The Iron Age at Dinkha Tepe, Iran

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TO THE MEMORY OF

Rodney S. Young, 1907-1974

In 1966 the University Museum of the University of Pennsylvania and The Metropolitan Museum of Art, working together as the Hasanlu Project, began excavations at Dinkha Tepe, a site in the Ushnu valley, near Lake Rezaiyeh (Urmia), in northwestern Iran. Background information about the site and the reasons for excavating there, as well as a preliminary report on the 1966 season, were presented in 1968 (Muscarella 1968, pp. 187–196). The reader is referred to that report to avoid repetition of the information here.[1] In 1968 a second campaign was conducted at Dinkha Tepe. The field work was mainly concerned with Bronze Age remains, but part of an Iron II structure was excavated and is discussed below.

It will be recalled from the earlier report that an Iron Age cemetery, containing burials of both the Iron I and II periods, was discovered, that the cemetery overlay Bronze Age strata, and that there were no architectural or burial remains of the Iron III period. A terminology for the levels was established in which the Iron II period was called Dinkha II (counting from the top down; Dinkha I was the Islamic period), the Iron I period, Dinkha III, and the Bronze Age strata, Dinkha IV.

This paper first reports on the Dinkha III cemetery, its burials and their contents, and its relations with contemporary sites. Following this is a report and discussion on the Dinkha II architecture and burials. No attempt is made here to write a history of the Iron Age or a definitive summary of that period. Not enough information is available at present and several good summaries already exist (Dyson 1964a, pp. 34–40; 1965, pp. 195–213; 1968a, pp. 29–32; Young 1965, pp. 55–59, 62–68, 70–83; 1967, pp. 22–29; Burney, Lang 1972, pp. 113–126). Rather, the emphasis here is on Dinkha Tepe itself.

The mound was first divided into large grid-squares one hundred meters to a side, and these were then subdivided when necessary into ten-meter excavation

1. The staff for the 1966 campaign is listed in Muscarella 1968, p. 187. In 1968 the staff consisted of the writer and Robert H. Dyson, Jr., as Co-Directors, Christopher Hamlin, Carol Hamlin, Matthew Stolper, Elizabeth Stone, William Sumner, and Harvey Weiss as site supervisors, and Marie Sherman Parsons as Registrar. Most of the drawings were made by Mary Voigt and Maude de Schauensee (1966). John Alden and Elizabeth Hopkins inked the drawings; their expenses were paid for by a generous grant from the Schimmel Foundation. I wish to thank all the individuals mentioned as well as the Schimmel Foundation for their cooperation in the production of this report. I also wish to thank Robert H. Dyson, Jr., Louis D. Levine, and T. Cuyler Young, Jr., for discussions and opinions exchanged over the years about Iron Age problems, and for reading this report in manuscript. Of course, I alone assume responsibility for the format and the conclusions expressed, and for not always following their advice.

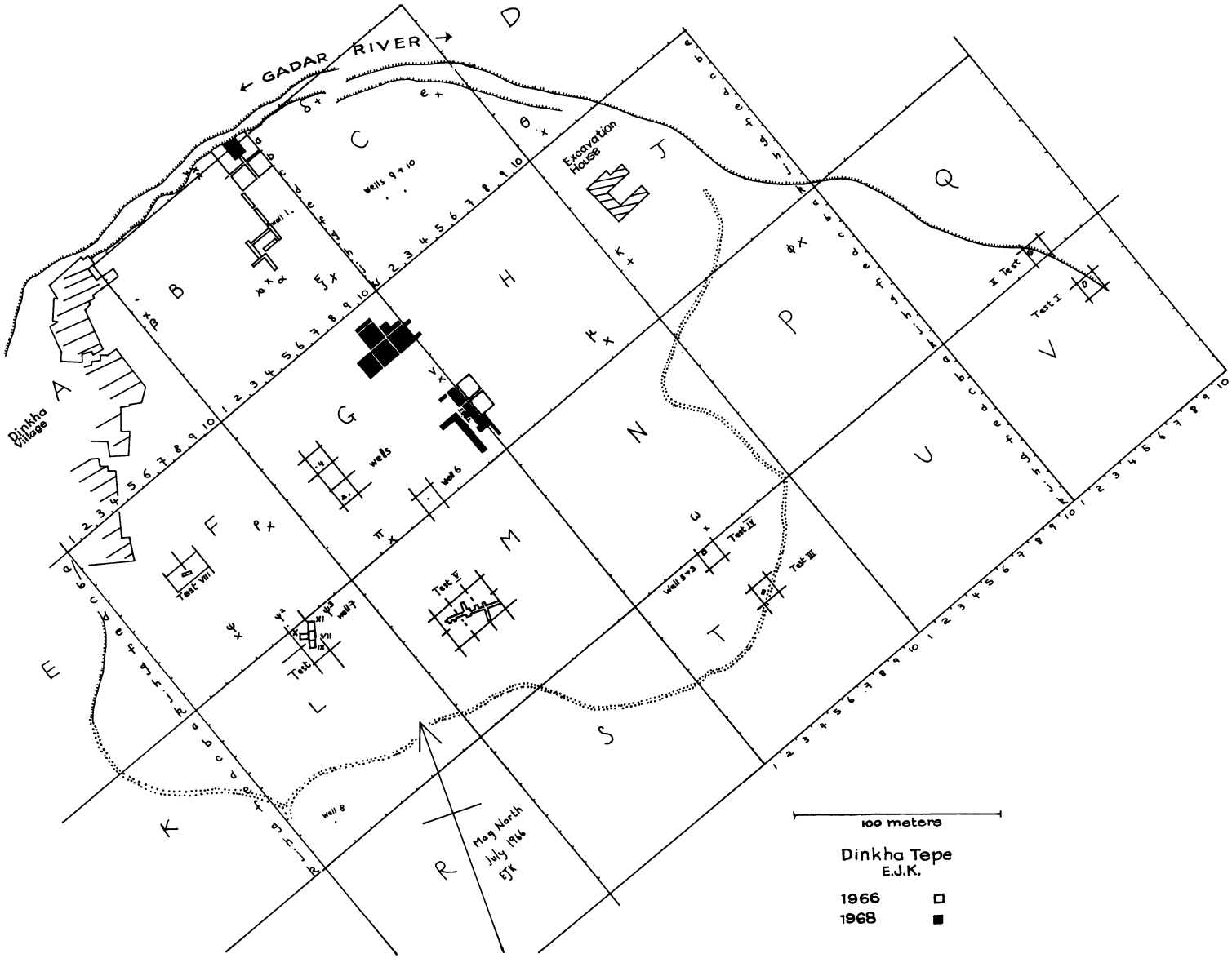


FIGURE I
Plan of excavation trenches

squares. In addition to these squares, shorter test trenches and wells were opened at various parts of the mound (Figure 1; Stein 1940, p. 369, fig. 23 for a contour plan).

DINKHA III PERIOD

One hundred and five burials were excavated on the mound. Thirty-three of these are of the Dinkha III or Iron Age I period (Muscarella 1968, p. 189, incorrectly listed twenty-six; see Table I). The majority of the burials were excavated in the four northern excavation squares, the main cemetery area of the mound, but some were found in the south and west. Whether these latter burials were originally thinly scattered away from the main center at the north, or whether they were part of a regular cemetery area encircling the mound is not known, as extensive excavations were not conducted in

these areas. If there was a settlement on the mound that belonged to Dinka III it could have been in the center and eastern sections, but no architectural remains attributable to this period were recognized.

The dead were buried in individual graves with no markers; the brick tombs generally opened to the east. Men, women,[2] and children were buried in the same area and apparently given the same burial rites. All the burials of Periods III and II were placed within pits, which were then refilled; in a few cases we were able to recognize the pit lines (Muscarella 1968, p. 190, fig. 7).

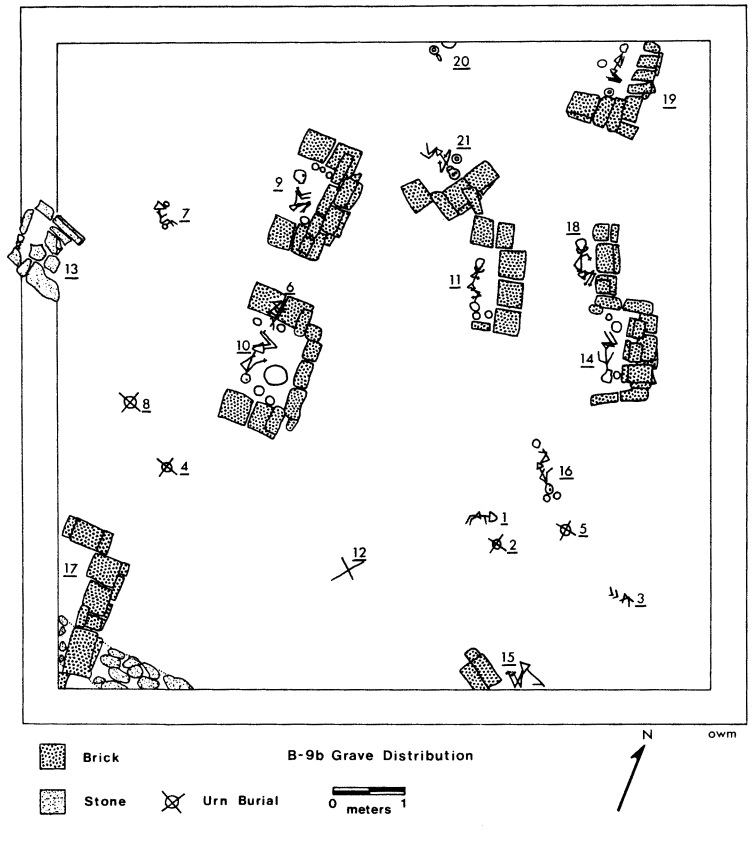
Dinkha III burials were recognized primarily by the associated grave goods, artifacts quite familiar to us from the Hasanlu excavations. In general, the burials were stratigraphically lower in the fill than the later Dinkha II burials; in some cases they were in the same stratum or were only slightly lower than the later burials. Some Dinkha III burials were recognized as being lower in the fill than others of the same period and these *might* be early—although the possibility exists that some pits were dug deeper than others (but compare TT VII, below). In a few cases the pottery types of these deep burials seem to support a conclusion for a suggested earlier deposition (see below).

Twenty-three of the burials were simple inhumations while ten were associated with built brick tombs. Of the latter, four consisted of a horizontal row of mud bricks to one side of which was placed the body. Three tombs (B9a, β22, B9b, β11, B10b, β13) consisted of a horizontal row of mud bricks with a projection or arm at each end, forming a three-sided tomb that enclosed the body and goods; one of these tombs (B9a, β22) had a mud-brick floor. One tomb had an offset at each corner of the arms (Figure 2:21, partly excavated; and Muscarella 1968, fig. 2), a feature common in the next period; two tombs were disturbed. The main horizontal wall had two to four courses and the arms two to three courses, the latter lower than the former. The top course of the horizontal wall overlapped the grave area, often dug deeper than the lower level of bricks, and in a few cases collapsed onto the body.

The bodies were oriented N-S or E-W, the former in the majority, and although heads faced all points of the compass, those facing E predominated. The body was placed on the back or side; legs were flexed, with three exceptions; arms were usually flexed before the face, chest, or pelvis, or placed at the sides. Eight skeletons had one arm flexed across the body while the other was bent back tightly, touching its own shoulder. No relationship with regard to age or sex seems to exist in orientation or body position (for details, Table I).

The characteristic ceramic objects of Dinkha III are the bridgeless spouted pouring vessel, never with a handle; the pedestal-base goblet with a vertical loop handle; and a flaring-sided bowl, either with a raised crescent on the interior surface—colloquially called "worm"

FIGURE 2
Burials 11, 12, 16, 18, 20, and 21 are of Period III



2. No professional physical anthropologist examined the bones when they were excavated, and therefore it is not certain that the sexing was always accurate. The bones are currently being studied by Ted A. Rathbun of the University of South Carolina. For contemporary skeletal material see Rathbun's *A Study of the Physical Characteristics of the Ancient Inhabitants of Hasanlu*, Field Research Projects (Coconut Grove, Miami, Florida, 1972).

bowls—sometimes with holes for suspension, or the same type bowl but without the crescent. These types of vessels are classic diagnostic objects from the Iron I period. Seventeen of the thirty-three burials did not contain a spouted vessel, but nine of these had either the worm bowl or goblet; the eight others, containing only one or two vessels, were low enough in the fill to allow for a Period III designation. Not a single burial contained all three of the diagnostic vessels together (compare below, Geoy Tepe and Hajji Firuz).

Other Dinkha III shapes include deep carinated bowls, carinated jars with relatively large mouths, and basket-handled teapots. These shapes continue into Period II and by themselves are not easily distinguished into Iron I or II.

Eighty-one vessels were recorded from the Dinkha III period, eighty from the burials, one from the fill (Muscarella 1968, p. 193, fig. 17, left). Of these, fifty-six were gray, twenty-three buff,[3] and one was painted: thus the percentage of gray to buff is 71 percent to 29 percent. Whether the surfaces were intentionally fired to these colors by controlling the oxygen within the kilns, or whether the colors resulted fortuitously from firing to firing, or even from uneven control in a given firing, is not clear. However, the fact that in Period II buff pottery predominates might suggest that the coloring was controlled (Young 1965, p. 55).

Within the gray pottery repertory, burnished surfaces outnumbered smoothed surfaces more than two to one; only one had a matt surface. Concerning the buff pottery, of which orange predominated, twelve were smoothed, two burnished, eight matt, and one was red-slipped. About a half-dozen vessels, gray and buff, had traces of mica flakes on the surface. Most of the vessels were made of a paste that had no visible inclusions; about a half-dozen had medium-sized grit, and only one (a worm bowl) was made of coarse ware. Thus, the vessels may be categorized as neither of fine nor of coarse ware, but rather what has been called common ware (Young 1965, p. 55). Note that gray and red-slipped wares, and vessels with mica flakes, occur in small amounts in the preceding Dinkha IV period.

The number of vessels placed within a burial varied from one to four, and there seems to be no connection between the number of vessels, or, indeed of burial goods in general, to inhumation or brick tomb, or to age and sex (Table I). Some of the vessels, including all types, had obviously been damaged in antiquity. But this fact did not deter their inclusion in a burial and suggests that vessels placed in a burial were the same ones normally used in the contemporary households.

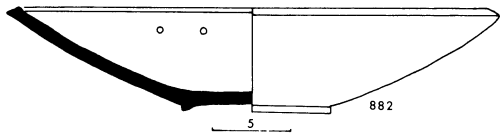
Four burials contained weapons; thirty contained jewelry, worn by men, women, and children, indicating that the dead were adorned as well as clothed. In no burial of the Dinkha III period was an iron object found.[4] An exception could be B10b, β11, discussed below, and which I consider to belong to the Dinkha II period. Only one burial contained gold, B9a, β26, and only one burial (B9a, β23) a cylinder seal (Table I).

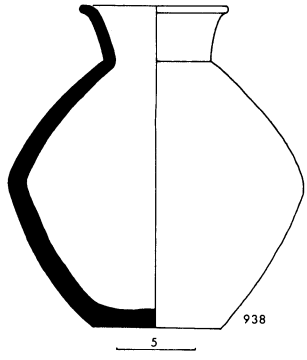
Food remains in the form of sheep/goat bones were found in only three burials, but it is quite possible that boneless meat and even liquids, all now disappeared, were placed in some burials (see B9a, β15).

As stated above, it was possible to recognize that a few burials were deposited earlier in time than others. To these examples we now turn. In TT VII, Grid L, a square 2.5 × 1.5m, two period III burials were discovered, and by a stroke of luck one had been deposited directly over the other (Figure 3). β1, the later, found in stratum 2, was an inhumation of a young adult female

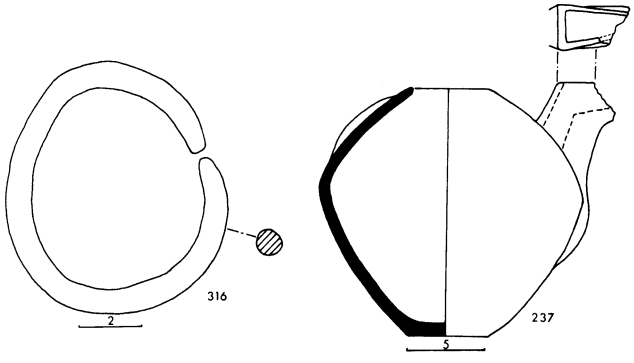
3. Buff is a term used for the oxidizing firing that produced non-gray (reduced) surfaces. The colors of the buff pottery at Dinkha range from buff to light orange, orange, reddish-orange, and red. The problem is not significant if one realizes that the Dinkha kilns produced both reduced grays and oxidized buff colors. In the text I use the word *buff* in a general sense, for the non-gray pottery, and in those particular instances where no specific color other than "buff" was registered. Surfaces are categorized macroscopically as matt (A): no luster; smoothed (B): a slight luster, with some stroke marks visible; burnished (C): stroke marks quite visible and a definite luster. These divisions grade into one another. Interior paste is categorized macroscopically as I: small-grit inclusions of sand size; II: grit inclusions smaller than sand to no grit inclusions visible; and III: coarse, with grit inclusions larger than sand and visible. For convenience I use the abbreviated forms, e.g., IA, IIB, when describing a vessel in the text. Next to each field number referred to in the text is a letter that gives the present location of the object: M: Metropolitan Museum of Art; P: University Museum, Philadelphia; T: Teheran Museum; D: discarded in the field.

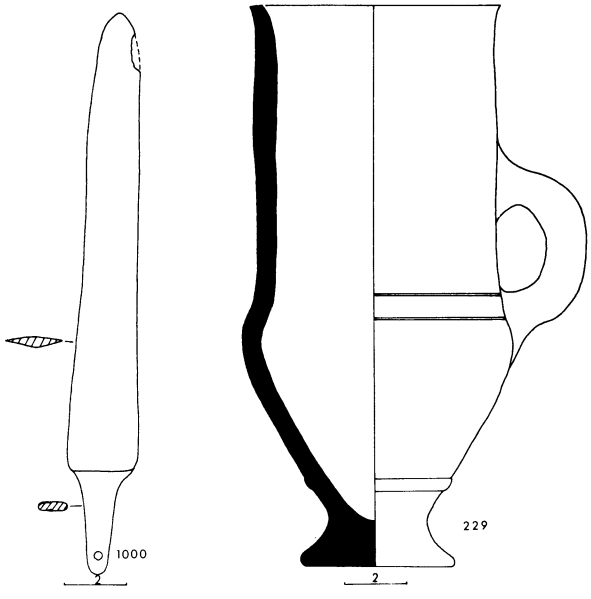
4. When a metal object is mentioned in the Dinkha III section it is bronze (not analyzed), except for the gold earrings; and when a spouted vessel or goblet is mentioned, it is a bridgeless spout and a pedestal-base goblet. In the Dinkha II section a spouted vessel always means a bridged one.



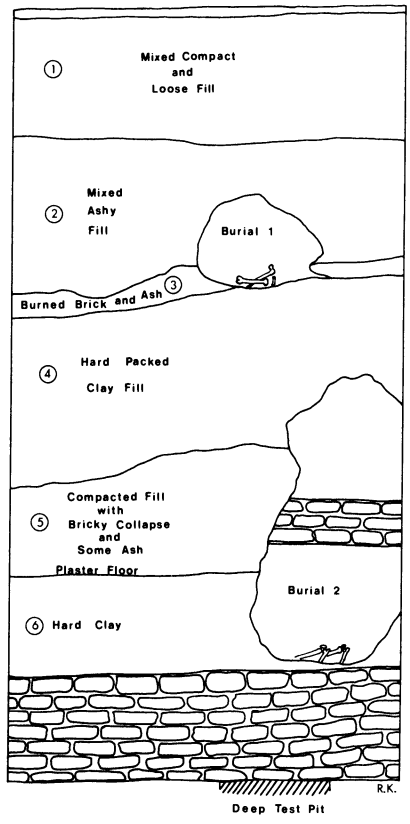


VII burial 1

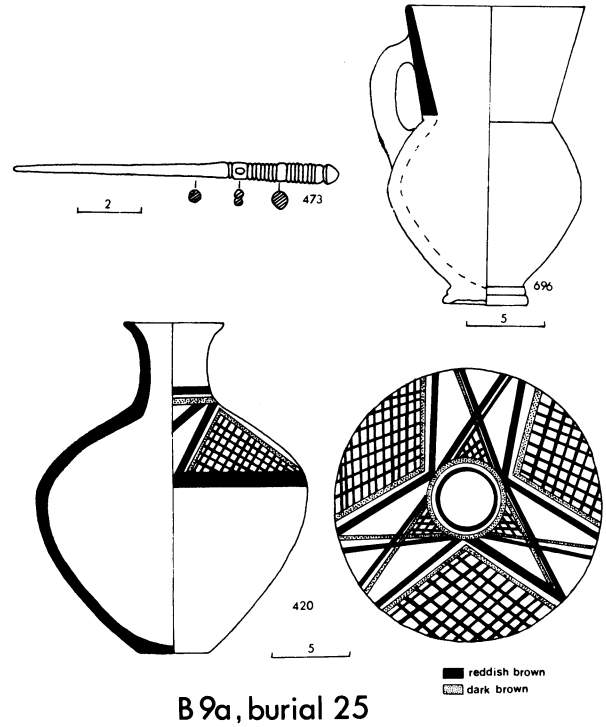




VII burial 2



Test VII - North Wall



B 9a, burial 25

FIGURE 3

FIGURE 4
Test trench VII, burial 2

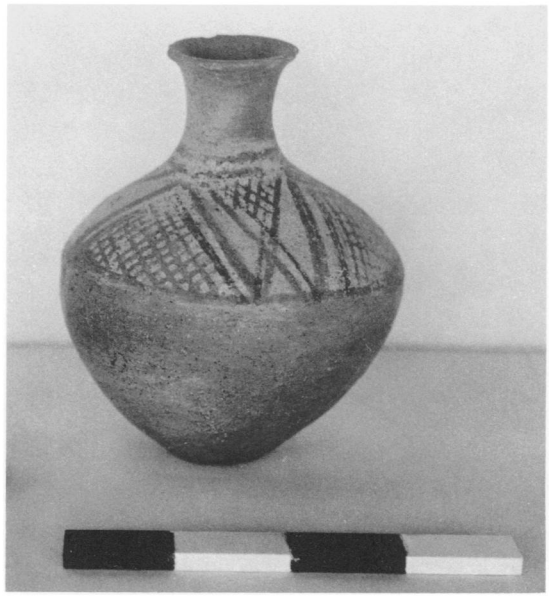


FIGURE 5
Painted vessel from B9a, burial 25

placed in an extended position on the R side, oriented N-S, head to N. The body had a pin, plain loop rings, bracelets, and a torque,[5] (all corroded, so discarded), a spouted vessel (933P, like 234 in Figure 16), a bowl with two holes (882D), and a carinated jar (938T), all gray IIC ware.

In stratum 6, but apparently cut from 4, was found β2 (Figures 3 and 4). This was a young adult male in an extended position with the legs slightly flexed, E-W, head to E, placed in a brick tomb (whether the tomb had arms or not we do not know). The skeleton had a plain penannular bracelet on the R wrist (316P), and a tanged dagger, with wood remains on the tang and a wood peg still in the tang hole (1000P), placed behind the head. In the same position was a red-orange IIB spouted vessel with a missing tip (237P), and a tall gray IIB goblet (229P). No other goblet found at Dinkha has the same shape, with straight walls, nor does any other spouted vessel have the same body structure, with relatively tall and straight inner vertical section of the spout—except a vessel from B9a, β24 (Figure 6, 936) also early. The vessel also lacks a "beard" below the spout, and has a narrow mouth. Doubtless this is one of the earliest Iron Age burials at Dinkha.

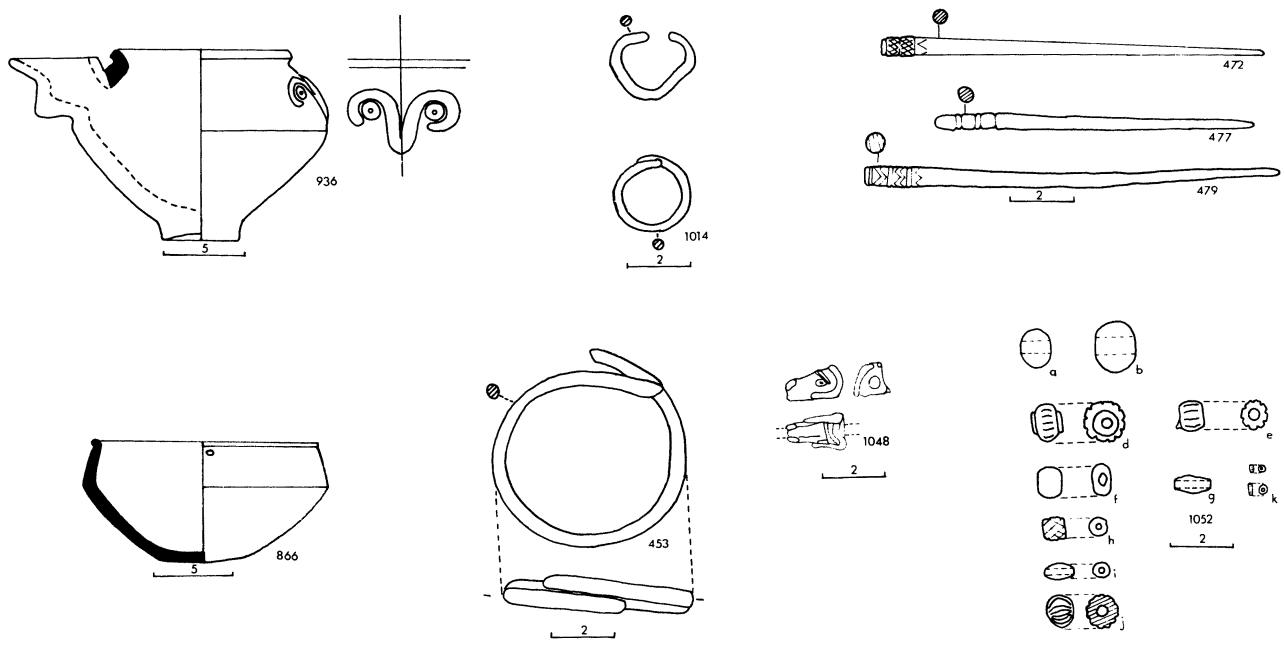
In B9a a number of period III—but no II—burials were excavated in strata 5a and 6; six burials were also found below these in stratum 7, cut into the Bronze Age deposit. These latter could be early period III burials. One of these burials stands out from the rest because it contained the only painted vessel from the Iron Age at Dinkha.

B9a, β25 contained the inhumation of a mature adult male flexed and placed on his back, E-W, head to E. He wore a toggle pin with a finely decorated top (Figure 3, 473P), and a necklace of paste beads (1006T); a gray IIC goblet (696T) and a polychrome jar (420T) were the other grave goods. The latter has a cream surface overpainted on the upper body with reddish brown hatched triangles outlined with dark brown lines (Figure 5).

