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A Classification and Typology Based on a Sample of Iron III Ceramics from Tepe Jelo Asiab, Bijar, Iran

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Abstract

Tepe Jelo Asiab was excavated as part of the Talvar Dam salvage project in 2009. The main objectives of the present study included the classification and typology of the Iron III pottery from the site, and establishing whether there was a continuity or break between the Iron III cultures of the Central Zagros and other concurrent pottery horizons across Iran. The established pottery classification provided the required basis for a relative chronology. The results indicated that the analyzed sample, while displaying certain local and indigenous characteristics, was strongly inspired by the general Iron III tradition that characterized almost all the contemporaneous assemblages across Iran. Given the utilitarian nature of the considered pieces and the low percentage of storage vessels as well as the exposed architecture, Jelo Asiab gives the impression of a summer base camp that provided shelter for local nomads not only during the Iron III but also in the later periods.

Keywords: Iron Age III, Bijar, Tepe Jelo Asiab, Pottery Classification and Typology.

Article Type: Research Article

Introduction

The Iron III occupations of the Talvar basin are actually a prolongation of a larger settlement context that extended over the entire eastern flank towards the slope of the foothills connected to Imamzadeh Chel Amiran, encompassing a total area of over 3 hectares characterized by typical Iron III material culture (Motarjem and Sharifi 2019: 52). This study presents an excavated sample of Iron III pottery from Tepe Jelo Asiab and embarks on their classification and typology. It ends with a comparison of the recorded forms with those in other assemblages from Iran. The main questions addressed here include: What are the technical characteristics of the ceramics (including throwing method, firing, color, temper, surface treatment, and fabric)? Where morphological comparanda are to be found? And, whether it is possible to specify the local settlement type from the (utilitarian) nature of the vessels?

In short, the material seems to display a certain degree of standardization in form, color and fabric, and finds the strongest parallels in the Talvar basin and then, to a lesser degree, in west and northwest as well as other Iron III sites farther afield in Iran. As to the last question, a nomadic summer camp appears as the most plausible settlement type.

Overview of Regional Archaeological Research

Archaeologically, the Talvar basin of Bijar has generally received meager attention. I. Medvedskaya excavated during her 1971 survey a few graves in the region, which produced Iron I pottery (Medvedskaya 2004: 164). Swiny was the next scholar to visit the region (Swiny 1975: 77–96). In 2006, limited surveys were conducted by Kurdistan Cultural Heritage Directorate, and another surface survey in the ensuing year by the Iranian Center for Archaeological Research recorded 17 sites spanning in date the pre-Chalcolithic times to the present

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(Vahdati Nasab and Heydarian 2007: 53–68). Most recently, Tepe Jelo Asiab was excavated by Y. Mohammadifar in 2009 as part of the Talvar Dam salvage project.

Geographical Location

Jelo Asiab is an archaeological mound next to the village of Reza Abad, a dependency of Chang Almas District of Bijar County (Figure. 1). Sitting the east side of the river, the site lies between the Talvar Dam and the village. It is 2 km south of the dam as the crow flies (Figure. 2), and the dirt road linking the village to the latter runs 150 m from the western mound (Mohammadifar *et al*. 2013: 3).

The ancient site perches on a natural hill that includes several humps (Figure. 3). The hill, with an ovoid base of some 145 m long and 114 m wide, reaches its highest point of about 7.8 in the northwest side (Vahdati Nasab and Heidarian 2009: 57).

Except for the south side, farmlands girdle the site to the extent that the northern flank is partially under the plough. A deeply cut wide canal runs to the south and southwest, crossing the area separating the site from the higher southern hump (Mohammadifar, Nourozi and Sharifi 2013: 4) (Figure. 4).

An Outline of the Architectural Remains

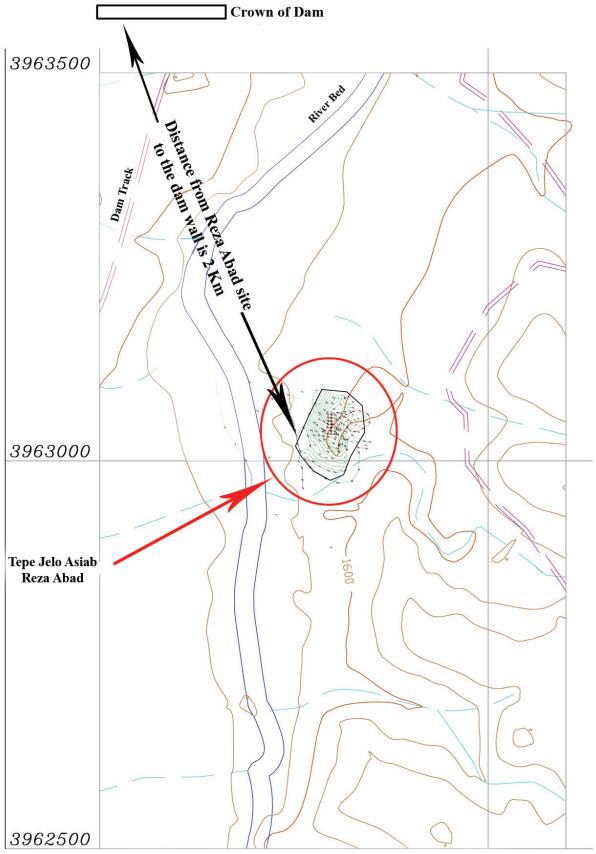
In general, the architectural structures attested at Jelo Asiab are extremely disturbed, and thus equivocal, due to such factors as sequential occupations, repeated rebuilding of flimsy structures, the elements, and recent human activities. It is also remarkable that the common practice of reusing existing architectural materials resulted in the absolute vanish of earlier structures or their survival only as short wall stubs. Excavation revealed that the strata hardly ever exceeded a meter in depth, and the site was formed on a natural hummock (Figure. 5).

Nevertheless, four thin architectural phases were distinguishable (Figures. 6–7). Awkward choice of materials, lack of care for stability, irregular plans, and the four successive phases formed over a short span of time – a few generations at most – all attest to a specific settlement type on this site. Accessibility was perhaps the only factor considered while selecting building materials, so that sometimes rubbles from the riverbed would be favored and other times the crushed stones along the dry canal. Mud mortar utterly lacking any temper was used for the walls. Clumsy angling of the spaces and the inconsistent walls may provide further indications for the insignificance of structural stability (Mohammadifar, Nourozi and Sharifi 2013: 6–7).



