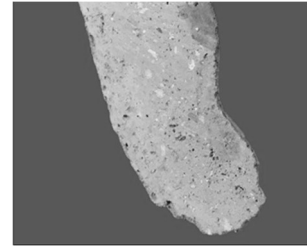


Pithos 15.07
Tall Hisban

Iron Age 2A



Pithos 17.03
Tall Jalul



Pithos 50.01
Tall Jalul

Iron Age 2C



Pithos 13.01
Busayra

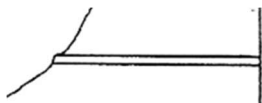


Pithos 17.12
Tall Jalul

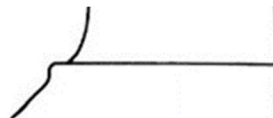
The Triangular Collar

The triangular collar is pinched to a fine edge or point forming a triangular shape. Sometimes it is very prominent, nearly distorting the shape of the vessel's neck. Other times it is subtle or nearly vestigial. The triangular collar shape is the most common collar style and is attested in every period throughout the development of the collared pithos.

Iron Age 1A



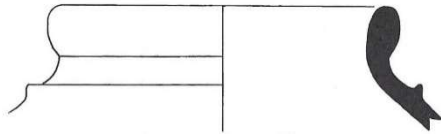
Pithos 7.26
Tall al-'Umayri



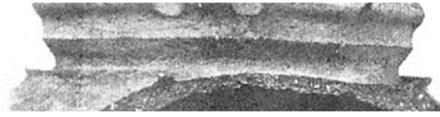
Pithos 6.01
Tall es-Sa'idiyeh



Iron Age 1B

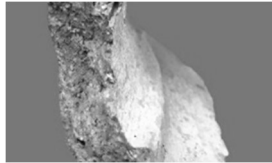


Pithos 27.13
Tall al-'Umayri



Pithos 43.01
Tall Sahab

Iron Age 2A



Pithos 17.01
Tall Jalul

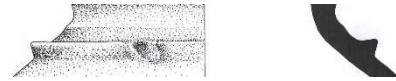


Pithos 23.01
Khirbat en-Nahas

Iron Age 2B



Pithos 11.02
Khirbat al-Balu'a

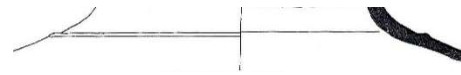


Pithos 11.03
Khirbat al-Balu'a

Iron Age 2C



Pithos 34.01
'Iraq el-Emir

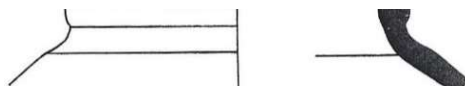


Pithos 19.02
Tall Johfiyeh

The Vestigial Collar

The vestigial collar is not a true collar. While its presence can be physically felt, or visually detected as a wave in the surface, it is so diminutive that its shape is largely undiscernible. This style appears to be more of an acknowledgement of the practice of placing collars on these vessels than a true replication of the process. As most would anticipate, the vestigial collar style is only exhibited in the final phases of the pithos' development.

Iron Age 2B

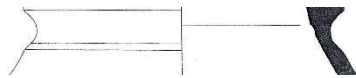


Pithos 21.01
Tall Madaba



Pithos 50.06
Tall Jalul

Iron Age 2C



Pithos 37.01
Tall Johfiyeh



Pithos 50.04
Tall Jalul

APPENDIX C

VISUAL GUIDE TO BASE SHAPE CLASSIFICATION

The shape of the base of a collared pithos is closely associated with its position in the overall developmental phase of the vessel type. At the beginning of the Iron Age 1A, this vessel resembles its predecessor in the Late Bronze Age – with its flat-bottomed base. As the form progresses beyond the Iron Age 1A, the base elongates and takes on a narrower round or pointed shape, but never flat. Likely due to the impracticality with such a large vessel, there are no examples of collared pithoi with sharply pointed bases. There are, however, bases that are more pointed than others.

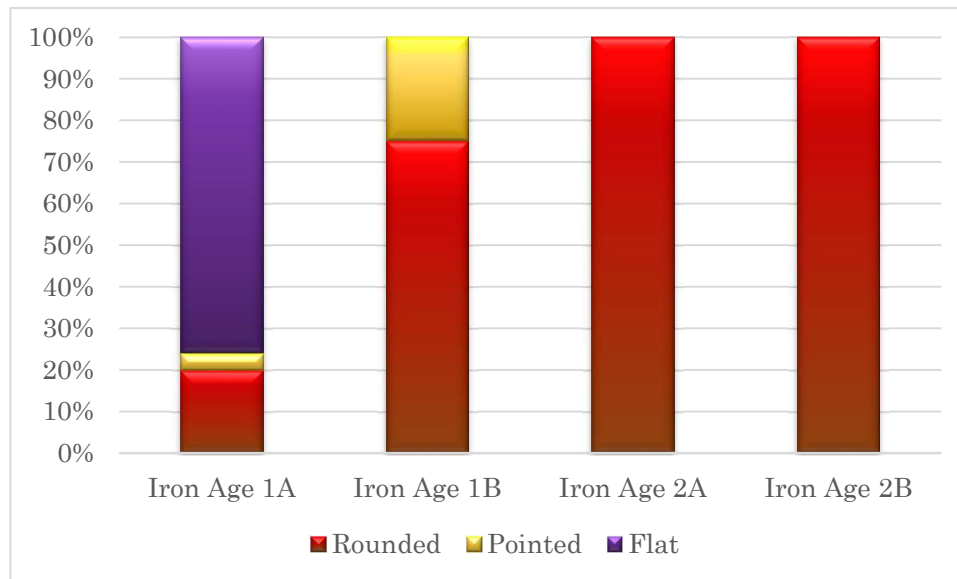


FIGURE 433. Percentage of Base Shape Distribution by Period

Usually, the pointed base is easily distinguishable from the rounded base. Occasionally, however, this is not the case. In order to elucidate the characteristics of these bases and classify them more objectively, a system of

diameter comparisons was instituted. Bases for which classification is obvious were evaluated and the following observations were made which can then be applied to categorizing the more obscure shapes.

With a rounded base, the diameter of a circle (b) resting inside the base of the pithos is greater than 50% of the diameter of the body (a) at one-fifth of the vessel's overall height from the bottom of the base. A pointed base has a much smaller "circle b " diameter. Adopting this approach when classifying base shapes accounts for the whole profile of the lower fifth of the vessel's body when determining just how pointed or rounded the base actually is in relation to the larger dimensions of the pithos. There are 68 bases included in this study. Following are selected examples of each base classification with a brief description of the shape's context and frequency.

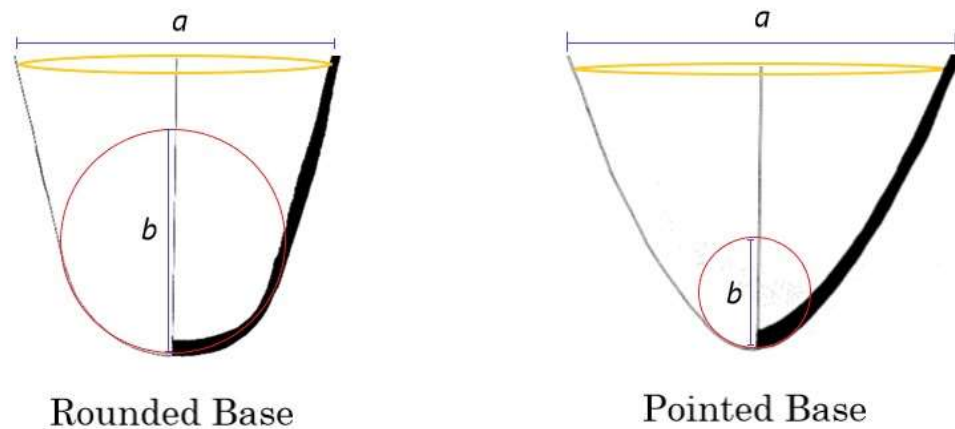
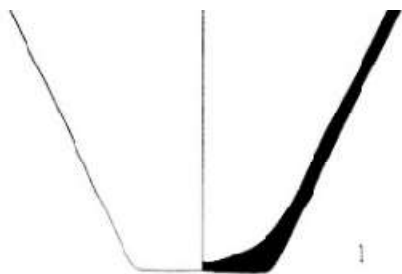


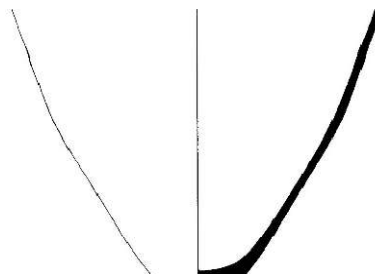
FIGURE 434. Diameter Method of Base Shape Classification.

The Flat Base

The only flat bases in this study belong to vessels dated to the earliest phase of the Iron Age 1A. Examples of this base shape in Transjordan are found exclusively at Tall al-'Umayri. There are 38 flat bases.



Pithos 7.02 Tall al-'Umayri

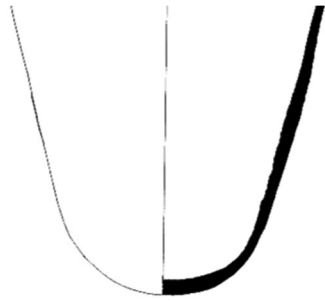


Pithos 7.11 Tall al-'Umayri

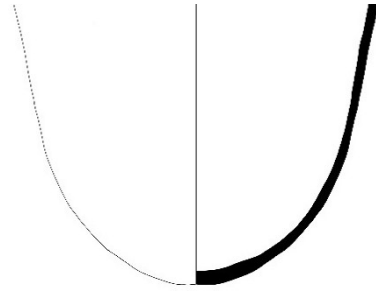
The Rounded Base

There are 24 bases in this study classified as rounded, 17 of these originate from datable contexts. The examples of the rounded base are largely from sites on the Central Plateau, but round-based pithoi from the Jordan Valley and northern Transjordan are also attested. This base form began in the Iron Age 1A and greatly increased in popularity through the following periods.

