# LURISTAN EXCAVATION DOCUMENTS
## Vol. IV

# The Early Iron Age in the Pusht-i Kuh, Luristan

BY

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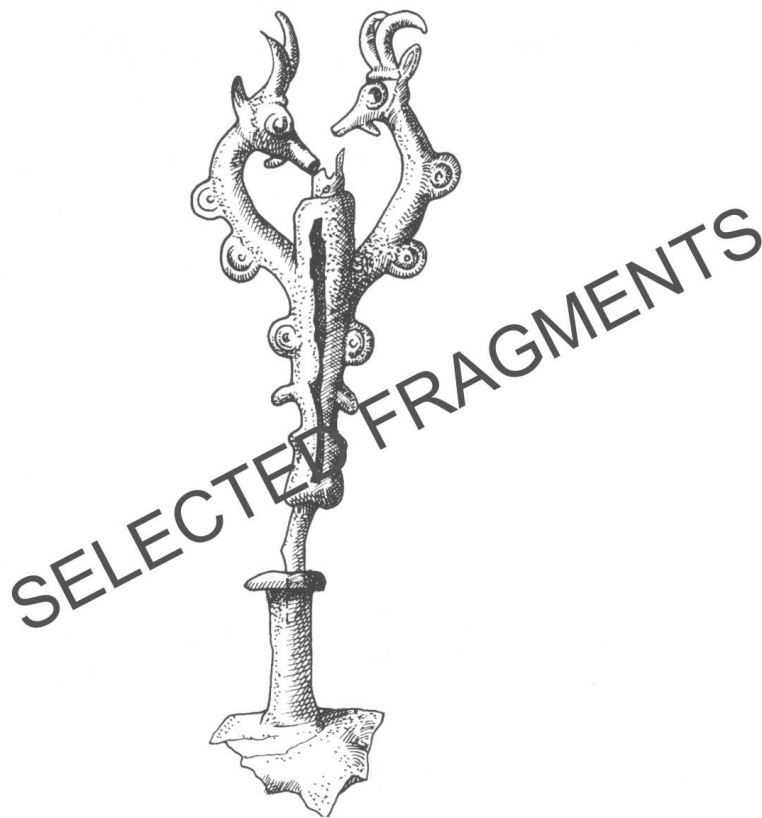
2003

# IDENTIFICATION SYSTEM

## Graveyards:

| | |
|---|---|
| DB | Darwand B |
| D | Chal Asat Darrik |
| AW | Tulakahnam – Awazeh |
| PKCH | Pusht-i Kabud |
| TK | Tepe Kalwali |
| ChCh | Cham Chakal |
| KT | Kutal-i Gulgul |
| DR | Duruyeh |
| PK | Pa-yi Kal |
| BB | Bard-i Bal |
| SHP | Shurabah – Payravand |

## Object identification :

XX . A4 – 5

| | |
|---|---|
| XX. | graveyard identification |
| A | optional: letter indicating the excavated area (A, B or C) |
| 4 | serial number of the tomb |
| -5 | serial number of the object in the tomb. |

# ACTA IRANICA

TROISIÈME SÉRIE

TEXTES ET MÉMOIRES

Vol. XXVI

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## DISCUSSION OF THE BAMI GRAVEYARDS