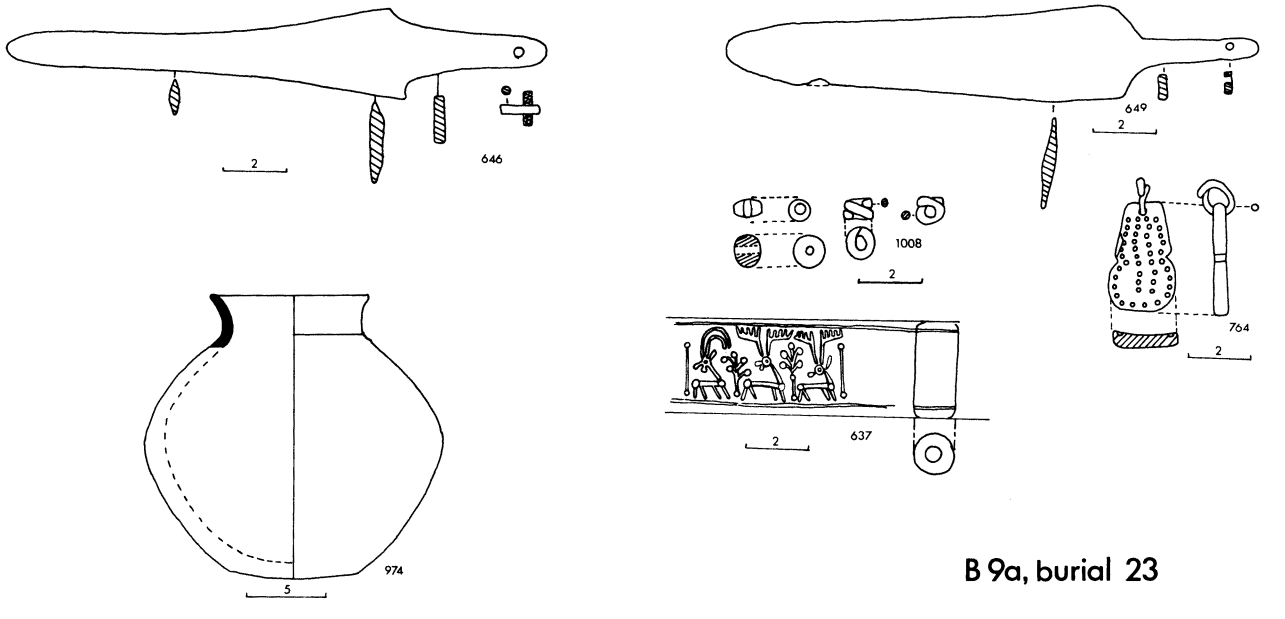
Some of the other possibly early burials in B9a:

β23: Male, mature adult, inhumation, N-S, head S, skeleton poorly preserved in balk. Furniture (Figure 6): two bracelets with overlapping tapered ends (452T, 996D); a bone pendant decorated with drilled holes

5. By torque I mean a penannular necklace, at Dinkha made from one piece of metal, and not necessarily twisted. In two burials, both of Period III, B9a, β22, B9b, β16, originally penannular necklaces had their ends tied together, I have not considered them as true torques.



B 9a, burial 24



B 9a, burial 23

FIGURE 6

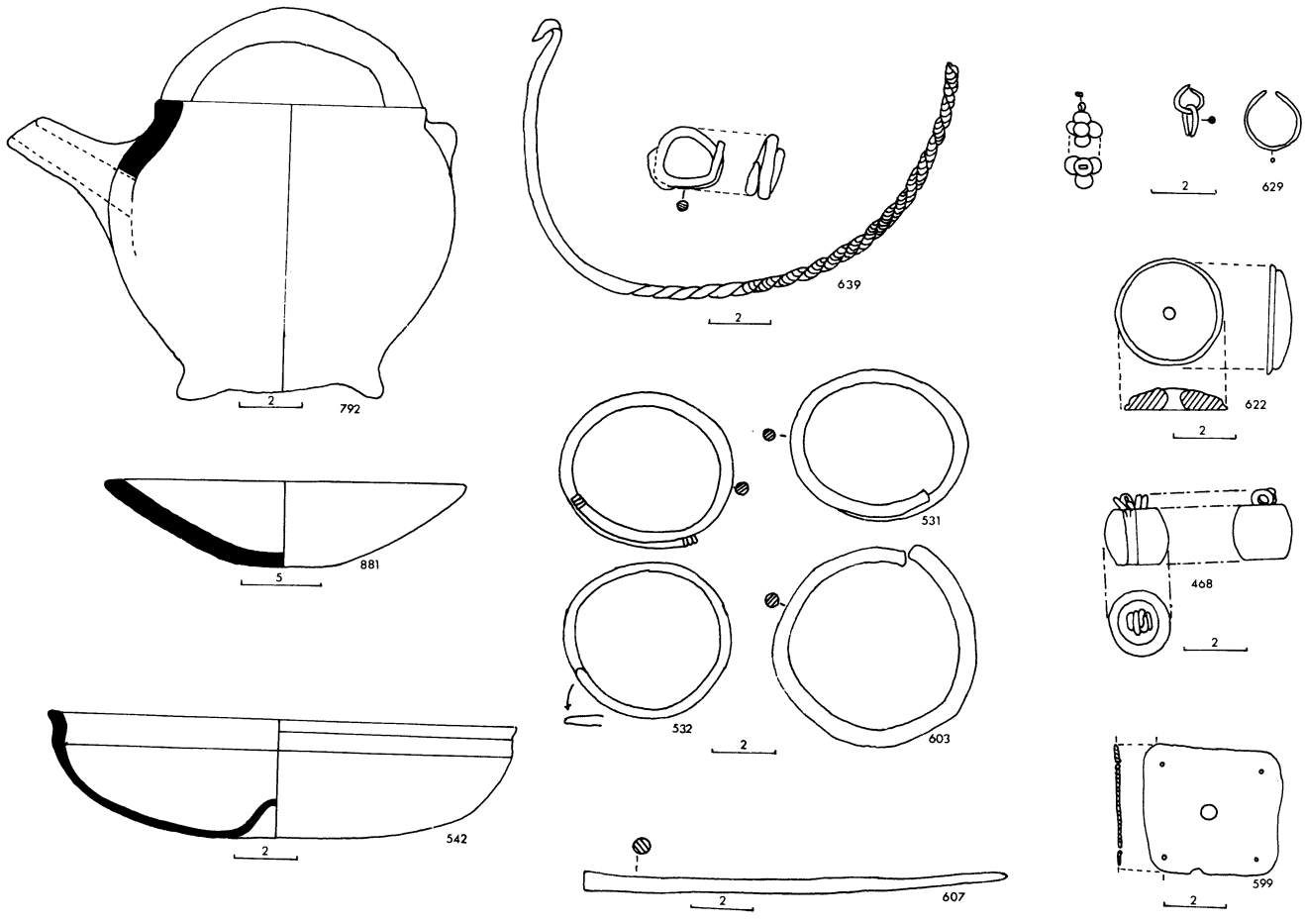

792
639
629
622
881
531
468
542
532
603
599
607
B 9a, burial 26
889
605
833
1045
616
B 9a, burial 27

FIGURE 7

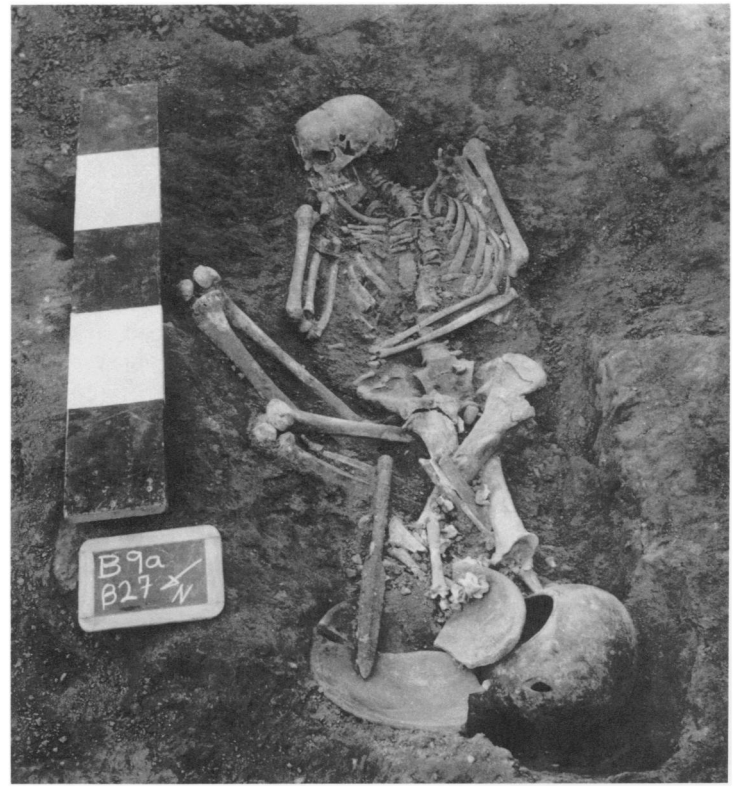
and held by a bronze loop (764T); a plain ring (D); various paste beads colored blue and white, some brown stone beads, and a bronze coil (1008P); two tanged daggers (646T, 649T) placed in a jar, 974; a glazed faience cylinder seal of Mitannian design, the ends of which are beveled, perhaps indicating an original holder (information from Edith Porada): a goat or ibex and two stags move right, but turn their heads left; stylized plants divide them (637T). Also one plain squat gray IIC spouted vessel with a ridge at the back (932T), and a gray IIC jar (974D), both at the head, and a gray IIB bowl with two holes (892T), at the feet.

β24: Mature adult, inhumation, flexed on L side, N-S, head S. Furniture (Figure 6): a bracelet with overlapping ends on R wrist (453T); two plain rings (1014P); one pin with incised top on L shoulder (472T), another on R shoulder (479P), and one with a knobbed head on R arm (477P); a needle by the wrists (D); a white ram's head bead with a blue band (1048M; Muscarella 1968, p. 194, fig. 19);[6] scores of various types of beads by the neck: 1052a, e, f, h, i, j, k, paste; 1052b, copper; 1052d, g, Egyptian blue (T). Two vessels were found slightly below the skeleton: a buff, matt, spouted vessel with a relatively high foot, a short, squat spout, and a stylized "eye" or horn motif in relief at the rear (936T); and a buff, matt, deep, carinated bowl with one hole below the rim (866T).

β26: Child, inhumation, flexed on L side, N-S, head N (Muscarella 1968, p. 192, fig. 16). Furniture (Figure 7): two anklets on L foot (603P for one), the other, 536T, is of the same type as bracelet 532, top; two anklets on R foot (534T, 535T), same types as the preceding; two bracelets with overlapping ends on R wrist (532P, top and bottom); two on L wrist (531T); a plain ring with overlapping ends (600T) on L hand; a bronze bead at throat (468T); two plain pins with blunt tops near throat (478T, 607T); a needle (606D); a torque of twisted wire and bent-back ends and with a twisted loop attached (639P); a bronze plaque pierced with a large central and four smaller corner holes (599P); broken plain rings found by the teeth (D); two gold earrings consisting of a cluster of hollow balls with a loop: one was found by the left leg, the other under the skull; associated with the earrings are gold loops (629T); 76 flattened carnelian beads, 21 similar-shaped copper ones, plus 150 round paste beads; and one calcite disc (622T), at the back of the neck. Vessels included a bronze omphalos (542T) by the chin; a broken gray burnished bowl (881D); a broken, buff, smoothed basket-handled teapot with mica flecks (792T), and a broken, gray-brown burnished spouted vessel (922D), same type as 234 in Figure 16), by the feet.

β27: Male, mature adult, inhumation, flexed on back, N-S, head S. Right arm bent back to touch its own shoulder (Figure 8). Furniture (Figure 7): plain bracelet with overlapping tapered ends (605D) on R wrist; a stone button with drilled designs (616P) by L foot; assorted beads by throat: 833a, coarse faience; b, fine faience (glass?); c, paste; d, e, f, carnelian; g, a lotus-bud shape, fine faience; h, j, glass (P); also, a socketed spear on L leg so that the shaft must have passed over the body (1045T; compare Dinkha II burials B9a, β9, and B10a, β12, Figures 24, 36). At the feet, a dark gray burnished spouted vessel (921D, same as 234 in Figure 16), and a gray IIC worm bowl with two holes (889P).

FIGURE 8
B9a, burial 27



6. Tests on the bead were made by J. H. Frantz and Suzanne Heim in the Research Laboratory of the Metropolitan Museum of Art. The tests show that the bead is not glass, leaving the following possibilities: a glazed soft-stone, faience, or glazed earthenware. Only the surface and the inlay appear to be vitreous. Compare A. von Saldern, "Other Mesopotamian Glass Vessels (1500–600 B.C.)," in *Glass and Glassmaking in Ancient Mesopotamia*, ed. A. Leo Oppenheim (New York, 1970), p. 217.

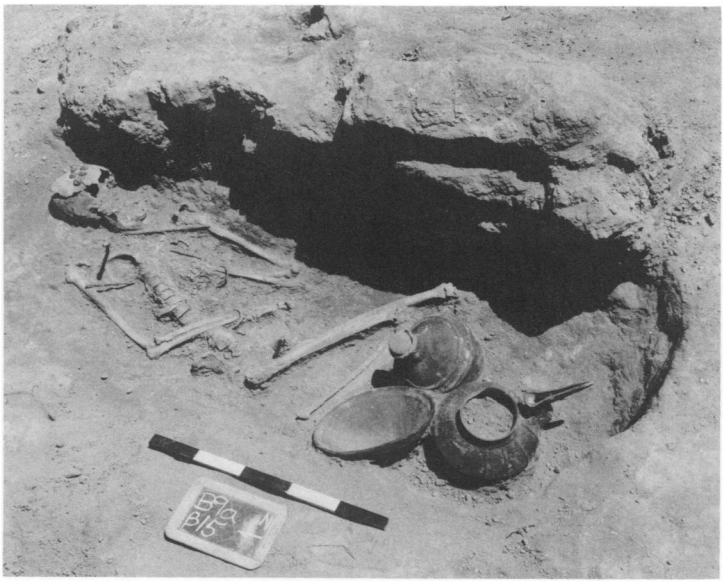


FIGURE 9
B9a, burial 15

We now proceed to some of the other Dinkha III burials; these do not allow themselves to be distinguished as early or late on the basis of stratigraphy or artifact comparisons. Space limitations forbid publication of all the burials, but no important features of the period will be omitted (see Table I). The burials are presented according to their grid positions:

B9a, β15: Female (?), mature adult, flexed, on back, N-S, head N, in horizontal brick tomb (Figure 9). Furniture: one round bracelet with overlapping ends on R arm (307P), two on L (308T, 354D); two plain rings with overlapping ends, one on R hand (595T), one on L (601P); two pins with simple knobbed heads at throat (Figure 52, 400P), one was found sticking up in the fill; another pin with one knob by L arm and another by R (Figure 52, 385T); a needle over the chest (460P); paste and copper beads (391T); and five bronze buttons found on the skull probably from a cap or diadem (617P; B8e, β8, a Period III tomb of a mature adult, also had five bronze buttons on the head. The buttons as shown in the photograph may be in their original position; there is no comment in the field notes to the contrary). At the feet, a highly burnished gray spouted vessel with ridges uniformly arranged around the body (334M; Muscarella 1968, p. 193, fig. 17, top), a gray IIB bowl with two holes (358T), and a gray IIB jar with two ridges at mid-body (404T) sealed with a stone; this vessel probably held some liquid.

B9a, β17: Mature adult, inhumation, flexed on L side, N-S, head to N; R arm missing, L bent back onto its own shoulder (Figure 10). Furniture (Figure 11): a flattened bracelet with overlapping ends on L (310T) and R (309P) wrists; an anklet with overlapping ends on each foot (539T, 540P); a plain toggle pin at L shoulder (326D), fragments of another in the fill; a ring of twisted wire with overlapping ends on L hand with cloth impression (466T); a needle in the fill, with top bent back to form the hole (325D); a plain torque on the neck (1038D). Touching the forehead was a gray IIB spouted vessel (337T); by the feet, a broken gray IIC bowl with two holes (893P), and a gray IIC carinated jar (903D).

B9a, β19: Child, inhumation, flexed on R side, N-S, head S; L arm flexed across body, R bent back onto its own shoulder. Furniture (Figure 12): a plain, not quite round bracelet with overlapping tapered ends (541T), on R wrist; a plain ring, also with overlapping tapered ends (462D), on R hand. A buff IB tripod bowl, feet of

FIGURE 10
B9a, burial 17

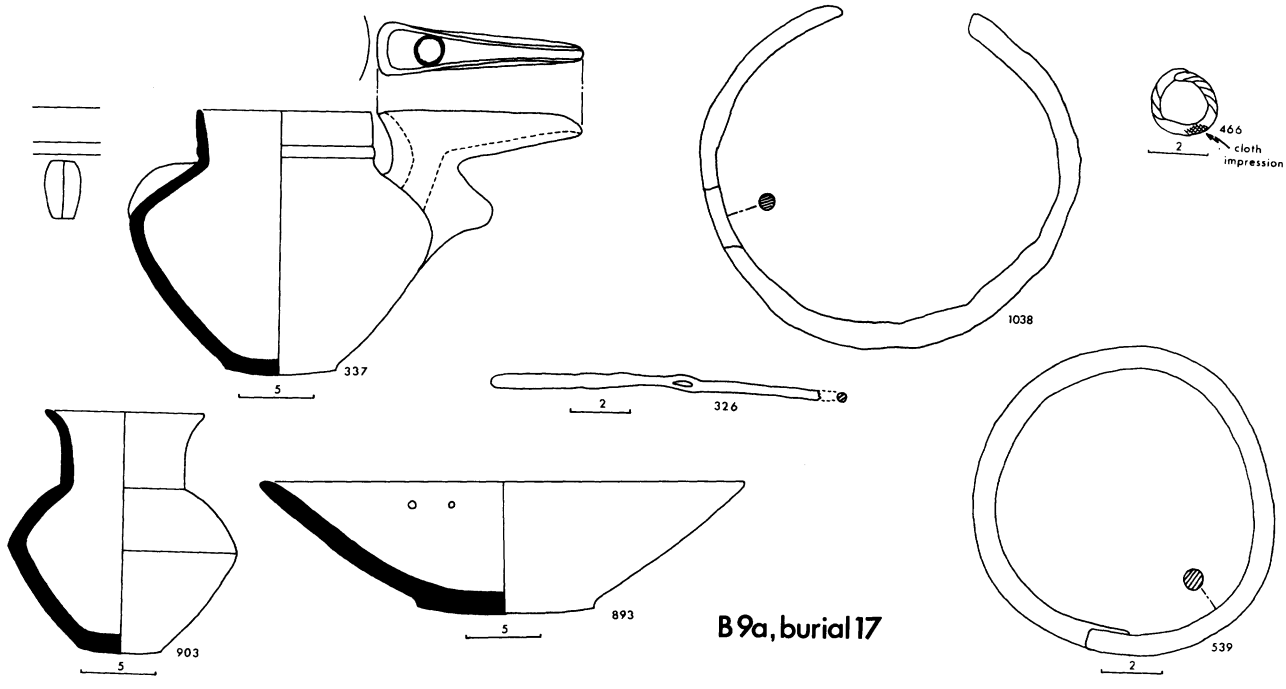
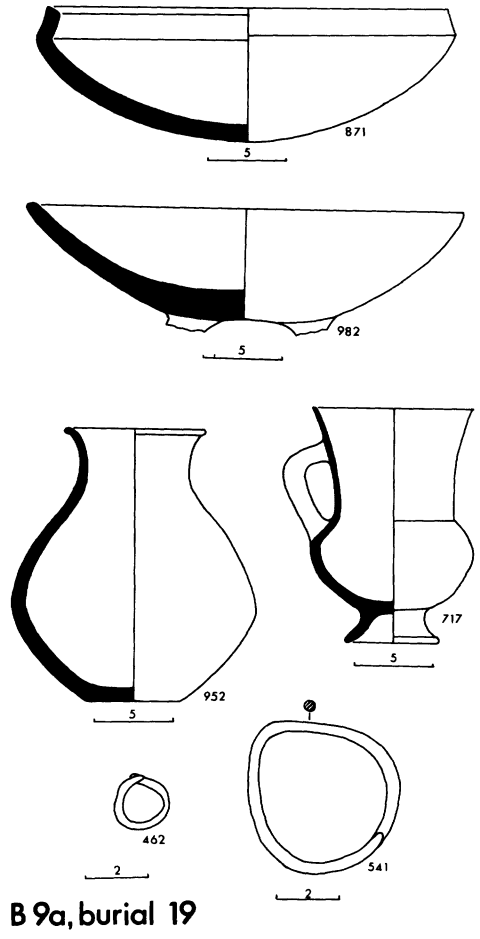


FIGURE 11

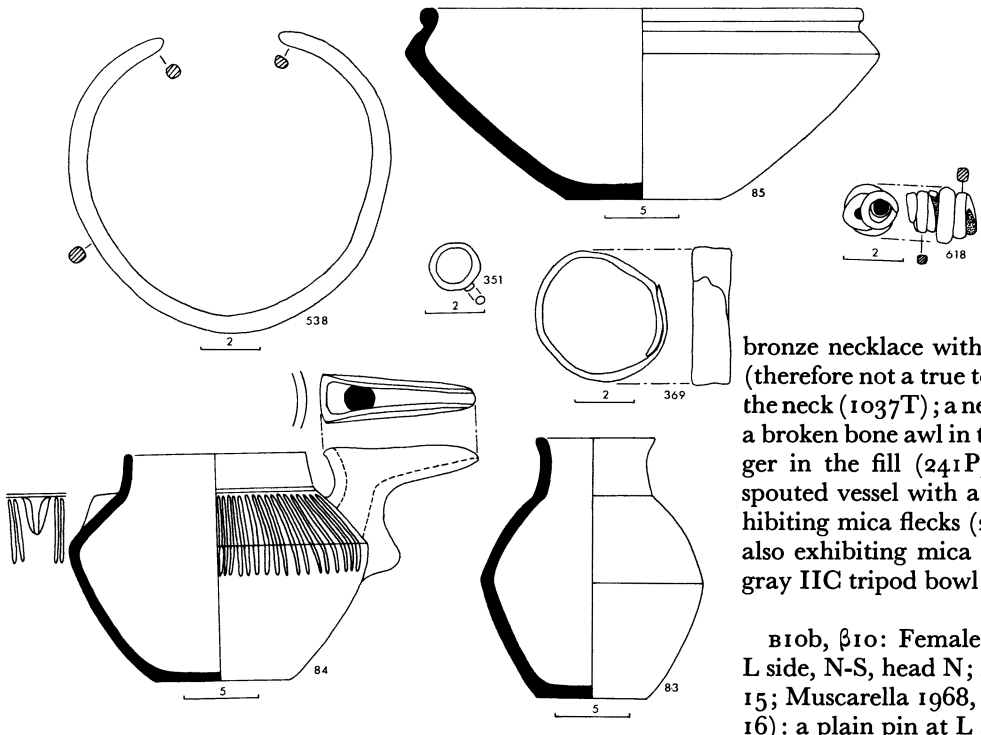
FIGURE 12



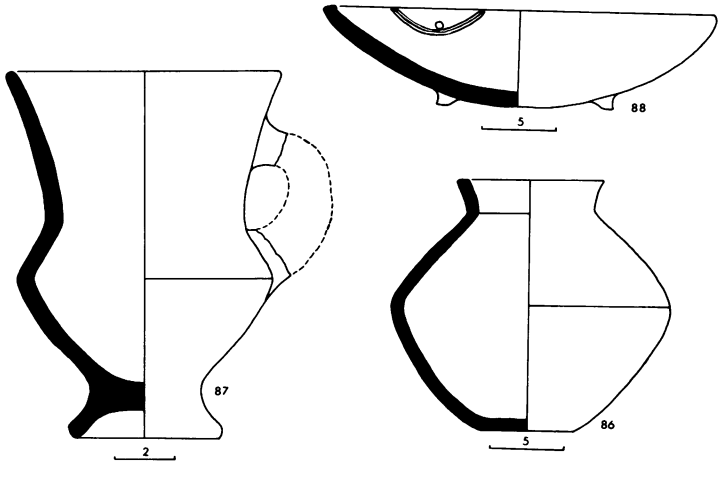
which were broken (982D), resting on a gray burnished jar (952D), at the forehead; at the feet, a buff smoothed carinated bowl (871D) and a gray burnished goblet (717T).

B9b, β11: Child, flexed on L side, N-S, head N; in brick tomb with projecting arms (Figure 2; Levine 1971, p. 40, top); the fill in the grave was packed in very hard. Furniture (Figure 13): a plain flat band bracelet with overlapping ends (369P); a plain round bracelet with overlapping tapered ends on R wrist (319D), two on L (320P; like Figure 7, 532); two plain loop earrings (?) (351D); a bronze spiral object (bead? pendant?) at the neck (618P); two plain flattened anklets with overlapping ends on L foot (311P), two on R (312D); a shell bead necklace (299P); and a plain torque (538T). Placed at the feet: a gray IIB spouted vessel decorated with ridges around the upper body (84T), an orange IIB carinated jar (83T), and an orange-red IIB bowl (85P).

B9b, β12: Child, inhumation, flexed on the back, N-S, head S (Muscarella 1968, p. 192, fig. 15). Furniture (Figure 13): a plain bracelet with overlapping ends (350D) on R wrist, the sole jewelry. Covering the head was a gray IIB tripod worm bowl with mica flecks, and one hole (88M; Muscarella 1968, p. 193, fig. 17, right), in which were three astragals; by the feet was a gray IIB



B 9b, burial 11



B 9b, burial 12

goblet, missing the handle (87P), and an orange IIB carinated jar (86T).

B9b, β16: Young adult, inhumation, flexed on R side, NE-SW, head S (Figure 2). Furniture (Figure 14): a plain round penannular bracelet on R wrist (300D); a bronze necklace with its hooked ends linked together (therefore not a true torque), with cloth impressions, at the neck (1037T); a necklace of paste disc beads (301P); a broken bone awl in the fill (242T); and a tanged dagger in the fill (241P). At the head was a gray IIB spouted vessel with a hatched design on the base, exhibiting mica flecks (269T), and a gray smoothed jar, also exhibiting mica flecks (949D); at the feet was a gray IIC tripod bowl with two holes (359T).

B10b, β10: Female, mature adult, flexed tightly on L side, N-S, head N; in horizontal brick tomb (Figure 15; Muscarella 1968, p. 189, fig. 2). Furniture (Figure 16): a plain pin at L and R shoulder (138P, 137T); a pin, square in section, with the top twisted into a loop, at R shoulder (200P); a needle at the chest (198T); plain loop penannular earrings (148T); a flattened ring with tapering, overlapping ends on R hand (199P); fifty small round paste and bronze beads at the neck (896T). Clustered at the feet: a gray IIB-C spouted vessel (234P), a gray burnished carinated jar (939P), and a broken red-slipped worm bowl with two holes (357P); animal bones were found in the bowl.