Iron Age 1A

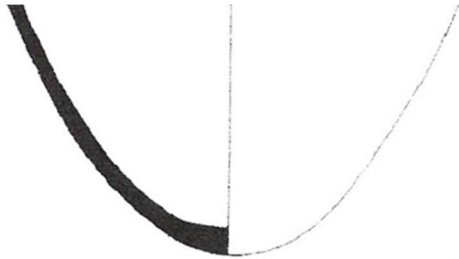


Pithos 7.07
Tall al-'Umayri

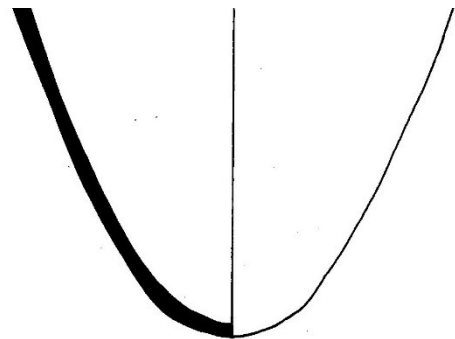


Pithos 27.02
Tall al-'Umayri

Iron Age 1B

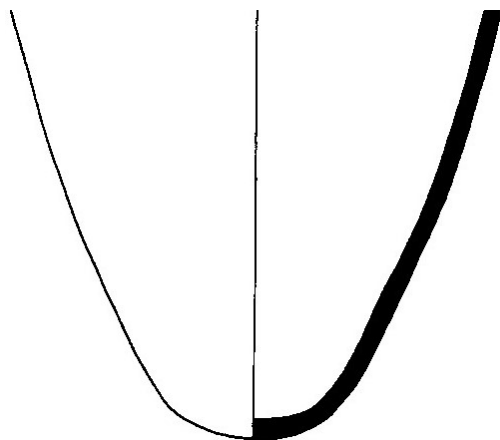


Pithos 1.01
Tall Deir 'Alla

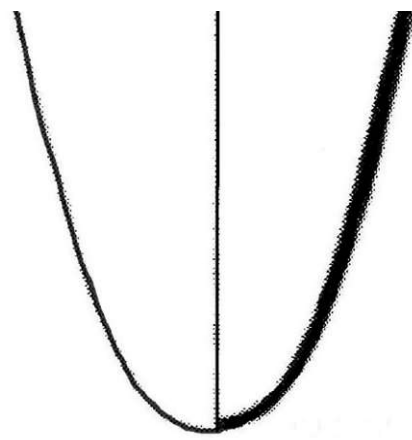


Pithos 26.01
Tall Sahab

Iron Age 2A

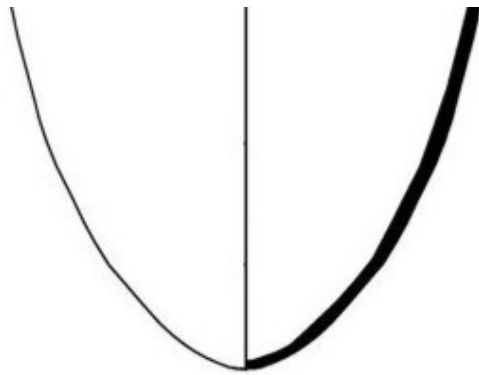


Pithos 18.03
Tall Jawa



Pithos 36.01
Tall Jawa

Iron Age 2B



Pithos 10.01
Khirbat Ataruz

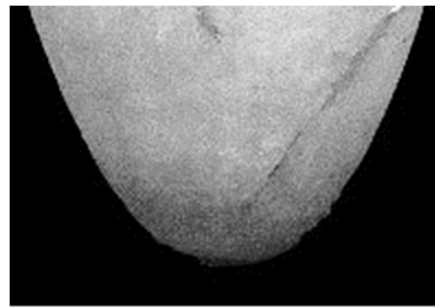


Pithos 47.01
Um al-Hedamus

Unstratified



Pithos 52.01
Umm al-Qanafid

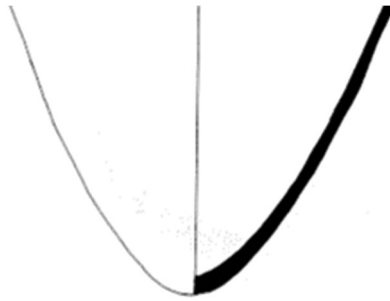


Pithos 54.01
Unknown Provenance

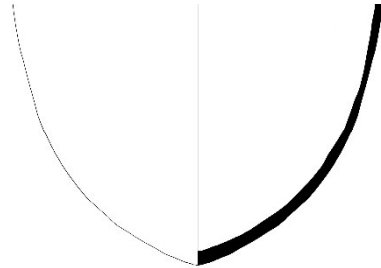
The Pointed Base

There are six vessels in this study with bases that are classified as pointed. Three of these pithoi are from unstratified locations, two are from an Iron Age 1A context at Tall al-'Umayri, and one is from an Iron Age 1B context at Tall Deir 'Alla. Upon examination of their overall forms, the unstratified pithoi most likely belong to later Iron Age 2 contexts. Because of the relative rarity of the pointed base classification among the collared pithoi in Transjordan, every example in this study has been included below.

Iron Age 1A



Pithos 7.01
Tall al-'Umayri



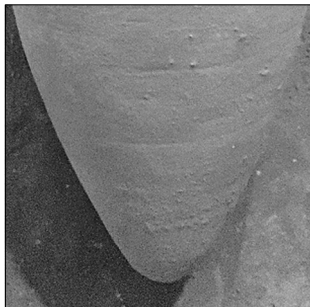
Pithos 7.64
Tall al-'Umayri

Iron Age 1B

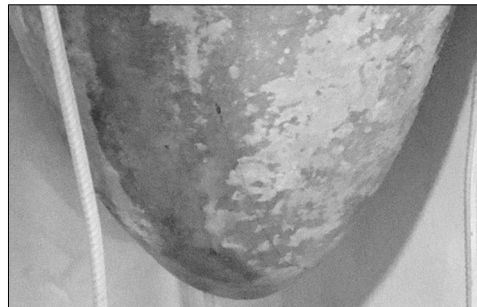


Pithos 14.01
Tall Deir 'Alla

Unstratified



Pithos 41.01
Umm al-Qanafid



Pithos 41.04
Umm al-Qanafid



Pithos 54.02
Unknown Provenance

APPENDIX D

LIST OF IRON AGE SITES¹⁹⁹ IN TRANSJORDAN QUERIED, AND PITHOS INDEX, BY SITE

Iron Age Sites with Unpublished Collared Pithoi

Abila
Dibon
al-Hammam

Iron Age Sites without Collared Pithoi Indicated

al-Hajjar
Rujm al-Malfuf
Mazar
Pella/el-Husn
Abu Nseir
er-Rumeith
Zara'a

Iron Age Sites with an Unknown²⁰⁰ Collared Pithos Presence

Abu Billana 1, 2	Jabal al-Hawayah	Mudeina eth-Thamad
Abu Thawwab	Rujm al-Henu (East)	Jabal en-Nuzhah
Abu Zibne	Hetiya, Barqa el-	Umm er-Rasas
Ader	Hiblan Salim	ar-Rumman (South)
Aroer (in Moab)	Iktanu	Wadi Rumman (West)
Ayn al-Mayita	Irbid	Wadi Salihi (West)
Bab edh-Dhra'	Umm al Jihash	Salameh
al-Birah	Kheleifeh	Sel'a
al-Bureis	Lejjun	Rujm & Jabal Shubeil
Wadi Dulani Tal'at ar-Ruz	al-Mashad	Tawilan
Dureijat	Mekhayyat	Wadi Fidan 40
Fifa	Mudeibi'	Yusra
al-Fukhar	Mudeina el-Mu'araja	

¹⁹⁹ An Iron Age site is defined here as any site with the presence of Iron Age material.

²⁰⁰ This is due to incomplete publication prior to 2019 or limited access to publications.

Pithos Index by Site with Chronological Assignments

Site Name	Class. Group	Pithos Number	Approximate Date B.C.	Archaeological Period
Abu al-Kharaz	Classic	Pithos 08.01	1140	Iron Age 1B
	Short	Pithos 28.01	830	Iron Age 2B
Amman Citadel	Classic	Pithos 09.01	Unstratified	Unknown
	Short	Pithos 29.01	Unstratified	Unknown
Khirbat Ataruz	Classic	Pithos 10.01	750	Iron Age 2B
Khirbat al-Balu'a	Classic	Pithos 11.03	830	Iron Age 2B
	Classic	Pithos 11.02	830	Iron Age 2B
	Classic	Pithos 11.01	830	Iron Age 2B
	Short	Pithos 30.01	750	Iron Age 2B
	Short	Pithos 30.02	750	Iron Age 2B
	Short	Pithos 30.03	750	Iron Age 2B
	Final	Pithos 46.02	732	Iron Age 2C
	Final	Pithos 46.01	732	Iron Age 2C
Umm al-Biyara	Classic	Pithos 12.01	980	Iron Age 2A
	Short	Pithos 31.01	830	Iron Age 2B
Busayra	Classic	Pithos 13.01	732	Iron Age 2C
	Classic	Pithos 13.02	732	Iron Age 2C
	Classic	Pithos 13.04	732	Iron Age 2C
	Classic	Pithos 13.03	732	Iron Age 2C
	Short	Pithos 32.01	Unstratified	Unknown
Tall Deir 'Alla	Long	Pithos 01.01	1140	Iron Age 1B
	Classic	Pithos 14.01	1140	Iron Age 1B
Um al-Hedamus	Final	Pithos 47.01	830	Iron Age 2B
Tall Hisban	Classic	Pithos 15.04	1140	Iron Age 1B
	Classic	Pithos 15.06	1140	Iron Age 1B
	Classic	Pithos 15.05	1140	Iron Age 1B
	Classic	Pithos 15.02	1140	Iron Age 1B
	Classic	Pithos 15.03	1140	Iron Age 1B
	Classic	Pithos 15.07	1140	Iron Age 1B
	Classic	Pithos 15.01	1140	Iron Age 1B
	Short	Pithos 33.01	Unstratified	Unknown
	Final	Pithos 48.05	Unstratified	Unknown
	Final	Pithos 48.02	Unstratified	Unknown
	Final	Pithos 48.04	Unstratified	Unknown
	Final	Pithos 48.01	Unstratified	Unknown
	Final	Pithos 48.03	Unstratified	Unknown
Iraq el-Emir	Classic	Pithos 16.01	1140	Iron Age 1B
	Classic	Pithos 16.02	980	Iron Age 2A
	Classic	Pithos 16.03	732	Iron Age 2C
	Short	Pithos 34.01	732	Iron Age 2C