## SURVEY OF THE BAMI GRAVEYARDS

### Darwand B

### Chal Asat Darrik

# Tulakahnam - Awazeh

# Pusht-i Kabud

# Tepe Kalwali

# Cham Chakal

# Kutal-i Gulgul

# Duruyeh

# Pa-yi Kal
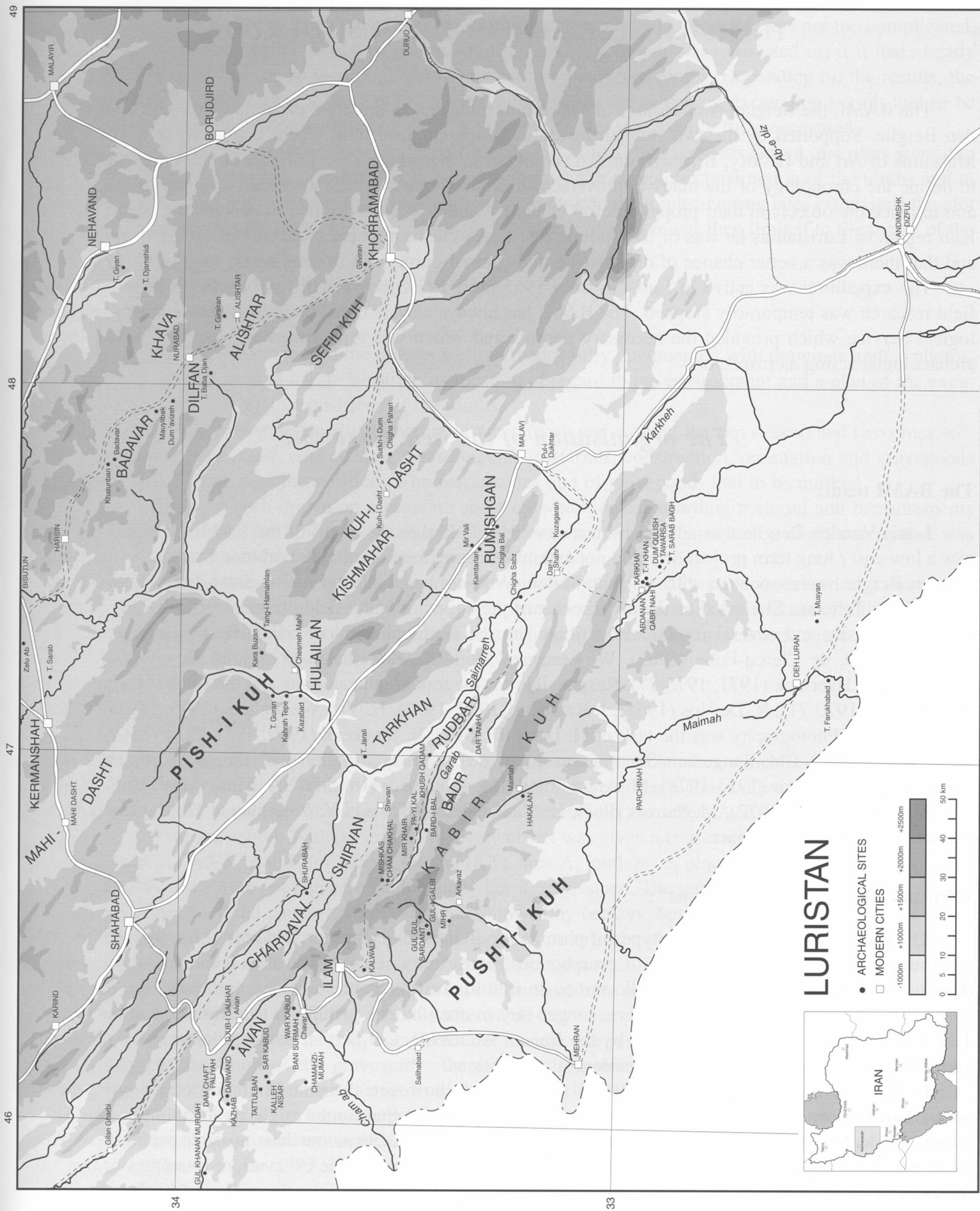
## Bard-i Bal

## Shurabah - Payravand

Fig. 1. Map of Luristan.

chronological correlation with the first references to the presence of Iranians (Medes and Persians) in this region as a possible explanation (Young 1985, p. 375-376), but more research is needed on this hypothesis.

## The Pusht-i Kuh Chronology

The tripartite Iron Age division proposed by Young and Dyson was also used by Vanden Berghe as a referential chronological framework for the Pusht-i Kuh and more generally for Luristan. Linking the archaeological material to the NW-Iranian ceramic horizons was, however, not possible. In the Pusht-i Kuh grey ware is absent during the Iron Age I-II phases and the distinctive NW-Iranian pottery shapes do not occur. In the Iron Age III phase, which is characterised by the WBW horizon in NW-Iran, a distinctive fine grey ware is adopted in the Pusht-i Kuh. Since the archaeological material from the Pusht-i Kuh could not be linked to either the Mesopotamian or the NW-Iranian absolute chronology, Vanden Berghe suggested the existence of important overlaps between the phases and proposed the following absolute dates (Vanden Berghe 1973e, p. 4-5; unchanged in Vanden Berghe et alii 1982, p. 57, 69, separate chronological table):

Iron I: 1300/1250 to 1000/900 BC — Iron II: 1000/900 to 800/750 BC — Iron III: 800/750 to 600 BC

Whereas the Iron Age III phase can archaeologically clearly be distinguished from the earlier phases, the division between the Iron Age I and II is much less tangible and does not meet the available data in the Pusht-i Kuh. However, since this terminology is widely used, it is at present more sensible to divide each in an A and B sub-phase rather than to introduce yet another terminology.

The Iron Age IA constitutes a distinctive breach with Late Bronze Age traditions. In the Pusht-i Kuh painted ware is replaced by buff ware but some of the Bronze Age shapes, such as pitchers with pinched spout, continue to occur. Distinctive are carinated beakers, which are related to Late Kassite and Elamite pottery. Little is known about the Late Bronze Age in the Pusht-i Kuh and the circumstances of these changes remain elusive. Only one Late Bronze Age tomb was excavated. It is located at Sarab Bagh (Abdanan district) (Vanden Berghe et alii 1982, p. 54-55, fig. 20), which lies much more to the southwest, however, than the Early Iron Age cemeteries which are now discussed. The painted wares from this tomb are related to the Late Bronze Age painted wares from the Pish-i Kuh where the Late Bronze Age is better documented. Important settlement sites such as Tepe Baba Djan, Tepe Djamshidi and Girairan seem to have been deserted at the end of the Bronze Age (Goff 1968, p. 127; 1971, p. 150-151 / Schmidt, van Loon & Curvers 1989, p. 486-487). At Tepe Guran in the Hulailan plain, settlement did continue but possibly on a much smaller scale. The reason for this desertion remains elusive. Possibly, climatological and/or ecological misfortunes played an important role, since there are no signs of military destruction on any of the Bronze Age sites. The desertion of the settlements also coincides with a period of increased rainfall in the Near East that reaches its peak precisely between 1350 and 1250 BC (Neumann & Parpola 1987, p. 164).

It cannot be excluded that increased rainfall, possibly resulting in major and/or repetitive flooding, placed such pressure on the agriculture oriented population that the local economic system eventually collapsed. Geophysical research in Luristan is needed to decide whether such a hypothesis is tenable. The reality of such a scenario is proven by similar events which took place in the nearby Marv Dasht valley in the 12th.-13th. centuries AD (Brookes 1989, p. 34-35). A more recent example of massive desertion of villages following consecutive crop failures took place in Khurasan between 1870 and 1872 AD (Melville 1984, p. 130-131).