FIGURE 13

OPPOSITE:
FIGURE 14

FIGURE 15
B10b, burial 10

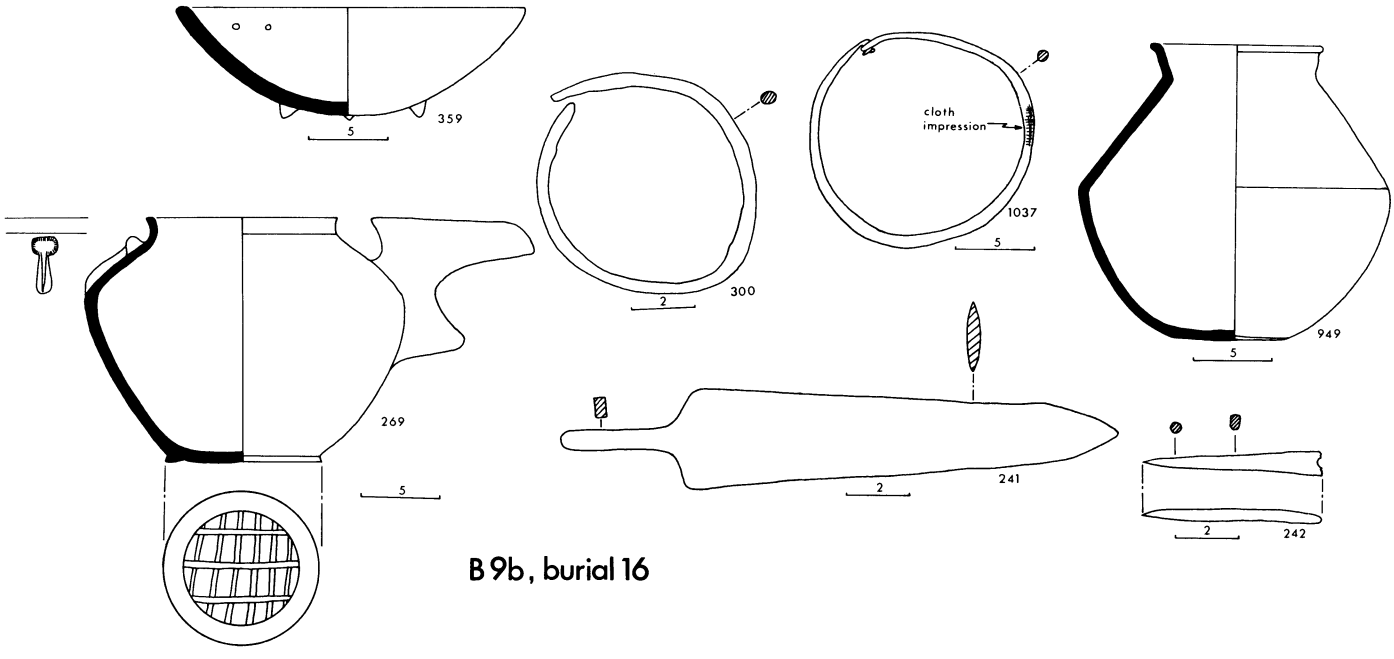


FIGURE 16

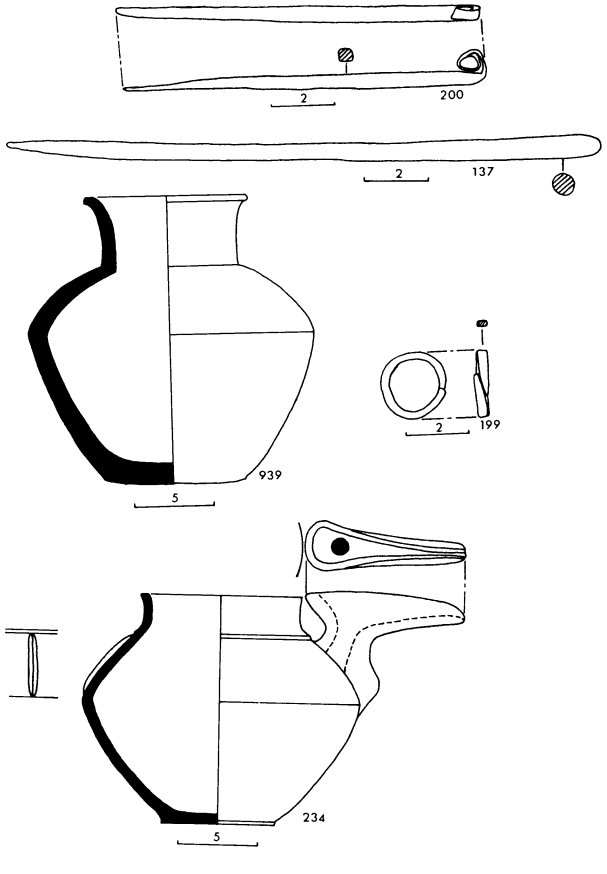
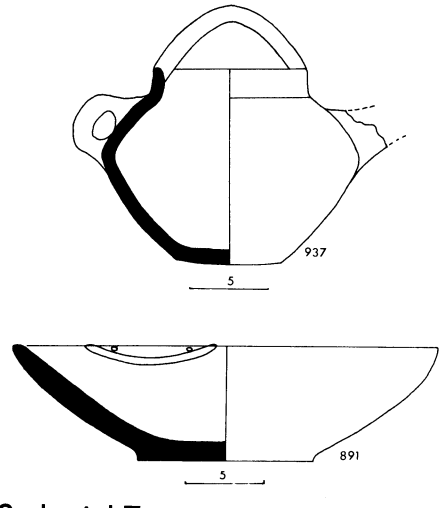


FIGURE 17



B8e, β7: Both the brick tomb and skeleton were disturbed. Furniture (Figure 17): an orange matt basket-handled teapot with a broken spout (937T), and a buff IIC worm bowl with two handles and two holes (891D). Only these two vessels were found.

DINKHA III AND HASANLU V

Not enough material from Hasanlu V has yet been published to permit a comprehensive comparison of the material from both sites. As more Hasanlu material becomes available we will no doubt recognize more parallels and connections than are given here.

The sites are about fifteen miles apart, separated by ridges, but with no impediments to travelers from one site to the other. That travelers, merchants, and perhaps potters and other craftsmen did indeed travel freely and often back and forth is documented by the obvious strong ties between the sites, evidenced by the material culture that was basically the same in many cases, and very close in others (Muscarella 1968, pp. 189, 194). And not only does this closeness obtain in the Iron I period, but, as will be seen, it continued throughout the succeeding Iron II period. Differences did in fact exist, but collectively they cannot alter the suggestion that there was a basic identity of culture at Hasanlu and Dinkha.

BURIALS: Both at Hasanlu and at Dinkha the dead were usually buried in an extramural cemetery in a flexed position with no special orientation. Similar types of pottery, bronze jewelry, and parts of animals for food were deposited in the graves (Dyson 1965, p. 196; 1967, p. 2957; Stein 1940, pp. 397–404). At Dinkha, however, some of the burials were placed in mud-brick tombs, a feature not recorded at Hasanlu, where simple inhumations were the rule. Also, seven of the Dinkha III burials contained torques; at Hasanlu only some Period IV graves contained torques; none were found in Period V.

At least one Hasanlu V burial contained a skeleton that held a vessel in its hand (Stein 1940, p. 402); one burial at Dinkha (Muscarella 1968, p. 192, fig. 15) held a bowl that was placed on its chest.

POTTERY: The Hasanlu V wares were characterized by burnished or smoothed gray and buff surfaces, including red-slipped pottery; but whereas at Hasanlu (in both Periods IV and V) buff surfaces predominated over gray by about 60 percent to 40 percent, at Dinkha III gray surfaces predominated (see above; compare Dinkha II below; Dyson 1965, p. 198; Young 1965, pp. 55, 57; Stein 1940, pp. 401–402). Rare examples of patterned burnished vessels occur at Hasanlu V, but do not occur in the graves of Dinkha III (two such sherds were found in the fill of the lowest Iron Age trash).

Painted pottery was rare at Hasanlu V but occurs in the form of black or red-brown bands on a buff ground (Dyson 1964a, pp. 36–37, fig. 3:3, 6; Young 1965, pp. 55, 57, 67, fig. 8, 70 ff.; these seem to be rare examples of continuity from the Bronze Age). A remarkable and close parallel to the only painted vessel found at Dinkha (Figures 3, 5), was excavated by Stein at Hasanlu in a Period V burial (Stein 1940, p. 401, fig. 110, pls. XXIV, 3, XXXI, 8), neatly adding to the evidence for strong contacts between the sites.

Bridgeless spouted vessels, pedestal-base goblets, worm bowls, jars, and carinated bowls are all recorded at Hasanlu (Dyson 1962, p. 5, fig. 4; 1964a, pp. 36–39, fig. 3; 1965, pp. 195–196, fig. 17; Young 1965, pp. 57, 70–72, 67, fig. 8). But whereas at Hasanlu V no spouted vessels are reported from burials—they occur only on the mound—at Dinkha they were found in burials. Dyson (1965 p. 196) originally suggested that the presence of spouted vessels in Hasanlu IV graves, and also at Geoy Tepe, was a late development; the Dinkha evidence contradicts this suggestion as a general rule.

At least one example of a bowl with a eye/horn motif seen in Figure 6, and at least one example of a basket-handled teapot, both unpublished (but see Stein 1940, pl. XXIV, 1), occur at Hasanlu V. But bowls with vertically pierced handles, jars with one handle, and cups like those found in Hasanlu V (Dyson 1965, fig. 13; Young 1965, pp. 72–73, fig. 11), do not occur in the Dinkha graves.

JEWELRY: The types of pins, bracelets, anklets, etc., from Hasanlu have yet to be published. We can state, however, that torques were not found in the Hasanlu V graves and that a few toggle pins were found (Dyson 1968a, p. 23).

Two Dinkha graves contained bronze buttons or studs that belonged originally to a headband, diadem, or cap (Figure 9). At Hasanlu a Period V burial (VIF, β8) contained a plain bronze band, curved to fit the head and pierced at both ends, presumably for attachment to another, perishable, material. Headbands were also reported from Period IV graves at Hasanlu.

The gold earrings from B9a, β26 (Figure 7) are similar to gold earrings found in Hasanlu IV's Burnt Building II, attached to an ivory statuette fragment (Muscarella 1966, pp. 134–135, fig. 36). This earring has the

cluster of hollow gold balls, but placed under a button-like form attached to a twisted gold wire. Another gold earring, consisting of hollow carinated balls in a pyramid cluster, and attached to a loop, was found at Hasanlu in 1947 (Rad, Hakemi 1950, fig. 90b). This earring is more elaborate than, but related in form to, the Dinkha earrings.

WEAPONS: Four of the Dinkha III burials contained weapons, a spear and four tanged daggers in all. In the same Period V burial at Hasanlu that contained the painted jar, Stein (1940, p. 402, pl. XXVI, 2) found a bronze spear; and Dyson (1964a, pp. 34–35, fig. 2:1) published a bronze dagger with a lappet-flanged hilt (57–129) that came from a Period V burial.

As stated above, iron was not found in any Period III burial. At Hasanlu only one iron ring was found in a Period V context (Dyson 1964a, p. 39; 1965, p. 196; 1967, p. 2957).

Two Dinkha III burials each had among the grave goods three astragals placed in a bowl. Were they from meat, or were they game pieces? There is certain evidence in Period II at Dinkha that astragal game pieces were placed in tombs (see below), but it seems to me that in these cases the astragals were probably simply the remains of meat placed as food in bowls.

DINKHA III AND OTHER IRON I SITES

SOLDUZ: Several mounds surveyed in the vicinity of Hasanlu are reported to have Iron Age gray ware (Dyson 1965, p. 196), but it is not certain if they belong to both the Iron I and II periods (Young 1967, p. 22, note 70). One of these sites, the late neolithic or chalcolithic mound of Dalma Tepe, just south of Hasanlu, had a number of Iron I burials deposited in its upper level. One grave, Operation IV, β2, contained a gray pedestal-base goblet (MMA 62.173.9; Young 1962, pp. 707–708, fig. 8), but little more can be said at present than that an Iron I extramural cemetery existed here and that there may have been a settlement somewhere in the vicinity.

In 1968 at Hajji Firuz, a neolithic mound southeast of Hasanlu, an Iron I inhumation of an adult was found (unpublished). The arms and legs were flexed, and the body was oriented NNW-SSE, head NNW. The grave contained all the classic diagnostic pottery of the period: a bridgeless spouted vessel, a worm bowl, and a goblet (information from Mary M. Voigt). It will be remembered that none of the Iron I burials at Dinkha (or at Hasanlu) contained all three diagnostic vessels together (but see Geoy Tepe, below).

GEOY TEPE: The B period, in particular the contents of a single tomb, Tomb K, represents the sole published evidence for an Iron I occupation here (Burton-Brown 1951, pp. 141 ff., figs. 28, 29, 32, 34; Dyson 1965, p. 196, fig. 2; Young 1965, pp. 70–72, fig. 11, p. 78). Recent tests made at the site indicate that Iron I trash deposits occur; thus evidence of occupation from that period exists although never extensively excavated (personal communication from Robert H. Dyson, Jr.). Geoy Tepe B shares with Dinkha III the bridgeless spouted vessel, the goblet, and the worm bowl, all found together; in addition, there are toggle pins very close to those at Dinkha (Figure 11, 326), and tomb architecture, albeit not bricks but stone (compare Dinkha II).

HAFTAVAN: Here settlement on the mound seems to be indicated along with an extramural cemetery just below the citadel, as at Hasanlu. In the settlement area were found bridgeless spouted vessels and worm bowls; and a spouted vessel and a cup were found in an inhumation burial (Burney 1970, p. 170, figs. 8:1, 7, pl. III; 1973, pp. 155, 162–164; Burney-Lang 1972, fig. 40). No more data are presently available.

YANIK TEPE: No settlement occupation was found, but a cemetery at the foot of the west side of the mound was located. Here eight Iron I burials were excavated, of which only one has been published, A6 (Burney 1962, pp. 136, 146–147, pl. XLIV, figs. 24–29). The flexed bodies have no particular orientation and were placed on the left or right side; the graves were "sometimes lined with mud brick," a feature at present recognized in the Iron Age to my knowledge only at Dinkha. No spouted vessel occurs in A6, but a vessel with a vertical loop handle, similar to the Iron I goblets, was a clue to the grave's approximate date; this burial may belong to a late stage of Iron I.

A burial from Trench P, in which were found toggle pins and a painted jar, along with two hand-made vessels, was dated to the Iron I period, about 1000 B.C. (Burney 1964, p. 60, pl. XV, 14–19); this date is not certain, but if correct, the grave is then surely of the Iron II period. Toggle pins, for example, occur in the Bronze Age and throughout the Iron Age.

TASHTEPE: Dyson (1965, p. 196) referred to Iron I pottery from Tashtepe based on Ghirshman's claim (1954, pp. 61–62) that gray wares similar to those from Giyan were found there on survey. These sherds remain unpublished and therefore prevent independent acceptance of Ghirshman's statement (compare Young 1967, p. 22, note 70).

KHURVIN: This site was plundered by local inhabitants and only a few graves were excavated by vanden Berghe (1964, pp. 6 ff.). The graves are not of Iron I date (Dyson 1965, pp. 196, 206) although a particular type of bridgeless spouted vessel of late type is common; Goff Meade (1968, p. 125, note 50)[7] dated the burials to Iron II based on analogies with Sialk B. True Iron I vessels said to be from Khurvin, but without archaeological contexts, exist in private collections (vanden Berghe 1959, pp. 123–124, pl. 153, and p. 124, pl. 158 for Chandar; 1964, passim; Ghirshman 1964, figs. 15, 16); others are from controlled field surveys (Young 1965, fig. 9). The bridgeless spouted vessel of Iron I type, goblets, bowls on tripods—similar to worm bowls, but without the worm—are part of the repertory. Also reported are familiar bronze torques, tanged swords, needles, toggle, incised, and plain pins, and pins with curled tops (vanden Berghe 1964, pls. IV, XIV, XV, XXIII, XXVI, XXXIV, XXXIX, XLI, XLIII). While we cannot control the information enough to actually know if this metal material is Iron I rather than later, given the material itself and the pottery configuration, it is quite possible that part of it, at least, is early (Moorey 1971, p. 25; for pins and needles, pp. 172–215).

Vanden Berghe also relates (1964, p. 3) that the burials were all inhumations without any particular orientation; presumably he is talking about the burials he excavated, but he implies that he is also discussing those burials dug by the local inhabitants.

MARLIK: Without doubt some of the Marlik tombs belong to the second millennium B.C. while others must be later (Muscarella 1972, pp. 42–43). Bridgeless spouted vessels in metal and pottery, as well as toggle pins and tanged swords, are attested there (Negahban 1964, figs. 25, 29, 41, 108, 121, 135). Two published gold earrings are not dissimilar to the clustered hollow balls on examples from Hasanlu and Dinkha.

KIZILVANK: Bichrome vessels closely paralleling the Hasanlu V and Dinkha III painted vessels discussed above were excavated here (Schaeffer 1948, p. 500, fig. 270; Muscarella 1968, p. 194). Moreover, aside from the specific paint parallels, two of the bridgeless spouted vessels have a short spout, one has a rather narrow mouth, and both have a straight interior wall on the vertical spout, all features in evidence on the vessel from B9a, β24 (Figure 6). A goblet from the site is similar to those of Iron I type, but it has a flat base. Schaeffer (1948, p. 500) dated these vessels on typological grounds to between 1350 and 1200 B.C. Monochrome red and gray pottery of the Early Iron Age, bronze daggers similar to those from Dinkha III, and a flanged dagger of Iron I type are reported from the site (Burney-Lang 1972, p. 169, fig. 43a, b; compare Dyson 1964a, figs. 1:5, 2:1, and p. 34).

SIALK A: Moving to the south, to central western Iran, we see that the Iron Age culture extended as far southeast as Sialk and as far south as northern Luristan (Goff Meade 1968, pp. 127–132; compare Dyson 1968a, p. 25, for a similar situation existing in the Late Bronze Age).

The necropolis of Sialk VI, Necropole A, provides the relevant information (Young 1965, pp. 61–62, 73, fig. 11). Here only an extramural cemetery is available for study. Some Iron I vessels, however, do come from limited excavation on the South Hill, where we are also told related architecture was cleared (Ghirshman 1939, p. 11).

The skeletons were flexed in single burials, with no particular orientation, except that most of the heads pointed north, as at Dinkha. The pottery covers the range of familiar Iron I wares and shapes (Young 1965, pp. 61–62; Dyson 1965, p. 195). The clothed dead wore bracelets, pins, rings, and at least one needle was found. One tomb contained gold; another, probably late (see also Moorey 1971, p. 316), an iron tanged dagger and an iron point, along with bronze weapons (Ghirshman 1939, pl. XXXIX). Note that Young (1965, p. 62) suggests that Necropole A lasted a long time.

GIYAN: Young (1965, pp. 62 ff.) has reorganized the subdivision for Giyan I, a system accepted by Dyson (1965, p. 195, note 5). At Giyan we have basically a

7. Claire Goff (Meade) considers the unbridged spout with curled ornament to be late Iron II, eighth century B.C. (1968, pp. 115, note 17, p. 121), while Dyson considers it to be Iron III, eighth century B.C. (1965, p. 206, fig. 11), and Young (1965, p. 73, fig. 11) lists it as Iron I. The evidence from Sialk B suggests that it was in use in the eighth century.

cemetery with no definite related settlement—except it is possible that Construction A may be contemporary to some of the burials, but this is by no means certain (Young 1965, p. 66). Graves of Giyan I^4–I^2 are the ones of concern to us.

These graves are simple flexed inhumations with no apparent orientation. Except for one bridgeless spouted vessel of a type also found at Sialk B and at Khurvin, and which may be later than Iron I, the shape is not represented at Giyan (see note 7). The pedestal-base goblet is fairly common, however, especially in I^4 and I^3. The dead were buried with bronze pins, needles, bracelets and anklets, and occasionally with a tanged dagger, in one case (late?) iron. One skeleton wore a headband of bronze loops, and a single cylinder seal was found (Contenau, Ghirshman 1935, pp. 23, 26, pls. 14, 18). Another seal, of Mitannian type, was found low in Construction A and could have come from a tomb.

GODIN: Three isolated burials containing Iron I material, but with no relationship to any settlement on the adjacent Godin mound, were discovered in a Bronze Age cemetery (Young 1969, p. 19, figs. 24, 25). They are all simple flexed inhumations, oriented E-W, on their R or L sides, facing N or S. Each grave contained a typical Iron I goblet. One grave contained a ring and two pins; another a bracelet and a bronze cup; the third an arrow and a sword with an open crescent handle. Two skeletons held vessels in their hands (compare p. 48 above).

Interestingly, each of the goblets is slightly different in base type and outline, which does not necessarily signify that they were deposited over a long period of time. It should also be noted that several toggle pins with decorated tops from a Godin III, Bronze Age, burial (Young 1969, fig. 30) are quite similar to an early example from Dinkha (Figure 3, 473).

TEPE GURAN: In an occupational context of Level VII, the latest settlement at Guran, a bridgeless spouted vessel with a handle (unlike Dinkha) was excavated (Thrane 1964, pp. 122, 123–124, figs. 23, 24; 1965, pp. 158–159, note 6). Cut into this level, and therefore later, was grave 4, which contained a bronze spouted vessel of a type similar to those from Hasanlu IV and Sialk B (Thrane 1964, p. 129, figs. 30, 31; 1965, pp. 158–159, note 6; Moorey 1971, pp, 276–280). Thrane, nevertheless, dates Level VII to the Sialk B period, that is, to the early first millennium B.C. (also Thrane 1970, p. 31, 850–750 B.C.; Moorey 1971, p. 21).[8] It would seem that the stratigraphically later grave 4 is Iron II in date, and that Level VII may belong to the Iron I period.

A word should be said about the ram's head bead from B9a, β24 (Figure 6, note 5; Muscarella 1968, p. 194, fig. 19). Similar "frit" and "glass" beads were found at Nuzi (Starr 1939, pl. 120), Alalakh (Woolley 1955, pl. LXVIII), and al-Rimah (Carter 1965, p. 51), all approximately mid-second millennium B.C. in date. Perhaps we may consider the Dinkha bead an import from Mesopotamia.

It is also of some interest to note here that brick-lined burials have been excavated in southeastern Iran at Shahr-i-Sokhta (R. Biscione et al., *Iran*, XI, 1973, p. 204, pl. XIb), dating to the mid-third millennium B.C.

From the foregoing summary we see clearly that Dinkha III has its closest ties with Hasanlu V. The pottery and pins from Tomb K at Geoy Tepe, albeit evidence from one tomb, suggest close ties between Hasanlu and Dinkha and the western shores of Lake Rezaiyeh.[9] The same characteristic vessels occur still further north at Haftavan, demonstrating that the culture extended to the northern part of the lake (Young 1967, p. 22, for information that no Iron I wares have been found north of Lake Rezaiyeh).[10] That it also existed, or at least was known, on the eastern shore is documented by the finds from Yanik Tepe. However, the little information published to date from this site makes it impossible to evaluate how strong the ties were between the Yanik area and the southern Urmia basin (compare Burney, Lang 1972, p. 117). One must keep in mind the perhaps significant fact that Yanik is the only Iron I site other than Dinkha where brick tombs exist.

Marlik, further east, seems to be in part a contemporary culture with some ties to the west. But without doubt, Marlik remains a unique and individual center

8. Moorey inadvertently placed the bridgeless spouted vessel from Thrane 1964, fig. 24, in Grave 4 (Moorey 1971, p. 21); in fact, it was found in situ in Level VII (Thrane 1964, pp. 122–131, figs. 23, 25; 1965, p. 159, note 6; 1970, p. 31, fig. at top). As stated in the text, Grave 4 is related to Sialk B material and is later than Level VII, making the latter possibly pre-ninth–eighth century B.C., probably Iron I as argued here.

9. The only anomaly at Geoy Tepe is the use of a multiple burial, whether or not we interpret it as a one-time deposition or a result of continued use.

10. Note that a single nipple-base goblet of Iron I type is said to have been found at Toprakkale; H. Th. Bossert, *Altanatolien* (Berlin, 1942) fig. 1201.

(Moorey 1971, pp. 23–24; Dyson 1965, p. 211). Future publication of the tombs and contents should give us more information about the beginning and terminal dates of the tombs.

An Iron I settlement with fairly close ties to the Urmia basin must have existed close to the Khurvin-Chandar cemeteries. Of interest, aside from the pottery and metal ties with the northwest, is the occurrence of bronze torques. As stated, we do not know if they are Iron I or II, but the former is not excluded (Moorey 1971, p. 229). The occurrence of torques in burials is a continuation of an earlier widespread custom (Schaeffer 1948, p. 111, figs. 53, 56, 58, 59, 134, 194, 544, pls. XV, XVI; 1949, pp. 49–120 with reference to the Near East and Europe; Moorey 1971, pp. 229–230), one that continued into the early first millennium at Dinkha II and Hasanlu IV and still later into the Achaemenid period.[11] Besides its use at Dinkha III and II, Khurvin, and Hasanlu IV, the torque was used in Luristan (Godard 1931, pl. XXVI, 78, 80), at Sialk B, and in the Caucasus and Talish regions (Schaeffer 1948, figs. 254, 298, 301; Hančar 1934, p. 97; Godard 1931, p. 64, fig. 34; Barnett 1967, pp. 177, 174, fig. 27:3; Herzfeld 1941, p. 146, pl. XXX, says some were found at Giyan). We do not really know if the torque was first used in the Talish area, or in the Urmia basin area—whence it could then have moved north and south—or whether the Khurvin examples are contemporary to those at Dinkha, having been a basic element in the Iron I culture from the first years of settlement in Iran.

The painted pottery from Kizilvank is difficult to evaluate. One asks: does this site represent the first stage of the new Iron Age in its incipient phase, thus affording us a clue about the area of origin (see Burney, Lang 1972, p. 116), or was it a backwater, being later than, or even contemporary with, the Iron I culture to the south? It is preferable to leave the questions unanswered at this stage.

The people in the central plateau, at Sialk, Giyan, and Godin, had similar burial practices and included artifacts in their graves similar to those found further north. Tombs at Sialk and Giyan contained tanged daggers of the same type found at Dinkha. But they also occur later at Sialk B (Ghirshman 1939, pls. L, LVII, LXVIII; Moorey 1971, pp. 66–68 for a late dating for some examples). In the north this tanged dagger is clearly earlier than examples with cast hilts.

Finally, we have the three graves from Godin. One wonders if they are in fact isolated and were deposited by a people on the move (as Young 1969, p. 19), or whether there are other burials at Godin still unexcavated that might perhaps indicate a nearby settlement, or more intense use of the area. Without any more information at hand the graves offer us merely a tantalizing glimpse, rather than a substantial view, of the Iron I period at Godin.

It has been stated many times that the Iron I culture represents a new phenomenon in western Iran, a major break with the past and a new age. The information available from the Dinkha excavations reinforces this conclusion both from stratigraphical and cultural evidence. There is a definite break, a hiatus, after the termination of the last Bronze Age settlement. A build-up of debris and erosion material covered this destroyed settlement, creating a hard-packed, easily distinguishable stratum. Ash layers, debris, and erosion material, containing Iron I sherds, coming from the southeast, and thinning at the north, were laid down. It was into these layers that the first Iron Age graves were deposited (Figures 18, 19, 20). Perhaps these Iron Age layers came from the earliest Iron Age occupancy of the mound, from a time before the primary use of the area as a cemetery (it will be recalled that one of the earliest burials came from a test trench in grid L to the west, TT VII, β2). In any event, trash and ashes continued to be deposited during the Iron I and II periods.

Culturally the break is equally clear and dramatic, notably in the pottery and in the burial customs, where single inhumations in an extramural cemetery replace

11. See note 5. Burton-Brown 1951, p. 6, note 5, Schaeffer 1948, p. 544, note 1, and Schaeffer 1949, p. 109, refer to heavy bronze torques from Geoy Tepe and Iranian Azerbaijan, based on a report from C. C. Lehmann-Haupt. These objects cannot be the same objects we call torques that were found at Dinkha and Hasanlu. Ghirshman 1964, p. 113, fig. 148, following Godard, refers to a gold fragment allegedly from Ziwiye as a torque, but this is not certain. For Achaemenian torques see J. de Morgan, "Découverte d'une Sépulture Achéménide à Suse," *MDP* VIII (Paris, 1905) pp. 43–44, pl. IV; E. L. B. Terrace, "Sumptuary Arts of Ancient Persia," *Boston Museum of Fine Arts Bulletin* 13 (1965) p. 27, with references; see also Schmidt 1970, pp. 111–116, and my comments in a review of Schmidt in *AJA* 75 (1971) p. 444. Note that a torque with twisted ends, similar to Figure 32, B9a, β14, 1040, seems to be worn by a youth on a relief from Marash: E. Akurgal, *The Art of Greece* (New York, 1968) pl. 29.

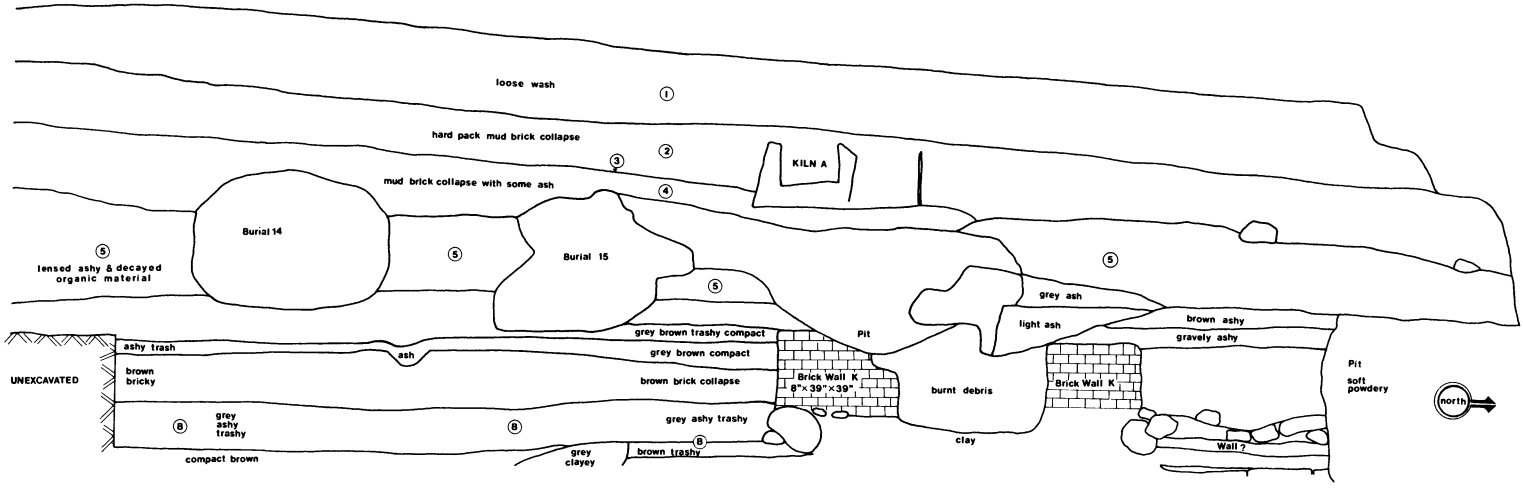
FIGURE 18
East section, B9b; B10b in background

FIGURE 19
East section, B10a. The Urartian site of Qalatgah is faintly visible at the base of the distant hills

intramural multiple burials. That this new culture represents a "shifting of population," to quote Dyson, and that it represents at the same time a "cultural uniformity," pointing to a "common origin for the Iron I cultures," to quote Young, is beyond dispute. Indeed, all the bricks are not yet available for archaeologists to build a fine structure of full understanding about the nature of the historical events leading to the change. But further excavations, conducted scientifically, will continue to supply the necessary information and slowly put into focus the picture we all seek.[12]

12. Excavations by the Archaeological Service of Iran at Gheytareh, north of Teheran, have yielded a cemetery of Iron Age date: K. Fard, "Fouilles dans les Tombes ancien de Gheytareh," *Bastan Chenassi va Honar-e Iran* 2 (1969) pp. 26–30. A pedestal-base goblet of Iron I type, said to come from Kalé Dasht, near Saveh, southwest of Teheran, is in the Teheran Museum, no. 872.