Iraq el-Emir	Final	Pithos 49.01	650	Late Iron Age 2C
Tall Jalul	Classic	Pithos 17.15	980	Iron Age 2A
	Classic	Pithos 17.09	980	Iron Age 2A
	Classic	Pithos 17.10	980	Iron Age 2A
	Classic	Pithos 17.03	980	Iron Age 2A
	Classic	Pithos 17.01	980	Iron Age 2A
	Classic	Pithos 17.04	980	Iron Age 2A
	Classic	Pithos 17.02	980	Iron Age 2A
	Final	Pithos 50.01	980	Iron Age 2A
	Classic	Pithos 17.05	830	Iron Age 2B
	Classic	Pithos 17.14	830	Iron Age 2B
	Classic	Pithos 17.13	830	Iron Age 2B
	Classic	Pithos 17.11	830	Iron Age 2B
	Classic	Pithos 17.06	830	Iron Age 2B
	Final	Pithos 50.06	750	Iron Age 2B
	Classic	Pithos 17.16	732	Iron Age 2C
	Classic	Pithos 17.07	732	Iron Age 2C
	Classic	Pithos 17.12	732	Iron Age 2C
	Classic	Pithos 17.19	732	Iron Age 2C
	Classic	Pithos 17.18	732	Iron Age 2C
	Short	Pithos 35.07	732	Iron Age 2C
	Short	Pithos 35.03	732	Iron Age 2C
	Short	Pithos 35.01	732	Iron Age 2C
	Final	Pithos 50.04	732	Iron Age 2C
	Classic	Pithos 17.08	700	Iron Age 2C
	Short	Pithos 35.05	650	Late Iron Age 2C
	Short	Pithos 35.02	650	Late Iron Age 2C
	Final	Pithos 50.02	650	Late Iron Age 2C
	Final	Pithos 50.03	650	Late Iron Age 2C
	Classic	Pithos 17.17	Unstratified	Unknown
	Classic	Pithos 17.20	Unstratified	Unknown
	Short	Pithos 35.04	Unstratified	Unknown
	Short	Pithos 35.06	Unstratified	Unknown
Short	Pithos 35.08	Unstratified	Unknown	
Final	Pithos 50.05	Unstratified	Unknown	
Tall Jawa	Long	Pithos 02.02	1140	Iron Age 1B
	Long	Pithos 02.01	1140	Iron Age 1B
	Classic	Pithos 18.01	1140	Iron Age 1B
	Classic	Pithos 18.02	1140	Iron Age 1B
	Classic	Pithos 18.03	980	Iron Age 2A
	Short	Pithos 36.01	980	Iron Age 2A
Tall Johfiyeh	Classic	Pithos 19.05	732	Iron Age 2C
	Classic	Pithos 19.04	732	Iron Age 2C
	Classic	Pithos 19.01	732	Iron Age 2C

Tall Johfiyeh	Classic	Pithos 19.02	732	Iron Age 2C
	Classic	Pithos 19.03	732	Iron Age 2C
	Short	Pithos 37.01	732	Iron Age 2C
Khirbat al-Lahun	Classic	Pithos 20.01	1140	Iron Age 1B
Tall Madaba	Classic	Pithos 21.01	830	Iron Age 2B
	Short	Pithos 38.02	830	Iron Age 2B
	Short	Pithos 38.01	830	Iron Age 2B
Khirbat al-Mudayna al-'Aliya	Classic	Pithos 22.01	1140	Iron Age 1B
	Classic	Pithos 22.02	1140	Iron Age 1B
Khirbat en-Nahas	Classic	Pithos 23.01	980	Iron Age 2A
	Classic	Pithos 23.02	980	Iron Age 2A
	Short	Pithos 39.01	850	Iron Age 2A
Tall Nimrin	Short	Pithos 40.01	980	Iron Age 2A
	Final	Pithos 51.01	980	Iron Age 2A
Umm al-Qanafid	Long	Pithos 03.01	unknown	Unknown
	Short	Pithos 41.04	unknown	Unknown
	Short	Pithos 41.05	unknown	Unknown
	Short	Pithos 41.01	unknown	Unknown
	Short	Pithos 41.03	unknown	Unknown
	Short	Pithos 41.02	unknown	Unknown
	Final	Pithos 52.01	unknown	Unknown
Khirbat Safra	Classic	Pithos 24.01	1140	Iron Age 1B
	Classic	Pithos 24.02	1140	Iron Age 1B
	Long	Pithos 04.01	980	Iron Age 2A
Tall Safut	Long	Pithos 05.01	1140	Iron Age 1B
	Long	Pithos 05.02	1140	Iron Age 1B
	Classic	Pithos 25.02	1140	Iron Age 1B
	Classic	Pithos 25.03	780	Iron Age 2B
	Classic	Pithos 25.05	780	Iron Age 2B
	Classic	Pithos 25.04	780	Iron Age 2B
	Short	Pithos 42.01	732	Iron Age 2C
	Long	Pithos 05.03	Unstratified	Unknown
	Classic	Pithos 25.01	Unstratified	Unknown
Tall Sahab	Classic	Pithos 26.04	1140	Iron Age 1B
	Classic	Pithos 26.08	1140	Iron Age 1B
	Classic	Pithos 26.01	1140	Iron Age 1B
	Classic	Pithos 26.05	1140	Iron Age 1B
	Classic	Pithos 26.03	1140	Iron Age 1B
	Classic	Pithos 26.02	1140	Iron Age 1B
	Classic	Pithos 26.11	1140	Iron Age 1B
	Classic	Pithos 26.09	1140	Iron Age 1B
	Classic	Pithos 26.06	1140	Iron Age 1B
	Classic	Pithos 26.07	1140	Iron Age 1B
	Classic	Pithos 26.10	1140	Iron Age 1B

Tall Sahab	Short	Pithos 43.01	1140	Iron Age 1B
	Short	Pithos 43.02	1140	Iron Age 1B
Tall es-Sa'idiyeh	Long	Pithos 06.02	1200	Iron Age 1A
	Long	Pithos 06.01	1200	Iron Age 1A
	Short	Pithos 44.02	850	Iron Age 2A
	Short	Pithos 44.01	850	Iron Age 2A
Tall al-'Umayri	Long	Pithos 07.10	1200	Iron Age 1A
	Long	Pithos 07.45	1200	Iron Age 1A
	Long	Pithos 07.58	1200	Iron Age 1A
	Long	Pithos 07.23	1200	Iron Age 1A
	Long	Pithos 07.32	1200	Iron Age 1A
	Long	Pithos 07.54	1200	Iron Age 1A
	Long	Pithos 07.08	1200	Iron Age 1A
	Long	Pithos 07.46	1200	Iron Age 1A
	Long	Pithos 07.02	1200	Iron Age 1A
	Long	Pithos 07.11	1200	Iron Age 1A
	Long	Pithos 07.03	1200	Iron Age 1A
	Long	Pithos 07.15	1200	Iron Age 1A
	Long	Pithos 07.12	1200	Iron Age 1A
	Long	Pithos 07.09	1200	Iron Age 1A
	Long	Pithos 07.28	1200	Iron Age 1A
	Long	Pithos 07.33	1200	Iron Age 1A
	Long	Pithos 07.43	1200	Iron Age 1A
	Long	Pithos 07.66	1200	Iron Age 1A
	Long	Pithos 07.16	1200	Iron Age 1A
	Long	Pithos 07.29	1200	Iron Age 1A
	Long	Pithos 07.18	1200	Iron Age 1A
	Long	Pithos 07.13	1200	Iron Age 1A
	Long	Pithos 07.64	1200	Iron Age 1A
	Long	Pithos 07.07	1200	Iron Age 1A
	Long	Pithos 07.63	1200	Iron Age 1A
	Long	Pithos 07.67	1200	Iron Age 1A
	Long	Pithos 07.04	1200	Iron Age 1A
	Long	Pithos 07.37	1200	Iron Age 1A
	Long	Pithos 07.24	1200	Iron Age 1A
	Long	Pithos 07.39	1200	Iron Age 1A
	Long	Pithos 07.65	1200	Iron Age 1A
	Long	Pithos 07.51	1200	Iron Age 1A
	Long	Pithos 07.59	1200	Iron Age 1A
	Long	Pithos 07.60	1200	Iron Age 1A
Long	Pithos 07.25	1200	Iron Age 1A	
Long	Pithos 07.38	1200	Iron Age 1A	
Long	Pithos 07.55	1200	Iron Age 1A	
Long	Pithos 07.42	1200	Iron Age 1A	

	Long	Pithos 07.53	1200	Iron Age 1A
	Long	Pithos 07.48	1200	Iron Age 1A
	Long	Pithos 07.50	1200	Iron Age 1A
	Long	Pithos 07.47	1200	Iron Age 1A
	Long	Pithos 07.41	1200	Iron Age 1A
	Long	Pithos 07.35	1200	Iron Age 1A
	Long	Pithos 07.44	1200	Iron Age 1A
	Long	Pithos 07.05	1200	Iron Age 1A
	Long	Pithos 07.40	1200	Iron Age 1A
	Long	Pithos 07.30	1200	Iron Age 1A
	Long	Pithos 07.22	1200	Iron Age 1A
	Long	Pithos 07.17	1200	Iron Age 1A
	Long	Pithos 07.26	1200	Iron Age 1A
	Long	Pithos 07.27	1200	Iron Age 1A
	Long	Pithos 07.19	1200	Iron Age 1A
	Long	Pithos 07.36	1200	Iron Age 1A
	Long	Pithos 07.14	1200	Iron Age 1A
	Long	Pithos 07.61	1200	Iron Age 1A
	Long	Pithos 07.21	1200	Iron Age 1A
	Long	Pithos 07.06	1200	Iron Age 1A
	Long	Pithos 07.34	1200	Iron Age 1A
	Long	Pithos 07.01	1200	Iron Age 1A
Tall al-'Umayri	Long	Pithos 07.52	1200	Iron Age 1A
	Long	Pithos 07.56	1200	Iron Age 1A
	Long	Pithos 07.57	1200	Iron Age 1A
	Long	Pithos 07.62	1200	Iron Age 1A
	Long	Pithos 07.20	1200	Iron Age 1A
	Long	Pithos 07.49	1200	Iron Age 1A
	Long	Pithos 07.31	1200	Iron Age 1A
	Classic	Pithos 27.02	1200	Iron Age 1A
	Classic	Pithos 27.03	1200	Iron Age 1A
	Classic	Pithos 27.01	1200	Iron Age 1A
	Classic	Pithos 27.04	1140	Iron Age 1B
	Classic	Pithos 27.06	1140	Iron Age 1B
	Classic	Pithos 27.12	1140	Iron Age 1B
	Classic	Pithos 27.08	1140	Iron Age 1B
	Classic	Pithos 27.09	1140	Iron Age 1B
	Classic	Pithos 27.07	1140	Iron Age 1B
	Classic	Pithos 27.11	1140	Iron Age 1B
	Classic	Pithos 27.13	1140	Iron Age 1B
	Classic	Pithos 27.05	1140	Iron Age 1B
	Classic	Pithos 27.10	1140	Iron Age 1B
	Short	Pithos 45.01	1140	Iron Age 1B
	Classic	Pithos 27.14	830	Iron Age 2B
	Classic	Pithos 27.15	830	Iron Age 2B

	Short	Pithos 45.02	830	Iron Age 2B
	Short	Pithos 45.03	830	Iron Age 2B
	Final	Pithos 53.01	732	Iron Age 2C
	Final	Pithos 53.02	732	Iron Age 2C
	Final	Pithos 53.04	732	Iron Age 2C
	Final	Pithos 53.03	732	Iron Age 2C
	Final	Pithos 53.05	732	Iron Age 2C
Tall al-'Umayri	Short	Pithos 45.05	650	Late Iron Age 2C
	Short	Pithos 45.04	650	Late Iron Age 2C
	Short	Pithos 45.06	650	Late Iron Age 2C
	Final	Pithos 53.07	650	Late Iron Age 2C
	Final	Pithos 53.08	650	Late Iron Age 2C
	Final	Pithos 53.09	650	Late Iron Age 2C
	Final	Pithos 53.06	650	Late Iron Age 2C
Unknown	Final	Pithos 54.01	unknown	Unknown
Provenance	Final	Pithos 54.02	unknown	Unknown

BIBLIOGRAPHY

Albright, W. F.