In the Iron Age IA phase, the use of buff ware has replaced the Bronze Age tradition of painted pottery. The presence of Kassite luxury items allows linking the Pusht-i Kuh Iron Age IA phase to the Mesopotamian chronology. Of major importance are the Kassite decorated shell finger rings that can be dated at the Diyala sites Tell Imlihiye and Tell Zubeidi to the period between 1225 and 1160 BC. The destruction of the Diyala sites was probably the outcome of an Elamite military campaign of Shutruk Nahhunte in 1160 BC, whose route would have taken him along the Zagros and the Pusht-i Kuh (Boehmer 1982, p. 40 / Boehmer & Dämmer 1985, p. 80). At this moment, and with

the resulting upheavals in Mesopotamia (beginning of the 2nd. Isin dynasty), the import of Mesopotamian luxury goods seems to have been halted. As their deposition as burialgoods in tombs, however, may have continued for a short while, the end of the IA phase may have to be placed somewhere around 1150 BC.

The following phases IB and IIA are not well known in the Pusht-i Kuh. The absence of distinctive objects which allow a linkage to Mesopotamia makes it impossible to suggest a detailed chronology. There was, however, obviously an evolution in pottery types since in the latter half of the Iron Age II phase, in the Iron Age IIB, a coherent and distinctive pottery assemblage is present. As a result, a distinction between the Iron Age IB and IIA phases can at present not be made and it is not even certain that it will ever be possible. Changes may have been very gradual.
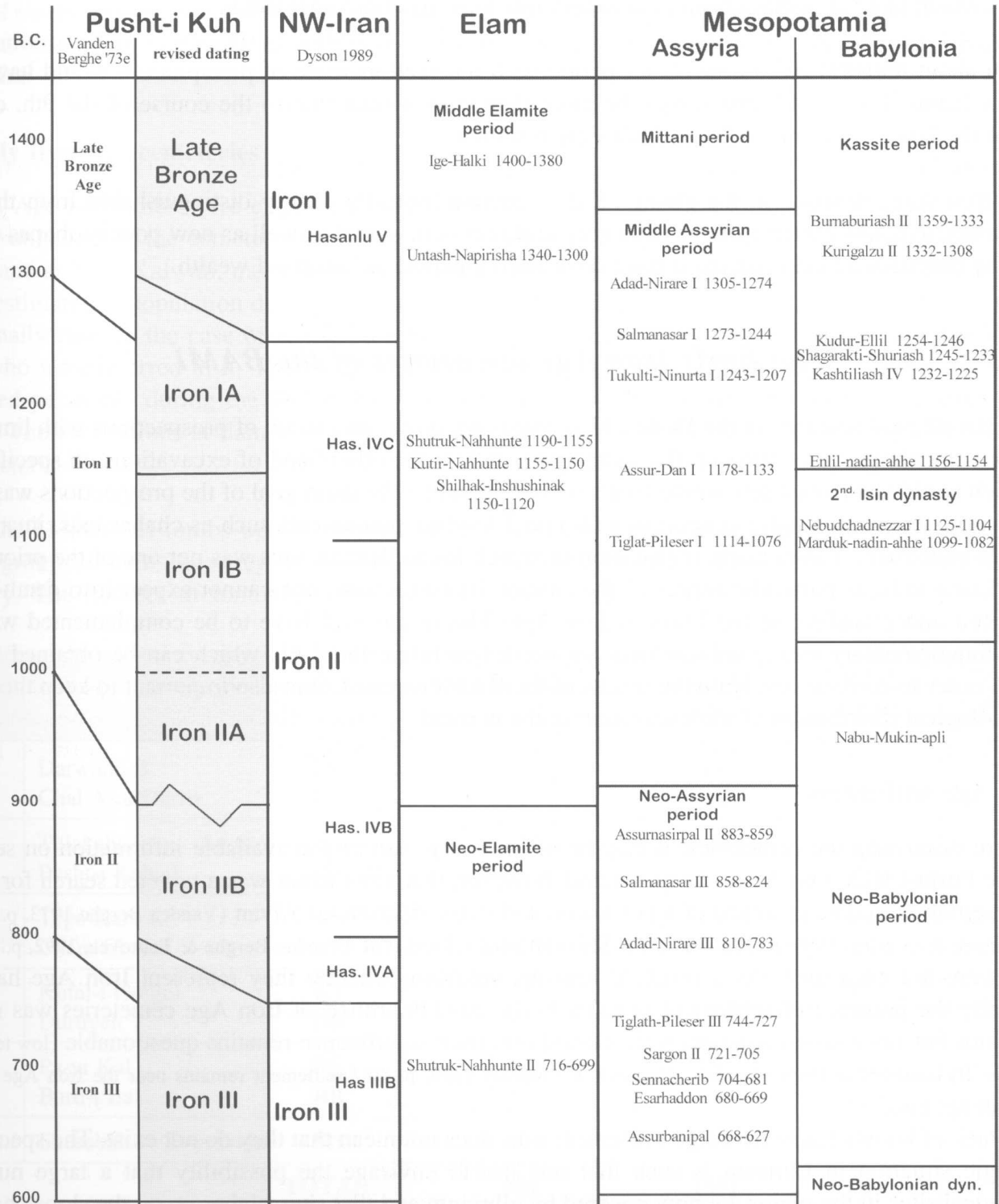


Fig. 3. The Pusht-i Kuh chronology.