FIGURE 20



B 10a West Section
L.D.L

An item of some importance is the fact that at Dinkha we have been able to isolate a few burials and their contents that are of the early Iron I period. At Hasanlu, aside from the polychrome vessel excavated by Stein, we have no recognizable early material. Thus, although it would be rash at present to conclude that the Iron I period began earlier at Dinkha (we still do not know what is in the unexcavated ground at Hasanlu and at other unexcavated local mounds) we can at least illustrate the earliest excavated Iron I material there.

As sharp as the break was with the past, it seems almost certain that the Iron I people had some knowledge of the earlier cultures, probably from scattered pockets of survivors in the penetrated areas. The use of multiple burials at Geoy Tepe, and the use of toggle pins and painted wares (perhaps also of gray and red-slipped wares?), reflects a continuity with the past within Iran, even if not of major proportions.

CHRONOLOGY: A C^{14} sample from the terminal Bronze Age deposit gave a reading of 1435± 52 B.C. (P-1231, half-life of 5730 years; Dyson 1968a, p. 22). This gives us a rough terminus for the end of this settlement and an *ante quem non* date for the following Iron Age.

Three C^{14} charcoal samples exist for Dinkha III; each came from separate pits overlying the Bronze Age deposits, from the Iron Age fill. One gives a reading of 1146± 37 B.C. (P-1475); the second, stratigraphically earlier than the first, gives a reading of 1302± 57 B.C. (P-1474); and the third from a pit resting directly on the Bronze Age level, a reading of 1243± 37 B.C. (P-1449). These readings suggest a general date for the end of the Bronze Age in the fifteenth century B.C., and a range of about the late fourteenth to the late twelfth century for at least part of the overlying Iron Age I burials. They also suggest that the gap between the end of the Bronze Age and the beginning of the Iron Age may have been about one hundred years. To be sure, the pit samples do not necessarily date the earliest nor the latest Iron I burials. (Note that if the recently published MASCA correction dates for C^{14} readings prove to be stable, it will be necessary to push all the dates further back in time [Ralph et al. 1973, p. 11 and passim]. Thus, the end of the Bronze Age will have occurred about 1600 B.C., and the beginning of the Iron Age about 1500 B.C. And this correction factor would then change all the dates presented here by 100 or more years.)[13]

Dyson (1968a, p. 31) suggested "a working date of 1350± 50 B.C. for the beginning of the [Iron I] period," close to the date of 1300/1250 of Young (1965, p. 83; 1967, p. 12). This date, about 1350 B.C., is also proposed by Burney (Burney-Lang 1971, pp. 106, 113, 115–117; also Muscarella 1968, p. 196). Thus the tombs that I suggest are the earliest at Dinkha, B9a, β25 and VII, β2, would presumably have been deposited in the late fourteenth century B.C., at least close to 1300 B.C. Later than these would be burials B9a, β23, and 24, followed by B9a, β26, and 27, and perhaps we could accept a general thirteenth-century date for these in the order given. The other burials do not allow themselves to be defined more precisely and presumably span some centuries, if we can accept the fact that a certain conservatism obtained in the middle and later stages of the Iron I period.

The terminal date for the Iron I period can be determined at present only by reference to the large amount of data from Hasanlu. The evidence there suggests that in the eleventh century B.C. (or earlier, given the MASCA corrections) major developments occurred on the Hasanlu mound: the building of fortification walls and large structures, and an expansion of new pottery forms (Dyson 1965, pp. 197–199, 211; Dyson 1968a, pp. 31–32; Young 1965, p. 82; 1967, p. 24).

DINKHA II: ARCHITECTURE

Evidence for Iron II architecture was found in several areas of the mound: in the main cemetery area and in squares G9a–c.

The architecture in the main cemetery area consisted of three kilns and fragments of walls and rooms. The walls were much destroyed by stone gathering and

13. I use the standard C^{14} dates in the present report and, will continue to use them until more information and discussion on the MASCA corrections are available. If these corrections are eventually proven correct, the dating of the many Iron II objects from the destruction level at Hasanlu IV—the ivories, bronzes, the gold and silver bowls, not to mention the pottery and architecture—shifts dramatically from a late ninth- to a late tenth- or early ninth-century date, with important implications also for the dating of much material not from good archaeological contexts.

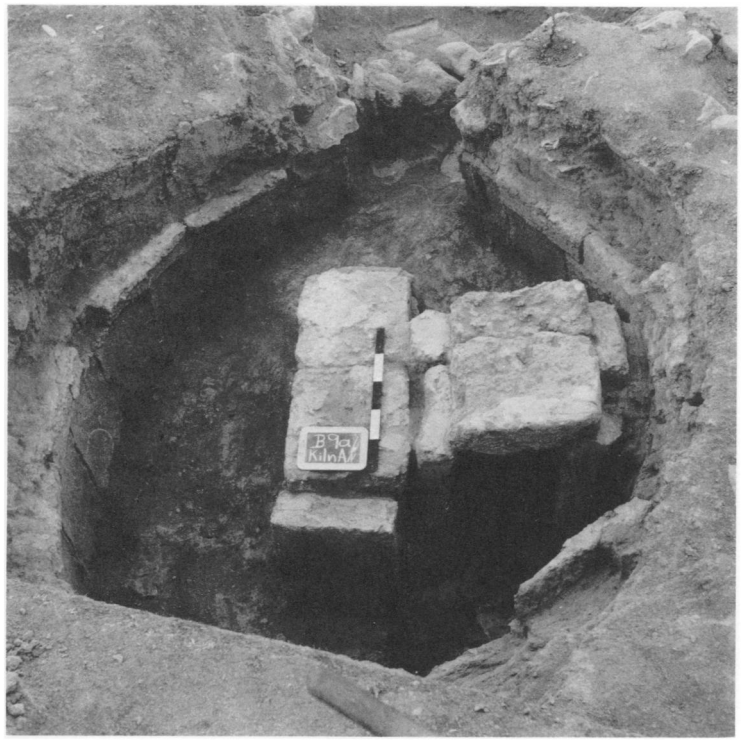
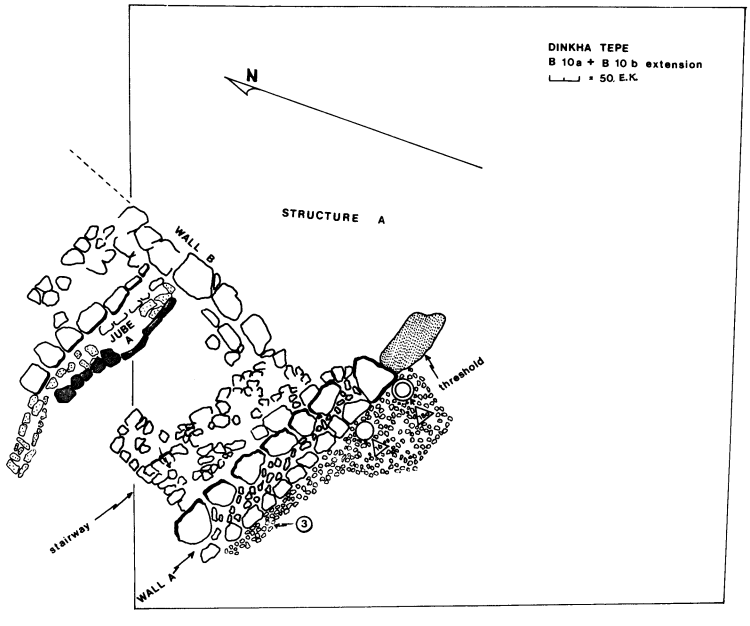


FIGURE 21
Kiln, B9a

FIGURE 22



burial activities and therefore no complete structure was preserved.

In square B9b one section of a wall was found under β17 (Dinkha II period, Figure 2), a fact that established the existence and abandonment of some structure here before the burial was deposited.

In square B9a in stratum 2, near the surface, a kiln was excavated (see below). It had evidently been cut into a stratum in which there were at least two structures; one, at the northeastern corner of the trench, enclosed by Walls A and B, the other at the northwestern part called Area 1. In the southwest area of the trench, and a level or two below these structures, was a single wall with a threshold preserved, called Wall C. It had been cut into by β4, which in section was seen to be partly under some stones from Wall B. Urn β5 was under the room area formed by Walls A and B, and urn β6 was under the kiln. The sequence here would appear to be: Wall C, followed by β4, and 5; then Walls A and B, and Area 1, and finally the kiln. Burials were found in all the strata of B9a, but it is not clear just what the relationship of the structures was to the use of the area as a cemetery, chronologically and culturally. It may be that structures not considered convenient for inclusion in a settlement area were built in the cemetery area. Fred Matson has suggested that the kilns were built here because they would have represented a fire hazard if they had been near a residential section (compare Stein 1940, p. 394, for a kiln near the Hasanlu cemetery; compare also the biblical Potter's Field, and the Athenian Kerameikos).

The kiln of stratum 2 was roughly oval in plan with a hard earth floor, over which was an ash layer, and a wall of vertical bricks set on edge (Figure 21); its entrance faced south. Within the chamber, originally domed, was a firing unit touching the east wall: a N-S wall of bricks (about .40 × .35 × .12 m.), made up of two rows of four bricks each laid flat and with an upright at each end, that abutted a small chamber of two upright bricks supporting a brick and a half, which forms the roof. Nothing was found inside the kiln.

Square B10a had two architectural features, a kiln and the remains of an interesting building called Structure A (Figure 22). The axis of Structure A was roughly N-S. Its S wall, A, extant length 5.5 m., consisted of large outer stones filled with smaller ones; the eastern-

most preserved stone was a threshold. To the south of Wall A was a pebble pavement, partly preserved, which was perhaps an outside area. On this pavement were found two buff IA pots (on the plan 16: 109D, 18a: 104D). Abutting Wall A at the north was a rubble packing in an L-shape that was obviously a stairway support. One meter further to the north of the stairway was a series of stones set on edge bordering a stone paved area, .35 to .50 m. in width, that in turn bordered another, wider, paved area of larger stones 1.30 m. in width. Another wall, B, bordered both the paved unit and the stairway at the east and joined Wall A; thus it separated the stairway-paved area from a room to the east that made use of the threshold of Wall A. The paved area seems to be a unit consisting of a jube (a water channel) set next to a narrow pavement, placed within a room—or court—that also contained a stairway to a second story. The juxtaposition of jubes and pavements exists at Hasanlu IV in the area just to the west of the fortification walls, in the northwest quadrant of the citadel area.

This structure was built and abandoned before the kiln was constructed. It seems also that some urn burials were deposited in the area after the abandonment. Stone tomb β15 is partly under the stone pavement at the south of the structure, but we cannot be certain that the tomb was earlier: it may have been later and the burial pit could have undercut the remains of the pavement.

FIGURE 23
Kiln, B10a

The kiln was dug into the fill of level 2, just below the top soil (Figure 23). In plan it was a rough oval built of clay and apparently originally domed. Its entrance on one of the long sides faced southwest. Within the chamber were two units, a lower chamber for firing, and an upper one for the pots, both now collapsed. In the center of the lower chamber was a pillar of three bricks with a single brick on end touching them; this helped to support the upper chamber. The floor of this upper chamber consisted of large bricks or slabs, one of which was found on edge, having slipped. Holes in the floor of the upper chamber were made to carry the heat to the pots.

Within the chambers was found a broken buff IA jar with three nipples on each side (107D), and inside the jar was a fragment of a plain bronze ring. On top of the collapse was a broken, buff spouted vessel (13T).

In square B7f, a small L-shaped trench, a third kiln was partly excavated. It too was very close to the surface and was exactly like the kiln in B9a, with a brick wall and similar firing chamber; it opened to the north, unlike the other two kilns, which opened to the south.

In squares G9a, b, and c, we excavated the poorly preserved remains of a large building; recent stone gathering and burial activity had badly denuded this part of the mound. The building as preserved consists of two rectangular rooms bordered at either end by smaller squarish rooms (Figure 24). The walls, 1.15 m. wide, are made of large stones on the outside faces with smaller stones used as filler, similar to the construction of Structure A in B10a. The brick superstructure was no longer extant but was made of sun-dried clay bricks, to judge by the wash adjoining the walls. The two excavated squarish rooms are the northern limits of the building and they are of uneven size; the easternmost one is about 3.60 × 3.75 m. (N-S × E-W); the western is about 3.60 × 3.20 m. There is definite evidence for the existence of a third room to the west, but very little of it has been excavated.

To the south a rectangular room about 7.40 × 3.70 m. was cleared; this is the eastern limit of the building. To its south is a partially cleared area that probably represents a squarish room, balancing the one to the north. The total excavated length of the eastern facade

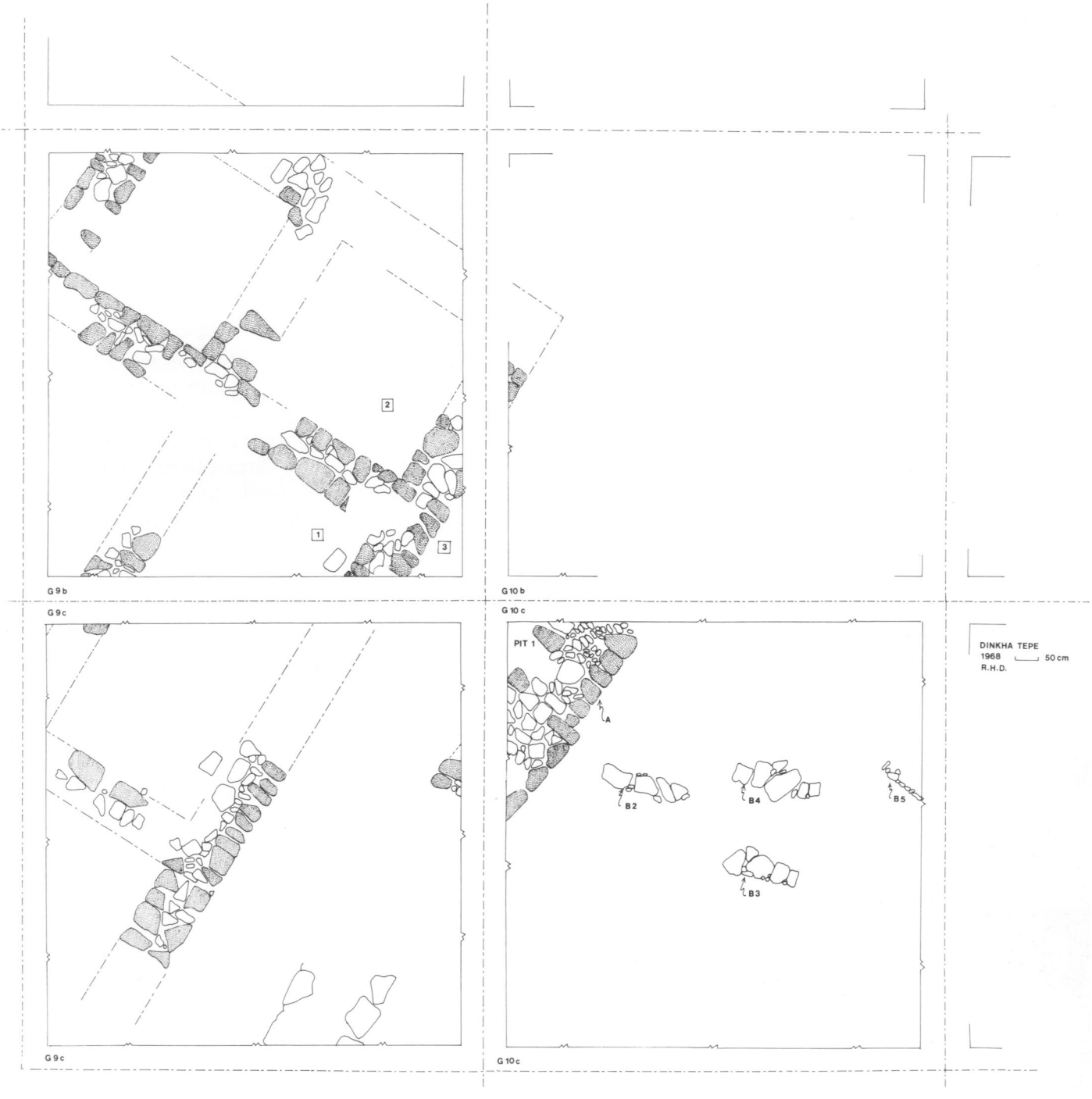


FIGURE 24
G9a, b, c; structure. Burials in G10c are apparently Islamic

is about eighteen m. To the west of the rectangular room is a partially cleared room that could be either another rectangular room, approximate in size to its neighbor, or a larger central room or hall. In the latter case we would expect a balancing rectangular room to the west, in the former case we would expect another rectangular room further west. Thus one could conceive a plan that included three rectangular rooms, bordered at north and south by smaller rooms, or a central hall bordered east and west by rectangular rooms, all bordered by side rooms. Unfortunately, too little was excavated to carry speculation further.

Exterior and interior doors are no longer extant but surely they must have existed. Floors were hard-packed earth, and no artifacts other than Iron II sherds were recovered; there was no evidence of burning.

Of special interest are the two flat stones, about 50 × 30 cm., preserved in situ set into the floor of the easternmost large room. The northern stone is about 75 cm. from the northern wall, and about 13 cm. from the eastern wall; the southern one is about 1.05 m. from the southern wall and about 13 cm. from the eastern wall. These stones clearly appear to be bases for now lost wooden posts. How many other bases originally existed in between the two extant ones is not certain, but there could not have been more than four or five stones as a total number. Was the whole room filled with "columns" at one time? It would seem from the narrow width that the answer is no, although this idea cannot be categorically ruled out. However, it seems easier to visualize a room with a series of posts set around the perimeter, posts that may have held a balcony. In this respect one may make a formal comparison to the posts in the Burnt Buildings at Hasanlu, there set flush against the walls (Young 1966, figs. 1, 2), but nevertheless probably serving the same function. Perhaps we may call the Dinkha building a manor, in the same sense that Claire Goff called the building excavated at Baba Jan in Luristan a manor. This building, slightly later in date than ours, had a columned rectangular room about twice the width as the room at Dinkha (Goff Meade 1968, pp. 112–115, figs. 4, 5; 1969, pp. 117–122, figs. 2–4). The Baba Jan manor's rectangular rooms were also flanked by smaller side rooms, and in plan is not altogether dissimilar to the Dinkha manor.

We may conclude that the Dinkha manor was more than eighteen meters north to south, and more than twelve meters east to west; that it contained at least nine rooms, that the walls were thick enough to hold a second story, and that one of the long rooms had posts or columns. In short, there is evidence for a major building in the Iron II period at Dinkha.

BURIALS

Sixty-eight burials of the Dinkha II period were excavated, of which nineteen were infant urn burials and will be discussed separately. The burials came mainly from the trenches cut in grid B, but a few were found in G10c and TT III to the south; none were found in B10B. Note that four burials exist that, because of inadequate evidence, could not be attributed to either Dinkha III or II; they are listed separately in Table III.

Twelve of the burials were inhumations, thirty-one were brick tombs, all of the three-sided type, and six (not seven as in Muscarella 1968, p. 189) were stone tombs. Continuing the earlier practice, a N-S orientation was preferred, bodies were placed on the back or sides, arms and legs were usually flexed. In two examples the skeletons had one arm flexed while the other was bent back to touch its own shoulder, a practice more common in the earlier period (Table II).

In the brick tombs the opening was generally to the W, and the body usually faced the wall, less so the opening or sky (Muscarella 1968, p. 190, figs. 5, 6; Figures 2, 29, 34, 38, 40). Four of the stone tombs opened to the E, one (B8e, β5) to the W (i.e., that is where the closing slab was placed); one (B8a, β1) had a large slab at the N and S. These tombs were rectangular in plan and constructed of irregular stones (Muscarella 1968, p. 189, figs. 13, 14; Figures 33, 34, 41, 42, 46). It seems that three walls, and a roof, composed of large stones, were constructed in place before the burial was sealed by a large slab with filler stones, thus creating a completely sealed chamber. Five of the tombs had a stone floor, the other (B10a, β6) a smoothed, hard-pack floor. Most of the bones in these tombs had disintegrated, leaving only a few fragments, or nothing at all. Presumably this destruction was caused by the collection of water in the chamber, water that drained slowly, and that occasionally froze and then thawed. In the

open burials drainage was faster and the skeletons were not damaged.

Single burials were the rule but four burials contained two skeletons each. One of these was a mother and infant (B8d, β1), another apparently a mother and child (B8e, β5II); technically, these could be classified as multiple burials. The two other burials were in stone tombs and contained adults (B8a, β1, B8e, β5I).

As in the earlier period, men, women, and children were buried in the same cemetery area, with no apparent difference in funeral rites or treatment of the corpse recognized with regard to age and sex—except that infants were sometimes buried in urns.

In two burials of old adults arthritic lipping of the vertebrae was noted (B10b, β7, β8), and in one burial, that of a child, a partially healed hole in the skull was detected (B10b, β3). One burial consisted of disarrayed bones and seems to represent a secondary burial (B10a, β13).

Burials were recognized as Dinkha II—Iron II in date sometimes by depth, more often by the nature of the contents. This often consisted of a bridged spouted vessel (both with and without handles, and with a "beard" projecting from the base of the spout), or a hydria (a medium-sized storage or water vessel with three handles). In addition to these classic shapes, the various jars, cups, carinated bowls, deep bowls with animal-head handles, and many metal objects, jewelry and weapons, many made of iron, and all well known to us from Hasanlu IV, made attribution fairly easy.

Thirteen of the burials did not have a spouted vessel, but in about eight of these attribution to Dinkha II could be made on the basis of other shapes. As was the case with Dinkha III burials, both complete and damaged pottery were considered as possessions adequate for the dead.

Gray and buff pottery continued to be used side by side. In this period, however, buff pottery predominated. The total number of vessels from Period II was two hundred and fifty-two: two hundred and twenty-nine from the burials, nineteen urns, two from the kiln, and two from Structure A. Of these, sixty-seven are gray and one hundred and eighty-five are buff (nineteen of these are the urns): the percentage of gray to buff is therefore about 27 to 73.

Among the gray pottery, burnished and smoothed surfaces are even, twenty-eight recorded for each, four are matt, and six were not recorded by surface treatment. Among the buff pottery fifty-five are smoothed, twenty-four burnished, sixty-nine (counting the urns) are matt, and ten are red-slipped; the rest were not recorded by surface treatment. (Thus, as in Period II, gray vessels were more likely to have been burnished than buff vessels.) In color, sixty-seven vessels are orange, six are red-orange, eleven are red; the rest were simply listed as buff.

In both the gray and buff pottery, common-ware paste, with few or no inclusions visible, predominated about two to one over medium-sized grit. Only two vessels were recorded as having mica flecks (Mica flecks exist not only in Dinkha IV and III, but also on the Iron III pottery from nearby Agrab Tepe, Muscarella 1973, p. 65).

The number of vessels associated with a burial varied from none (usually incompletely excavated burials) to twenty-six, the majority having four or five (Table II), and there appeared to be no special relationship between type of tomb, and age and sex, to numbers of vessels or grave goods. The only notable exception was that most of the stone tombs, but not all, were among the richest of the burials.

Thirty-seven burials contained some form of jewelry; torques were found in four burials. Seven burials contained weapons and only one burial contained horse bits. Jewelry and weapons were made from both iron and bronze, but the latter clearly predominates. A count [14] of the available inventory yields the fact that there are about one hundred and seventy-two bronze pieces of jewelry and eighty-one of iron, and among the weapons there are sixteen made of iron and three of bronze. Sheep/goat bones were commonly found in the burials, and it is possible that liquids were placed in some of the closed vessels.

We have seen that it was possible to isolate a few Dinkha III burials as having been deposited at an earlier stage than other burials of the same period. In a few cases this differentiation was also noted among the later Dinkha II burials. However, in these examples

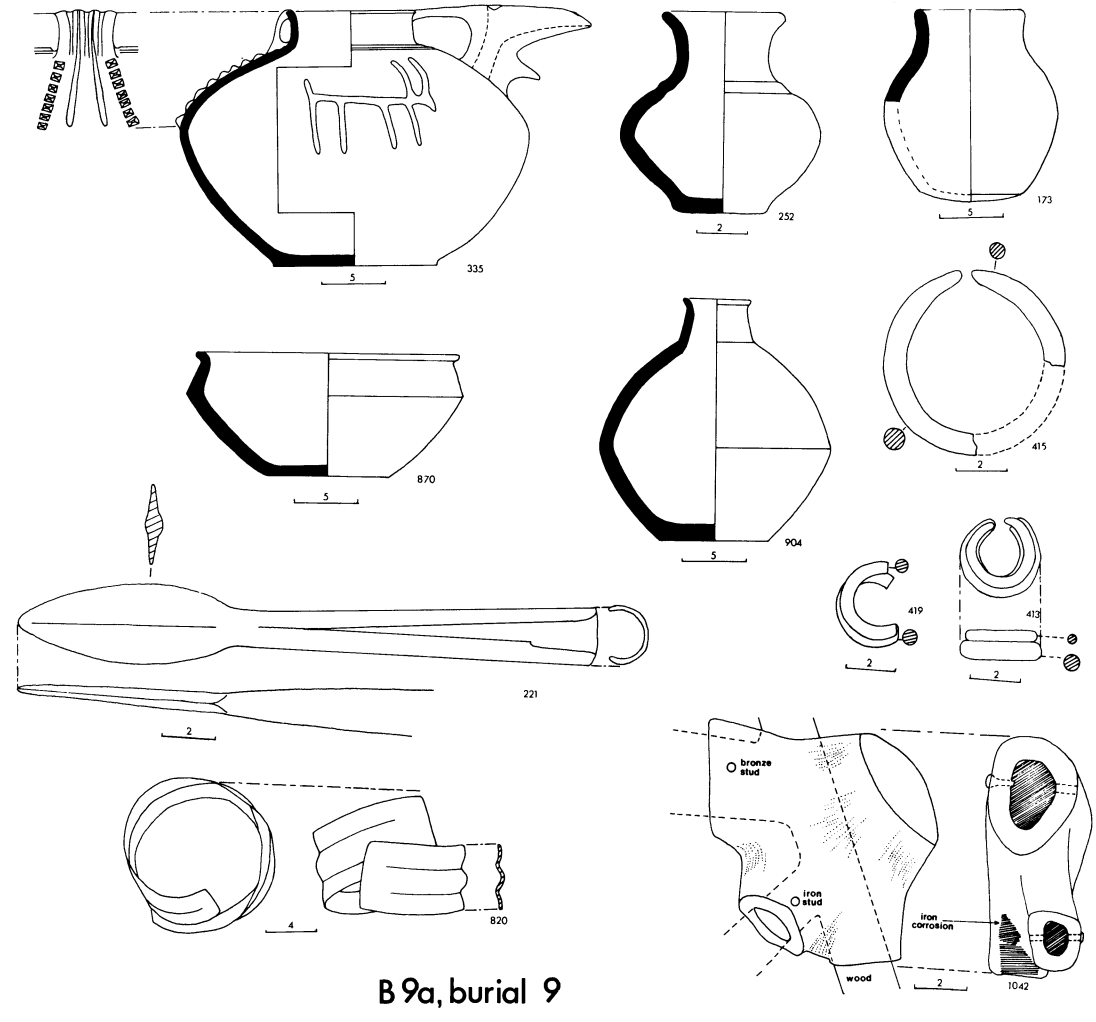
14. It was not possible to give the absolute number of metal objects; some had disintegrated and were not given catalog numbers, and in some cases "rings" in the inventory were given one number, while I counted them as two objects.