- 1930 The Excavation of Tell Beit Mirsim. Vol. I: The Pottery of the First Three Campaigns. *The Annual of the American Schools of Oriental Research* 12: ix-165.
- 1932 *The Excavation at Tell Beit Mirsim in Palestina: The Pottery of the first three campaigns*. The Annual of the American Schools of Oriental Research 12. New Haven, CT: American Schools of Oriental Research.
- 1934 The Kyle Memorial Excavation at Bethel. *Bulletin of the American Schools of Oriental Research* 56: 2-15.
- 1937 Further Light on the History of Israel from Lachish and Megiddo. *Bulletin of the American Schools of Oriental Research* 68: 22-26.
- 1939 Ceramics and Chronology in the Near East. Pp. 49-63 in *So Live the Works of Men: Seventieth Anniversary Volume Honoring Edgar Lee Hewett*, ed. D. D. Brand and F. E. Harvey. Albuquerque, NM: University of New Mexico Press.
- 1943 Two Little Understood Amarna Letters from the Middle Jordan Valley. *Bulletin of the American Schools of Oriental Research* 89: 7-17.

Amiran, R.

- 1969 *Ancient Pottery of the Holy Land*. New Brunswick, NJ: Rutgers University Press.

Artzy, M.

- 1994 Incense, Camels and Collared Rim Jars: Desert trade routes and maritime outlets in the second millennium. *Oxford Journal of Archaeology* 13: 121-47.
- 2006 The Carmel Coast during the Second Part of the Late Bronze Age: A Center for Eastern Mediterranean Transshipping. *Bulletin of the American Schools of Oriental Research* 343: 45-64.

- Badè, W. F.; McCown, C. C.; and Wampler, J.
 1947 *Tell en-Nasbeh Excavated Under the Direction of the Late William Frederic Badè*, Vol. 2: *The Pottery*. Berkeley, CA: Palestine Institute of Pacific School of Religion.
- Ballard, R. D.; Stager, L. E.; Master, D.; Yoerger, D.; Mindell, D.; Whitcomb, L. L.; Singh, H.; and Piechota, D.
 2002 Iron Age Shipwrecks in Deep Water off Ashkelon, Israel. *American Journal of Archaeology* 106: 151-168.
- Barako, T. J.
 2015 The Iron Age Pottery. Pp. 71-188 in *Tell er-Rumeith: The Excavations of Paul W. Lapp, 1962 and 1967*. eds. R. J. Barako and N. L. Lapp. American Schools of Oriental Research Archaeological Reports 22. Boston: American Schools of Oriental Research. Beck, P., and Kochavi, M.
 1985 A Dated Assemblage of the Late 13th Century B.C.E. from the Egyptian Residency at Aphek. *Tel Aviv* 12: 29-42.
- Ben-Ami, D.
 2001 The Iron Age I at Tel Hazor in Light of the Renewed Excavations. *Israel Exploration Journal* 51: 148-70.
- Ben-Shlomo, D.; Nodarou, E.; and Rutter, J. B.
 2011 Transport Stirrup Jars from the Southern Levant: New Light on Commodity Exchange in the Eastern Mediterranean. *American Journal of Archaeology* 115: 329-353.
- Bienkowski, P.
 1992 The Beginning of the Iron Age in Edom: A reply to Finkelstein. *Levant* 24: 167-69.
 2002 *Busayra, Excavations by Crystal-M. Bennett 1971-1980*. Oxford: Oxford University Press.
 2011 *Umm al-Biyara: Excavations by Crystal-M. Bennett in Petra 1960-1965*. Oxford: Oxbow Books.
- Bierling, N.
 1998 *Tel Miqne-Ekron: Report on the 1995-1996 Excavations in Field XNW: Areas 77, 78, 79, 89, 90, 101, 102: Iron Age I*. Jerusalem: W.F. Albright Institute of Archaeological Research.
- Biran, A.

- 1989 The Collared-Rim Jars and the Settlement of the Tribe of Dan. Pp. 71-96 in *Recent Excavations in Israel: Studies in Iron Age Archaeology*, ed. S. Gitin and W. Dever. Winona Lake, IN: Eisenbrauns.
- 1993 Dan. Pp. 323-32 in *The New Encyclopedia of Archaeological Excavations in the Holy Land*, ed. E. Stern; A. Lewinson-Gilboa; and J. Aviram. New York: Simon & Schuster.
- Bloch-Smith, E.
- 2003 Israelite Ethnicity in Iron I: Archaeology Preserves What is Remembered and What is Forgotten in Israel's History. *Journal of Biblical Literature* 122: 401-25.
- 2004 Resurrecting the Iron I Dead. *Israel Exploration Journal* 54: 77-91.
- Bloch-Smith, E., and Nakhai, B. A.
- 1999 A Landscape Comes to Life: The Iron Age I. *Near Eastern Archaeology* 62: 62-127.
- Bogges, E.
- 1970 A Hellenistic Pithos from Corinth. *Hesperia: The Journal of the American School of Classical Studies at Athens* 39: 73-78.
- Bonfil, R.
- 1992 MB II Pithoi in Palestine. *Eretz-Israel Biran* 23: 26-37.
- Callaway, J. A.; Harvey, D.; Schoonover, K.; Ward, J. M.; Vine, K.; and Livingston, G. H.
- 1969 The 1966 'Ai (Et-Tell) Excavations. *Bulletin of the American Schools of Oriental Research* 196: 2-16.
- Caskey, M.
- 1976 Notes on Relief Pithoi of the Tenian-Boiotian Group. *American Journal of Archaeology* 80: 19-41.
- Chesnut, O.
- 2019 A Reassessment of the Excavations at Tall Safut. Ph.D. dissertation, Andrews University.
- Clark, D.
- 1994 The Iron I Western Defense System at Tell El-Umeiri, Jordan. *The Biblical Archaeologist* 57: 138-148.

- 1997 Field B: The Western Defensive System. Pp. 53-98 in *Madaba Plains Project: The 1989 Season at Tell al-'Umeiri and Vicinity and Subsequent Studies*. Berrien Springs, MI: Andrews University Press.
- 2000 Investigating Ancient Ceramic Traditions on Both Sides of the Jordan. Pp. 100-110 in *The Archaeology of Jordan and Beyond: Essays in Honor of James A. Sauer*, ed. J. G. Lawrence Stager, and Michael Coogan. Winona Lake, IN: Eisenbrauns.
- 2002 Field B: The Western Defense System. Pp. 48-116 in *Madaba Plains Project: The 1994 Season at Tall al-'Umayri and Subsequent Studies*. Berrien Springs, MI: Andrews University Press.
- 2014 Field B: The Western Defense System and Northwestern Domestic Area. Pp. 77-185 in *Madaba Plains Project: The 1996 and 1998 Seasons at Tall al-'Umayri and Subsequent Studies*. Berrien Springs, MI: Andrews University Press.
- Clark, D.; Herr, L.; LaBianca, Ø.; and Younker, R., eds.
2011 *The Madaba Plains Project: Forty Years of Archaeological Research into Jordan's Past*. Oakville, CT: Equinox.
- Cohen-Weinberger, A., and Wolff, S.
1996 Petrographic Analysis of Iron Age I Pithoi from Tel Sasa. *'Atiqot* 28: 77-83.
- 2001 Production Centers of Collared-Rim Pithoi from Sites in the Carmel Coast and Ramat Menashe Regions. Pp. 639-57 in *Studies in the Archaeology of Israel and Neighboring Lands in Memory of Douglas L. Esse*, ed. S. Wolff. Chicago, IL: The Oriental Institute.
- Coldstream, N., and Mazar, A.
2003 Greek Pottery from Tel Rehov and Iron Age Chronology. *Israel Exploration Journal* 53: 29-48.
- Cribb, R.
2004 *Nomads in Archaeology*. Cambridge: Cambridge University Press.
- Daviau, P. M.
1992 Preliminary Report of the Excavations at Tell Jawa in the Madaba Plains (1991). *Annual of the Department of Antiquities of Jordan* 36:145-62.

- 1995 Iron Age II Pithoi from Tell Jawa, Jordan: Construction Techniques and Typology. Pp. 607-16 in *Studies in the History and Archaeology of Jordan V, Art and Technology throughout the Ages*, ed. K. 'Amr, F. Zayadine, and M. Zaghoul. Amman: The Department of Antiquities of Jordan.
- 2002 *Excavations at Tall Jawa, Jordan, Volume 2: The Iron Age Artifacts*. Boston: Brill.
- 2003 *Excavations at Tall Jawa, Jordan, Volume 1: The Iron Age Town*. Boston: Brill.
- 2019 *Excavations at Tall Jawa, Jordan. Volume 3: The Iron Age Pottery*. Leiden: Brill.

Dever, W.