Climatic aspects may be an important factor in explaining the apparently small number of tombs which can be dated to the IB-IIA phase. Following the period of increased rainfall which may be connected with the end of the Bronze Age in the region, a much dryer period occurred between ca. 1250 and 950 BC (Neumann & Parpola 1987, p. 164-165). This would have reached its peak around 1150 BC. The weakening of both Assyria and Babylonia is thought to have been largely the result of this changing precipitation which would have caused a chain of events including crop failures, famines and epidemics, giving rise to military conflicts and migrations (Neumann & Parpola 1987, p. 161-162). In some areas, this would have caused a drastic fall in population density. Brinkmann suggests that in some areas, such as the northeastern part of Mesopotamia (the Diyala area) a population drop of up to 75 % occurred (Brinkmann 1984, p. 173). Although the diminished rainfall may have had less effect in higher situated mountainous regions, such as Luristan, a decreased population would be a possible explanation for the smaller number of burials. On the other hand, in view of the limited number of Iron Age I-II tombs which have altogether been discovered, this may also be coincidental.

From about 950/900 BC a new cooler period with renewed increase of precipitation would have started (Neumann & Parpola 1987, p. 175) and it may be more than coincidental that in the course of the 9th. century a number of the larger tepes in the Pish-i Kuh were resettled.

The Iron Age III phase in the Pusht-i Kuh is archaeologically clearly distinguishable from the earlier phases. Distinctive new pottery groups (fine grey and fine buff wares) as well as new pottery shapes occur. In general, the burialgoods indicate that it must have been a period of increased wealth.

## The Early Iron Age discoveries of the BAMI

The BAMI field research in the Pusht-i Kuh consisted, on the one hand, of prospections with limited trial excavations (maximum three days on the same spot), and on the other hand of excavations on specific cemeteries which could last from a few weeks to nearly two months. The main goal of the prospections was the discovery of cemeteries, although attention was also paid to other monuments such as chahar taqs, imamzadehs, rock reliefs and so on. A systematic registration or search for settlement sites was not one of the priorities. As the BAMI targeted one particular aspect of the culture, its cemeteries, one cannot expect it to result in a full and balanced understanding of the Luristan Iron Age. The results will have to be complemented with other research. Supplementary stratigraphical data are needed to refine the dates which can be obtained from the burials. In order to correctly evaluate the results of the BAMI research, it is also important to keep the regional and chronological distribution of the excavated tombs in mind.

### The Iron Age settlements

Before discussing the cemeteries, it may be of interest to survey the available information on settlement sites in the Pusht-i Kuh. One has to keep in mind, however, that there never was a targeted search for possible Iron Age settlements. The presence of tepes was noted in the districts of Aivan (Vanden Berghe 1973, p. 62; 1980, p. 32 / Haerinck & Overlaet 1999, p. 2-3, 40, ill. 1), Shirvan and Chardaval (Vanden Berghe & Tourovets 1992, p. 11, pl. 5), but they were not excavated. As a result, it remains unknown whether they represent Iron Age habitation. Occasionally the presence of settlement remains in the neighbourhood of Iron Age cemeteries was noted by the excavator but since no excavations were carried out, their significance remains questionable (low tepe nearby the Iron Age III cemetery at Djub-i Gauhar: Haerinck & Overlaet 1999, p. 40 / settlement remains near the Iron Age I tomb at Shurabah, see fig. 236).

The lack of known Early Iron Age settlement sites does not mean that they do not exist. The specific geomorphologic situation in Luristan is such that one has to envisage the possibility that a large number of archaeological sites in the plains are now covered by alluvium and that sites higher up on the slopes have been largely washed away by erosion. Such a situation is familiar from the nearby Mahi Dasht where the geologi-

cal events can be expected to parallel those in Luristan (cf. Brookes 1989, p. 35-38). In this context it is interesting to refer to Goff's findings on settlement distribution in the Pish-i Kuh. She noted the desertion of the large tepes at the end of the Bronze Age (Goff 1968, p. 127; 1971, p. 150-151 / Schmidt, van Loon & Curvers 1989, p. 486-487). It is not to be excluded that in fact a shift occurred to smaller habitation sites in the plains which may now be largely buried underneath more recent alluvium. Iron Age IIB-III tepes, representing the Baba Djan III culture, were found in several regions to be mostly small and low mounds, merely one to two metres in height (Goff 1968, p. 127). Without excavations or any knowledge of the distinctive Iron Age I-IIA Pish-i Kuh pottery, it is unknown, however, whether Early Iron Age habitations are present underneath. Their presence can be expected, based on the findings at Tepe Guran in the Hulailan plain. This site may have had an uninterrupted habitation from the Bronze Age through the Iron Age. The Iron Age I-II habitations were found at the foot of the tepe, below the level of the surrounding plain (cf. Tepe Guran p. 25: sector GII was excavated to a depth of 3.70 m., the Iron I-II remains were thus situated well below the plain level). In view of the present situation, field research targeted on habitation sites in combination with geomorphologic research is needed in both the Pish-i Kuh and the Pusht-i Kuh.

## The Early Iron Age cemeteries

Iron Age I-II tombs were excavated by the BAMI at 11 sites in the Pusht-i Kuh. Usually, only a few tombs or only part of the cemetery were excavated. Only at Bard-i Bal (where also Iron Age III tombs were present) and at Tepe Kalwali, the cemeteries were almost fully investigated. In view of the fragmentary information, estimates of population density are not possible. Particularly since well preserved skeletal remains are exceptionally rare. In the case of re-used tombs, it is in most cases even impossible to know the number of people who were interred in it. The bad preservation of organic remains makes it into a necessity to employ specialised personnel during the excavations, not only to study the remains, but in the first place for their retrieval. The excavations at Ilam (cf. p. 17) illustrate that this may contribute to a much better understanding of a cemetery.