Figure.1: *Location of Tepe Jelo Asiab on provincial and regional maps*

(After: https://www.researchgate.net)



(After: Mohammadifar; Nourozi and Sharifi 2013: 3)



Figure. 3: *Aerial image of the location of the Tepe Jelo Asiab*
(After: Mohammadifar; Nourozi and Sharifi 2013:4)

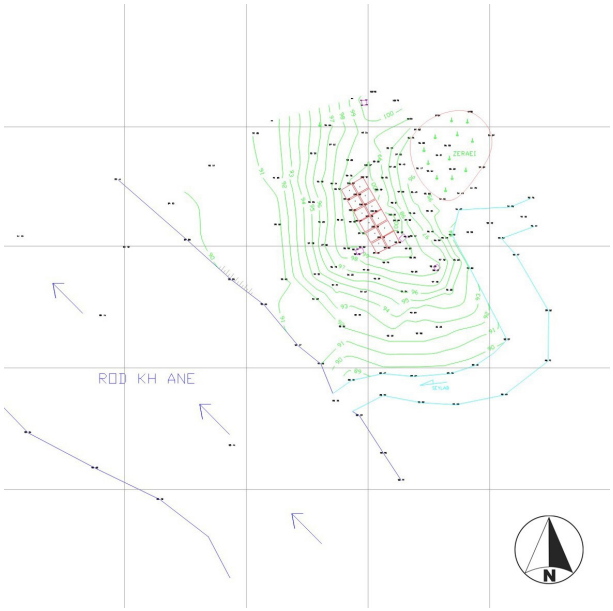


Figure. 4: *Topography of the Tepe Jelo Asiab*
(After: Mohammadifar; Nourozi and Sharifi 2013: 4)



Figure.5: *Location of Tepe Jelo Asiab*
(After: Mohammadifar; Nourozi and Sharifi 2013:4)



Figure.6: *Architecture from Phase 4*
(After: Mohammadifar; Nourozi and Sharifi 2013: 6)

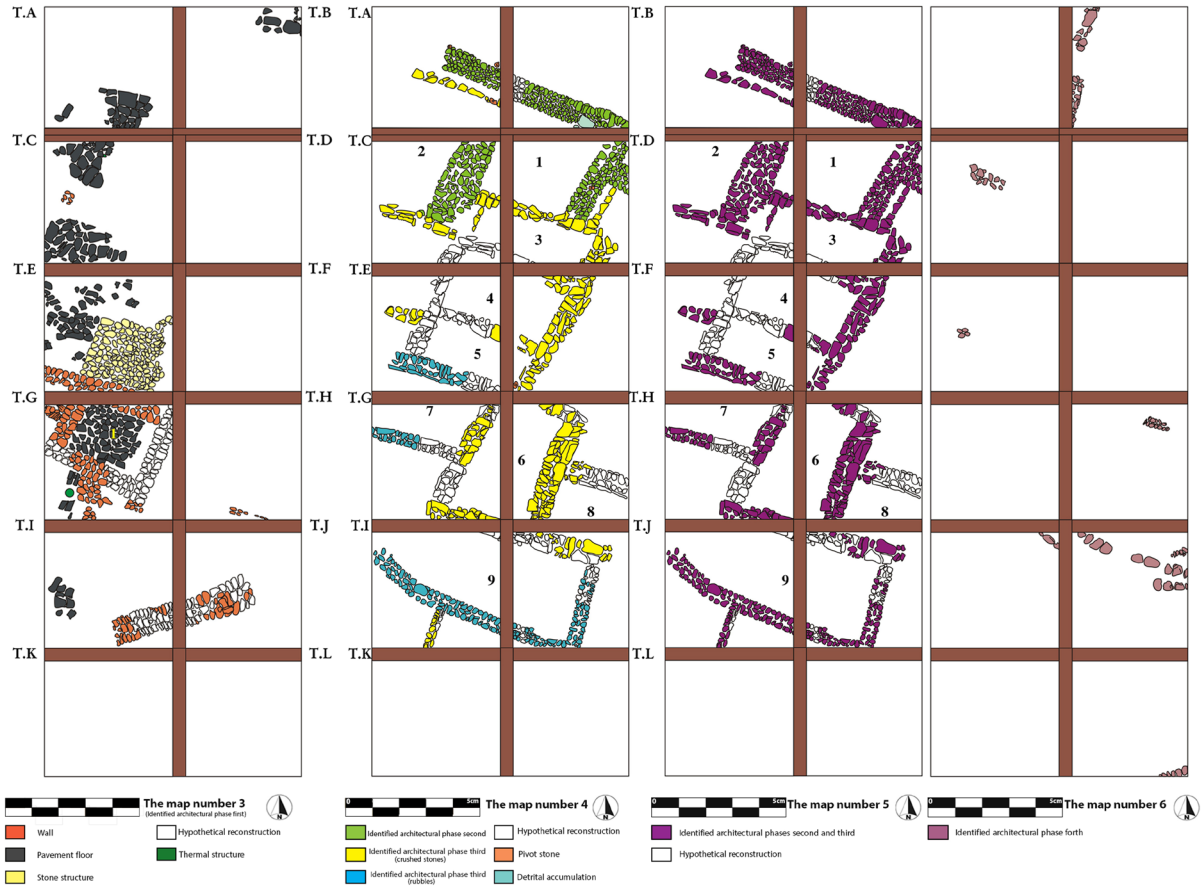


Figure. 7: *Jelo Asiab: The four identified architectural phases arranged by date (beginning from the left) (After: Mohammadifar; Nourozi and Sharifi 2013: 7, 9)*

Pottery from Tepe Jelo Asiab

Of the whole collection (n = 1560) recorded during the excavation, 207 distinctive pieces were picked for drawing and study. The excluded material was mostly body fragments from plain vessels. In general, the sample consists of cooking pots, storage jars and utilitarian vessels, mostly wheel-made but also with rare handmade instances. Paste tends to be buff and red, with examples of gray also attestable. All specimens contained mineral tempers of varying dimensions depending on the purposes the original vessels would serve. Classification of the pieces was based on several criteria, including:
1-Piece type (whole vessel, rim, handle, handle-rim, body, spout, base),
2-Profile,
3- Decorations,
4-Technical characteristics (throwing method, firing, fabric, paste color, surface treatment, temper).

1. Piece Types

As shown in the diagram of Figure 8, rims (n = 158) dominates the sample at 76%, followed by rim-handle (n= 14 or 7%), base and body (each n = 12 or 6%), whole vessel (n = 4 or 2%), and handle (n = 3 or 1%).

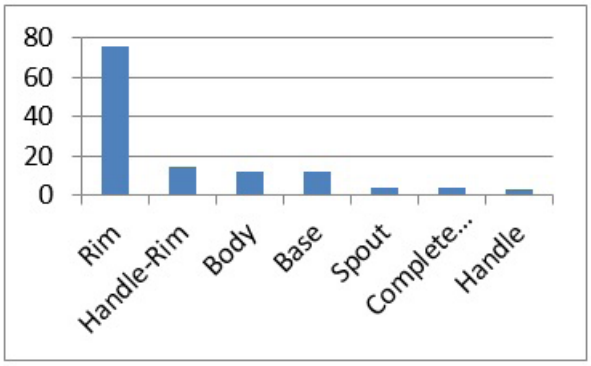


Figure. 8: *Jelo Asiab: Percentage of pottery by sherd type*

2. Profile (Vessel Class)

2–1. Formal types

The major forms defined by form, size, etc. are as follows (Figure. 9).

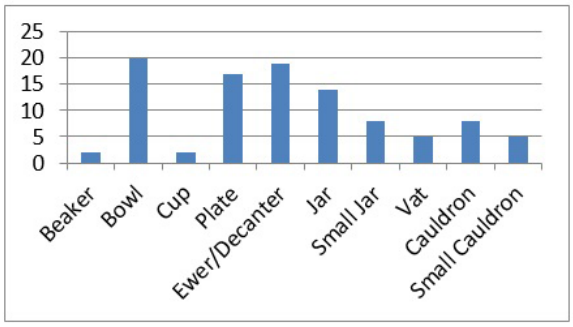


Figure. 9: *Jelo Asiab: Percentage of pottery by profile*

2–1–1. Patera (Dish)

Small shallow bowl forms are listed as patera. The form is represented by 3 pieces (2%). Mouth diameter is below 9 cm and wall thickness ranges between 3–6 mm, with all instances being in fine ware (Figure. 10). Parallels for the form and color occur in the Persepolis Fortification ceramics (Ataei 2004: 90).