- 1987 Archaeological Sources for the History of Palestine: The Middle Bronze Age: The Zenith of the Urban Canaanite Era. *The Biblical Archaeologist* 50: 149-77.
- 1995 Ceramics, Ethnicity, and the Question of Israel's Origins. *The Biblical Archaeologist* 58: 200-13.
- 1995 Review of "Will the Real Israel Please Stand up?" Part II: Archaeology and the Religions of Ancient Israel, by Israel Finkelstein. *Bulletin of the American Schools of Oriental Research* 298: 37-58.
- 1998 Archaeology, Ideology, and the Quest for an "Ancient" or "Biblical Israel." *Near Eastern Archaeology* 61: 39-52.
- 2003 *Who Were the Early Israelites and Where did they come from?* Grand Rapids, MI: Eerdmans.
- 2006 Review of *Biblical Peoples and Ethnicity: An Archaeological Study of Egyptians, Canaanites, Philistines and Early Israel 1300-1100 B.C.E.*, by Ann E. Killebrew. *Journal of Biblical Literature* 125: 416-19.

Dever, W. G., and Gitin, S., eds.

- 2003 *Symbiosis, Symbolism, and the Power of the Past: Canaan, ancient Israel, and their neighbors from the Late Bronze Age through Roman Palaestina*. Winona Lake, IN.: Eisenbrauns.

Dever, W. G.; Lance, H. D.; Bullard, R. G.; Cole, D. P.; Gitin, S.; Holladay, J. S.; Seger, J. D.; Walker, A. M.; and Wright, R. B.

- 1986 *Gezer IV*. Jerusalem: Hebrew Union College Biblical and Archaeological School in Jerusalem.
- Dorneman, R.
 1983 *The Archaeology of the Transjordan in the Bronze and Iron Ages*. Milwaukee, WI: Milwaukee Public Museum.
- 1990 Preliminary Comments on the Pottery Traditions at Tell Nimrin, Illustrated from the 1989 Season of Excavations. *Annual of the Department of Antiquities of Jordan* 34: 153-81.
- Downey, S.
 2004 Review of *Ancient Abila: An Archaeological History*, by John D. Wineland. *American Journal of Archaeology* 108: 138-39.
- Edwards, D. R.; McCollough, C. T.; Silberman, N.; Bar-Yosef, O.; Gal, Z.; Smithline, H.; Shalem, D.; Dever, W. G.; Meyers, C.; Seger, J. D.; Rendsburg, G. A.; O'Brien, J. M.; Raymond, F. P., Jr.; Porter, A.; Crossan, J. D.; Fritz, V.; Fine, S.; Wise, C. S.; Galor, K.; Miller, S. S.; Byron, R. M.; Hachlili, R.; Richardson, P.; Grantham, B.; Strange, J. F.; Fischer, A.; Aubin, M.; Arav, R.; Tzaferis, V.; Geller, B.; Goranson, S.; Lapp, E. C.; Weiss, Z.; Vincenz, A. d.; Safrai, Z. e.; and Sion, O.
 2006 The Archaeology of Difference: Gender, Ethnicity, Class and the "Other" in Antiquity: Studies in Honor of Eric M. Meyers. *The Annual of the American Schools of Oriental Research* 60/61: i-416.
- Esse, D.
 1991 The Collared Store Jar - Scholarly Ideology and Ceramic Typology. *Scandinavian Journal of the Old Testament* 2: 99-116.
- 1992 The Collared Pithos at Megiddo: Ceramic Distribution and Ethnicity. *Journal of Near Eastern Studies* 51: 81-103.
- Falconer, S.
 1995 Rural Responses to Early Urbanism: Bronze Age Household and Village Economy at Tell el-Hayyat, Jordan. *Journal of Field Archaeology* 22: 399-419.
- Faust, A.
 2004 'Mortuary Practices, Society and Ideology': The Lack of Iron Age I Burials in the Highlands in Context. *Israel Exploration Journal* 54: 174-90.

- 2006a *Israel's Ethnogenesis: Settlement, Interaction, Expansion, and Resistance*. London: Equinox.
- 2006b The Negev "Fortresses" in Context: Reexamining the "Fortress" Phenomenon in Light of General Settlement Processes of the Eleventh-Tenth Centuries B.C.E. *Journal of the American Oriental Society* 126: 135-60.
- Finkelstein, I.
- 1988 *The Archaeology of the Israelite Settlement*. Jerusalem: Israel Exploration Society.
- 1990 On Archaeological Methods and Historical Considerations: Iron Age II Gezer and Samaria. *Bulletin of the American Schools of Oriental Research* 277/278: 109-19.
- 1992 Edom in the Iron I. *Levant* 24: 159-66.
- 1992 Stratigraphy, Pottery and Parallels: A Reply to Bienkowski. *Levant* 24: 171-72.
- 1996 Ethnicity and Origin of the Iron I Settlers in the Highlands of Canaan: Can the Real Israel Stand Up? *The Biblical Archaeologist* 59: 198-212.
- 1997 Pots and people revisited: ethnic boundaries in the Iron Age I. Pp. 216-37 in *The Archaeology of Israel: Constructing the Past, Interpreting the Present*, ed. N. Silberman and D. Small. Sheffield, England: Sheffield Academic Press.
- 1999 Hazor and the North in the Iron Age: A Low Chronology Perspective. *Bulletin of the American Schools of Oriental Research*: 55-70.
- 2011 Stages in the Territorial Expansion of the Northern Kingdom. *Vetus Testamentum* 61: 227-42.
- 2011 Tall al-Umayri in the Iron Age I: Facts and Fiction, with an appendix on the history of the Collared Rim Pithoi. Pp. 113-28 in *The Fire Signals of Lachish: Studies in the archaeology and history of Israel in the Late Bronze Age, Iron Age and Persian period in honor of David Ussishkin*, ed. Finkelstein, I. and Na'aman, N. Winona Lake, IN: Eisenbrauns.

Finkelstein, I., and Bunimovitz, S.

1993 Pottery. Pp. 81-196 in *Shiloh: The Archaeology of a Biblical Site*, ed. I. Finkelstein, S. Bunimovitz, and Z. Lederman. Tel Aviv: Institute of Archaeology, Tel Aviv University.

Finkelstein, I., and Na'aman, N.

1994 *From Nomadism to Monarchy: archaeological and historical aspects of early Israel*. Jerusalem: Israel Exploration Society.

Finkelstein, I., and Piasezky, E.

2011 The Iron Age Chronology Debate: Is the Gap Narrowing? *Near Eastern Archaeology* 74: 50-54.

Finkelstein, I., and Singer-Avitz, L.

2009 Reevaluating Bethel. *Zeitschrift des Deutschen Palästina-Vereins (1953-)* 125: 33-48.

Finkelstein, I., and Vronwy, H.

1986 *'Izbet Sartah: an early Iron Age site near Rosh Haayin, Israel*. Oxford, England: British Archaeological Reports.

Fischer, P.

2013 *Tell Abu al-Kharaz in the Jordan Valley, Volume III: The Iron Age*. Vienna: Österreichischen Akademie der Wissenschaften.

Flanagan, J.; McCreery, D.; and Yassine, K.

1990 First Preliminary Report of the 1989 Tell Nimrin Project. *Annual of the Department of Antiquities of Jordan* 34: 131-52.

1992 Preliminary Report of the 1990 Excavation at Tell Nimrin. *Annual of the Department of Antiquities of Jordan* 36:89-111.

1994 Tell Nimrin Preliminary Report on the 1993 Season. *Annual of the Department of Antiquities of Jordan* 38: 205-44.

1996 Tell Nimrin: Preliminary Report on the 1995 Excavation and Geological Survey. *Annual of the Department of Antiquities of Jordan* 40: 271-92.

Foran, D.C.; Harrison, T.; Graham, A.; Barlow, C.; and Johnson, N.J.

2004 The Tall Madaba Archaeological Project: Preliminary Report of the 2002 Field Season. *Annual of the Department of Antiquities of Jordan* 48:79- .

Franken, H.J.

- 1960 The Excavations at Deir 'Alla in Jordan. *Vestus Testamentum* 10/4: 386-93.
- 1961 The Excavations at Deir 'Alla in Jordan: 2nd Season. *Vestus Testamentum* 11/4: 361-72.
- 1962 The Excavations at Deir 'Alla in Jordan: 3rd Season. *Vestus Testamentum* 12/4: 378-82.
- 1964 Excavations at Deir 'Alla, Season 1964: Preliminary Report. *Vestus Testamentum* 14/4: 417-22.
- 1969 *Excavations at Tell Deir 'Alla I: A Stratigraphic and Analytical Study of the Early Iron Age Pottery*. Leiden: Brill.
- Franken, H. J., and London, G.
- 1995 Why Painted Pottery Disappeared at the End of the Second Millennium BCE. *The Biblical Archaeologist* 58: 214-22.
- Franklin, N.
- 2006 Revealing Stratum V at Megiddo. *Bulletin of the American Schools of Oriental Research*: 95-111.
- 2007 Response to David Ussishkin. *Bulletin of the American Schools of Oriental Research* 348: 71-73.
- Funk, R.
- 1968 The Bronze Age - Iron I Pottery. Pp. 35-53 in *The 1957 Excavation at Beth Zur*, ed. O.R. Sellers. Cambridge, MA: American Schools of Oriental Research.
- Gane, C.; Younker R.W.; and Ray, P.
- 2010 Madaba Plains Project: Tall Jalul, 2009. *Andrews University Seminary Studies* 48/2: 165-223.
- Geraty, L. T.; Herr, L. G.; LaBianca, Ø. S.; Battenfield, J. R.; Boling, R. G.; Clark, D. R.; Lawlor, J. I.; Mitchel, L. A.; and Younker, R. W.
- 1986 Madaba Plains Project: A Preliminary Report of the 1984 Season at Tell el-'Umeiri and Vicinity. *Bulletin of the American Schools of Oriental Research. Supplementary Studies* 24: 117-144.
- Geraty, L. T.; Herr, L. G.; LaBianca, Ø. S.; Battenfield, J. R.; Christopherson, G. L.; Clark, D. R.; Jon, A. C.; Daviau, P. M.; Hubbard, L. E.; Lawlor, J. I.; Low, R.; and Younker, R. W.