FIGURE 25
B9a, burial 9

the distinction was suspected primarily on the basis of relative depth and does not seem to have independent support on typological grounds. (Unidentified so far from both Hasanlu and Dinkha is a "transition" grave from Iron I to II.) These possible early graves include B9a, β9; B9b, β19; B10a, β16; and B10b, β11:

B9a, β9: Male, mature adult, flexed on back, E-W, head W; arms at sides touching pelvis; in brick tomb (Figure 25). Furniture (Figure 26): a plain round iron penannular bracelet, broken (415P), and a bronze corrugated band type with overlapping ends (820T) on R wrist; an iron and a bronze penannular ring, both plain (413P), and two plain iron ones, broken (419P), all on R hand; a plain corroded bronze pin (383T); also a necklace of carnelian, paste, and Egyptian blue beads at the neck (389P). A bronze spear with short, ovate blade was placed point up along the left side of the head so that the shaft crossed over the body (221P); and an antler ax with remains of the wood shaft along

FIGURE 26



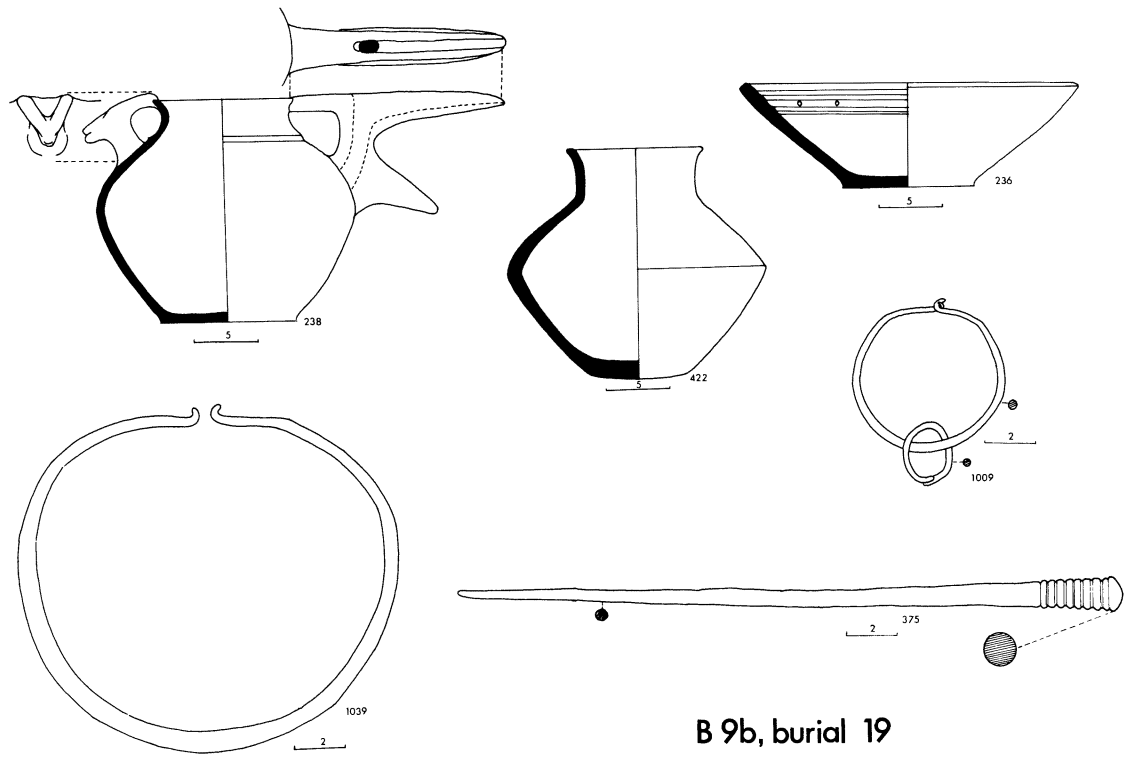


FIGURE 27

B 9b, burial 19

with a bronze and iron stud in situ (1042T) was placed next to the spear. A broken dark gray IIC spouted vessel, with a horned animal in relief on both sides (335T), resting on a stone, and a broken carinated orange IIA jar (904D), were found on the R side; a sharply carinated orange burnished bowl (870T) was at the head, and two jars one, buff IA (173D), the other orange IIB (252P), one with a sherd over its mouth, were placed at the R shoulder.

B9b, β19: Adult, flexed on L side, N-S, head N; in brick tomb. Furniture (Figure 27): two bronze pins with decorated grooved tops at the shoulder area (375P, 382P) a third on the chest (374T); two bronze earrings consisting of a large plain loop with connected hooked ends attached to a smaller loop (1009M, 1010T), a plain bronze ring with overlapping ends (352D), in the fill; a group of beads (394T), and a plain bronze torque with bent ends, at the neck (1039P). At the feet was an orange IIB spouted vessel with an animal-head handle (238M, Muscarella 1968, p. 190, fig. 9), and at the back was a red-orange IIB bowl with flaring sides and two holes set within grooves (236T), and an orange IIB jar (422T).

B10a, β16: Infant, flexed on L side, most of the bones missing; N-S, head N; in brick tomb partly destroyed by B10a, β6 (see below). Furniture (Figure 28): two round, coiled, and twisted bronze bracelets, very corroded (181T, 203T); a simple bronze torque on the neck (187T), along with some beads (439P). At the feet were a gray IIB basket-handled teapot with mica flecks, in fact, probably a milk bottle (224M, Muscarella 1968, p. 190, fig. 8), a gray IIB tripod bowl, with one foot missing (230T), and a small gray IIB jar, also with mica flecks (255D). (Note, in Muscarella 1968, p. 191, fig. 12, the caption should read that the vessels came from B10b, β16, not B10a.)

B10b, β11: Female, mature adult, extended on the back with the arms flexed across the chest; N-S, head N; in brick tomb (Figure 29). Furniture: a plain, blunt-topped, bronze pin at L shoulder (142P) and R (155T) (compare Figure 7, B9a, β26, 607, Dinkha III); a bronze pin with a hooked end at the R (154P) and a plain bronze pin (619T: like Figure 16, B10b, β10, 137, Dinkha III, and Figure 45, B8a, β1, 709, Dinkha II) over R shoulder; and similar pins in iron, one at R shoulder (444T) and one at L (445P), for a total of six pins. A flat iron ring with three grooves, on L hand (147P), an iron archer's ring on the R (427P; compare Figure 35, B10a, β6, 195); a necklace of stone (carnelian, jasper) round beads, others round "frit," paste, "glass," and copper (827T); one is a lentoid antimony

FIGURE 28

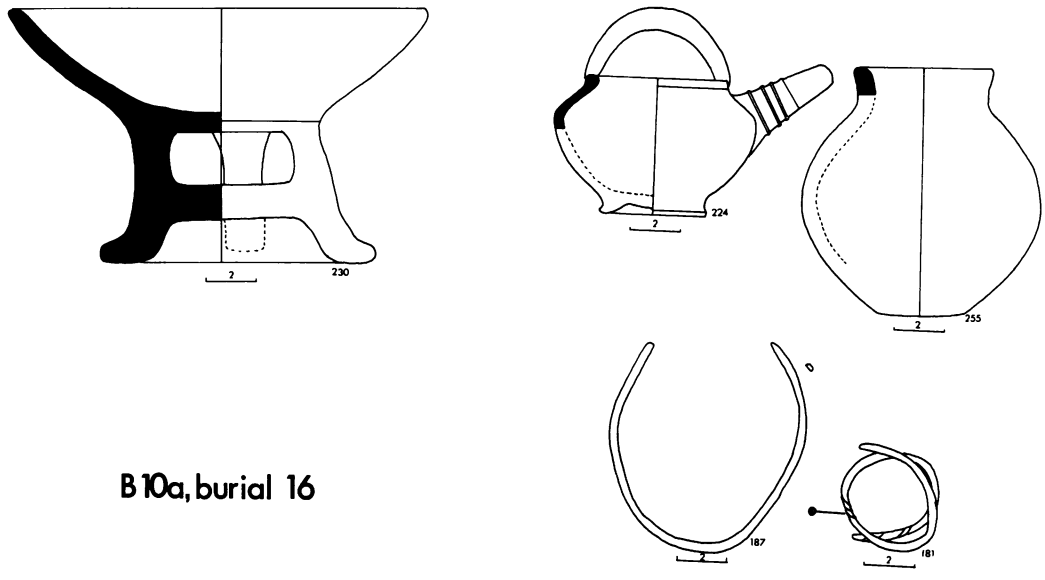


FIGURE 29
B10b, burial 11

FIGURE 30
B10b, burial 1

bead (437P). In the northeast corner, an orange IIB jar (257P), by the hip a gray IIB one (179D).

At first I was inclined to place this burial in the Dinkha III period, mainly because there are no other extended burials in the II period, and because the pottery was not distinctive. But Stein (1940, p. 400) excavated at Hasanlu an extended burial of Period IV date. Moreover, iron does not exist in any bona fide Dinkha III burial, and archer's rings (iron) occur only in bona fide Dinkha II burials, and in Hasanlu IV. I therefore believe that this burial belongs to Period II.

Finally, there were two burials that were found high in the fill and may be considered to be later than most

of the others (B10a, β1, B10b, β2). One is published herewith:

B10b, β1: Young adult, inhumation, flexed on R side; E-W, head E; R arm extended, L arm touches knees (Figure 30). Furniture: a gray burnished spouted vessel by chest (845T); another spouted vessel, gray IIB, with the spout broken, and with three nipples in an inverse triangle on each side and two vertically placed nipples on the back (191D), at the head; and a gray IIB bottlelike jar (25T) between the other two vessels. There was no jewelry.

We now return to the other burials of this period, i.e., those not distinguished by stratigraphy as either early or late in deposition. Since this period is relatively well known from the Hasanlu excavations, only some of the burials need to be presented here. They are representative of the whole corpus:

B9a, β14: Mature adult, flexed on back, N-S, head S; in damaged brick tomb (Figure 31). Furniture (Figure 32): three plain penannular bronze armlets on R arm (306T, 365T, 372P); four bronze penannular rings by hands (463T, 594P); a bronze torque with curled ends at neck (1040T); a stone button (591T); a necklace of plain round paste beads (327T). Beneath the skull, sixty-six astragals and two bronze buttons (1005T). At the feet, a gray bowl (D) placed under an orange IIB spouted vessel (336T); a few feet from the face, an orange IIB vessel with two animal-head lugs (401T). Sheep/goat bones at the knees.

FIGURE 31
B9a, burial 14

FIGURE 32

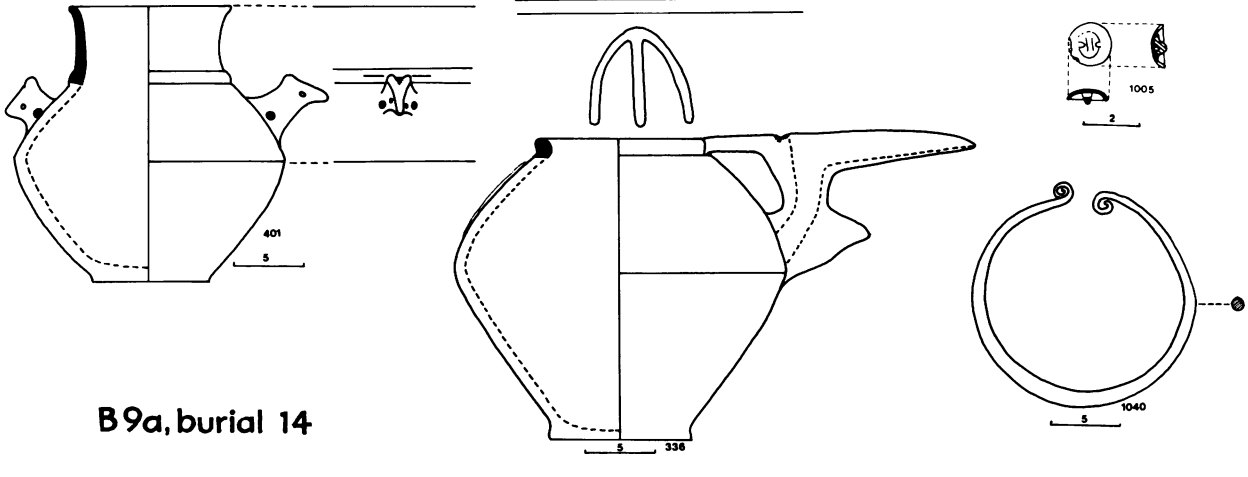


FIGURE 34

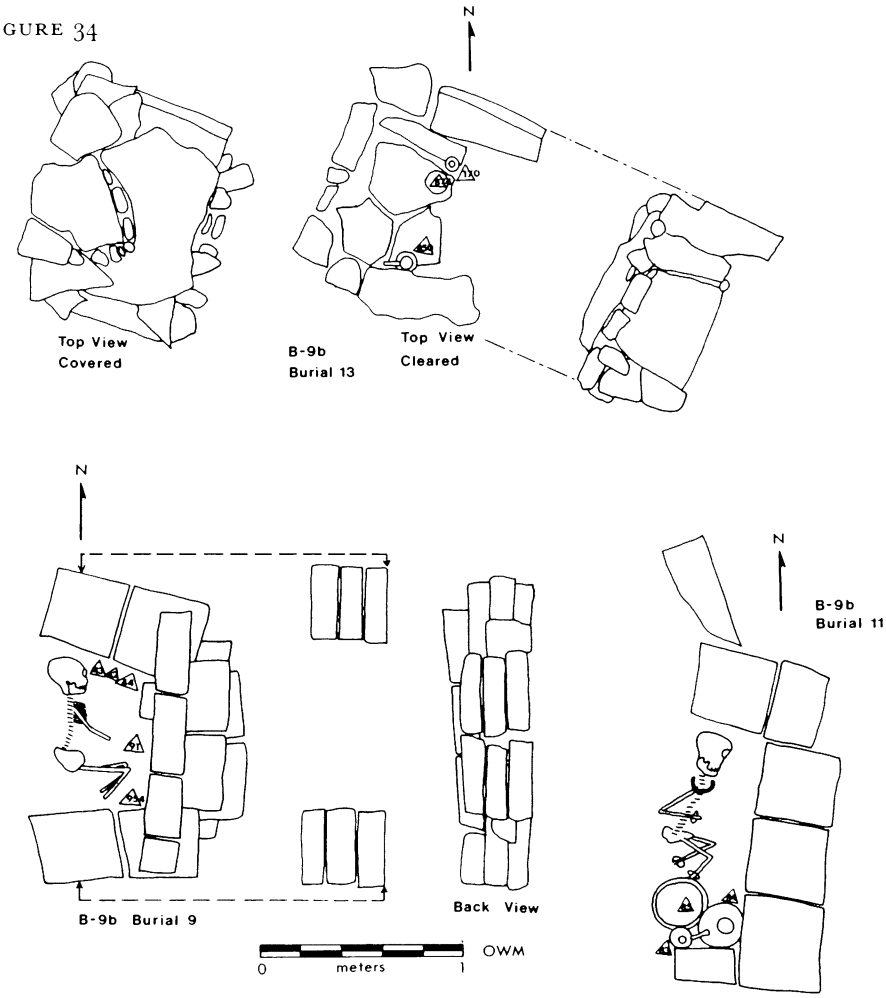


FIGURE 33
B9b, burial 13

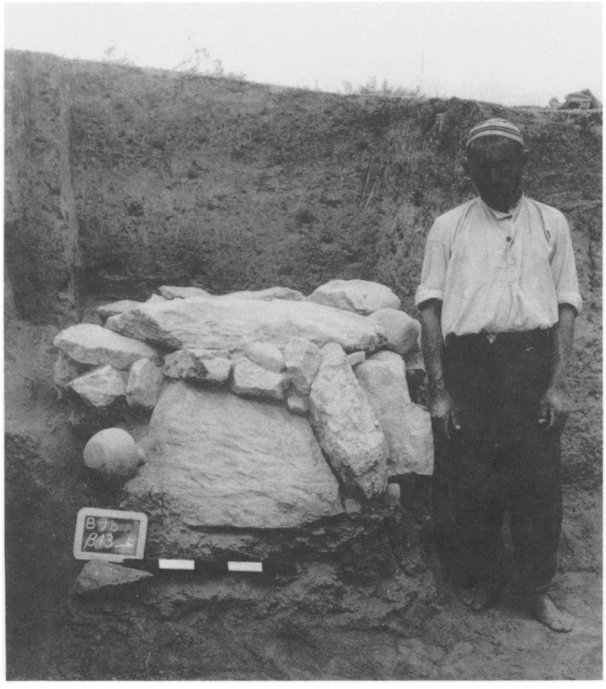
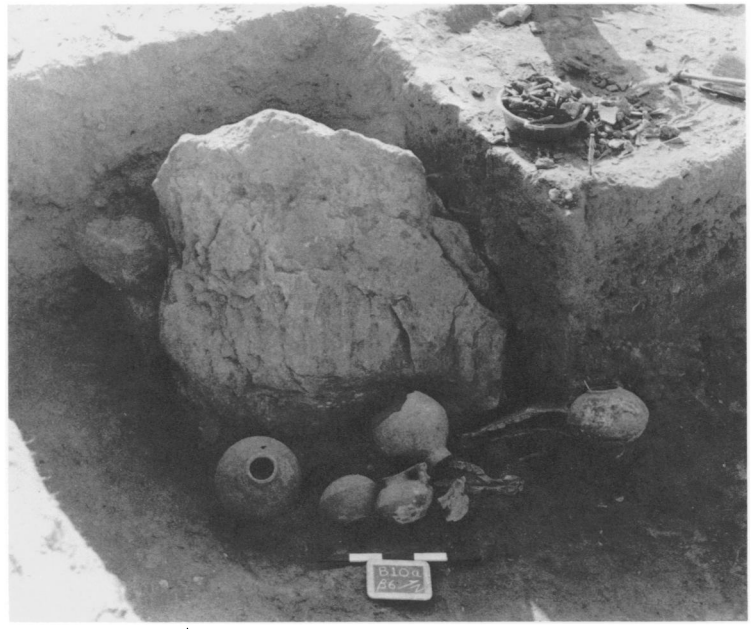


FIGURE 35
B10a, burial 6



B9b, β13: A stone tomb (Figures 33, 34, top): only a few bones extant; apparently N-S. Furniture: outside the entrance slab, an orange IIB jar (89T). Inside, two plain bronze bracelets with overlapping ends (370T), a red-slipped spouted vessel (850P), an orange IA jar (170D), a gray matt carinated bowl (874D), and a coarse, disintegrated vessel. This was the poorest of the stone tombs.

B10a, β6: A stone tomb with hard-packed earth floor (Figure 35; Muscarella 1968, p. 191, figs. 13, 14). The few bones suggest a N-S orientation of an adult. Furniture (Figures 36, 37): fifty-three objects; this was one

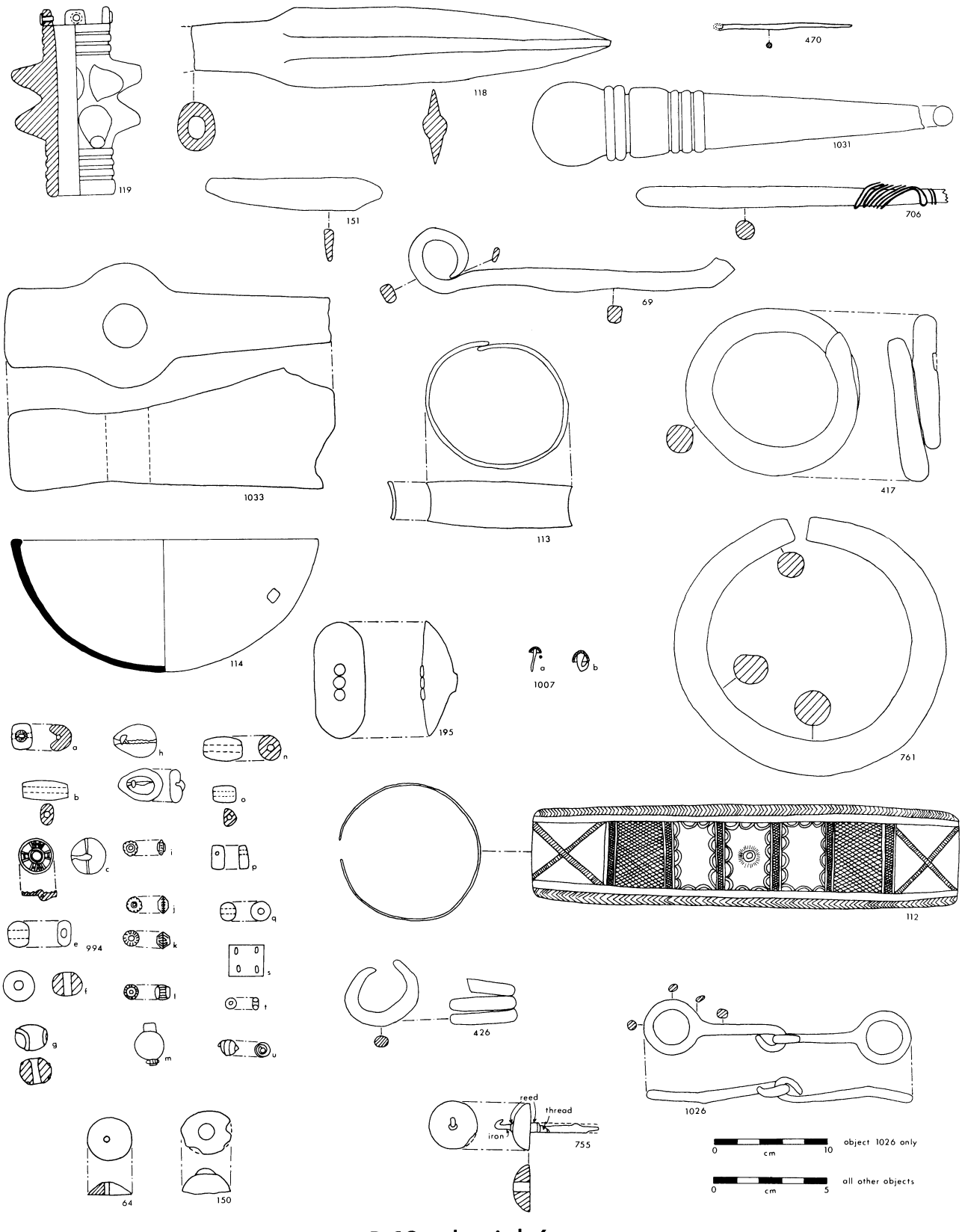


FIGURE 36

B 10a, burial 6

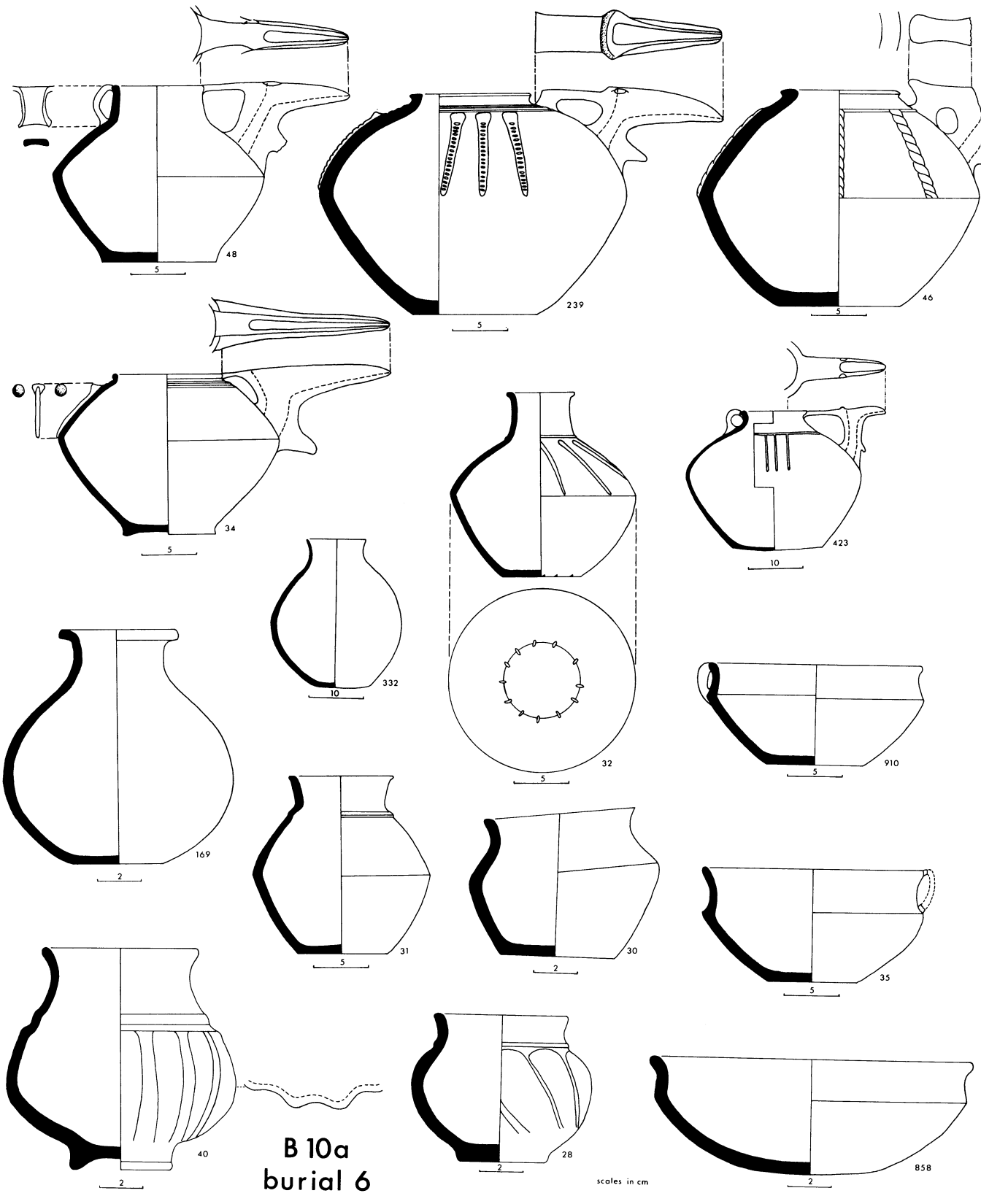

48
5
239
5
46
5
34
5
423
10
332
10
32
5
910
5
169
2
31
5
30
2
35
5
40
2
28
2
858
2
B 10a
burial 6
scales in cm

FIGURE 37

of the richest burials in the cemetery. Objects probably belonged to a male warrior. Fifteen vessels (not sixteen as Muscarella 1968, p. 189) were outside the closing slab: buff: 81D, a fragment of a wide-mouthed pot with an oblique spout and no handle; also a disintegrated vessel; buff, IIB: 29D, a broken carinated jar; 332D, a jar; orange IIB: 31P, a carinated jar; 32P, a sharply carinated jar with incisions on the upper body; 33D, a broken jar; 34T, a spouted vessel; 35T, a sharply carinated deep bowl with a handle, now missing; 48T, a spouted vessel; red-orange IIC: 40T, a gadrooned jar; red-orange IC: 423P, a spouted vessel; red-slipped: 30T, an asymmetrical jar; gray IC: 46T, a vertically-bridged spouted vessel, with broken spout; gray IIB: 28P, a gadrooned jar. Placed among these vessels was the dismembered, incomplete skeleton of a horse: skull, mandible, humerus, a pair of radii, two cannon bones, two femera, one tibia, and a third cannon bone. Just outside the tomb, by the northwest corner, was an iron socketed spear (118P, visible in Muscarella 1968, p. 121, fig. 14). Just inside the entrance of the tomb were five vessels: an orange matt hydria (248D), two buff carinated bowls (858P, 910D), a small buff IA jar (169D), and a gray IIB spouted vessel (239T). Two bronze penannular anklets (761P, 762T) at the southern part of the tomb give the feet position. With the pottery at the entrance was a corroded iron point (D), a corroded iron object with a rounded head and spike (182D), apparently a mace head with a solid head; also an iron blade (151P), an iron pin with traces of eight layers of cloth (706P), a thick-knobbed iron pin, also with traces of cloth (1031T), a plain round penannular bronze bracelet (129T), and remains of a bronze and iron chain (1054D, compare Figure 44, B8a, β1). Along the western wall, N-S, were a bronze spiked or star mace head (119P), a plain bronze bowl (114P), an elaborately decorated flat-band bronze bracelet (112T), and a plain concave-sided band bronze bracelet with overlapping ends (113T), along with two plain round iron bracelets with overlapping ends (417P), plus a plain broken round iron (134T) and a plain penannular iron bracelet (120T), for a total of six. There were also clusters of plain iron (426T) and clusters of penannular bronze rings (593D), a bronze, two-piece, jointed, horse bit with a solid ring (1026P), and an iron fragment of another horse bit (69T), an iron shaft-hole ax fragment (1033D), a broken iron archer's ring (195T), a bronze needle (470D), a bronze boss (150P), a bronze stud (1007T), a limestone disc (64P), and a pin consisting of an iron hooked-top set into a bone button and attached to a reed, with traces of thread (755T, compare Figure 47, 756, 757), two bone awls (222T, 223P).