2–1–2. Bowls

This category consists of 35 sherds (20%) divided between the following two subclasses.

Bowls with out-turned rims: The subclass includes 3 specimens with an S-profile in fine buff ware and 6 with a spherical body in a medium to coarse ware. Various shapes and sizes are attested, with body diameter ranging from 12–30 cm and wall thickness from 0.4–1.4 cm. All are wheel-made, except for 3 examples (Figure. 11). Related forms come from Tepe Hajj Nabi (Khatib-Shahidi 2010: 124-133), Yalfan (Mollazadeh 2014: 243, no. 2, 4), Nush-i Jan (Stronach 1978: 17), Godin II (Gopnik 2016: 336), Hasanlu IIIA, B (Young 1965: 54), Agrab Tepe (Muscarella 1973: 57), Uzbeki (Majidzadeh 2010: 227, no. 15), Persepolis Fortification (Ataei 2004: 90–93), Zendān-e Soleimān (Thomalsky 2006: 240–41), Ram Allah (Magee 1997: 99) and Bastām (Kroll 2002: 286).

Bowls with inverted rims: A single piece with an S-profile is in medium buff ware. The remaining 25 pieces, from bowls with spherical bodies, are invariably well fired (save a single instance) and wheel-made. The fabric in 11 pieces is fine, and a medium fabric characterize the remaining 14. Mouth diameter ranges from 12–36 cm, and the wall thickness from 0.5–1.3 cm (Figure. 12). Morphological matches are found at Tepe Hajj Nabi (Khatib-Shahidi 2010: 124-133), Yalfan (Mollazadeh 2014: 243), Godin II (Gopnik 2016: 335, nos. 69, 71), Hasanlu III (Young 1965: 54, no.1), Perspolis (Ataei 2004: 130–132).

Handled bowls: The subcategory is represented simply by 5 examples (3%). These wheel-made, undecorated forms have a mouth diameter of 8–20 cm. Body diameter varies between 05–07 cm. No. 3, a burnished gray bowl, stands out in the whole assemblage from the site in terms of form and fabric. Nos. 1 and 2 are in buff ware, while No. 4 represents a red cooking ware (Figure. 13). Related forms are attested at Hajj Nabi (Khatib-Shahidi 2010: 124-133), Baba Jan IIB (Goff 1978: 52), Uzbeki (Majidzadeh 2010: 297), Zendān-e Soleimān (Thomalsky 2006: 240–241) and Pusht-i Kuh Luristan(Overlaet 2005: 31).

2–1–3. Plates

The total of 28 rim sherds belonging to plate forms make up some 16 % of the whole excavated assemblage. A great variety in size is attested, with diameters ranging between 12–42 cm. Three subgroups are distinguishable.

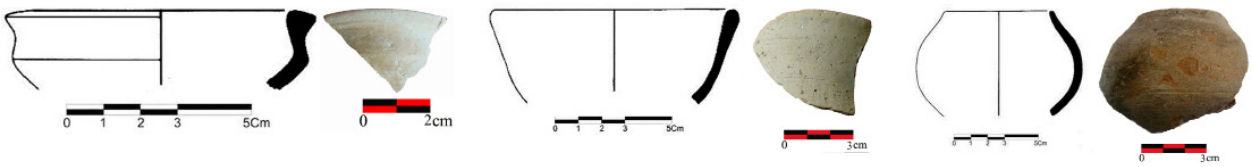


Figure. 10: *Jelo Asiab: Pateras*

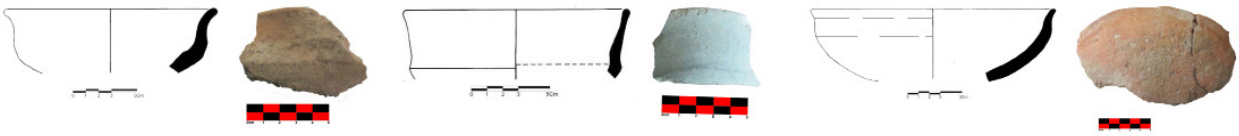


Figure. 11: *Jelo Asiab: S-profile bowls with out-turned rims*

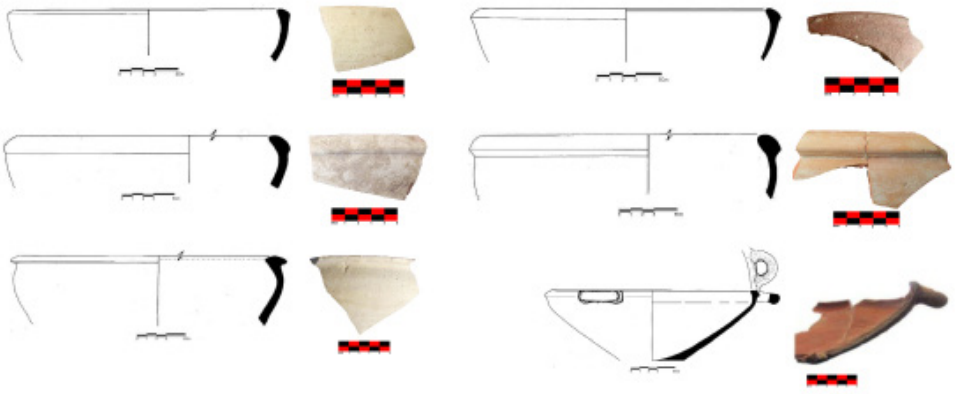


Figure. 12: *Jelo Asiab: Bowls with inverted rims*

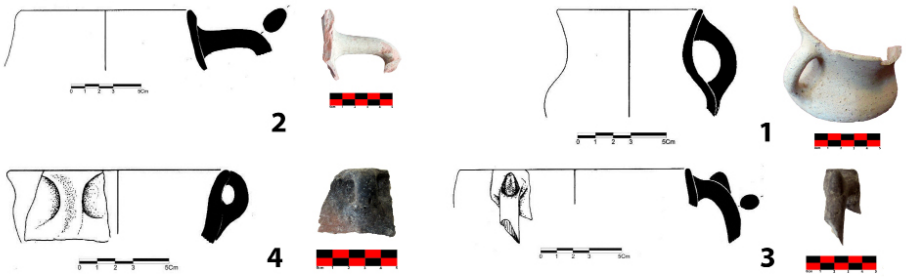


Figure. 13: *Jelo Asiab: Handled bowls*

S-profile outturned plates: Represented by 7 pieces, S-profile plates represent the smallest and finest in the sub-assemblage. Diameter varies from 12 to 17 cm, and wall thickness from 4–6 mm. Approaching a tray form, all pieces are fairly well made, adequately fired, and drawn on potter's wheel from a fine fabric. Rims are often rounded and sometimes thinned (Figure. 14). Comparanda for this fairly common form comes from Hajj Nabi (Khatib-Shahidi 2010), Nush-i Jan (Stronach 1978: 17), Yalfan (Mollazadeh 2014: 243), Godin II (Gopnik 2016: 336 no. 85), Baba Jan II, the East Mound (Goff 1978: 53), Hasanlu IIIA, B and Ziwiye (Young 1965: 54, 58), Agrab Tepe (Muscarella 1973: 55–57), Zendān-e Soleimān (Thomalsky 2006: 239–241), Koleh Sheg (Mansouri 2012: 113), Persepolis (Ataei 2004: 90–93), Moush Tepe (Mohammadifar 2015: 245), Bastām (Kroll 2002: 286), Uzbeki (Majidzadeh 2011: 221, no. 11), Qalaichi (Mollazadeh 2008: 122–23), Kul Tarike (Rezvani 2007: 180–82) and Yahya (Magee 1997: 102).