At the 11 sites 121 tombs were excavated which can be dated in the Iron Age I-II. In total more than 1550 items or groups of items were registered (beads and lithic tools are grouped per tomb), 63% of which consists of pottery. The number of tombs is somewhat misleading since at some cemeteries tombs were used for

| District | graveyard | | Number of tombs | Objects | | |
|---|---|---|---|---|---|---|
| | | | | Total | Pottery | Others |
| *Aivan* | Darwand B | **DB** | 14 | 66 | 26 | 40 |
| | Chal Asat Darrik | **D** | 3 | 12 | 6 | 6 |
| *Chavar* | Tulakahnam — Awazeh | **AW** | 6 | 24 | 13 | 11 |
| | Pusht-i Kabud | **PKCH** | 5 | 23 | 16 | 7 |
| *Ilam* | Tepe Kalwali | **TK** | 21 | 70 | 61 | 9 |
| | Cham Chakal | **ChCh** | 2 | 11 | 5 | 6 |
| *Arkavaz* | Kutal-i Gulgul | **KT** | 18 | 632 | 432 | 200 |
| | Duruyeh | **DR** | 16 | 97 | 73 | 24 |
| *Badr* | Pa-yi Kal | **PK** | 12 | 132 | 90 | 42 |
| | Bard-i Bal | **BB** | 23 | 436 | 225 | 211 |
| *Chardaval* | Shurabah — Payravand | **SHP** | 1 | 48 | 37 | 11 |
| | **TOTAL:** | | **121** | **1551** | **984** | **567** |

Table with the quantity of registered burialgoods per site (Iron Age I and II).
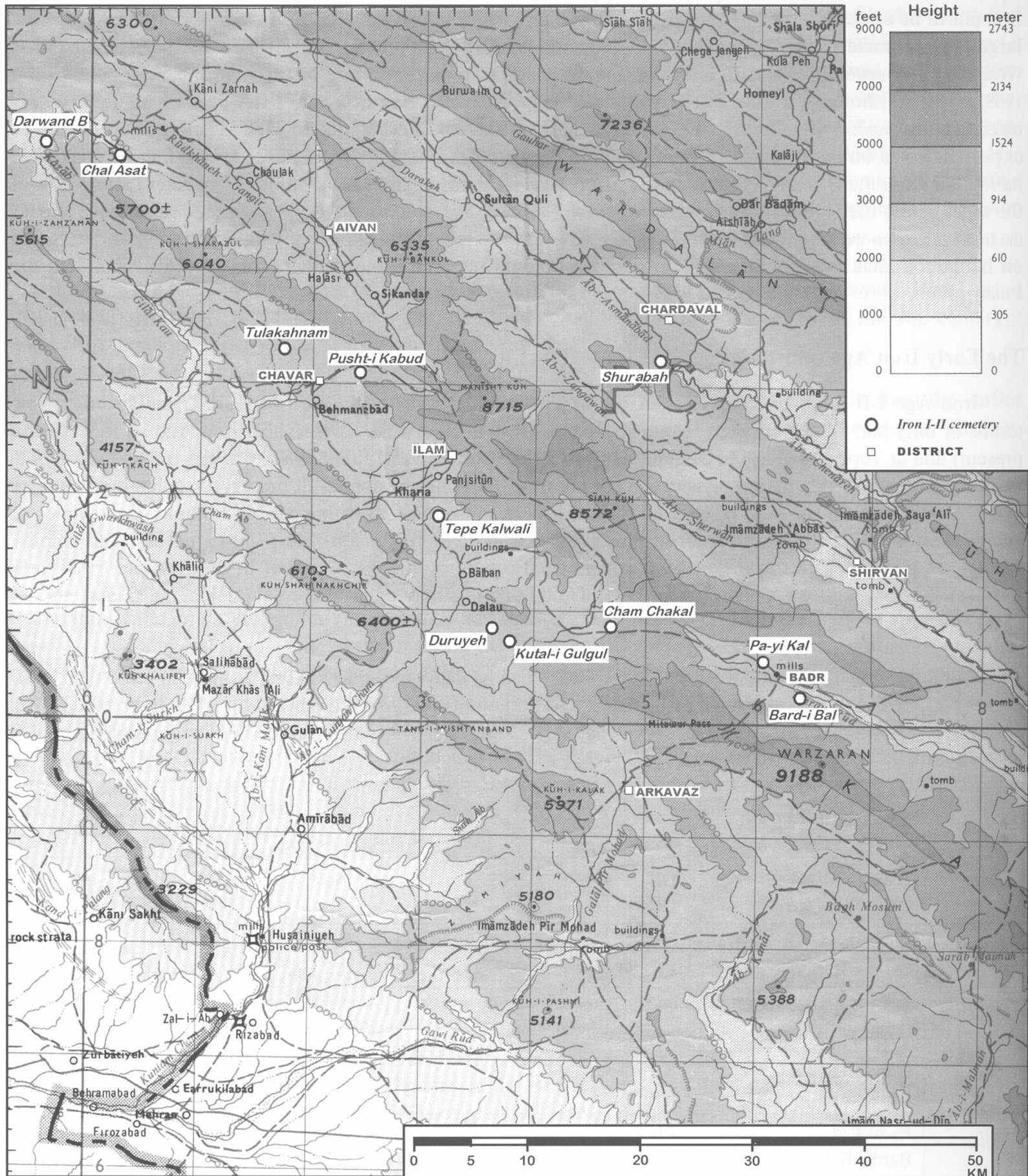
Fig. 4. Map of the Pusht-i Kuh with the location of the Iron Age I-II cemeteries.

several consecutive burials while at other cemeteries tombs were never re-used. On the whole, rarely more than 4 to 6 objects were deposited with a burial and all the sites where more were present in the tombs, re-use of tombs was attested (KT, PK, BB and SHP).