- 1990 Madaba Plains Project: A Preliminary Report of the 1987 Season at Tell el-'Umeiri and Vicinity. *Bulletin of the American Schools of Oriental Research. Supplementary Studies* 26: 59-88.
- Geraty, L. T.; Herr, L. G.; LaBianca, O. S.; Younker, R. W.; Hubbard, L. E.; and Haynes, L. A., eds.
 1989 *Madaba Plains Project: The 1984 Season at Tell el-'Umeiri and Vicinity and Subsequent Studies*. Berrien Springs, MI: Andrews University Press.
- Gilboa, A.
 1998 Iron Age I Pottery Evolution at Dor: Regional Contexts and the Cypriot Connection. Pp. 413-25 in *Mediterranean Peoples in Transition: Thirteenth to Early Tenth Centuries B.C.E.*, ed. S. Gitin; A. Mazar; and E. Stern. Jerusalem: Israel Exploration Society.
- Gilboa, A., and Sharon, I.
 2008 Between the Carmel and the Sea: Tel Dor's Iron Age Reconsidered. *Near Eastern Archaeology* 71: 146-70.
- Gilead, I., and Goren, Y.
 1989 Petrographic Analysis of Fourth Millennium B.C. Pottery and Stone Vessels from the Northern Negev, Israel. *Bulletin of the American Schools of Oriental Research* 275: 5-14.
- Gilmour, G.
 2002 Foreign Burials in Late Bronze Age Palestine. *Near Eastern Archaeology* 65: 112-19.
- Gitin, S., ed.
 2015 *The Ancient Pottery of Israel and Its Neighbors from the Iron Age through the Hellenistic Age*. 2 vols. Jerusalem: Israel Exploration Society.
- Glass, J.
 1993 Petrographic Analyses of Middle Bronze Age III, Late Bronze Age and Iron Age I Ceramic Assemblages. Pp. 271-86 in *Shiloh: the Archaeology of a Biblical Site*, ed. I. Finkelstein. Tel Aviv: Institute of Archaeology of Tel Aviv University.
- Gordon, R. L.
 1987 Notes on Some Sites in the Lower Wadi ez-Zerqa and Wadi Rajib. *Zeitschrift des Deutschen Palestina-Vereins (1953-)* 103: 67-77.

- Goren, Y.
1996 The Southern Levant in the Early Bronze Age IV: The Petrographic Perspective. *Bulletin of the American Schools of Oriental Research* 303: 33-72.
- Green, J. D.
2006 Ritual and Social Structure in the Late Bronze and Early Iron Age Southern Levant: the Cemetery at Tell es-Saidiyeh, Jordan. Ph.D. dissertation, University of London.
- Gregor, P. Z.
2004 *Israel's Cousins: Ammon, Moab, Edom During the Time of Exodus*. Mandeville, Jamaica: School of Religion and Theology, Northern Caribbean University.
- Gregor, P. Z.; Ray, P.; Younker, R.; and Gane, C.
2011 Preliminary Report on the 2011 Season of the Madaba Plains Project: Tall Jalul Excavations 2011. *Annual of the Department of Antiquities of Jordan* 55: 351-62.
- Gunneweg, J. A.; Perlman, I.; and Meshel, Z.
1985 The Origin of the Pottery of Kuntillet 'Ajrud. *Israel Exploration Journal* 35: 270-83.
- Harrison, T.
1997 Investigations of Urban Life in Madaba, Jordan. *The Biblical Archaeologist* 60/1: 53-54.
- Harrison, T., and Hancock, R.
2005 Geochemical Analysis and Sociocultural Complexity: a Case Study from Early Iron Age Megiddo. *Archaeometry* 47: 705-22.
- Hawkins, R.
2013 *How Israel Became a People*. Nashville, TN: Abingdon Press.
- Hendrix, R.; Drey, P.; and Storffjell, B.
1996 *Ancient Pottery of Transjordan: An Introduction Utilizing Published Whole Forms, Late Neolithic through Late Islamic*. Berrien Springs, MI: Institute of Archaeology.
- Herr, L.
1983 The Amman Airport Structure and the Geopolitics of Ancient Transjordan. *The Biblical Archaeologist* 46: 223-29.

- 1993 Whatever Happened to the Ammonites. *Biblical Archaeology Review* 19: 26-35, 68.
- 1997 Archaeological Sources for the History of Palestine: The Iron Age II Period: Emerging Nations. *The Biblical Archaeologist* 60: 114-83.
- 2001 The History of the Collared Pithos at Tell El-'Umeiri, Jordan. Pp. 237-50 in *Studies in the Archaeology of Israel and Neighboring Lands in Memory of Douglas L. Esse*, ed. S. Wolff. Chicago: The Oriental Institute.
- 2002 W. F. Albright and the History of Pottery in Palestine. *Near Eastern Archaeology* 65: 51-55.
- 2007 The Late Iron Age I Ceramic Assemblage from Tall al-'Umayri, Jordan. Pp. 135-45 in *"Up to the Gates of Ekron": Essays on the Archaeology and History of the Eastern Mediterranean in Honor of Seymour Gitin*, ed. S. W. Crawford, S. Gitin, and A. Ben-Tor. Jerusalem: Israel Exploration Society.
- 2009 The house of the Father at Iron I Tall al-'Umayri, Jordan. Pp. in *Exploring the Longue Durée: essays in honor of Lawrence E. Stager*, ed. J. D. Schloen. Winona Lake, IN: Eisenbrauns.
- 2015a Iron Age I: Transjordan. Pp. 97-114 in *The Ancient Pottery of Israel and Its Neighbors from the Iron Age through the Hellenistic Period*, ed. S. Gitin. Jerusalem: Israel Exploration Society.
- 2015b Iron Age IIA-B: Transjordan. Pp. 281-99 in *The Ancient Pottery of Israel and Its Neighbors from the Iron Age through the Hellenistic Period*, ed. S. Gitin. Jerusalem: Israel Exploration Society.
- Herr, L., and Bates, R.
 2011 The Iron IIB Pottery from a Stratum 8 House at Tall al-'Umayri, Jordan. Pp. 18-32 in *Eretz-Israel: Archaeological, Historical and Geographical Studies*. Jerusalem: Israel Exploration Society.
- Herr, L.; Clark, D.; and Bramlett, K.
 2009 From the Stone Age to the Middle Ages in Jordan: Digging up Tall al-'Umayri. *Near Eastern Archaeology* 72: 68-97.
- Herr, L. G.; Clark, D. R.; Geraty, L. T.; Younker, R. W.; and LaBianca, O. S., eds.
 2002 *Madaba Plains Project: The 1994 Season at Tall al-'Umayri and Subsequent Studies*. Berrien Springs, MI: Andrews University Press.

- Herr, L. G.; Clark, D. R.; Geraty, L. T.; Younker, R. W.; LaBianca, O. S.; and Drey, P. R., eds.
 2000 *Madaba Plains Project: The 1992 Season at Tall al-'Umeiri and Vicinity and Subsequent Studies*. Berrien Springs, MI: Andrews University Press.
- Herr, L. G.; Clark, D. R.; Geraty, L. T.; Younker, R. W.; LaBianca, O. S.; and Ray, P. J., Jr., eds.
 2014 *Madaba Plains Project: The 1996 and 1998 Seasons at Tall al-'Umayri and Subsequent Studies*. Berrien Springs, MI: Andrews University Press.
- Herr, L. G.; Geraty, L. T.; LaBianca, O. S.; Younker, R. W.; and Hendrix, R. E., eds.
 1991 *Madaba Plains Project: The 1987 Season at Tell al-'Umeiri and Vicinity and Subsequent Studies*. Berrien Springs, MI: Andrews University Press.
- 1997 *Madaba Plains Project: The 1989 Season at Tell al-'Umeiri and Vicinity and Subsequent Studies*. Berrien Springs, MI: Andrews University Press.
- Herzog, Z.
 1977 The Stratigraphy at Beer-sheba and the Location of the Sanctuary. *Bulletin of the American Schools of Oriental Research* 225: 49-58.
- Hindawi, A.
 2016 Iron Age Pottery Sherds from Sahab. Pp. 195-264 in *Sahab. Excavations at Sahab: Bronze & Iron Ages*, ed. M. M. Ibrahim. Amman: Department of Antiquities of Jordan.
- Hodder, I.
 1992 *Theory and Practice in Archaeology*. London: Routledge.
- Hoftijzer, J.
 1976 *The Biblical Archaeologist* 39 (1): 11-17
- Hopkins, D. C.
 1985 *The Highlands of Canaan: agricultural life in the early Iron Age*. Sheffield: JSOT Press.
- Ibrahim, M.

- 1972 Archaeological Excavations at Sahab, 1972. *Annual of the Department of Antiquities of Jordan* 17: 23-36.
- 1974 Second Season of Excavation at Sahab, 1973 (Preliminary Report). *Annual of the Department of Antiquities of Jordan* 19: 55-61.
- 1975 Third Season of Excavations at Sahab, 1975 (Preliminary Report). *Annual of the Department of Antiquities of Jordan* 20: 69-82.
- 1978 The Collared-Rim Jar of the Early Iron Age. Pp. 116-26 in *Archaeology in the Levant: Essays for Kathleen Kenyon*, eds. R. Moorey and P. Parr. Warminster: Aris & Phillips.
- Ji, C.
1995 Iron Age I in Central and Northern Transjordan: An Interim Summary of Archaeological Data. *Palestine Exploration Quarterly* 127: 122-40.
- Ji, C., and Bates, R.
2014 Khirbat 'Ataruz 2011-2012: A Preliminary Report. *Andrews University Seminary Studies* 52: 47-91.
- Kafafi, Z., and Kooij, G. van der.
2013 Tell Deir 'Alla during the Transition from the Late Bronze Age to Iron Age. *Zeitschrift des Deutschen Palastina-Vereins (1953-)* 129 (2): 121-31.
- Keller, D.; and Tuttle, C.
2010 Archaeology in Jordan, 2008 and 2009 Seasons. *American Journal of Archaeology* 114: 505-45.
- Kelm, G., and Mazar, A.
1982 Three Seasons of Excavations at Tel Batash: Biblical Timnah. *Bulletin of the American Schools of Oriental Research* 248: 1-36.
- 1985 Tel Batash (Timnah) Excavations Second Preliminary Report 1981-1983. *Bulletin of the American Schools of Oriental Research. Supplementary Studies* 23: 93-120.
- 1991 Tel Batash (Timnah) Excavations: Third Preliminary Report, 1984-1989. *Bulletin of the American Schools of Oriental Research. Supplementary Studies* 27: 47-67.
- Kelso, J., and Albright, W. F.

1968 *The Excavations of Bethel (1934-1960)*. Cambridge, MA: Pittsburgh Theological Seminary.

Kempinski, A.

1985 The Overlap of Cultures at the End of the Late Bronze Age and the Beginning of the Iron Age. *Eretz-Israel* 18: 399-407 (Hebrew).

1992 How Profoundly Canaanized were the Early Israelites? *Zeitschrift des Deutschen Palästina-Vereins (1953-)* 108: 1-7.

Killebrew, A.