Simple out-turned plates: The 7 sherds defining this subclass come in various shapes and dimensions, measuring 12–32 cm in diameter. Various fabric varieties occur, divided between 1 fine, 5 medium, and 1 coarse. Wall thickness is between 7 and 9 mm (Figure. 15). Several analogies occur in the Persepolis Fortification assemblage (Ataei 2004: 94).

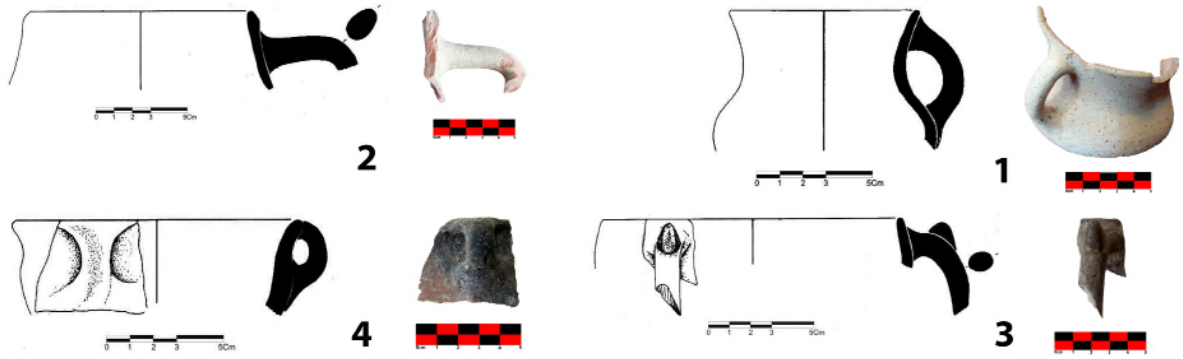


Figure. 14: *Jelo Asiab: S-profile out-turned plates*



Figure. 15: *Jelo Asiab: Simple out-turned plates*

Plates with inverted rims: Some 14 pieces fall in this subgroup. Inverted plate forms also show a high variety in size, measuring 14–42 cm in diameter, and are larger than the open subclass. Fine and medium wares are each attested by 9 and 5 pieces. Wall thickness is between 5 to 10 mm (Figure. 16).

Godin II (Gopnik 2016: 335 nos. 69, 71), Yahya (Magee 1997: 101) and Kul Tarike (Rezvani 2007: 182) have yielded similar formal types.



Figure. 16: *Jelo Asiab: Plates with inverted rims*

2–1–4. Pitchers/Jars

As defined by Overlaet (2013: 159a) and used here, pitcher refers to a closed form with a mouth smaller than the largest diameter of the body and a distinct neck and shoulder, while jars indicates relatively tall vessels with a long neck and small mouth. This category includes 32 sherds, accounting for 19% of the whole assemblage. Save a single piece, all are wheel-made. Mouth diameter varies between 4 to 28 cm and the wall thickness between 4 and 12 mm. All are adequately fired, barring 2 specimens. Some 18 pieces are in fine fabric, and the remaining pieces are divided between 12 medium and 2 coarse fabric. Due to the smashed state of the pieces it is difficult to distinguish pitchers from jars, thus the consideration of the related pieces as a single category. Among the existing instances, these five subgroups are discernible: long-necked pitchers/jars with wide mouths (Figure.17); short-necked pitchers/jars with out-turned rims (Figure. 18); pitchers/jars with vertical handles (Figure. 19: A, B); pitchers with vertical neck and rim (Figure. 19: C); miniature pitchers (Figure. 20). An assortment of such forms are known from concurrent sites, notably Hajj Nabi (Khatib-Shahidi 2010: 124-133), Qeshlagh (Motarjem and Sharifi

2019: 58–59), Godin II (Gopnik 2016: 333), Baba Jan IIB (Goff 1978: 52), Yalfan (Mollazadeh 2014: 243), Nush-i Jan (Stronach 1978: 19–20), Agrab Tepe (Muscarella 1973: 58), Zendān-e Soleimān (Thomalsky 2006: 248), Uzbeki (Majidzadeh 2010: 245), Qalaichi (Mollazadeh 2008: 121), Kul Tarike (Rezvani 2007: 179), Ziwiye (Young 1965: 58) and Persepolis (Ataei 2004: 140–150, 190).

2–1–5. Pithoi

The form is attested by 24 pieces (14%) that occur in the two holemouth (neckless) and short-necked varieties.

Holemouth pithoi: The related 10 pieces has a mouth diameter ranging between 13 to 42 cm and a wall thickness between 0.7 to 2 cm. Eight specimens are well fired and wheel-made, while the

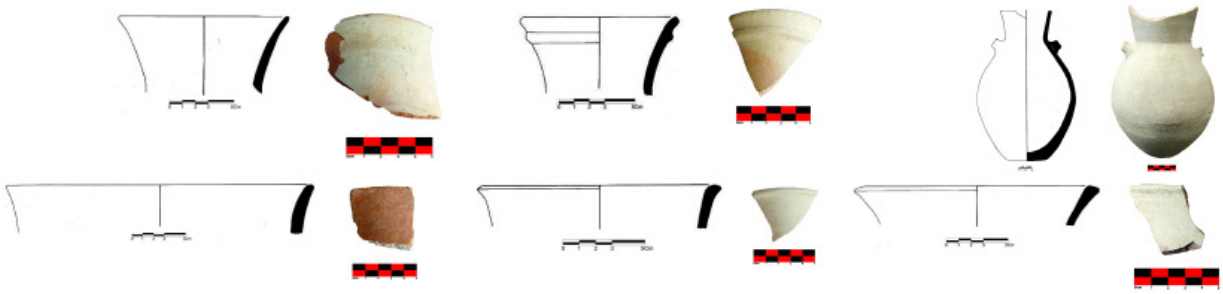


Figure.17: *Jelo Asiab: Long-necked pitchers/jars with wide mouths*

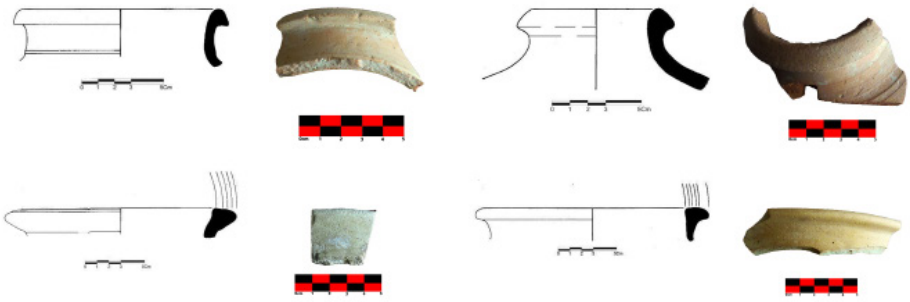


Figure.18: *Jelo Asiab: Short-necked pitchers/jars with out-turned rims*

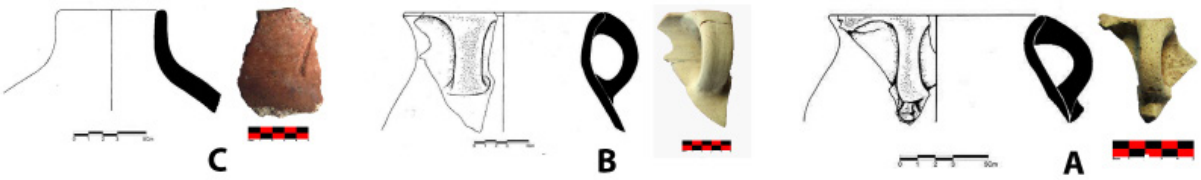


Figure. 19: *Jelo Asiab: Pitcher/jars with vertical handles (A, B), pitcher with a vertical neck and rim (C)*