Two sites, Bard-i Bal and Kutal-i Gulgul, represent together 69% of the finds (both cemeteries had re-used tombs). The neighbouring districts Arkavaz and Badr represent together 84% of the finds, distributed over 69 tombs in 4 of the cemeteries. As a result the BAMI research provides mainly information about the *central* part of the Pusht-i Kuh. The districts situated more to the northwest, Aivan, Chavar and Ilam, provide together only 13% of the finds. From the area south of the line connecting Bard-i Bal with Kutal-i Gulgul, which includes the largest part of the Arkavaz district and the districts of Maimah and Abdanan, no Iron Age I-II tombs are reported.

Apart from the uneven geographical distribution, there is also a disproportional chronological spread. A much larger proportion of the burials appears to date from the Iron Age IA and IIB than from the Iron Age IB-IIA phase. Some cemeteries such as Kutal-i Gulgul seem to have been used most intensively during the Iron Age IA phase and again during the IIB phase. In between, during a timespan of approximately 250 years, only a limited number of burials may have taken place. The lack of distinctive pottery shapes, however, may be part of the reason why fewer burials can be placed in this timespan. Decreased population numbers could also be part of the explanation, as is the factor of coincidence in the discoveries. After all, only 121 tombs have been excavated.

# THE PUSHT-I KUH GRAVEYARDS AND TOMB STRUCTURES

Many different approaches are possible in the research on graveyards and tomb structures. Apart from strict typological evaluations based on size, construction materials and so on, one could, for example, take into account elements such as the orientation of tombs or their relative distance and spread within the graveyards. With additional research on the skeletal remains it may become possible to distinguish between the burials of men, women and children. Combined with the evaluation of the burialgoods, this in turn may help to gain insight into social structures and differentiations. It will be possible to detect variations in burial customs and may help to grasp the meaning of graveyard distribution patterns. However, such research requires a high standard of data registration and must start with a multidisciplinary approach in the field. It further needs the excavation of complete graveyards, or at least important fractions of them, with burials of well defined and culturally uniform periods. Unfortunately, the graveyards under discussion hardly meet any of these requirements. Skeletal remains are rarely well preserved in the Pusht-i Kuh and only at Bard-i Bal it was possible to study a selection of them. Still, a differentiation between sexes can sometimes be suggested, depending on the presence of arms in the case of men and of anklets in the case of women. Although such a priori identifications are not always reliable and could easily lead to gross misinterpretations (cfr. Davis-Kimball 1997-98), in the case of the Pusht-i Kuh Iron Age graves these distinctions are confirmed by several documented cases (cfr. Bard-i Bal tomb 62; Iron Age III graveyard at Djub-i Gauhar: Haerinck & Overlaet 1999, p. 9-11). Cluster analysis of burialgoods in the Iron Age I-II graveyards is unproductive. The number of tombs within each graveyard is too limited and in most cases they are situated in large plundered graveyards. They also cover too large a timespan. The 121 tombs under discussion represent a period of some 500 years in which major cultural, political and economic changes occurred. The limited data from Duruyeh indicate, however, that if the necessary requirements are met, cluster analysis may help to understand the use of graveyards. It emphasises the importance of one of the primary goals of the BAMI project, to discover and excavate complete and undisturbed graveyards.

## Location and planning of the graveyards

The available data do not allow farreaching conclusions about the location of the Iron Age graveyards. They are mainly discovered on hill sides or on small hillocks (e.g Tepe Kalwali and Duruyeh), rarely lower in the valleys or in the large plains. Since erosion, inundations, alluvial deposits and land-slides have changed the landscape considerably since the Iron Age, this is hardly surprising. The plains are often covered with several metres of more recent deposits, making it difficult or even impossible to locate graveyards as well as settlements. The presence of graveyards in the plains is nevertheless illustrated by a few finds such as the Iron Age III cemetery of Djub-i Gauhar in the Pusht-i Kuh (Haerinck & Overlaet 1999, p. 7, pl. 43) and the illegal excavations at Cheshmeh Mahi in the Pish-i Kuh. Since the BAMI-explorations did not target the location of settlements, it is not possible to establish eventual links between cemeteries and habitation sites.

## The construction of the tombs

Several typologies of Iron Age tombs or specifically of the Pusht-i Kuh tombs have been presented, usually either based on elements of their construction or on the building materials (Vanden Berghe 1973, p. 6-14; 1987, p. 211-217, fig. 10 / Cinquabre 1978). They failed to produce meaningful distinctions, however, often due to the use of incomplete data in combination with too detailed typological differentiations. In the present discussion, only two main categories are distinguished. On the one hand there are the cist tombs, at least part of the walls of which are constructed using stones, and on the other hand there are the simple pit graves. Of the 121 graves under discus-