1999 Late Bronze and Iron I Cooking Pots in Canaan: A Typological, Technological, and Functional Study. Pp. 83-126 in *Archaeology, History and Culture in Palestine and the Near East: Essays in Memory of Albert E. Glock*, ed. T. Kapitan. Atlanta, GA: Scholars Press.

2001 The Collared Pithos in Context: A Typological, Technological, and Functional Reassessment. Pp. 377-98 in *Studies in the Archaeology of Israel and Neighboring Lands in Memory of Douglas L. Esse*, ed. S. Wolff. Chicago, IL: The Oriental Institute.

Kjaer, H.

1930 The Excavation of Shiloh 1929. *Journal of the Palestine Oriental Society* 10: 87-174.

Kletter, R.

2002 People without Burials? The Lack of Iron I Burials in the Central Highlands of Palestine. *Israel Exploration Journal* 52: 28-48.

Koot, W. van

1999 Collar Rim Jars: Terminological and Methodological Dilemmas. *Sahmyook University Journal* 31: 101-47.

LaBianca, Ø.

2011 Tall Hisban: Palimpsest of Great and Little Traditions. Pp. 9-27 in *The Madaba Plains Project: Forty Years of Archaeological Research into Jordan's Past*, ed. D. Clark, L. Herr, Ø. LaBianca, and R. Younker. Oakville, CT: Equinox Publishing.

Lamprichs, R.

2007 *Tall Jofiyeh, Ein archäologischer Fundplatz und seine Umgebung in Nordjordanien, Materialien zu einer Regionalstudie*, ed. M. Dietrich

and O. Loretz. *Alter Orient und Altes Testament*. Münster: Ugarit-Verlag.

Lapp, N.

1980 The Excavations at Araq el-Emir. Volume I. *The Annual of the American Schools of Oriental Research* 47: iii-158.

Lapp, P.

1963 The Second and Third Campaigns at 'Araq el-Emir. *Bulletin of the American Schools of Oriental Research* 171: 8-39.

Lev-Tov, J.; Porter, B.; and Routledge, B.

2011 Measuring Local Diversity in Early Iron Age Animal Economies: A View from Khirbat al-Mudayna al-'Aliya (Jordan). *Bulletin of the American Schools of Oriental Research* 361: 67-93.

Levy, T. E., and Higham, T.

2005 *The Bible and Radiocarbon Dating: Archaeology, Text and Science*. London: Equinox.

Levy, T. E.; Najjar, M.; and Ben-Yosef, E.

2014 *New Insights into the Iron Age Archaeology of Edom, Southern Jordan*. 2 vols. Los Angeles: Cotsen Institute of Archaeology Press.

London, G.

1981 Dung-Tempered Clay. *Journal of Field Archaeology* 8: 189-95.

1989a A Comparison of Two Contemporaneous Lifestyles of the Late Second Millennium B. C. *Bulletin of the American Schools of Oriental Research* 273: 37-55.

1989b Past Present: The Village Potters of Cyprus. *The Biblical Archaeologist* 52: 219-29.

1992 Reply to A. Zertal's "The Wedge-Shaped Decorated Bowl and the Origin of the Samaritans." *Bulletin of the American Schools of Oriental Research* 286: 89-90.

1992 Review of *The Sociology of Pottery in Ancient Israel*, by Bryant G. Wood. *Journal of the American Oriental Society* 112: 705-07.

2000 Ethnoarchaeology and Interpretations of the Past. *Near Eastern Archaeology* 63: 2-8.

- 2011 A Ceremonial Center for the Living and the Dead. *Near Eastern Archaeology* 74: 216-25.
- 2014 Studies in Ceramic Technology at Tall al-'Umayri, Field Seasons 1992-1998. Pp. 458-81 in *Madaba Plains Project: The 1996 and 1998 Seasons at Tall al-'Umayri and Subsequent Studies*, ed. L. Herr; D. Clark; L. Geraty; R. Younker; Ø. LaBianca; and P. Ray, Jr. Berrien Springs, MI: Andrews University Press.
- Lugenbeal, E., and Sauer, J.
 1972 Pottery from Heshbon. *Andrews University Seminary Studies* 10: 21-69.
- Mare, H.
 1981 Notes and News: Abila. *The Biblical Archaeologist* 44: 179-86.
- Marom, N.; Mazar, A.; Raban-Gerstel, N.; and Bar-Oz, G.
 2009 Backbone of Society: Evidence for Social and Economic Status of the Iron Age Population of Tel Rehov, Beth Shean Valley, Israel. *Bulletin of the American Schools of Oriental Research* 354: 55-75.
- Mazar, A.
 1981 Giloh: An Early Israelite Settlement Site near Jerusalem. *Israel Exploration Journal* 31: 1-36.
 1982 Three Israelite Sites in the Hills of Judah and Ephraim. *The Biblical Archaeologist* 45: 167-78.
 1986 Excavations at Tell Qasile, 1982–1984: Preliminary Report. *Israel Exploration Journal* 36: 1-15.
 1990 Iron Age I and II Towers at Giloh and the Israelite Settlement. *Israel Exploration Journal* 40: 77-101.
 1993 Beth Shean in the Iron Age: Preliminary Report and Conclusions of the 1990–1991 Excavations. *Israel Exploration Journal* 43: 201-29.
 1995 Excavations at the Israelite Town at Khirbet Marjameh in the Hills of Ephraim. *Israel Exploration Journal* 45: 85-117.
 1997 Four Thousand Years of History at Tel Beth-Shean: An Account of the Renewed Excavations. *The Biblical Archaeologist* 60: 62-76.
 1999 The 1997–1998 Excavations at Tel Rehov: Preliminary Report. *Israel Exploration Journal* 49: 1-42.

- 2004 Greek and Levantine Iron Age Chronology: A Rejoinder. *Israel Exploration Journal* 54: 24-36.
- 2007 *Archaeology of the land of the Bible. Vol. 1, 10,000-586 B.C.E.* New Haven, CT: Yale University Press.
- 2011 The Iron Age Chronology Debate: Is the Gap Narrowing? Another Viewpoint. *Near Eastern Archaeology* 74: 105-11.
- 2014 The Debate over the Chronology of the Iron Age in the Southern Levant. Pp. 15-30 in *The Bible and Radiocarbon Dating*, ed. T. E. Levy and T. Higham. New York: Routledge.
- 2015 Iron Age I: Northern Coastal Plain, Galilee, Samaria, Jezreel Valley, Judah, and Negev. Pp. 5-70 in *The Ancient Pottery of Israel and Its Neighbors from the Iron Age through the Hellenistic Age*, ed. S. Gitin. 2 vols. Jerusalem: Israel Exploration Society.
- Mazar, A., and Netzer, E.
1986 On the Israelite Fortress at Arad. *Bulletin of the American Schools of Oriental Research* 263: 87-91.
- McGovern, P.
1997 A Ceramic Sequence for Northern Jordan: An Archaeological and Chemical Perspective. *Studies in the History and Archaeology of Jordan* 6: 421-25.
- Menninga, C.
2004 The Unique Church at Abila of the Decapolis. *Near Eastern Archaeology* 67: 40-49.
- Munsell Color
2019 *Munsell Soil-Color Charts with genuine Munsell color chips.* Grand Rapids, MI: Munsell Color.
- Nelson, G.
1943 Some Ancient Towns in the Plains of Moab. *Bulletin of the American Schools of Oriental Research* 91: 7-26.
- Palumbo, G.
1992 The 1990 Wadi el-Yabis Survey Project and Soundings at Khirbet Um el-Hedamus. *Annual of the Department of Antiquities of Jordan* 36: 25-41.

- Parr, P. J.
 1973 The Origin of the Canaanite Jar. Pp. 174-80 in *Archaeological Theory and Practice*, ed. D. E. Strong. New York, NY: Seminar Press.
- Potter, R.B.; Darmame, K.; Barham, N.; and Nortcliff, S.
 2007 An Introduction to the Urban Geography of Amman, Jordan. *Geography* 182. Reading, UK: University of Reading.
- Porras, S.P.
 2012 Anthropomorphic and Zoomorphic Figurines of Tall Jalul from 1992 to 2007. M.A. thesis, Andrews University.
- Porter, B.
 2004 Authority, Polity, and Tenuous Elites in Iron Age Edom (Jordan). *Oxford Journal of Archaeology* 23: 373-95.
 2007 The Archaeology of Community in Iron 1 Central Jordan. Ph.D. dissertation, University of Pennsylvania.
- Pratico, G. D.
 1985 Nelson Glueck's 1938-1940 Excavations at Tell el-Kheleifeh: A Reappraisal. *Bulletin of the American Schools of Oriental Research* 259: 1-32.
- Pritchard, J. B.
 1965 The First Excavations at Tell es-Sa'idiyeh. *The Biblical Archaeologist* 28: 10-17.
 1980 *The Cemetery at Tell es-Sa'idiyeh, Jordan*. Philadelphia: University of Pennsylvania.
 1985 *Tell es-Sa'idiyeh, Excavations on the Tell, 1964-1966*. Philadelphia: University of Pennsylvania.
- Raban, A.
 1991 The Philistine in the Western Jezreel Valley. *Bulletin of the American Schools of Oriental Research* 284: 17-27.
 2001 Standardized Collared-Rim Pithoi and Short-Lived Settlements. Pp. 493-518 in *Studies in the Archaeology of Israel and Neighboring Lands in Memory of Douglas L. Esse*, ed. S. Wolff. Chicago, IL: The Oriental Institute.

- Rast, W., and Glock, A.
 1978 *Taanach I: Studies in Iron Age Pottery*. Cambridge: American Schools of Oriental Research.
- Ray, P. J., Jr.
 2001 *Tel Hisban and Vicinity in the Iron Age*. Berrien Springs, MI: Andrews University Press.
- 2019 A Series of Iron Age Domestic Building in Field C at Tall Jalul. *Andrews University Faculty Publications* 1513: 531-38.
- Redmount, C. A.
 1995 Ethnicity, Pottery, and the Hyksos at Tell El-Maskhuta in the Egyptian Delta. *The Biblical Archaeologist* 58: 182-90.
- Rice, P.
 1981 Evolution of Specialized Pottery Production: A Trial Model. *Current Anthropology* 22: 219-40.
- 1987 *Pottery Analysis*. Chicago: Chicago University Press.
- Rieckmann, W.
 2020 Institute for Old Testament and Biblical Archaeology. <https://www.thh-friedensau.de/en/research/institute/school-of-theology/institute-for-old-testament/> (accessed 9 June 2020).
- Roller, D. W.
 1984 News Letter from the Levant (Southern Section), 1982. *American Journal of Archaeology* 88: 217-28.
- Rosen, S.
 1992 Nomads in Archaeology: A Response to Finkelstein and Perevolotsky. *Bulletin of the American Schools of Oriental Research* 287: 75-85.
- Rosen, S., and Avni, G.
 1993 The Edge of Empire: The Archaeology of Pastoral Nomads in the Southern Negev Highlands in Late Antiquity. *Biblical Archaeologist* 56: 189-99.
- 1997 *The 'Oded Sites: Investigations of Two Early Islamic Pastoral Camps South of the Ramon Crater*. Beersheva: Ben-Gurion University Press.
- Routledge, B.