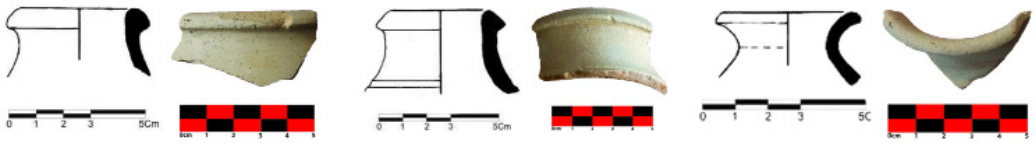


Figure. 20: *Jelo Asiab: Miniature pitchers*

poorly fired remaining 2 were formed by hand. The sub-assemblage is divided equally between medium and coarse fabrics (Figure. 21).

Similar neckless forms have been reported from Persepolis (Ataei 2004: 153–155), Hajj Nabi (Khatib-Shahidi 2010), Uzbeki (Majidzadeh 2010: 221, 261) and Qalaichi (Mollazadeh 2008: 124).

Short-necked pithoi: In the involved 14 pieces the neck is defined by a gentle or sharp carination between the shoulder and rim. The rims are simple, rounded, out-turned or vertical. Mouth diameter varies between 20 to 34 cm and wall thickness between 0.8 to 1.5 cm. Except for a single example, they are wheel-made. Fabric is fine or medium, each attested by 10 and 4 sherds. Firing is adequate, aside from 3 poorly fired specimens (Figure. 22). The form is paralleled at the Median fortress of Uzbeki (Majidzadeh 2010: 242).

2–1–6. Small Jars

Comprising 8% (n = 14) of the total excavated assemblage, in the respective pieces diameter ranges from 8 to 20 cm and wall thickness from 0.4 to 1.3 cm. These invariably wheel-made and adequately fired forms (Figure. 23) are paralleled in the Persepolis Fortification assemblage (Ataei 2004: 171–178).

2–1–7. Vats

These large vessels show a mouth diameter ranging between 22 to 42 cm and a wall thickness between 0.5 to 1.3 cm. Nine pieces (5%) were distinguished, which are well fired and wheel-made in all cases except for 2 handmade instances (Figure. 24). A similar vat with a rounded out-turned rim comes from Uzbeki (Majidzadeh 1998: 73).

2–1–8. Cooking Pots

Excavation at Jelo Asiab produced 13 pieces (8%) of larger varieties of this formal type. The related medium to large pieces have a mouth diameter and wall thickness of 20–32 cm and 0.8–1.7 cm, respectively. Almost half of these wheel-made cooking vessels display inadequate firing. Fabric is medium in 4 pieces and coarse in the rest (Figure. 25). Such forms are attestable at Hajj Nabi (Khatib-Shahidi 2010: 124-133), Godin II (Gopnik 2016: 338), Persepolis (Ataei 2004: 153–157), and Qalaichi (Mollazadeh 2008: 125).

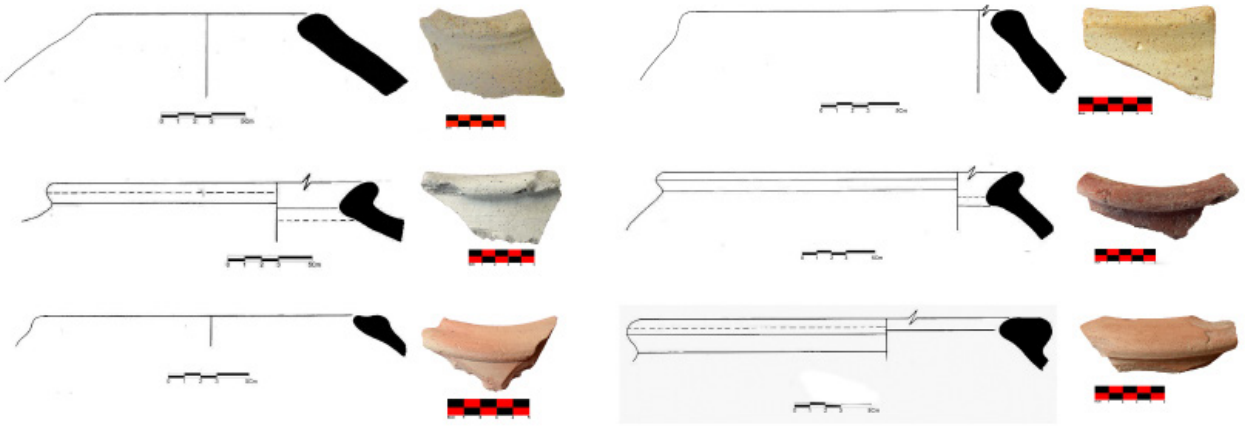


Figure. 21: *Jelo Asiab: Holemouth pithoi*

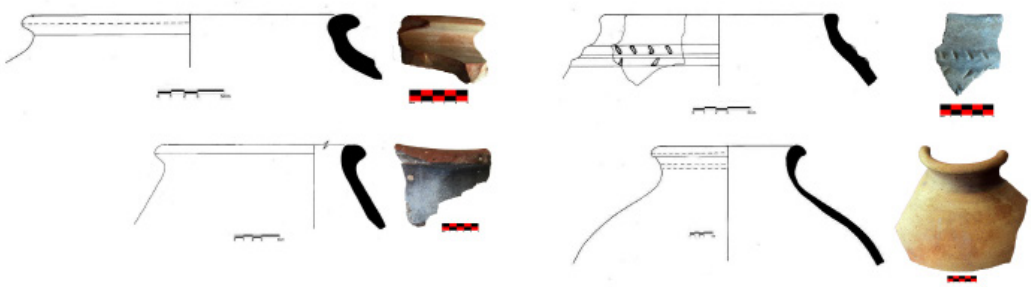


Figure. 22: *Jelo Asiab: Short-necked pithoi*

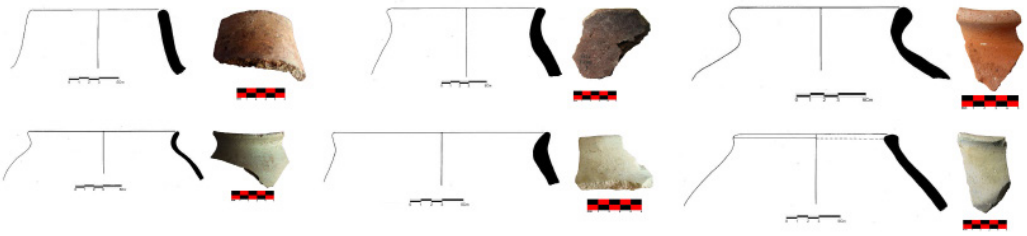


Figure. 23: *Jelo Asiab: Jars*



Figure. 24: *Jelo Asiab: Vats*



Figure. 25: *Jelo Asiab: Large cooking pots*

Smaller pots are attested by 9 pieces (5%). A distinguishing feature is the handles attached to the body in most cases. The out-turned rims are mostly simple or thinned (Figure. 26). Mouth diameter and wall thickness measure between 14–24 cm and 0.7–1.2 cm, respectively. Fabric is coarse, and 5 pieces are well fired. The Persepolis Fortification (Ataei 2004: 153–157) and Zendān-e Soleimān (Thomalsky 2006: 260) have produced similar forms.