There were also many beads (994T): carnelian—a, n–r; paste—t; "chalky material"—s; amber—b; "glass"—e–g (the latter blue and yellow)—u; cowrie shell—h; Egyptian blue—i–l, cast antimony—c; bronze—m.

B10a, β12: Male, flexed on R side, N-S, head S; in brick tomb (Figure 38). Furniture (Figure 39): a plain round bronze and a plain round iron bracelet, both with tapered overlapping ends (123P, 124T), by wrists; carnelian, "frit," and paste beads (117D); a beaded cast bronze torque with hooked ends, at neck (115T); a bronze socketed spear resting along L side of head, point up (125T); shaft would have rested along side of the body. By the knees, two gray burnished spouted vessels (835T, 846P); by thighs, an orange smoothed carinated bowl (873D); by feet, an orange burnished carinated jar (965D).

B10a, β13: Female, adult, inhumation. Bones were found disarticulated, probably representing a secondary burial (Figure 40). Furniture: a bronze stud (925P) was found inside the skull cavity; bronze hemispherical beads with a loop, corroded together in sets of three (923P), and carnelian and frit plain beads, all in the fill (436T); a simple iron ring was under the skull (130T). Also under the skull was an orange IIA jar (98P); other vessels included a gray IIC spouted vessel (261T), an orange IIA, and two buff IIA jars (192D, 193D, 94P). Sheep/goat bones.

B10a, β15: Stone tomb; part of the floor covered with stone slabs (Figures 41, 42). Bones disintegrated; N-S orientation, head N. Furniture: three corroded knob-headed iron pins at N of chamber (146P, 147P, 186T); two more of same type at SW corner (196T, 197P). In the fill, two bronze figure-eight hairrings (earrings?) (208D, 212P), a collection of beads (Figure 51, 815P): a—carnelian; b, c, d, i, j—paste; e—bronze; f—Egyptian blue; g, h—antimony; also five plain iron rings (217T, 218D), two bronze rings (189P, 216P), some bronze studs (899T); a small iron hooked pin (1030D), and three iron archer's rings (207T, 209P, 1028D). On floor, fifteen pottery vessels: two buff IA hydriai (915D, 916D), a large orange IIB spouted vessel with "crow's feet" decoration in relief at the rear (268P), two buff IA carinated bowls (859T, 860P, both containing sheep/goat bones), four jars: two buff IIB (178D, 266D), one buff IA (172D), and one orange IIB (254T), and an orange IIB cup (232T). In addition, there was a red-slipped, IIB gourd-shaped vessel pierced by two holes at one side (226M; Muscarella 1968, pp. 189–190, fig. 11). There were also two gray burnished spouted vessels (839T, 906D) and two gray jars, one burnished (251D), one smoothed (962D).

B10b, β8: Female, old adult, with arthritic lipping of the vertebrae; on back, N-S, head N; in brick tomb,

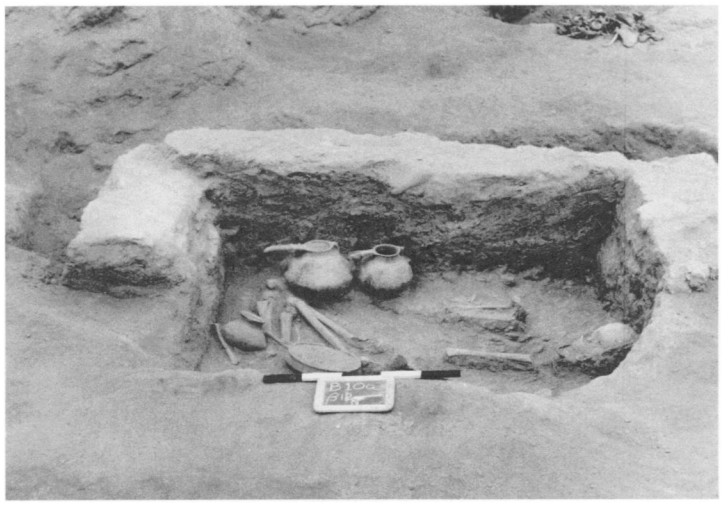
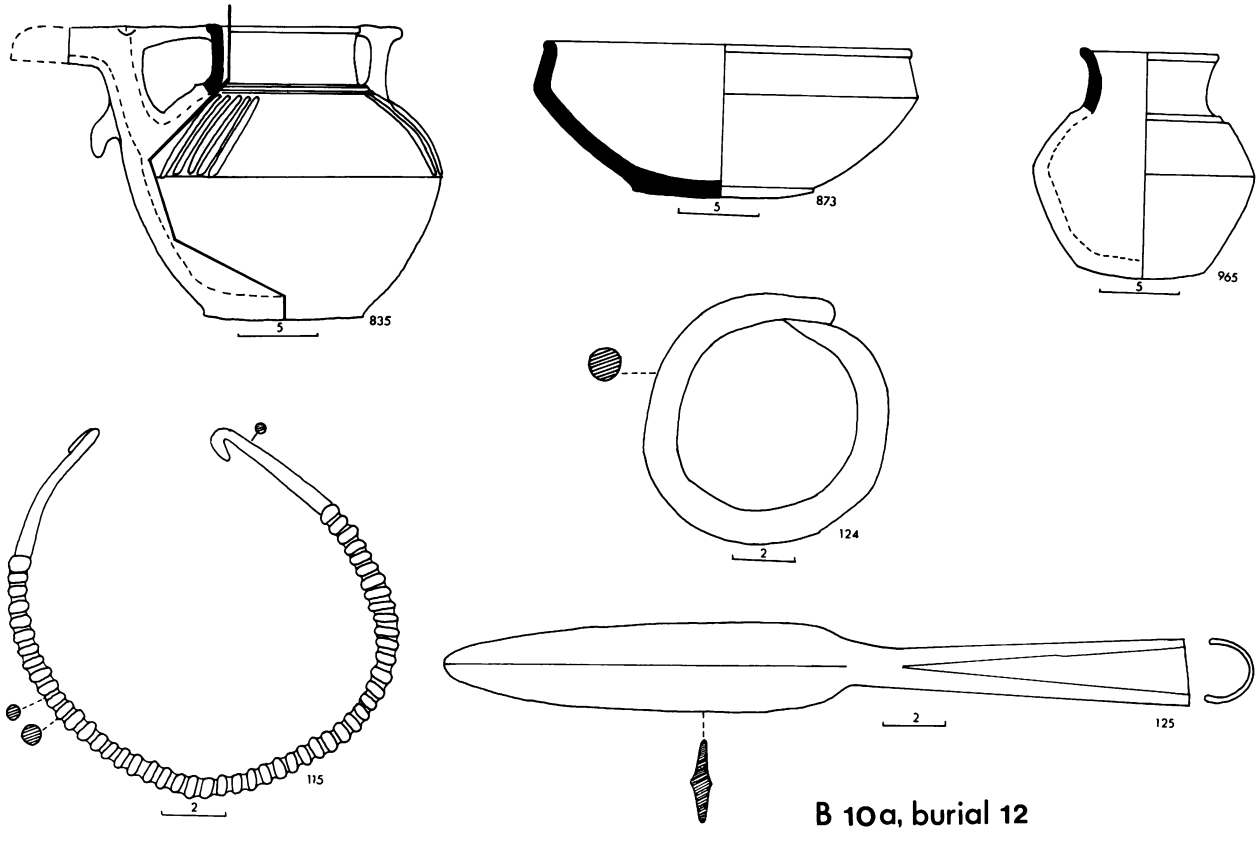


FIGURE 38
B10a, burial 12

partly left in the balk (Muscarella 1968, p. 189, fig. 2). R arm was flexed across the body, L arm was bent back to its own shoulder, a feature found in Period III. Furniture (Figure 43): a bronze knobbed pin at L shoulder (127T) and R (149P) (similar to Figure 27, 375); a flat-band iron ring with tapering ends (133T) on L hand; a bronze needle below R shoulder (135T); an iron ring with cloth traces (162P) on floor; and round carnelian, paste, and bronze beads (442T) inside the bowl 227. By the face were a deep gray IIB bowl with animal-head protome handles (227T, compare Muscarella 1968, p. 191, fig. 12, left, from B10b, β16), and a gray IIB carinated jar (250T); by the knees was a buff matt hydria (918T). Sheep/goat bones on floor.

B8a, β1: A stone tomb; noted sticking out from the eroded north slope of the mound; excavation was conducted as a salvage operation. β1 had a neatly laid stone floor and preserved two skulls along with a few other bones; body positions could not be reconstructed (Figure 44, bottom). Furniture (Figures 44, 45): two plain round bronze bracelets with overlapping ends (1012P, 602P), a flattened bronze penannular bracelet (1020T), and an iron one (D); three iron pins (701D,

FIGURE 39



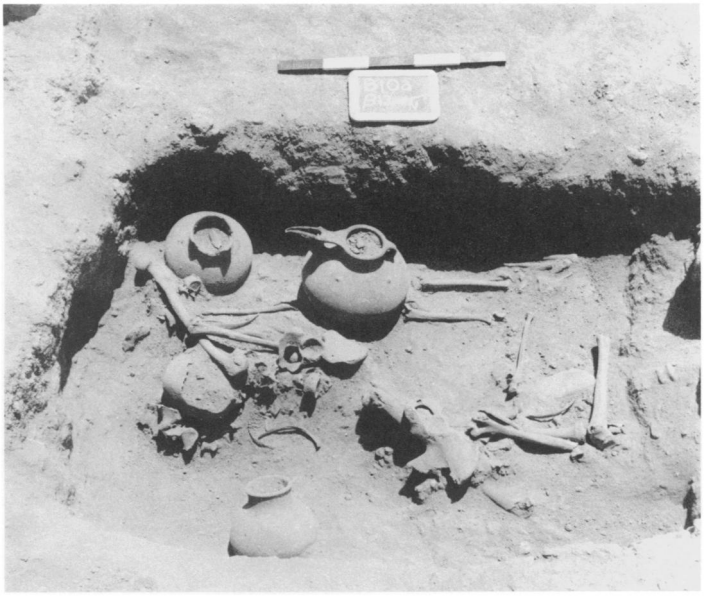
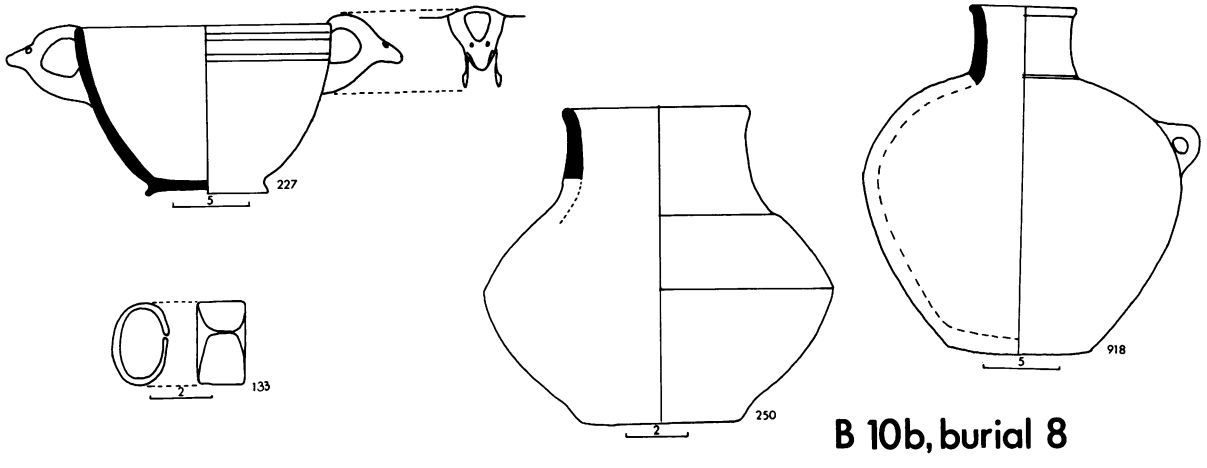


FIGURE 40
B10a, burial 13

FIGURE 41
B10a, burial 15

FIGURE 42
B10a, burial 15

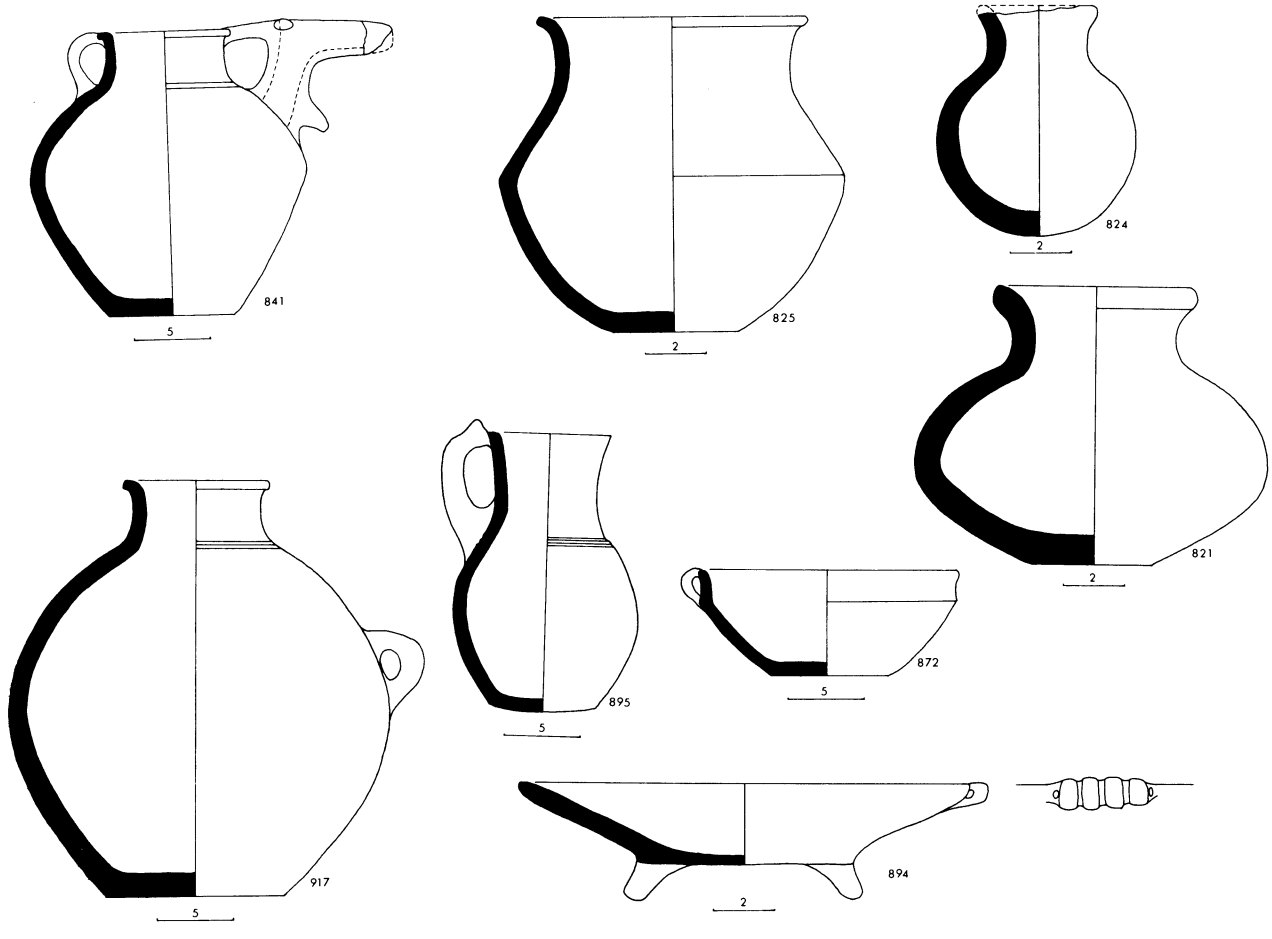
FIGURE 43

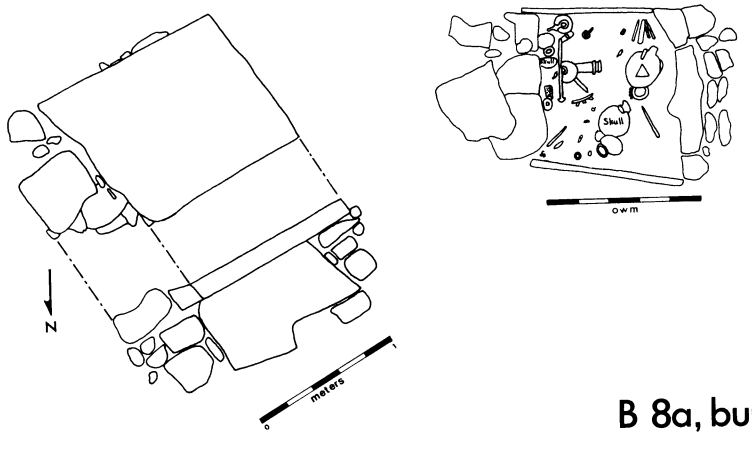


B 10b, burial 8

709D, 1034—actually 125D); three bronze rings around a finger bone (1013D); bronze figure-eight hairrings (1024D); a bronze needle (1016D); a bronze tack (1011T); two thin bronze strips attached to iron loops (1044P, from a chain?); fragments of a chain (1041T, a, iron; b, bronze) found next to a corroded iron bracelet (not catalogued); three iron blades with curved tips (623T, 624P, 626T), two of these blades (624, 626) had cloth remains, one (626) had wood remains on the hilt; an iron dagger with a splayed pommel and a straight grip, and with wood fragments of sheathing and hilt insets evident (1046T); a bronze chain (1034P) next to a large iron object (found exploded) that might have been a staff or baton—it seems to be too big for a pin, which it resembles (1032D); a corroded iron point, possibly a large pin, with a bronze

FIGURE 44

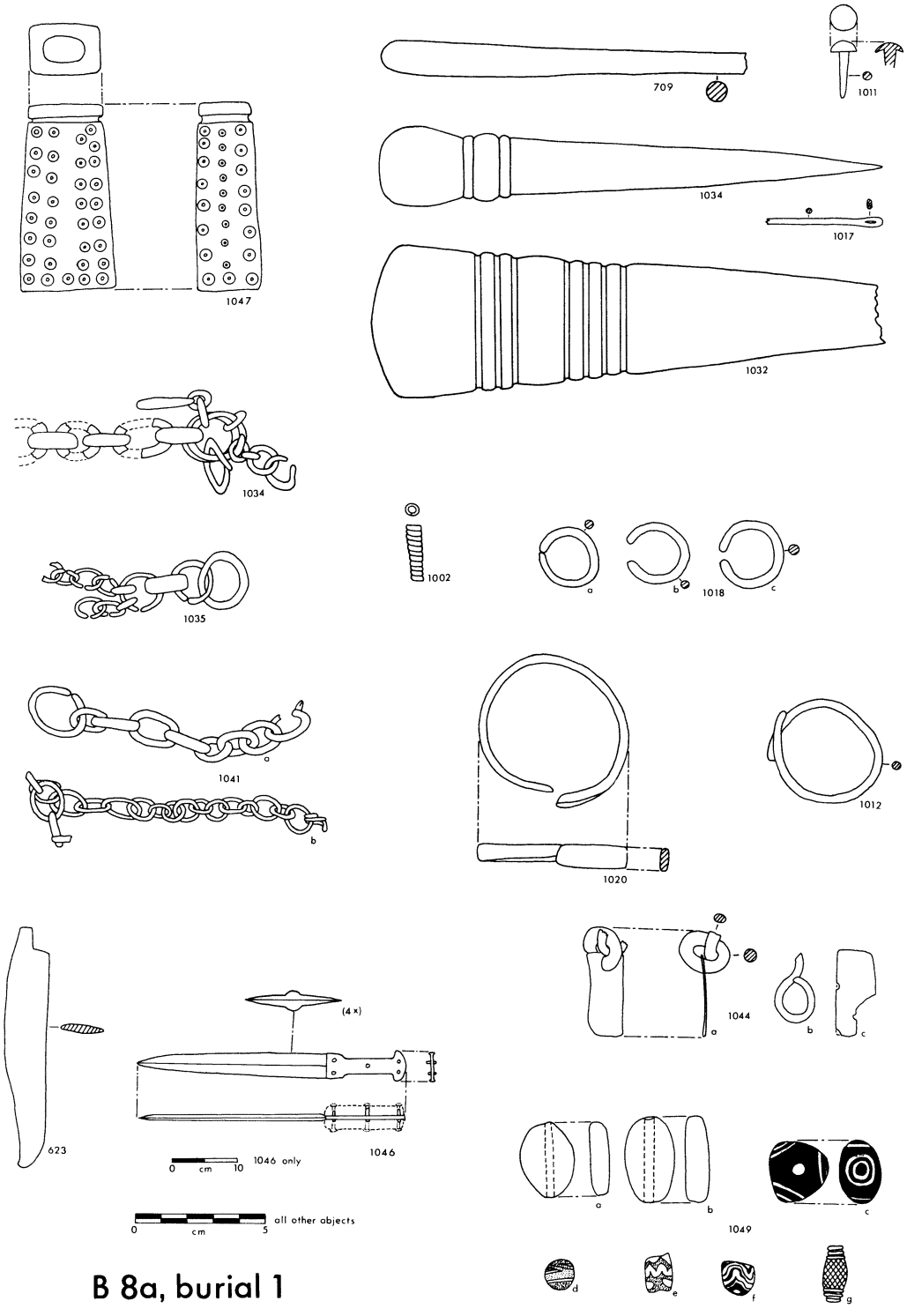




B 8a, burial 1

chain (1035T); a bone cosmetic container open at both ends and decorated with incised circles with a dot, empty (1047P); and under bowl 872 a handful of beads (1049T): a, b—amber; c–f—colored glass (yellow, brown, white, and black); g—glazed material; also beads of Egyptian blue and carnelian). In the fill of the chamber were found two bronze needles (1017P); four plain bronze penannular rings (1018T), and a fragment of a bronze coil (1002P). A total of ten vessels were placed in the tomb, one of which had disintegrated: a gray burnished tripod bowl (894P), a gray burnished hydria (917T), a gray matt jar (824D); a burnished orange carinated bowl (872P), and buff matt vessels: 821P, 822D, 825T, 895P; 841P is burnished.