- 2000 Seeing Through Walls: Interpreting Iron Age 1 Architecture at Khirbat al-Mudayna al-‘Aliya. *Bulletin of the American Schools of Oriental Research* 319: 37-70.
- 2008 Thinking “Globally” and Analysing “Locally.” Pp. 144-76 in *Israel in Transition: From Late Bronze II to Iron IIa (c.1250-850 B.C.E.), Volume 1. The Archaeology*, ed. L. Grabbe. New York: T&T Clark.
- Routledge, B.; Smith, S.; Mullan, A.; Porter, B.; and Klassen, S.
- 2014 A Late Iron Age 1 Ceramic Assemblage from Central Jordan: Integrating Form, Technology, and Distribution. Pp. 82-107 in *Exploring the Narrative: Jerusalem and Jordan in the Bronze and Iron Ages*. New York: Bloomsbury T&T Clark.
- Rye, O.
- 1981 *Pottery Technology: Principles and Reconstruction*. Washington D.C.: Taraxacum.
- Sauer, J.
- 1994 The Pottery at Hisban and Its Relationships to the History of Jordan: An Interim Hisban Pottery Report, 1993. Pp. 225-81 in *Hisban After 25 Years*, ed. D. Merling and L. Geraty. Berrien Springs, MI: Andrews University Press.
- Sauer, J.; Herr, L.; and Ray, P., Jr., eds.
- 2012 *Ceramic Finds: Typological and technological studies of the pottery remains from Tell Hisban and vicinity*. Berrien Springs, MI: Institute of Archaeology and Andrews University.
- Shanks, H., ed.
- 1992 *The Rise of Ancient Israel*. Washington, DC: Biblical Archaeology Society.
- Shiloh, Y.
- 1971 Review of *Shiloh. The Danish Excavations at Tall Sailūn, Palestine, in 1926, 1929, 1932 and 1963. The Pre-Hellenistic Remains (Publications of the National Museum, Archaeological-Historical Series I, vol. XII)* by M. Buhl and S. Holm-Nielsen. *Israel Exploration Journal* 21: 67-69.
- Small, D.
- 1997 Group identification and ethnicity in the construction of the early state of Israel: from the outside looking in. Pp. 271-88 in *The archaeology of Israel: constructing the past, interpreting the present*,

ed. Silberman, N. A. and D. B. Small. Sheffield, England: Sheffield Academic Press.

Smith, N.; and Levy, T.

2008 The Iron Age Pottery from Khirbat en-Nahas, Jordan: A Preliminary Study. *Bulletin of the American Schools of Oriental Research* 352: 41-91.

Sparks, K.

2007 Religion, Identity and the Origins of Ancient Israel. *Religion Compass* 1: 587-614.

Stager, L.

1976 Farming in the Judean Desert during the Iron Age. *Bulletin of the American Schools of Oriental Research* 221: 145-58.

1985 The Archaeology of the Family in Ancient Israel. *Bulletin of the American Schools of Oriental Research* 260: 1-35.

Steen, E. J. van der

1996 The Central East Jordan Valley in the Late Bronze and Early Iron Ages. *Bulletin of the American Schools of Oriental Research* 302: 51-74.

Steen, E. J. van der; Boertien, J.; and Mulder-Hymans, N., eds.

2014 *Exploring the Narrative: Jerusalem and Jordan in the Bronze and Iron Ages*. New York: Bloomsbury T&T Clark.

Stern, E.

2015 Iron Age I-II Phoenician Pottery. Pp. 435-82 in *The Ancient Pottery of Israel and Its Neighbors from the Iron Age through the Hellenistic Period*, ed. S. Gitin. Jerusalem: Israel Exploration Society.

Stern, E., ed.

1993-2008 *The New Encyclopedia of Archaeological Excavations in the Holy Land*. 5 vols. Jerusalem: Israel Exploration Society.

Steiner, M.

2013 The Iron 1 Pottery of Khirbat al-Lahun. *Annual of the Department of Antiquities of Jordan* 57:519-33.

Swinnen, I.

2009 Residential Houses at al-Lahun in Moab, Jordan. *Bulletin of the American Schools of Oriental Research* 354: 29-53.

- Szuchman, J., ed.
 2009 *Nomads, Tribes, and the State in the Ancient Near East, Cross-Disciplinary Perspectives*. Chicago, IL: The University of Chicago.
- Tubb, J.
 1998 *Canaanites*. London: British Museum Press.
- Tubb, J.; and Tufnell, O.
 1985 *Palestine in the Bronze and Iron Ages : Papers in Honour of Olga Tufnell*. Occasional publication 11. London: University of London, Institute of Archaeology.
- Ulvoczky D.
 2017 "Revisiting the Date of Stratum V at 'Araq el-'Emir, Jordan." MA Thesis, Andrews University.
- Ussishkin, D.
 1976 Royal Judean Storage Jars and Private Seal Impressions. *Bulletin of the American Schools of Oriental Research* 223: 1-13.
 1988 The Date of the Judaeian Shrine at Arad. *Israel Exploration Journal* 38: 142-57.
 1990 Notes on Megiddo, Gezer, Ashdod, and Tel Batash in the Tenth to Ninth Centuries B. C. *Bulletin of the American Schools of Oriental Research* 277: 71-91.
 2007 Megiddo and Samaria: A Rejoinder to Norma Franklin. *Bulletin of the American Schools of Oriental Research* 348: 49-70.
- Waterhouse, S.; and Ibach, R. Jr.
 1975 Heshbon 1973: The Topographical Survey. *Andrews University Seminary Studies* 13: 217-34.
- Weippert, M.
 1971 *The Settlement of the Israelite Tribes in Palestine: a Critical Survey of Recent Scholarly Debate*. London: S.C.M. Press.
- Wengrow, D.
 1996 Egyptian Taskmasters and Heavy Burdens: Highland Exploitation and the Collared-Rim Pithos of the Bronze/Iron Age Levant. *Oxford Journal of Archaeology* 15: 307-26.

- Will, E.
1977 The Ancient Commercial Amphora. *Archaeology* 30: 264-78.
- Wolff, S.
2000 Iron Age Pottery. Pp. 529-36 in *Ramat Hanadiv Excavations: Final Report of the 1984-1998 Seasons*, ed. Y. Hirschfeld and A.J. Boas. Jerusalem: Israel Exploration Society.
- Worschech, U.
1992 Collared-Rim Jars aus Moab: Ammerkungen zur Entwicklung und Verbreitung der Kruege mit 'Halswulst'. *Zeitschrift des Deutschen Palästina-Vereins* 108: 149-55.
2014 *Ceramics from el-Balu'*. Frankfurt: International Academic Publishers.
- Worschech, U.; and Ninow, F.
1994 Preliminary Report on the Third Campaign at the Ancient Site of El-Balu' in 1991. *Annual of the Department of Antiquities of Jordan* 38: 195-203.
- Yannai, E.
2006 The Origin and Distribution of the Collared-Rim Pithos and Krater: A Case of Conservative Pottery Production in the Ancient Near East from the Fourth to the First Millennium BCE. Pp. 89-112 in *"I will Speak the Riddles of Ancient Times:" Archaeological and Historical Studies in Honor of Amihai Mazar on the Occasion of His Sixtieth Birthday*, ed. A. Maeir and P. d. Miroschedji. Winona Lake, IN: Eisenbrauns.
- Yardeni, A.
1994 Maritime Trade and Royal Accountancy in an Erased Customs Account from 475 B. C. E. on the Aḥiqar Scroll from Elephantine. *Bulletin of the American Schools of Oriental Research* 293: 67-78.
- Yassine, K.
2011. *Tell Nimrin: an Archaeological Exploration*. Amman, Jordan: The University of Jordan.
- Yellin, J., and Gunneweg, J.
1989 Instrumental Neutron Activation Analysis and the Origin of Iron Age I Collared-Rim Jars and Pithoi from Tel Dan. Pp. 133-41 in *Recent Excavations in Israel: Studies in Iron Age Archaeology*, ed. S. Gitin and W. Dever. Winona Lake, IN: Eisenbrauns.

Yunker, R.

1997a The Emergence of the Ammonites: Sociocultural Transformation on the Transjordan Plateau during the Late Bronze/Iron Age Transition. Ph.D. dissertation, The University of Arizona.

1997b Moabite Social Structure. *The Biblical Archaeologist* 60: 237-48.

Yunker, R.; Gane, C.; and Shqour, R.

2007 Tall Jalul. *Munjazat* 2007: 82-83.

Yunker, R.; Geraty, L.; LaBianca, O.; Herr, L.; and Clark, D.

1997 Preliminary Report of the 1996 Season of the Madaba Plains Project: Regional Survey, Tall al-'Umayri and Tall Jalul Excavations (June 19 to July 31, 1996). *Andrews University Seminary Studies* 35/2: 227-40.

Yunker, R.; and Merling, D.

2000 Madaba Plains Project: Tall Jalul, 1999. *Andrews University Seminary Studies* 38/1: 45-50.

Yunker, R.W.; Merling, D.; Ray, P.; Ziese, M.; Gregor, P.; Gane, C.; and Koudele, K.

2007 Preliminary Report of the 2000, 2004, and 2005 Seasons at Tall Jalul, Jordan (Madaba Plains Project). *Andrews University Seminary Studies* 45/1: 73-86.

Zarzeki-Peleg, A.

1997 Hazor, Jokneam and Megiddo in the 10th Century B.C.E. *Tel Aviv* 24: 258-88.

Zertal, A.

1988 The Water Factor during the Israelite Settlement Process in Canaan. Pp. 341-52 in *Society and Economy in the Eastern Mediterranean (c.1500-1000 BC)*, ed. M. Heltzer and E. Lipinski. Leuven: Uitgeverij Peeters.

1991 Israel Enters Canaan - Following the Pottery Trail. *Biblical Archaeology Review* 17: 28-49, 75.

Zimhoni, O.

1992 The Iron Age Pottery from Tel Jezreel - An Interim Report. *Tel Aviv* 19: 57-70.