2–2. Base Types

There are 12 examples of flat bases, comprising 6% of the whole sample. Diameter and wall thickness vary markedly, each ranging between 4–16 cm and 0.5–2.3 cm. As regards fabric, four classes of fine, medium, coarse, and very coarse occur. Except for two samples, the sherds are wheel-made and well fired (Figure. 27). Such bases have been recovered at Hajj Nabi (Khatib-Shahidi 2010: 124-133), Qeshlagh (Motarjem and Sharifi 2019: 59), Yalfan (Mollazadeh 2014: 238), Nush-i Jan (Stronach 1978: 17), Moush Tepe (Mohammadifar 2015: 246), Qalaichi (Mollazadeh 2008: 123), Persepolis (Ataei 2004: 204–262) and Uzbeki (Majidzadeh 2011: 267, 291).

2–3. Handle Types

A total of 24 fragments occur in the excavated assemblage in the form of either a complete handle, handle-rim, or fragmentary handle. Various attested types are outlined below.

Vertical handles: Two varieties of simple (Figure. 28) and with a horn-like projection (Figure. 29) are distinguishable. The latter type, while being fairly common to the Iron II and sometimes Iron III assemblages, was apparently rather unpopular at Jelo Asiab as only a single example of it occurs. Vertical handles with horn-like projections are known from Yalfan (Mollazadeh 2014: 239),



Figure. 26: *Jelo Asiab: Smaller cooking pots*

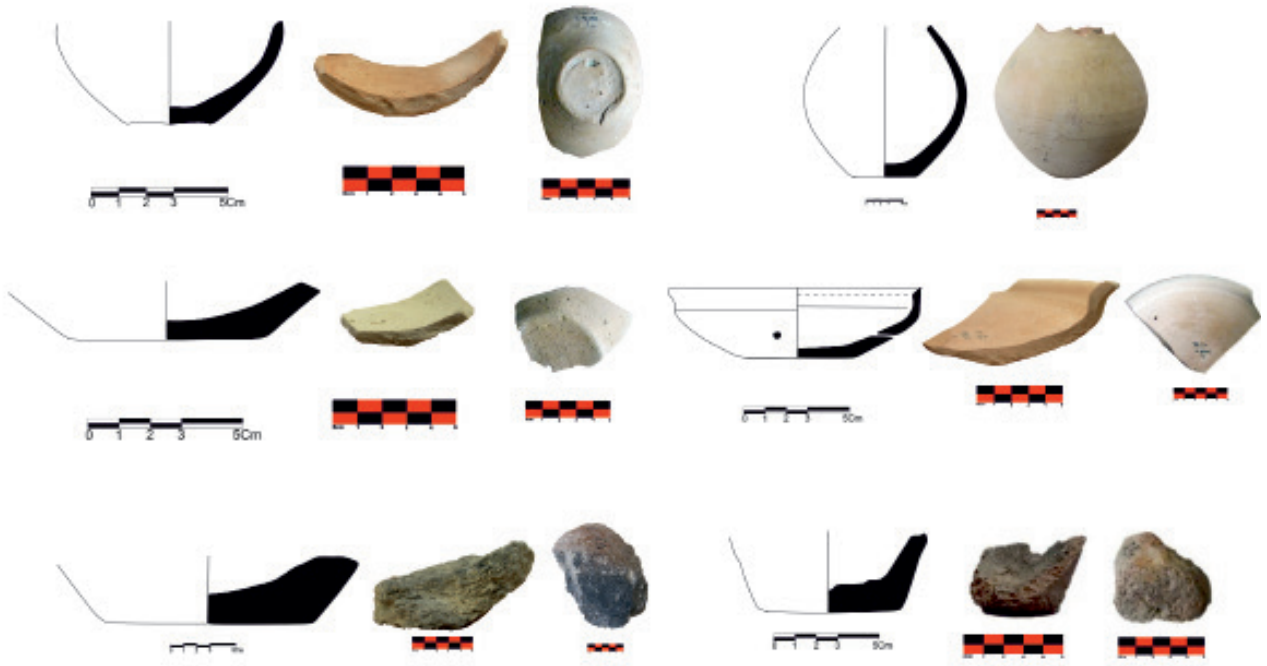


Figure. 27: *Jelo Asiab: Base types*



Figure. 28: *Jelo Asiab: Simple vertical handles*

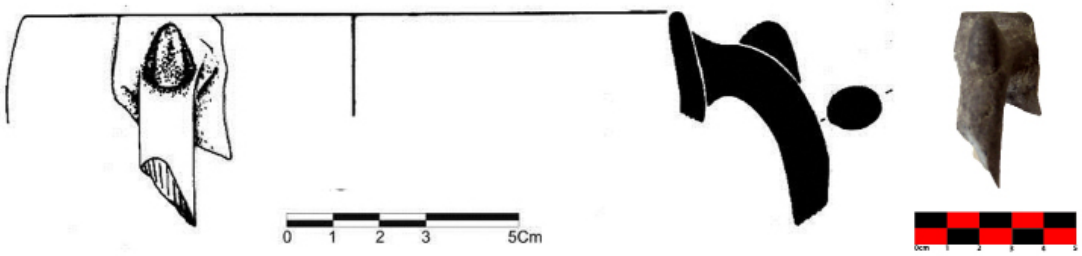


Figure. 29: *Jelo Asiab: Vertical handle with a horn-like projection*

Bastām (Kroll 2002: 286), Uzbeki (Majidzadeh 2011: 271, 285, 297), while the simple variety is paralleled at Uzbeki (Majidzadeh 2011: 209, 237, 239, 271), Baba Jan IIB (Goff 1978: 52), Zendān-e Soleimān (Thomalsky 2006: 246) and Pusht-i Kuh (Overlaet 2005: 30–31).

Horizontal handles: This type is purported as being characteristic to the Median period. Typically attached to the rim, all are round in profile and show a fine fabric. Except for one, possibly from a bowl, all belonged to plates (Figure. 30).

Such handles were in use at Hajj Nabi (Khatib-Shahidi 2010: 124-133), Qeshlagh (Motarjem and Sharifi 2019: 2–A, 4–H, 5–A, 6–E, 8–E), Nush-i Jan (Stronach 1978: 17, 33), Godin II (Gopnik 2016: 334, no. 52, 81 and 336), Baba Jan IIA, IIB, and the East Hill (Goff 1978: 52–4), Yalfan (Mollazadeh 2014: 236), Moush Tepe (Mohammadifar 2015: 244, 248), The Median Fortress of Bistoun (Alizadeh 2003: 99), Hasanlu IIIB and Ziwiye (Dyson 1965:

Pl. XXXVIII), Uzbeki (Majidzadeh 2011: 229, 283, 361), Bastām (Kroll 2002: 286) and Zendān-e Soleimān (Thomalsky 2006: 264, no. 4).

Knob lugs: The 3 existing instances, being well made and produced of a fine buff ware, all are attached to the rim (Figure. 31). The bowls with knob lugs from Jelo Asiab resemble material from Hajj Nabi (Khatib-Shahidi 2010: 124-133), Nush-i Jan (Stronach 1978: 17), Godin II (Gopnik 2016: 335, no. 69), and Baba Jan IIA and IIB (Goff 1978: 52, 54).