sion, there are only 8 pit graves of which 5 were partially or even fully covered with stones. These figures may not be representative, however. It is essential to take into account the methods which were used to prospect and to excavate. The BAMI expedition registered plundered graveyards and usually tried to locate and excavate one or more of the remaining tombs. Plunderers often located tombs by hammering iron bars into the ground to look for underground stone structures or hollow sounds. It is self evident that only cist tombs could be discovered in this manner. The BAMI sometimes used the same method when trying to locate remaining tombs in such plundered graveyards. Digging test trenches across a plundered graveyard was not a standard practice and usually only tombs which were located from the surface were excavated. When a larger area was fully excavated, this usually meant that the plot was excavated down to the level of the cap stones of the cist tombs and from there on, only the inside of the tomb structure was further investigated. It would not be surprising that pit graves were present in between and would have been missed in this way. Only at two sites, at War Kabud (Iron Age III graveyard) and at Tepe Kalwali, the excavator decided to fully excavate the plot to the floor level of the tombs. At War Kabud, Vanden Berghe discovered 102 pit graves, all of which were covered with stones, and 47 cist tombs. There was no difference between the burialgoods of both types of tombs (Vanden Berghe 1968b, p. 107).

## The construction of the cist tombs

### The surface construction and the original surface level:

Since tombs were grouped together in cemeteries and often tombs were to be re-used, their exact location and eventually the location of the "entrance", which had to be opened again, had somehow to be marked at the surface. This raises the question of the position of the ancient surface. The excavations at Chamahzi Mumah and Gul Khanan Murdah showed that landslides altered the levels considerably, even while the cemeteries were still in use (Haerinck & Overlaet 1998, p. 3, pl. 12, 21; 1999, p. 153-155, pl. 112). The Iron Age III cemetery at Chamahzi Mumah may contribute some elements to the interpretation of the Iron Age I-II tombs. At the original surface the tombs at Chamahzi Mumah were marked with a stone circle and sometimes one or more headstones, which made it clear that the top of the burial chamber was originally situated at a depth between 0.30 and 0.70m. below the surface (Haerinck & Overlaet 1998, p. 3-6, ill. 1, fig. 5, pl. 7-9).
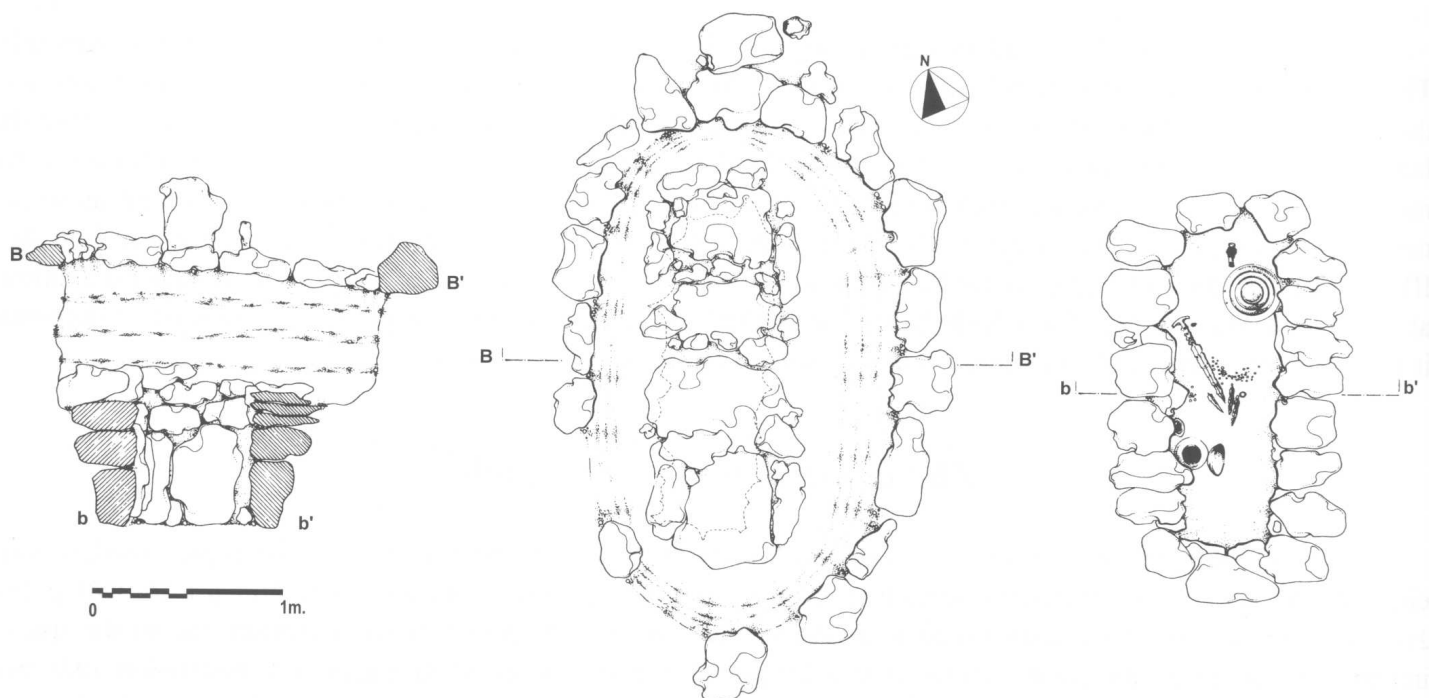


Fig. 41. Plan and section of an Iron Age III tomb at Chamahzi Mumah. (after Haerinck & Overlaet 1998, fig. 27)

In view of the situation at Chamahzi Mumah, it can be suggested that the Iron Age I-II tombs could originally have been located at a similar depth. An exception has to be made for Tepe Kalwali, however, as the presence of some headstones indicate that the tomb chamber must have been closer to the surface (TK.2 and 4). Otherwise the headstones would have been invisible. How exactly the tombs were indentified at the surface remains an open question. A small mound on top of the tomb or some wooden construction would be just a couple of the possibilities. In case a small mound was raised on top of the tomb, it would have been possible to build it closer to or even on the surface. More research is needed to resolve this question.