FIGURE 45



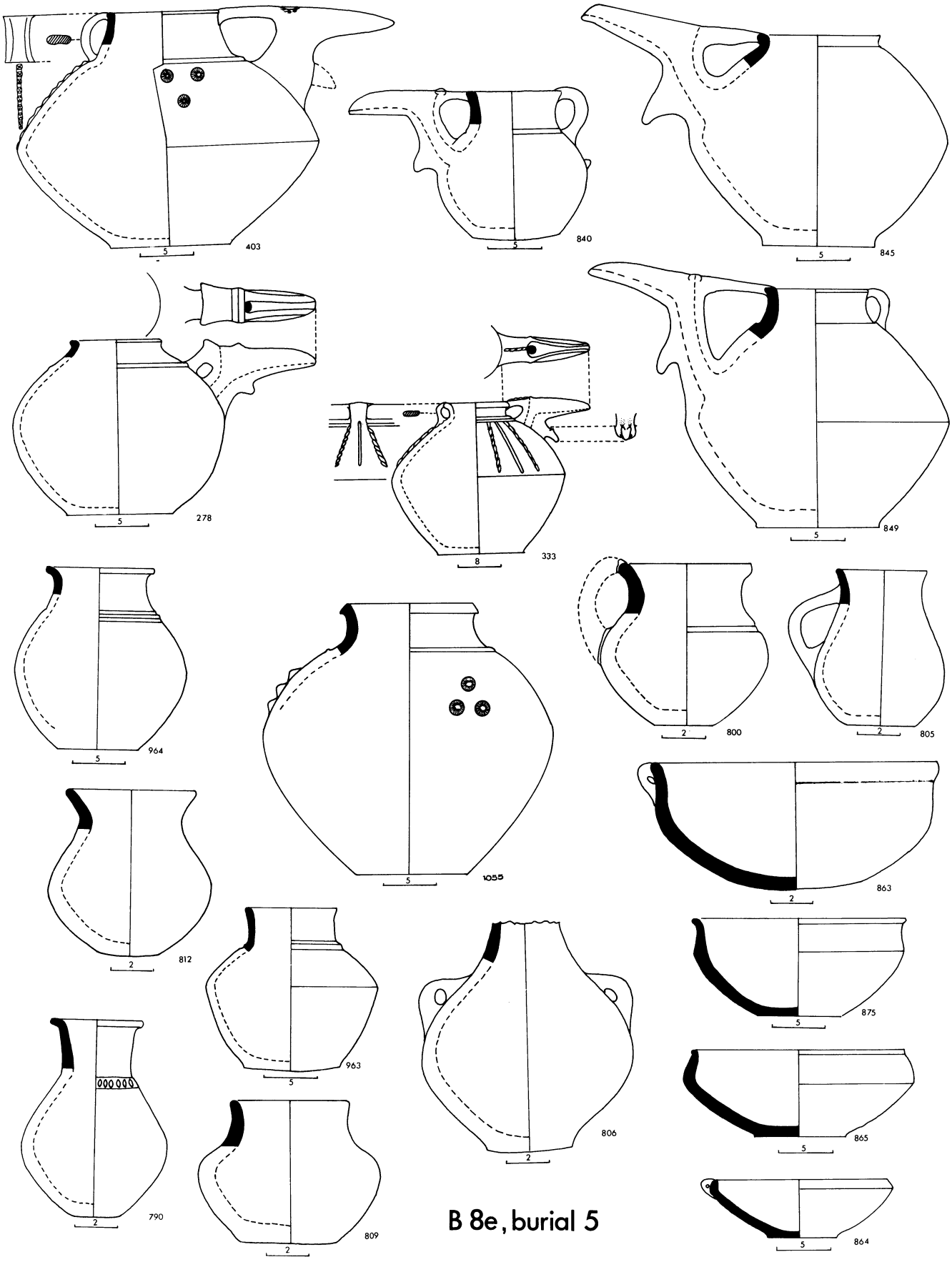
B 8a, burial 1

FIGURE 46
B8e, burial 5

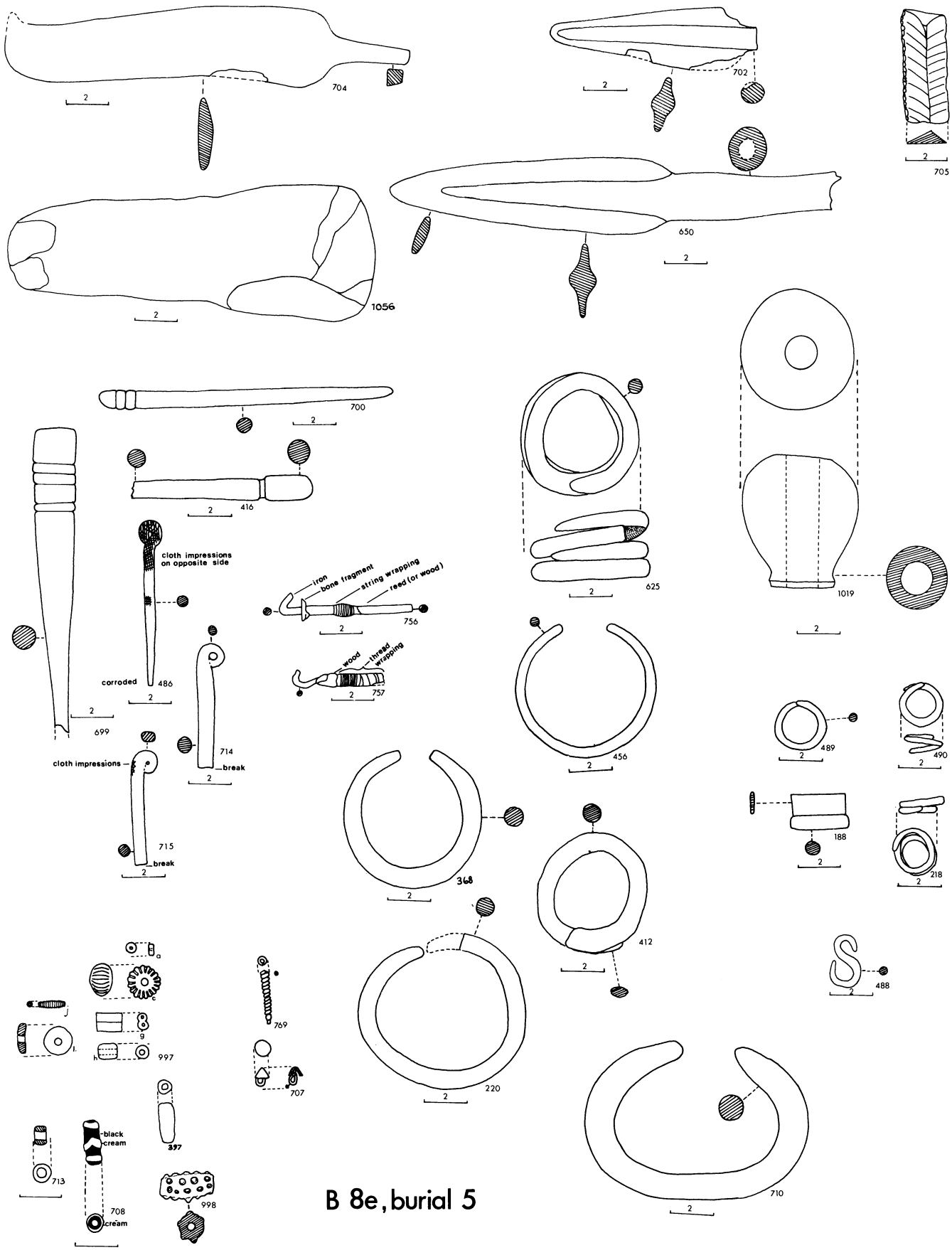
B8e, β5: A stone tomb with stone floor, containing the scanty remains of two individuals, male and female (I). Body positions, not clear, seem to have been N-S. Outside the tomb's western entrance or closing slab was a large pile of pottery partly covered by a broken pithos (Figure 46). Here were twenty-three vessels and under them were two skeletons, a female young adult and a child (II), separated from the stone tomb by a mud brick wall of one course. Wall ran N-S, paralleling the stone tomb, interrupted where it touched the western wall; its total excavated length (measuring the area occupied by the stone tomb section) 2.40 m. Both ends continue into the unexcavated balks, so we do not know the total length. The female and child were placed head to feet in a line, separated by about 45 cm.; they were flexed on their R sides, N-S, heads S, facing the wall, E. Contents of stone tomb (I) (Figure 47): there were five vessels: two bowls, one gray matt (863P), one gray burnished (864T); one gray IIB spouted vessel (278M); one large buff IIB jar with three nipples in triangular form on the sides (1055D); and one red-slipped broken jar with narrow neck and two handles (806D). Body furniture (Figure 48): about twenty plain bronze and iron rings (like 489D, 218D); a spiral bronze ring (490D), and a flat-band iron ring attached to a round one (188P); four figure-eight hairrings (219P, 488D, 1025D), a bronze coil (769T); four bronze penannular bracelets (432P, 455P, 456P); two iron penannular bracelets or anklets (220P, 710T); one iron needle (1021D). Also, three iron pins with looped heads (486T, 714T, 715P); an iron pin with a knob head (416P), and two iron pins with ribbed heads (699D, 700T); three plain iron pins with blunt heads (407T, 409P, 410P); also two iron-reed pin-hooks, with a bone collar (756T, 757P, of the same type as Figure 36, 755). There were also two iron archer's rings (483T, 485P); two socketed iron spear heads (650T, 702D broken); and an iron knife with a curved tip (704P). Each of the two outside skeletons had associated grave goods. The northernmost one, the child, had a pottery jar that disintegrated, an iron bracelet with overlapping ends (412T), two iron bracelets of the same type found together (625P), and a plain bronze bracelet (318T). The female had two buff IA bowls (865P, 875D) containing sheep/goat bones; also two bronze penannular bracelets on one arm (367T), and one on the other arm (368P); also a dark-stone, pear-shaped mace head (1019P). Vessels found outside the stone tomb over the skeletons of burial II (Figure 47): gray IIC: spouted vessels (403P, 848P, 845T, 857D, 849P, 333T), bottle (790P), cup (805P); gray weathered: hydria (919D); gray IB: carinated jar (963D); orange IIC: spouted vessel (840P); buff: hydria (912D); buff IB: hydria (911D); buff IIA: jar (964D); buff IA: jars (812T, 1058D), cups (800D, 807D), carinated bowl (876P); red-slipped: jar (809D). A few objects were inadvertently not recorded as specifically coming from the burials in I or II and are listed here together: an orange jar (262D), a buff carinated bowl (D), and a disintegrated vessel. Also, a bronze tack or stud (707T), a stone ax or pestle (1056D), a bronze coil (769T), an obsidian blade (705T), and many beads: 397P—paste; 713P—bronze; 708T—glass; 997aP—shell; c, j—paste; g, a spacer bead—paste; h—stone; i—bone or shell; 998—paste.

The problem of the relationship between the stone tomb (I) and the burials outside (II) remains to be discussed. What is clear is that the twenty-three vessels were placed partly over both the west wall of the tomb and the brick wall, and the skeletons of burial II. Therefore, both burials I and II were in place and were exposed at the time when the pottery was deposited as a final act. Yet, what is unclear is whether or not one of the burials was already in existence before the second was deposited, i.e., whether the diggers of the second

FIGURE 47


403
840
845
278
333
849
964
1055
800
805
812
863
963
875
806
865
790
809
864

B 8e, burial 5


704
702
705
650
1056
700
416
625
1019
cloth impressions on opposite side
corroded
486
699
iron
bone fragment
string wrapping
reed (or wood)
756
wood
thread wrapping
757
714
break
cloth impressions
715
break
456
489
490
188
218
368
412
488
220
769
707
997
397
713
black
cream
708
cream
998
710
B 8e, burial 5

burial pit inadvertently disturbed the earlier burial, or, whether both burials were deposited simultaneously, with different treatment given the respective bodies. If we prefer the first suggestion we can assume that the burials in II existed first, and that it was accidentally encountered by the stone tomb builders, who, upon completion of their funeral tasks, piled the many vessels over both burials as a pious gesture. If we prefer the second suggestion we must assume a unique occurrence at Dinkha: the fact that at one time four people were buried, two in a closed stone tomb, and two outside. It should be noted that the brick wall was only one course high and its length very long, features not encountered with typical brick tombs at Dinkha. Moreover, the first suggestion implies that when the earlier burial was encountered, instead of recovering it and going elsewhere, the stone tomb builders completely uncovered the bodies. A third possibility presents itself at this point, namely that the whole unit could represent a family vault, the bodies placed there at different times, and that the pottery deposit occurred at the time of the final burial. This suggestion would explain the uncovering of both burials I and II. I prefer to leave the interpretation open rather than force a conclusion, but I lean toward the suggestions of a family vault or simultaneous deposition.

URN BURIALS

Nineteen urn burials were excavated at Dinkha Tepe. None of these could be attributed to the Dinkha III period either by low position or by grave goods, but it is not impossible that a very few might have belonged to that time. Most, if not necessarily all, were obviously laid down in the Iron II period as they were usually found high in the Dinkha II fill; in a few cases they had characteristic pottery associated with the urn.

The burial urns were either buff matt storage vessels or large cooking pots, with both wide and narrow mouths (Figure 49: 108D, 111D, 284D). One urn was blackened on the outside and inside, no doubt from use; often the urns were broken or incomplete. Two urns were buff hydriai, and in another case the top of a large pithos was used as an urn; often the mouths of the urns were covered with large sherds. Urns were usually placed on their sides, but a few were found upright, or upside down. Those on their side were oriented N-S or E-W, following the same pattern practiced in the burials. In most instances few or no bones were recovered from the earth fill inside the urns. When the bones were recognizable they were usually those of infants, but in one case (B9b, β2), an adult tooth was found in an urn (compare Stein 1940, p. 374; see also pp. 397, 400). Seven urns had pottery placed outside, and four, two of them with gifts outside the urn also, had pottery and jewelry inside.

A sampling of the urn burials:

B9a, β3: The buff urn (D), tilted up, was covered with a broken buff matt bowl (909D) (Figure 50). Close to the mouth of the urn were a red-orange IIC spouted vessel decorated with a crescent and two nipples on both sides (259T), two small gray IIB jars (79T, 80T), and a large buff jar (102D). Inside the urn were a plain bronze band penannular bracelet (Figure 52, 620P), two plain bronze (464T, 467P), and one iron ring (425D), thirty-nine bronze (386T), stone, paste, and shell beads (376P), and a clay button (D). This was the "richest" urn burial excavated.

B10a, β2: (Figure 49): The buff IA urn (108D) was lying on its side with the mouth to SE; the mouth was broken away. Outside was an orange IIB two-handled jar or flask that had a short upright spout (10T).

B10a, β3: (Figure 49): The buff IA urn (284D) was placed with the mouth up and sealed by sherds. An infant's tooth was found inside. Near the urn was a red-slipped carinated jar (905D).

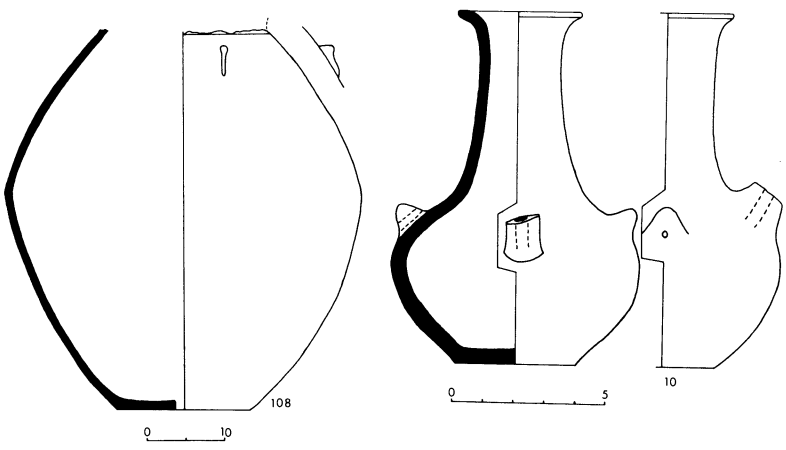
B10a, β5: (Figures 49, 51): The buff urn (D) was lying on its side, roughly E-W, mouth E; a large sherd sealed the mouth. To one side were an orange IIB spouted vessel (38T), an orange IIB carinated jar (36T), and an orange-brown IB miniature asymmetrical jar (15T).

TEST TRENCH III, β1: (Figure 49): the buff-yellow IB (281D) urn was on its side, facing NW; it contained infant's bones and a bronze ring (D); outside was a gray jar (D) and an orange IIB footed bowl with a hole below the rim (231P).

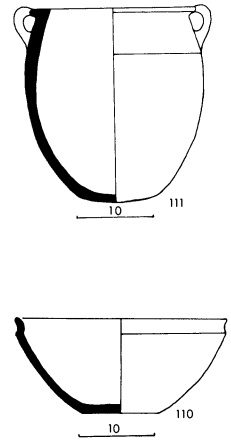
FIGURE 50
B9a, burial 3

FIGURE 51
B10a, burial 5

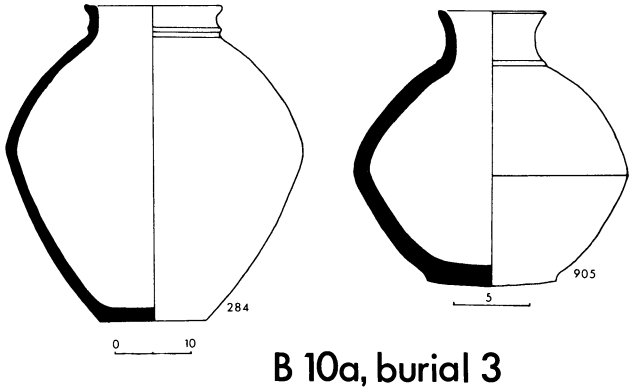
FIGURE 49
Urn burials



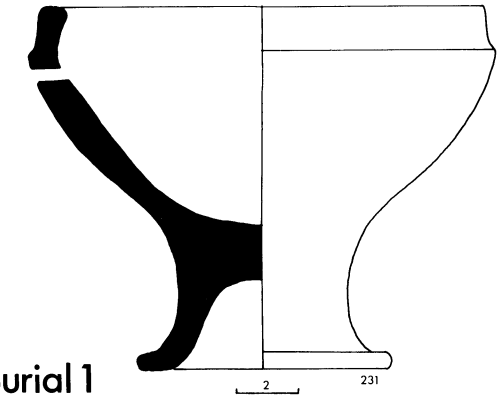
B 10a, burial 2



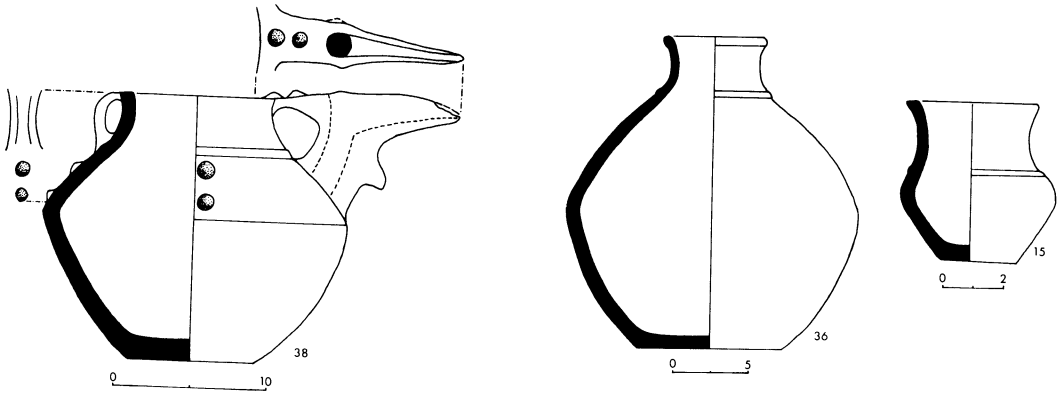
B 10a, burial 4



B 10a, burial 3



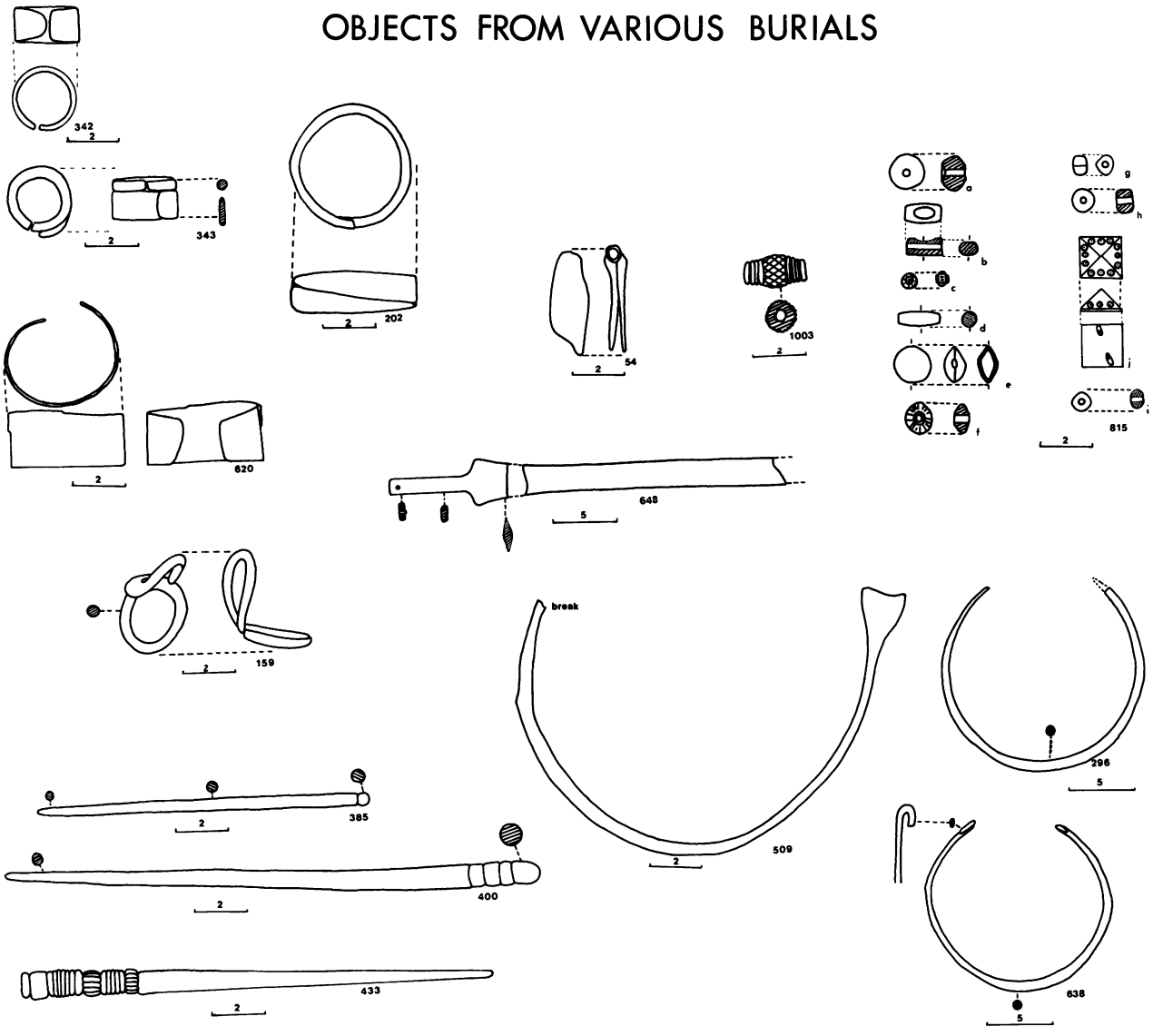
III burial 1



B 10a, burial 5

FIGURE 52

OBJECTS FROM VARIOUS BURIALS



Much has been written about the Iron II period in western Iran, so it would serve no useful function to repeat that information here except in those instances where it relates to Dinkha Tepe. That there was cultural continuity in the Iron Age, that Iron II followed Iron I peacefully and without any observable interruption from outside forces, is well supported by the Dinkha excavation. The most obvious evidence is that the Dinkha II burials were deposited in the same cemetery area as the earlier ones, that both simple inhumation and the use of brick tombs continued, that the same body positions and orientations continued, and that earlier customs, such as the extended burial and the placement of an arm bent back, touching its own shoulder, were not forgotten, although rarely practiced. In addition, the same types of grave goods, pottery, jewelry, weapons, and food continued to be placed with the dead. Not least in significance is the fact that the same buff and gray pottery were produced in both periods. But it is of some interest to note that whereas in Dinkha III gray vessels were more than twice as common as the buff wares, in Dinkha II the ratio is strikingly reversed and buff vessels were nearly three times as common as gray ones (see pp. 38, 59). Obviously, as is to be expected with a dynamic culture that existed for such a long time, and as is the case at other Iron Age sites, the pottery shapes changed—the worm bowl and pedestal-base goblet disappear—and the variety of shapes increased. Yet even within the changing pottery repertory we are able to observe a continuity between Dinkha III and II: the ubiquitous spouted vessels, the basket-handled teapot, the carinated bowls, and many of the jar types.

Only one vessel from the corpus of Dinkha Iron II pottery might be singled out as a possible import: the gourd-shaped red-slipped vessel from B10a, β15. Three other vessels of this type, two red and one gray, were found in Hasanlu IV (Rad, Hakemi 1950, pp. 59–60). Another, exactly the same in all details, and also red, was seen in the Rezaiyeh market by Kleiss, who related it, incorrectly, I think, to seventh century Urartian ceramics (Kleiss 1971, p. 71, fig. 22, pl. 10:3, left). If these vessels were not locally made at Hasanlu or Dinkha, we do not yet know their source.

Among the similar kinds of jewelry placed in the graves of both periods, bracelets, anklets, rings, necklaces, pins, we might single out torques for special mention. Of thirty-four Period III burials, seven contained a torque (see note 5); of fifty Period II burials (not counting urns), four contained torques, a drop from about one-fifth to about one-twelfth. Thus, although still used, fewer people wore them—at least to their graves. It seems that men, women, and children wore torques, although the evidence for this is clearer in the earlier burials.

There is one example of a disarticulated burial (B10a, β13) in Period II, none in the earlier period, but whether this is culturally significant or merely an occurrence reflecting a local situation is not known. Also, as mentioned above, in Period II four burials contained two individuals each, a feature not encountered in the earlier period.

And one burial in Period II (B10a, β6) was associated with a fragmentary skeleton of a horse placed outside the tomb. Within the tomb, it will be recalled, was found a complete bronze horse bit and an iron fragment of another. No other burial at Dinkha yielded either a horse bit or a horse skeleton. It is therefore not rash to conclude that the horse probably belonged to the occupant of the tomb and was dispatched as part of the burial ceremony. But where were the other bones of the skeleton? Does the fragmentary nature of the skeleton suggest that the horse was in fact an ordinary animal merely meant for the funeral feast, and that the bones by the tomb represent the dead man's share? It seems to me that the juxtaposition of the horse bit within the tomb and the horse skeleton outside is not fortuitous, and that the horse did have some special relationship to the tomb's occupant. At the same time it would appear that the horse was eaten and that some joints were kept for the mourners. I suggest, therefore, that the horse belonged to the occupant of the tomb and also that the survivors ate it; both ideas need not be mutually exclusive. Keeping this in mind, I believe that we may correctly refer to the existence of a horse burial at Dinkha, as opposed to the idea that the bones represent simply a food deposit. What remains puzzling is the uniqueness of the occurrence of horse bones at

Dinkha, even if one disagrees with the conclusion presented here and believes the bones are food.[15]

Horse burials associated with a human burial occur at Hasanlu in a unique grave excavated in 1947; to date no other example has been found even though the cemetery area has been extensively excavated (Ghirshman 1964, pp. 24–27, 99, fig. 131; Dyson 1965, pp. 208–212). Unfortunately, the contents of this grave have never been identified and published and the date is not known, which makes it impossible to bring it into a discussion of Iron Age horse burials (Muscarella 1968, p. 192).[16]

At Godin Tepe a complete horse skeleton was found in association with a Period III, Bronze Age, tomb (Young 1969, pp. 19–20, fig. 27, pl. XVI). This seems to be the earliest example known in Iran of a horse burial.

In separate graves at Marlik, that is, in graves not associated with human burials, horse's teeth with bits in situ were found (Negahban 1964, pp. 15, 16). This type of individual burial of horse's heads with bits seems also to have occurred in Luristan (Moorey 1971, p. 103). We have no information at present about the dates of these Marlik burials.

A complete horse with artifacts, including a horse bit, was buried in an individual grave, not associated with a human, at Baba Jan, sometime in the eighth or seventh century B.C. (i.e., post Iron II in northern terminology; Goff Meade 1969, pp. 123–126; Muscarella 1968, p. 192).

Summarizing all this information, one notes that horse burials are documented in Iran in the Bronze Age (Godin Tepe), in Iron II (Dinkha), and later (Baba Jan).

The major technological change that occurs in Iron II, recognized not only at Dinkha and Hasanlu, but also at all the other sites, is the use of iron alongside bronze. (In fact, one may state in parenthesis, if it would not cause confusion about continuity of culture and upset established terminology, one should think of the Iron I period as "the Late Bronze Age" and the Iron II period actually as "Iron I.")

HASANLU IV AND DINKHA II

Dinkha II and Hasanlu IV continued the close relationship existing from the Iron I period and there must have been sustained communication and exchanges. For, aside from the basic architectural features, such as the use of posts in the Dinkha II building, and the juxtaposition of jube and pavement in Structure A, features shared by both cities, practically every pottery shape used by the people at Dinkha II was used by the people of Hasanlu IV: spouted vessels, plain, or decorated with crescents, nipples, or animals in relief, or decorated

15. S. Piggott, "Heads and Hoofs," *Antiquity* 3 (1962) pp. 110–118, summarizes information concerned with the burial of a horse's head and feet, presumably along with the hide. The Dinkha horse burial is of a different type. The description of Scythian horse sacrifices given by Herodotus, IV:62, 72, does not reflect light on the customs at Dinkha.

16. When discussing the horse burial at Hasanlu, Dyson (1965, p. 211, and also Young 1967, p. 33) stated that a Scythian-like cheek piece found at Hasanlu came from Period IV (see also Dyson 1964c, p. 372, fig. 3). This is an error; the piece came from a Period III context. The error was repeated by M. van Loon in *JNES* 29 (1970), p. 69, and by P. R. S. Moorey 1971, p. 109, and in *Iran* IX (1971) p. 121. Horse burials occur in the Hittite period, K. Bittel, *Die Hethitischen Grabfunde von Osmankayesi* (Berlin, 1958) (only skulls and leg bones pp. 16, 24, 63, 65, 72, 73), and in the Mycenaean period, E. Vermeule, *Greece in the Bronze Age* (Chicago, 1965) pp. 298–299, P. Kabbadias, *Proistoriki Archaiologia* (Athens, 1909) p. 290; A.J.B. Wace, "Chamber Tombs at Mycenae," *Archaeologia* 87 (1932) p. 14; *AA* 1930 p. 170 for a buried terracotta horse; see also the *Iliad* XXIII, line 170 et seq. Horse burials also occur in Gaza, in the second quarter of the second millennium B.C., F. Petrie, *Ancient Gaza* I (London, 1931) pp. 4–5, pl. lvii: Hyksos? Horse burials occur in Phrygia at Gordion and Ankara, see R. S. Young "The Nomadic Impact: Gordion," *Dark Ages and Nomads* (Istanbul, 1964) pp. 55–56, and T. Özgüç, *Belleten* XI (1947) p. 80, all from post-destruction tombs. Of apparently contemporary date are three horses buried in a stone-lined tomb at Norşuntepe, H. Hauptmann, "Norşun-tepe, 1970," *Anatolian Studies* XXI (1971) p. 20. For horse burials in the Caucasus see F. Hančar, *Das Pferd in prähistorischer und frühen historischen Zeit* (Munich, 1955) pp. 180 ff. Horse burials also occur in Cyprus in the eighth and seventh centuries B.C., V. Karageorghis, *Excavations in the Necropolis of Salamis* (Cyprus, 1967) Tombs 2, 3, 47. A. Hakemi, "Kalaruz," *Archaeologia Viva* 1 (1968) p. 65, mentions horse burials but gives no details. That such burials continued in later times in Iran is attested by horse and human bones found together in a first century B.C. tomb at Shahr-i Qumis excavated by John Hansman and David Stronach in 1967 (*Journal of the Royal Asiatic Society* [1970] I, pp. 41–48). An account of horse burials in the Altai region is given in S. I. Rudenko, *Frozen Tombs from Siberia* (University of California, 1970). The widespread occurrence of horse burials over a wide chronological and geographical range indicates that no one ethnic group had a monopoly on the practice.

with flutings, ridges, "crow's feet," or with an animal head at the handle, and sometimes with a vertically bridged spout; hydriae, which seem to occur only at Hasanlu and Dinkha; basket-handled teapots; carinated bowls; deep bowls with animal-head protome handles; the (imported?) pear-shaped gourd; the many jar types; knobbed vertical loop handles; asymmetrical handmade bowls; gadrooned jars (Dyson 1964a, figs. 118–121; 1965, fig. 13; Young 1965, figs. 6, 7; vanden Berghe 1959, figs. 144–146; Stein 1940, fig. 109, pls. xxiv, xxx, xxxi; Rad, Hakemi 1950, pp. 59–60, Burney, Lang 1972, p. 125).