Miscellaneous handles/lugs: The following four varieties are attestable:

Type A: The single available instance is in coarse fabric, and the original vessel was most likely a kitchen ware. This lobed tabular lug probably joined the body, close to the rim (Figure. 32: A). Similar lugs occur at Baba Jan IIA, IIB, and the Main Mound Levels I-III (Goff 1978: 45, 52, 54), and Zendān-e Soleimān (Thomalsky 2006: 264, nos.1, 6, 7).

Type B: This unique type (Figure. 32: B) finds parallels at Surkh Dom-i Laki (Overlaet 2013: 83), Uzbeki (Majidzadeh 2011: 205, 292), Zendān-e Soleimān (Thomalsky 2006: 264 no. 2) and Qalaichi (Mollazadeh 2008: 125). While the piece derived from an Iron I grave, Overlaet refuses this date for the object on the ground that the grave was re-sued in later periods (Overlaet 2013: 166).

Type C: Again attested by a single specimen (Figure. 32: C), no comparison was found for this exceptional type.

Type D: This type likewise has no parallel in the considered contemporaneous assemblages (Figure. 32: D).

2–4. Spouts

In this very small category, only a single bridged example occurs. The pieces vary from 6 to 8 mm in wall thickness. Two different forms are identifiable. The first, *viz.* tube spout (Figure 33: A, B) is paralleled in the assemblages of Uzbeki (Majidzadeh 2011: 205, 292), Hajj Nabi (Khatib-Shahidi 2010: 124-133), Pusht-i Kuh (Overlaet 2005: 30), the Persepolis Fortification (Ataei 2004: 205), and Agrab Tepe (Muscarella 1973: 55). The second, *viz*. channel spout, is unique of its kind at Jelo Asiab as it typifies the spouted vessels of the Iron I and II periods. It finds a parallel at Uzbeki (Majidzadeh 2011: 350; Figure. 33 herein).

Decoration

Decorative patterns tend to be very simple and rudimentary and occur on the body of the vessels in buff ware. A total of 14 decorated pieces were recorded from this site: 8 body fragments and 6



Figure. 30: *Jelo Asiab: Horizontal handles*

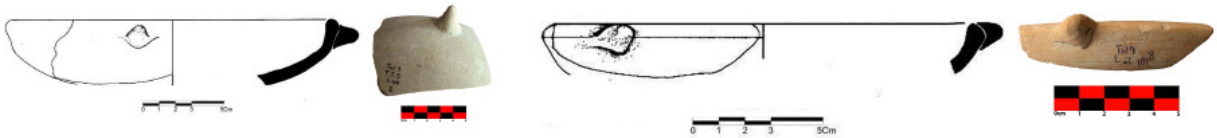


Figure. 31: *Jelo Asiab: Knob lugs*



Figure. 32: *Jelo Asiab: Miscellaneous handles/lugs*

rim sherds. Various techniques and designs are represented: applied ropes (Figure. 34: A), raised bands, (Figure. 34: B), impressed (Figure. 34: C), incised (Figure. 34: D, E, F), button-shaped projections (Figure. 34: G), and ribbing (fine grooves) (Figure. 34: H). Rope appliqués has been reported from Hajj Nabi (Khatib-Shahidi 2010:124-133), Qeshlagh (Motarjem and Sharifi 2019: 61), Yalfan (Mollazadeh 2014: 121), Baba Jan II, the East Mound (Goff 1978: 46, 53, 54), The Median Fortress of Bistoun (Alizadeh 2003: 107), Koleh Sheg (Mansouri 2012: 111), Uzbeki (Majidzadeh 2011: 351) and the Persepolis Fortification (Ataei 2004: 269).

Parallelism for raised bands, and incised and impressed design occur at Zendān-e Soleimān (Thomalsky 2006: 251, 269), Uzbeki (Majidzadeh 2011: 229, 261, 362) and the Persepolis Fortification (Ataei 2004: 271).

4. Technical Characteristics

4–1. Manufacture

Wheel-made pieces (n = 181) account for 87% of the sample, and the remaining 26 pieces (13%) are handmade (Figure. 35).

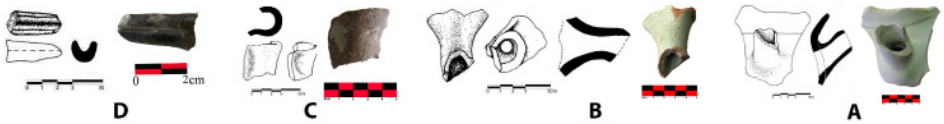


Figure. 33: *Jelo Asiab: Spouts*

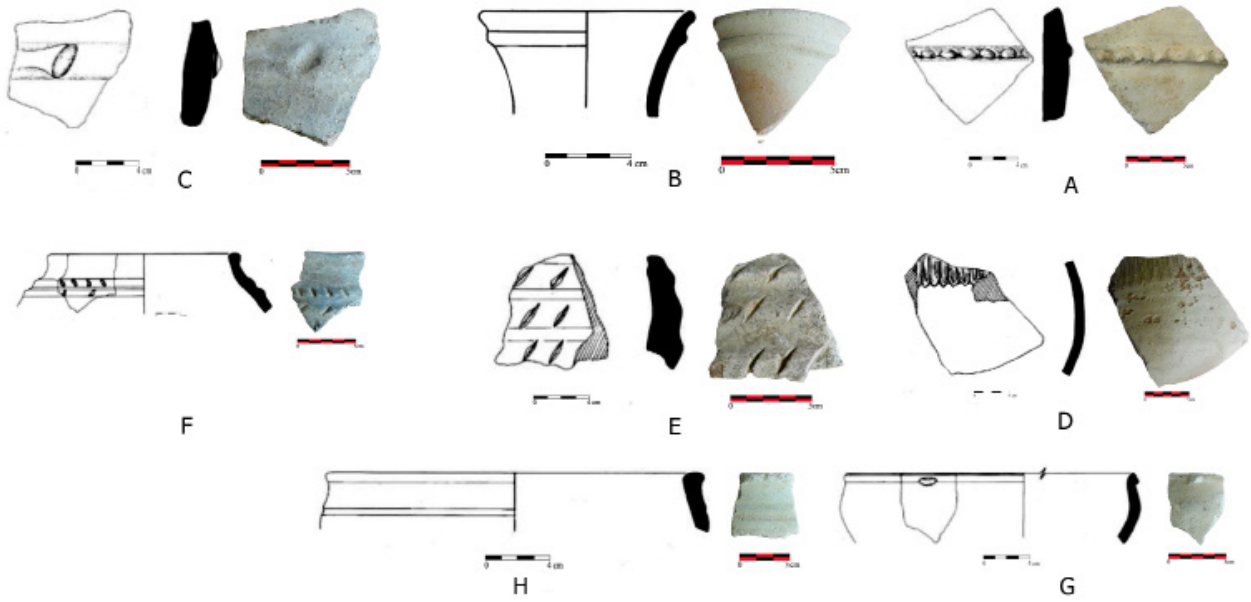


Figure. 34: *Jelo Asiab: Pottery decorations*

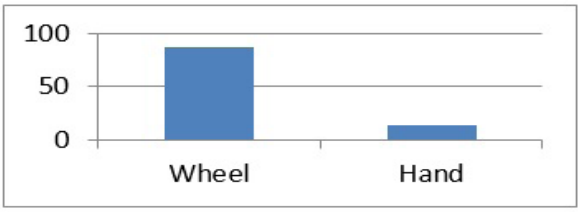


Figure. 35: *Percentage of pottery by manufacturing method*

4–2. Firing

Pieces that despite their light surface color feature a dark core approaching gray or black were designated as poorly fired. Adequately fired pieces dominate the sample at 86%. In the microscopic images, uneven firing is quite evident for some specimens (Figure. 36).

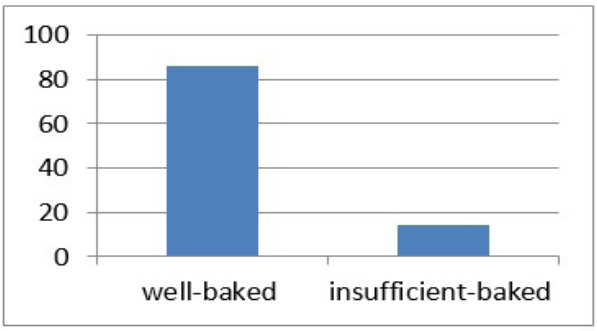


Figure. 36: *Percentage of pottery by firing*

4–3. Fabric

Fabric quality is contingent on several parameters such as texture, thickness, temper size, firing, etc. With all these considered, the pottery assemblage from Jelo Asiab falls in the these categories: fine (n = 67), medium (n = 91), and coarse (n = 49)(Table 1; Figure. 37).

Table. 1: *Jelo Asiab: Frequency and percentage of pottery by fabric*

Fabric	#	%
Fine	67	32.5
Medium	91	44
Coarse	49	23.5
Total	207	100

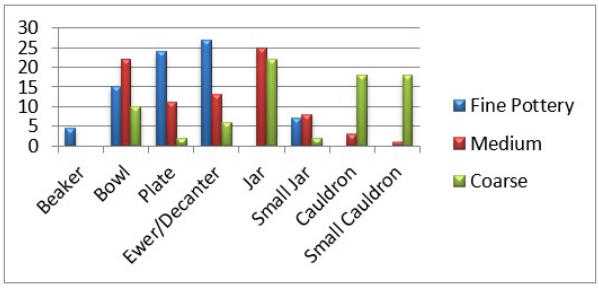


Figure. 37: *Jelo Asiab: Association between vessel class (profile) and fabric*

4–4. Paste Color

Paste color is a defining characteristic of a ceramic, and is particularly important for the classification of Iron Age assemblages. Regarding paste color, in the sample from Jelo Asiab the four main categories of buff, brown, red, and gray occur (see Table 2), which were further subdivided using a Munsell chart. In general, buff paste predominates the sample, within which reddish buff is the most frequent subcategory.

Table. 2: Jelo Asiab: Frequency and percentage of pottery by paste color

Paste color	#	%
Buff	139	67
Brown	30	15
Red	19	9
Gray	19	9
Total	207	100

4–5. Surface Finish

As shown in Table 3, the recorded types of surface treatment are burnished (11%), wet smoothed (17%), slipped (23%) and wash (49%), with the latter dominating the sample (Table 3).

Table 3: *Jelo Asiab: Frequency and percentage of pottery by surface finish*

Surface Finish	#	%
Burnished	24	11
Wet smoothed	35	17
Wash	101	49
Slipped	47	23
Total	207	100

4–6. Temper

According to the ASTM standard, the mineral temper consists of grit and sand. The latter occurs in several forms: very fine (clay + silt), fine, medium, and coarse. Fine sand is the most frequent, followed by medium sand, and then a mixed type of grit and sand. This has resulted in a mainly fine texture, especially in the fine vessels, though cooking pots and a part of storage vessels exhibit a coarser texture (Table 4).

Table. 4: *Jelo Asiab: Frequency and percentage of pottery by temper*

Temper	#	%
very fine sand (silt + clay)	4	2
Fine sand	94	45
Medium sand	61	29
Coarse sand	10	5
Grit	1	0.5
Mix-1(fine and medium sand)	14	7
Mix-2(coarse and medium sand)	12	6
Mix-3(coarse sand and grit)	11	5.5
Total	207	100

Conclusions

The sample picked for analysis from the excavated assemblage of Tepe Jelo Asiab pottery included different piece types of rim, handle-rim, handle, base, whole vessel, spout, and body fragment, of which rim sherds had the highest percentage at 76%. A total of 10 formal types were identified, including patera (dish), bowls, handled bowls, plates, pitchers/jars, vats, and large and smaller cooking pots. The most frequent type was bowls (20%). The ample was dominated by wheel-made (87%) and adequately fired (86%) forms (Table 3). Some 44% revealed a medium fabric, and the fine and coarse varieties matched in frequency.

The dominant paste color was found to be buff (67%), which is regarded as typifying the Iron III assemblages and finds the closest parallels at the contemporary sites. In terms of surface treatment, slipping proved to be the most common technique at 49%, while burnishing showed the lowest frequency (11%. Analysis of the technical characteristics indicated that the sample was mainly tempered by fine and medium sand, attesting to a ceramic assemblage of fair quality at Jelo Asiab.

Through comparisons with 21 sites of the same horizon in Iran and the neighboring regions, the forms diagnostic of the Iron III were identified. The comparanda was drawn from Haj Nabi and Gheshlagh in the Talvar Basin, Yalfan, Mush Tepe, Nush-i Jan, Godin, The Median Fortress of Bistoun, Koleh Sheg, Baba Jan and Pusht-i Kuh of Luristan in Central Zagros, Agrab Tepe, Bastam, Hasanlu, Zendān-e Soleimān, Qalaichi, Ziwiye and Kul Tarike in northwest and northern Zagros, Tepe Yahya in the southeast, Persepolis in the southwest, Uzbeki in northern central plateau of Iran, and Ramallah in the UAE. Dating to the Achaemenid period, the assemblage from the Persepolis Fortification shows the continuity of the Iron III traditions. In a general conclusion, considering its entire aspects, the pottery assemblage from Jelo Asiab reflects an Iron III culture, wherein some Iron I and II forms also persisted.

As a general conclusion, the pottery assemblage from Jelo Asiab display a lower quality compared with those from the typical Iron III sites, notably Nush-i Jan, Ziwiye, Uzbeki, and Godin. The study of the pottery shed light on some intra-regional and inter-regional links. In particular, the strongest parallelism in form, fabric and paste type is with the nearby site of Haj Nabi. Regarding trans-regional contacts, Uzbeki and the Persepolis Fortification shared several similarities with Jelo Asiab. Technical characteristics, vessels forms such as rim types, horizontal handles in buff ware, plates and bowls with S-shaped and spherical bodies and their comparisons with other regions, as well as the lack of idiosyncratic and peculiar techniques bespeak a relative standardization of the Iron III pottery industry at Jelo Asiab. It is thus possible to conjecture that the local potters were inspired by the general traditions of the Iron III, a fact that possibly prompted by extensive interactions that characterized this chronological horizon. Such observations as the attested vessel forms mainly consisting of practical vessels, the lowest frequency of storage vessels, and the character of the exposed architecture (lack of structural stability, disturbed nature, inattentiveness to the materials applied, and a sequence of four very transient consecutive phases) all combine to allow the conclusion that Jelo Asiab, with a total area of 1500 sq m, was a summer campsite established by the Iron III nomads, which would also remain in use in the following centuries.

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