Equally shared are the many metal and miscellaneous objects, such as jewelry and weapons: pear-shaped stone mace heads and metal-spiked or star maces are very common at Hasanlu (Rad, Hakemi 1950, fig. 78b; Dyson 1960, fig. on p. 128); so were iron knives with curved tips, and iron socketed spears, found there by the hundreds (compare Moorey 1971, pp. 88–90; compare no. 87, to my Figure 25, B9a, β9, 221). Bronze and iron archer's rings were excavated in many Hasanlu burials (Stein 1940, pl. xxv, 2; seven iron examples were found at Dinkha) and two bone-antler axes (exactly the same type as in Figure 26, B9a, β9, 1042) were found at Hasanlu, one in a burial. To my knowledge only one dagger—actually the hilt alone is preserved—exactly paralleling the sole example from Dinkha (Figure 45, B8a, β1, 1046) comes from Hasanlu; but another similar example was also found there (Dyson 1964a, p. 41, fig. 2:2, pl. ix, 2; see also Moorey 1971, pp. 70–71).

Plain, jointed horse bits of the same type as Figure 36, B10a, β6, 1026, as well as twisted and elaborate examples occur at Hasanlu in bronze and iron (Ghirshman 1939, pl. cc: 17; 1964, fig. 338, left; compare also fig. 338, right).[17]

The iron and bronze chains from B10a, β6 and B8a, β1 (Figure 45, 1034, 1035, 1041) may have been originally attached to pins as was the case with the many lion pins from Hasanlu (Dyson 1964c, p. 374, figs. 9, 12) and at Haftavan (Burney 1970, fig. 7, middle). Chains occur at Hasanlu not only in connection with lion pins, but individually (although they too may have been connected to other pins), and in a Period III context, attached to a fibula.[18]

It was mentioned before that torques were known at Dinkha III and II, and that they occur in small quantities at Hasanlu IV. Bronze and iron plain round rings, single and doubled, and flat-band rings are common at Hasanlu. Several plain band bracelets, some with concave sides (Figure 36, B10a, β6, 113), and several examples of the elaborately incised band types (Figure 36, B10a, β6, 112), were at home at Hasanlu. The dead at Hasanlu were also dressed, and wore anklets, plain loop and figure-eight hairrings, and pins, of exactly the same types as those from Dinkha; they were also furnished with needles (Stein 1940, p. 401).[19]

Literally scores of thousands of beads of all typical materials, including antimony, amber,[20] and Egyptian blue, were found in the graves and on the citadel at Hasanlu. Astragals, polished from use, were found at both sites; Hasanlu produced some that were pierced. We may assume that the same games were played at both cities, which is not surprising inasmuch as knucklebone games have a long history in the ancient Near East, and in modern history as well.[21] Another type of

17. The number of horse bits found at Hasanlu gives evidence for the use of cavalry and perhaps chariotry there, a fact corroborated by the scenes represented on ivories found at the site, Muscarella 1966, figs. 11, 12 (but no bits are depicted on these horses); see also fig. 10. It is not possible to make any comments about the extent of cavalry and chariotry at Dinkha from the two examples—one a fragment—found in one tomb.

18. Compare also M. Mallowan, *Nimrud and Its Remains* II (New York, 1966) p. 114, fig. 58.

19. Many of the figures on the Hasanlu ivories wear bracelets, and so do those represented on the gold bowl; the nude female figure there also wears anklets.

20. It does not yet seem possible to be certain about specific proveniences of ancient amber: Curt W. Beck, "Analysis and Proveniences of Minoan and Mycenaean Amber," *Greek Roman and Byzantine Studies* 7, 3 (1966) pp. 191–211.

21. Our workers always asked for discarded astragals from the ancient burials to give to their children; see also C. L. Woolley in *LAAA* 26 (1930) p. 20, note 1, where it is reported that astragals were placed in modern children's graves. Their occurrence in ancient times is widespread, as the following incomplete listing makes clear: in Iran they are reported, besides those from Hasanlu and Dinkha, from Geoy Tepe, Burton-Brown 1951, p. 175, note 15, pl. xxii, A Period; from Sialk B, Ghirshman 1939, p. 245, pl. lxxviii; from Ghalekuti, N. Egami, et al., *Dailaman* I (Tokyo, 1965) pl. xlviii, no. 28; from early Susa, J. de Morgan, *MMA en Iran* XXIX (Paris, 1943) pp. 46 ff. In Anatolia they occur early at both Hacilar and Çatal Hüyük, J. Mellaart, "Anatolia Before 4000 B.C.," *CAH* Fascicle 20 (1964) pp. 10, 14; at Troy, H. Schliemann *Ilios* (New York, 1881) pp. 263, 426; at Alishar, E. F. Schmidt and H. H. von der Osten, in *OIC* XIX (Chicago, 1932), p. 274, fig. 374; *OIP* XX (Chicago, 1933) pp. 82–83, fig. 129;

bone object from Dinkha, the incised cosmetic container from B8a, β1 (Figure 45, 1047), has many relations at Hasanlu (Stein 1940, pl. xxv, 6; Ghirshman 1939, pl. c, 24; see also Dyson 1964c, figs. 14–17).

In short, the two sites shared a common culture. This conclusion is not contradicted by the fact that there were some differences between the sites, some traits that were not shared in common. For example, burials at Hasanlu continued to be simple inhumations, while at Dinkha, alongside inhumation, the earlier use of brick tombs continued, augmented by the innovation of stone chamber tombs; and at Hasanlu only a few urn burials of undetermined date have been found (compare Stein 1940, pp. 397, 400, date not clear). Certain pottery types, very much in evidence at Hasanlu, do not occur at Dinkha: tripod stands for supporting sputed vessels, which were found in many Hasanlu burials, and spouted vessels with animals sculpted on the spout, or vessels with an animal at the handle (Dyson 1968b, figs. 118, 121; vanden Berghe 1959, pl. 145, c–e); bowls with tab handles, solid and looped, sometimes with animal-head protomes on the body (Dyson 1964c, fig. 13; Young 1965, figs. 6:3; 7:3; Boehmer 1967, p. 580, fig. 7); and vessels on tall hollow stands (Dyson 1964a, figs. 4:7, 9, 10, 11). Nor do we have any evidence at Dinkha for the fine wares with polished gray surfaces, and for glazed wares (Young 1965, p. 55).

Lion pins, metal bells, belts, animal figurines, armor, metal and pottery rhyta, not to mention ivories and vessels made of precious metals, were not found at Dinkha. But it must be stressed that many of the Hasanlu objects mentioned come from the destroyed *citadel*, whereas at Dinkha we are dealing with a *cemetery* alone and have only the evidence from material placed in burials. However, from the sophisticated and massive architecture preserved at Hasanlu, and from the vast quantity of material remains, both of local and of foreign manufacture (Muscarella 1971a, pp. 263–265), there can be no doubt that Hasanlu was culturally and economically the richer site, perhaps even the main seat of government and trade in the area. Dinkha, on the other hand, while obviously not poor, was quite clearly a less important site, perhaps because it was closer to the western border.

The strong cultural connections demonstrated to exist between Hasanlu and Dinkha over such a long period of time suggest an hypothesis: that both the Solduz and Ushnu valleys were part of the same ancient state, of which Hasanlu may have been the major city, with Dinkha one of several provincial towns (there are still several unexcavated large mounds in Solduz) governed by a prince or governor. It is also possible that the same language was spoken at both sites. To be sure, we know nothing about ancient place names or languages in the area and therefore can go no further than hypothesizing.[22] But with respect to the material evidence of the two valleys in the Iron Age, they must be treated as one cultural region.

OIP XXIX (Chicago, 1937) p. 433, fig. 488; *OIP* XXX (Chicago, 1937) pp. 105, 174–175, figs. 101, 196 (late); at Boğazköy, *MDOG* 72 (1933) p. 77, fig. 12; R. M. Boehmer, *Die Kleinfunde von Bogazköy* (Berlin, 1972) pp. 35, 181, 203. They were very common in Phrygian Gordion: a large vase filled with astragals was found in one of the burnt buildings, and many were found on the floor of another, R. S. Young in *AJA* 61 (1957) pp. 321, 327; 446 astragals were found in Tumulus P, a child's tomb, ibid., p. 327. In North Syria they occur at Zincirli, F. von Luschan and W. Andrae, *Die Kleinfunde von Sendschirli* V (Berlin, 1943) pp. 122–124, fig. 173, pl. 59: p, q; at Hama, P. J. Riis, *Les Cimetières á Crémation* (Copenhagen, 1948) pp. 30, 35, fig. 22, p. 176; at Carchemish, C. L. Woolley, *LAAA* 26 (1939) pp. 20–21, 23 f.; note also the relief there with children playing an astragal game, E. Akurgal, *The Art of the Hittites* (New York, 1962) fig. 122. For Assyria see A. Haller, *Die Gräber und Grüfte von Assur* (Berlin, 1954) pp. 18, 21–22, 103. For Palestine, see for Lachish, O. Tufnell, *Lachisch* II (London, 1940) p. 194; for Ugarit, C. F. A. Schaeffer, *Ugaritica* IV (Paris, 1962) pp. 80–82, 103–105, figs. 64, 65. In Mesopotamia we find them at Tepe Gawra, E. Speiser, *Excavations at Tepe Gawra* (Philadelphia, 1935) p. 33; Nuzi, Starr 1939, pp. 378–379, 414, 450, and Vol. II, pl. 117, n; at Kish, in the Field Museum of Natural History in Chicago. They also were used in Egypt, H. Schäfer, *Aegyptische Kunst* (Berlin, 1913) fig. 122, and Nora Scott, *BMMA*, Spring 1973, fig. 39. In the West they were common from Bronze Age to Roman times at too many sites to mention here. See, for example, L. Deubner, "Zum Astragalspiel," *AA* 1929, pp. 272–282; *Pauly-Wisowa Supplement*, IV (1924) "Astragalomanteia," pp. 51–55; R. Hampe, "Die Stele aus Pharsalos in Louvre," *Winckelmannsprogram der Arch. Gesellschaft zu Berlin* (1951); G. Bass, *Cape Gelidonya: A Bronze Age Shipwreck* (Philadelphia, 1967) p. 133.

22. As stated in the text, there are unexcavated mounds in the area of Solduz, and future work might alter the suggestions made here. At present the Solduz valley is inhabited largely by Turkish-speaking Shia Moslems, the Ushnu valley by Kurdish-speaking Sunni Moslems. Future archaeologists might not be able to surmise from the remains of their material culture as represented by house plans, burial customs, and household goods, that they were two different cultural groups with different languages and histories, and sometimes mutual hostility.

Visible from Dinkha Tepe to the east is the still unexcavated Urartian site of Qalatgah (Figure 19; Muscarella 1971b, pp. 44–49). During survey work conducted by the Hasanlu Project an Urartian inscription, written for Ishpuini and his son Menua sometime about 810–805 B.C., was found. This important inscription dates the entry of the Urartians from the north into the southern Urmia basin, specifically, into the Gadar and Ushnu valleys. And it is at this very time,[23] as established by independent archaeological research, that Hasanlu IV was violently destroyed and Dinkha II was terminated, probably by abandonment—for it is quite clear that the chronology of Dinkha II depends completely on that of Hasanlu. Surely, these two events, the end of the Iron II culture and the entry of the Urartians into the area are related: the Urartian invasion of the west and south of the lake is the historical event that aborted the flourishing Iron II culture. A few years later King Menua alone set up a stele at Tashtepe, about fifty miles to the east of Dinkha, demonstrating the southeastern limits of the invasion.

DINKHA II AND OTHER IRON II SITES

We need only present here a few brief comments about Dinkha's material relationship to contemporary sites, since much has already been written about this period. The ties between Hasanlu IV and Sialk B, Geoy Tepe A (in part, for Iron III remains exist there also: Muscarella 1973, p. 72), Khurvin, Giyan I[1] (part), and the Zendan I (part) are well known and have been discussed often (Young 1965, pp. 61–68, 70–72; 1967, pp. 24–27; Dyson 1965, pp. 197–203; Boehmer 1967, pp. 576–585; Burney, Lang 1972, pp. 122–126). And because of Dinkha's close relationship to Hasanlu, the same elements in the discussion obtain for Dinkha. Although pottery has been the main element referred to in discussing relationships, we might expand this by including other objects. Thus, at Sialk B several multiple burials existed, and chains, plain jointed horse bits, flat-band rings, decorated band bracelets, and torques were placed in burials there (Ghirshman 1939, pls. L, LVI, LIX, LXVIII, LXXXV, LXXVII, LXXVIII, LV, etc.; see also Young 1967, pp. 76–77, note 28).

At Khurvin, in addition to the typical Iron II vessels, several metal objects are of interest to us: torques (see above), tweezers, decorated band bracelets, and plain bracelets with tapered ends (vanden Berghe 1964, pls. IV, V, XI, XII, XVII, XXII, XXXIX, XLI, pp. 29–30, pl. XLII).

Grave 4 from Tepe Guran should be mentioned again in this context for it contained bronze vessels of a type found at Sialk B and similar to some at Hasanlu IV. The sword also found in the tomb indicates, perhaps, a tenth–ninth century dating for the grave rather than ninth–eighth (Thrane 1964, pp. 158–160, note 6; compare Moorey 1971, p. 21).

A few more Iron II sites may be added to the growing list of Iron II sites in western Iran. Yanik Tepe is said to have yielded gray wares of Hasanlu IV type, but no details are yet available (Burney 1964, p. 60). On the western side of the lake at Haftavan Tepe, we are informed that an Iron II settlement was partly uncovered. Moreover, part of an extramural cemetery was excavated and Iron II burials were uncovered. In one was found a red bridged spouted vessel, but in other burials dating is not so clear-cut (Burney 1970, pp. 165–168, figs. 7, 8:2). Some of the burials had chains attached to pins, and figure-eight hairrings (earrings?), anklets, bracelets, rings, and beads; there was also one Mitannian-type seal (Burney 1970, pp. 165–168, fig. 7; 1972, pp. 134 ff., figs. 8, 9, pl. IVb). These finds collectively could indicate a date close to 800 B.C.

Until the complete publication of the Marlik material it is not easy to argue strongly for an Iron II occupation here. Nevertheless, the excavator (Negahban 1964, p. 38) and others who have seen the material (Dyson 1965, chart on p. 11; Young 1967, p. 22, note 69; Burney, Lang 1972, p. 118) agree that some of the material from the tombs belongs in the early first millennium B.C. (Compare Moorey 1971, pp. 23–24, who prefers a late second millennium B.C. date.) I, too, think there is evidence for an Iron II occupation there on archaeological and art-historical grounds (Muscarella 1972, pp. 42–43).[24]

23. If the Iron II period ended sometime before 800 B.C., according to possible interpretations of the MASCA correction dates, then the building of Qalatgah had no direct connection with the end of Hasanlu and Dinkha, which would presumably have been in ruins.

24. At Klar Dasht a bridged spouted vessel with three small feet was found: H. Samadi, *Les découvertes fortuites Klardasht, Garmabak, Emam et Tomadjan* (Teheran, 1950) pp. 8, 12, fig. 9.

Far away to the southeast at Tepe Yahya (III) a fragment of a gray bridged vessel was found, and we are told that both gray and red wares occur in this level (Lamberg-Karlovsky 1970, p. 27, pl. XIII). This information could indicate that there was an Iron Age level at Yahya, but based on the published material perhaps Iron II/III rather than Iron I/II, as suggested by the excavator.

One final point will be presented here, a point already made by Young (1967, p. 25), that practically all the sites that had Iron I material also had Iron II material. Which is to say that from an archaeological view the Iron Age I and II cultures lasted over a large area for a long time, and may reflect the historical fact that there was a population continuum in much of western Iran until the early eighth century B.C. Of course, Sialk B is the anomaly here because of its extraordinary painted-ware tradition, and here alone one *might* be able to argue against stability (Dyson 1965, pp. 200–201). The isolated Iron I burials at Dalma and Hajji Firuz, and at Godin to the south, should be kept in mind, but they do not contradict a continued distribution of the Iron I and II cultures.

CODE FOR TABLES

Burial:

I: inhumation
B: brick tomb
S: stone tomb

Sex/Age:

F female
M male
I infant
C child
YA young adult
MA mature adult
OA old adult
A adult

Body Positions:

B on back
R on right side
L on left side; ext. extended
F flexed
S arm touches own shoulder

Head Faces:

F to feet

TABLE I: Dinkha III Burial Data

Burial	Type	Sex/Age	Orientation	Body Position	Head Position	Head Faces	Leg Position	Arm Position	No. Vessels	Jewelry	Weapons and Miscellaneous	Animal Bones	Comments	Text Reference
B9a, β11	I	C	N-S	B	S	F		L: F R: S	1	Bracelets, beads			Poorly preserved	
15	B	F/MA	N-S	B	N	F	F	F	3	Bracelets, pins, rings, needle, headband, beads		X?		P. 44, Figs. 9, 52 (385, 400)
16	I	?/MA	N-S	L	S	W	F	F	2	Pin, needle				
17	I	?/MA	N-S	L	N	SE	F	R: ? L: S	3	Torque, bracelets, anklets, ring, pin, beads, needle				P. 44, Figs. 10, 11
18	I	?/MA	N-S	B	S	E		F	1	Bracelet, pins, ring, beads			Poorly preserved	
19	I	C	N-S	R	S	E	F	L: F R: S	4	Bracelet, ring				Pp. 44-45, Fig. 12
22	B	C	N-S		S	E		L: F R: ?	2	Bronze necklace, ring, bracelet			Poorly preserved; tomb has brick floor	
23	I	M/MA	N-S		S				3	Bracelets, ring, bone pendant, beads	Daggers; seal		Poorly preserved	Pp. 40-43, Fig. 6
24	I	?/MA	N-S	L	S		F	F	2	Bracelet, pins, rings, needle, beads				P. 43, Fig. 6; Muscarella, 1968, fig. 19
25	I	M/MA	E-W	B	E	NW	F		2	Pin, beads			Poorly preserved	P. 40, Figs. 3, 5
26	I	C	N-S	L	N	NE	F	F	3	Torque, bracelets, anklets, pins, rings, earrings, needles, beads	Bronze bowl			P. 43, Fig. 7; Muscarella, 1968, fig. 16
27	I	M/MA	N-S	B	S	NE	F	L: F R: S	2	Bracelet, beads	Spear	X		P. 43, Figs. 7, 8
B9b, β11	B	C	N-S	L	N	E	F	F	3	Torque, bracelets, anklets, earrings, beads				P. 45, Figs. 2, 13; Levine, 1971, p. 40
12	I	C	N-S	B	S		F	F	3	Ring		X	Poorly preserved	Pp. 45-46, Fig. 13; Muscarella, 1968, figs. 15, 17 right
16	I	?/YA	N-S	R	S	E	F	F	3	Bronze necklace, bone awl, bracelet, beads	Dagger			P. 46, Figs. 2, 14
18	B	C	N-S	B	N	E	F	L: ext. R: ext.	3	Torque, bracelets, anklets, pin, beads				Figs. 2, 52 (269T)
B9b, β20	I								3				Skeleton in balk	
21	B	F/MA	E-W	B	E	Sky	F	L: F R: F	1	Bracelets, pins, ring, beads			Partly in balk	Fig. 2

B10a, β19	I	F/YA	N-S	R	N	E	F	R: F L: S	3	Pins, ring, beads				
20	I	M/MA	N-S	B	S	Sky	F	L: F R: S	2	Bracelet, ring, beads				
22	I	M/MA	E-W	B	E	Sky	F	L: F R: S	2	Bracelet				
23	I		E-W	B	E	Sky	F	F	1	Bracelet, pin				
25	I	F/YA	N-S	R	S		F	L: F R: S	1	Bracelet				
B10b, β10	B	F/MA	N-S	L	N	E	F	F	3	Pins, earrings, ring, beads		X		P. 46, Figs. 15, 16; Muscarella, 1968, fig. 2
13	B	F/MA	N-S	L	N	E	F	F	3	Pins, earrings, ring, needle				
B8e, β7	B								2				Disturbed	P. 47, Fig. 17
8	B	?/MA	N-S	L	N				3	Torque, bracelets, pins, button headband, beads			Disturbed	Fig. 52 (433T, 638P)
TT IV, β1	I	F/YA	N-S	L	N	E	F	F	3	Torque, pins, earrings, ring, beads				Fig. 52 (509T)
TT VII, β1	I	F/YA	N-S	R	N		Ext.	at sides	3	Torque, bracelets, pin, earrings				Pp. 39-40, Fig. 3
2	B	M/YA	E-W	B	E	Sky	Ext.	F	2	Bracelet	Dagger			P. 40, Figs. 3, 4
TT IX, β1	I	F/A	E-W	B	W	Sky	Ext.	at sides	2					
5	I	I	N-S	R	S				2	Bracelets, anklets, pins, beads			Poorly preserved	
TT XI, β1	I	M/A	N-S		S		F	F	4	Bracelets, anklets, pins, ring, beads				

TABLE II: Dinkha II Burial Data

Burial	Type	Sex/Age	Orientation	Body Position	Head Position	Head Faces	Leg Position	Arm Position	No. Vessels	Jewelry	Weapons and Miscellaneous	Animal Bones	Comments	Text Reference
B9a, β4	B	F/A	N-S	B	N	S	F	L: ext. R: F	3	Pins, rings, hairring beads				
7	B	C	N-S	R	S	E	F	R: ext. L: F	3	Bracelet, rings, beads				Fig. 52 (202T, iron)
8	B								2	Ring			Partly in balk	
9	B	M/MA	E-W	B	W	F	F	at sides	5	Bracelets, rings, beads	Spear, antler ax	X		Pp. 60-61, Figs. 25, 26
10	B		N-S	B	S				1	Bracelet			Partly in balk	
14	B	?/MA	N-S	B	S	E	F	F	3	Torque, rings, bracelets, beads		X		P. 63, Figs. 31, 32
B9b, β1	I	I	E-W	L	E	S	F	F	0	Beads				Fig. 2
3	I	?/MA	N-S		N				2	Ring		X	Disturbed	Fig. 2
6	I	C	N-S	L	N	E	F	F	0	Pins, bracelet				Fig. 2
7	I	C	N-S	L	N	E	F	F	2				Stone under chin	Fig. 2
9	B	C	N-S	L	N	E	F	F	5	Pins, beads, button		X	Disturbed	Figs. 2, 33; Levine, 1971, p. 40
10	B	?/MA	N-S	R	S	N	F	F	6	Bracelets, beads	Spear	X		Fig. 2
13	S		N-S						5	Bracelets			No skeleton	P. 64, Figs. 2, 33, 34
14	B	F/MA	N-S	R	S	E	F	at sides	4	Beads				Fig. 2
15	B	F/MA	E-W	L	E	S		F	1	Bracelets, anklets, pins, rings			Partly in balk	Fig. 2
17	B								0				Partly in balk	Fig. 2
19	B	?/A	N-S	L	N	E	F	F	3	Torque, pins, rings, earrings, beads				P. 61, Figs. 2, 27
B10a, β6	S	?/MA	N-S		N		F		20	Bracelets, anklets, pins, rings, beads, needle, chains, studs	Spear, maces, ax, blade, archer's rings, horse bits, bronze bowl		No skeleton; dismembered horse skeleton	Pp. 64-67, Figs. 35–37; Muscarella, 1968, 189 ff., figs. 13, 14
7	I	M/OA	N-S	R	S	NE	F	R: ext. L: F	4			X		
11	I	F/MA	N-S	R	S	E		F	1	Bracelet			Partly in balk	
12	B	M/	N-S	R	S	E	F	F	4	Torque, bracelets, beads	Spear			P. 67, Figs. 38, 39
13	I	F/A							5	Ring, stud, beads		X	Disarticulated	P. 67, Fig. 40
14	S		N-S		N				4	Bracelets, anklets, pins, hairrings, earrings			No skeleton	
15	S		N-S		N				15	Pins, hairrings, rings, studs	Archer's rings	X	No skeleton	P. 67, Figs. 41, 42, 52 (815); Muscarella, 1968, fig. 11

16	B	I	N-S	L	N				3	Torque, bracelet, beads			Few bones extant	P. 61, Fig. 28
17	I	M/MA	N-S	B	S	N		L: F R: S	5	Bracelet, beads			Partly in balk	
21	B	?/MA	N-S		N		F		2				Partly in balk	
24	I	?/MA	N-S	B	N		F		8				Disturbed	
B10b, β1	I	?/YA	E-W	R	E	N	F	R: ext. L: at side	3					P. 63, Fig. 30
2	I	C	N-S	R	S	NE	F	F	2	Ring			Partly in balk	
3	B	C	N-S	R	S	E	F	F	3				Skull had a partly healed hole	P. 59
4	I	F/MA	E-W	B	E	N	F	F	0	Pin				
5	B	?/YA	N-S	R	N	NW	F	F	5	Pins, hairrings, rings, earrings, studs, beads, tweezer		X		Fig. 52 (54T, iron; 159T, bronze); Muscarella, 1968, figs. 2, 6
6	B	M/MA	N-S	B	S	NE	F	R: ext. L: F	3	Bracelet, ring	Blade, point			Muscarella, 1968, figs. 2–5
7	B	M/OA	N-S	R	S	E	F	F	3	Bracelet			Arthritic lipping of vertebrae	P. 59, Muscarella, 1968, fig. 2
8	B	F/OA	N-S	B	N	E		R: F L: S	3	Pins, ring, needle, beads		X	Arthritic lipping of vertebrae; partly in balk	Pp. 59, 67-68, Fig. 43; Muscarella, 1968, fig. 2
9	B	C	E-W	L	W	N	F	F	3	Pins, hairrings, ring, earrings, beads				Muscarella, 1968, figs. 2, 7
11	B	F/MA	N-S	B	N	E	Ext.	F	2	Pins, rings, beads	Archer's ring			Pp. 61-62, Fig. 29
14	B	?/MA	N-S	L	S	W	F		4				Partly destroyed by β9	Muscarella, 1968, fig. 2
B10b, β16	B	F/MA	N-S	L	N	E	F	F	7	Pins, rings, hairring, needle				Fig. 52 (342T, 343P, iron); Muscarella, 1968, figs. 2, 12
B8a, β1	S								10	Bracelets, anklets, pins, rings, cosmetic box	Dagger, knives, point		Two skulls, no skeletons	Pp. 68-71, Figs. 44, 45
B8d, β1	B	F/MA I	E-W	R	E	N	F	R: at side L: F	6				Mother and child	P. 59
2	B		N-S	L	N	E			2				In balk	
B8e, β3	B		N-S		S	E			1	Bone needle			Disturbed; in balk	
4	B		N-S	B	N		F	F	2				Disturbed	
5I	S	M/A F/A							5 23	Bracelets, pins, hairrings, rings	Spears, knife, archer's rings		Few bones extant; two skulls	Pp. 72-74, Figs. 46–48
5II	B	C	N-S	R	S		F		1			X	Two skeletons	Pp. 72-74, Figs. 46-48
		F/YA	N-S	R	S		F		2	Bracelets	Mace			
6	B		N-S		S	E	F		3	Beads				
G10c, β8	B	?/A	N-S		S		F	F	4				Disturbed	

TABLE III: Burials of Undetermined Period

Burial	Type	Sex/Age	Orientation	Body Position	Head Position	Head Faces	Arm Position	No. Vessels	Jewelry	Weapons	Comments	Text Reference
B9a, β21	I							0	Bone pin		Low in fill; disturbed	
B10a, β18	I	M/MA	E-W	B	E	Sky	L: F R: S	1			Partly in balk	
26	I			B						Bronze dagger	Disturbed	Fig. 51 (648P)
B10b, β12	I	F/MA	N-S		N	W		0			Disturbed	

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