**The burial chamber's covering:**

Most tombs were covered with one or more large cap stones, while smaller stones were used to fill the remaining gaps between the larger stones and were placed along the sides. This technique involves, particularly when exceptionally large stones were used, much organisation and manpower. Some tombs were in fact closed with a single massive cap stone. Such tombs were present at Darwand B (DB.7), Kutal-i Gulgul (KT.A8), Pa-yi Kal (PK.8) and Bard-i Bal (BB.10). Since such stones would necessitate the collaboration of more people and a more substantial investment of time and effort, it probably indicates the more prominent social position of the owner(s). This idea is supported by the Iron Age III cemetery at Chamahzi Mumah where an individual tomb, which was covered with one large cap stone, contained the most valuable burial-goods (Haerinck & Overlaet 1998, p. 5). Tomb 10 at Bard-i Bal may also support this idea (fig. 45, pl. 161-162). As it is a collective cist tomb, however, it may indicate the specific social position of a family or other sub-group within the community, rather than that of an individual.

An important number of tombs never had cap stones. Although the data are not always sufficiently detailed, this is undeniable at a number of sites: at Duruyeh 17 of the 18 tombs did not have cap stones, at Pa-yi Kal 2 of the 12 tombs and at Darwand B, 1 of 14. Of the 23 tombs under discussion at Bard-i Bal, only 4 were fully covered with stones and some partially. Further there were some tombs which were "covered" with stones that were too small to span the width of the burial chamber. This can be deduced from either the descriptions or the drawings of tombs ChCh.2, PK.10, BB.28 and BB.53. It is, however, best illustrated with a photograph of tomb 3 at Ilam (fig. 5). Since the tomb chambers were originally not filled with earth, this means that these stones once rested on some sort of covering. The most obvious suggestion would be that the tombs were partially or even fully covered with wooden beams. KT.B2, BB.18 and BB.70 only had a cap stone above the entrance and it can be suggested that the rest of the tomb was also covered with perishable material.



Kutal-i Gulgul A6          Kutal-i Gulgul B2          Bard-i Bal 70
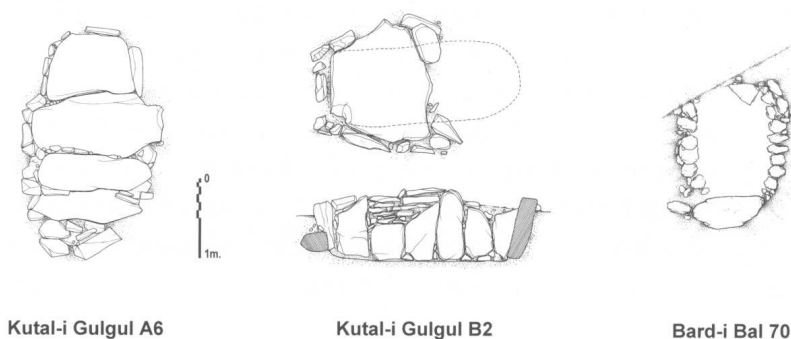
Fig. 42. The covering of the tombs: completely (KT.A6) and partially
(BB.70 and KT.B2) with cap stones (sc. 1:100).

To imagine such a perishable construction we may turn to the winter habitations of the semi-nomadic Luristan population, the zemgas (fig. 43). Their partly subterranean rooms of which the walls are partly constructed in stones, are covered with beams, matting and earth which provides them with a roof with a high insulation value. The zemgas are often present on hillsides where they are merely distinguishable as small elevations in the landscape (Demant-Mortensen 1993, p. 81, 86, 118, fig. 6,35-6,46).

Fig. 43. Temporarily deserted zemga as it is left in the summer. The open space in the front is covered in winter with a black tent. (after Demant-Mortensen 1993, fig. 6,40)

**The entrance:**

The rather small and individual tombs at Tepe Kalwali and Pusht-i Kabud have no obvious "entrance". They are constructed with thin stone plates and as they were never meant to be reopened, it seems that the (relatively light) cap stone(s) were put in place after the deceased and the burialgoods were deposited in the tomb. When large and heavy cap stones were present this procedure was not possible and one had to enter the tomb chamber through one of the sidewalls. When a tomb was planned to be re-used it was necessary to build an accessible entrance which would not destabilise the construction when it was reopened and which could be located by some sort of indication at the surface. The tombs at Kutal-i Gulgul are a good example as they have an obvious entrance on one of the short sides (fig. 44). It can clearly be recognised that with every re-use the older remains and burialgoods were piled up along the sidewalls and against the back wall. The entrance to the tomb chamber was closed with one or two large stones, which were sometimes placed on a horizontal stone ("the threshold"), and between two vertical stones ("the door posts"). Often the door stones are slightly higher than the sidewalls, since they were meant to rest against the tomb's cover. Some of the tombs, however, have no doorstones at all or mention was made by the excavator of sand and some small stones (e.g. DB.10). As with the covering of the tomb chambers, one may again have to envisage the possibility of a closure with wooden beams. Another possibility would be the closure with a mixture of mud and stones. Such a method is also used by the present day semi-nomadic Luristan population to seal temporarily deserted buildings (cf. Demant-Mortensen 1993, fig. 6,49).

At Duruyeh and at Pa-yi Kal, documentation reported one tomb with an entrance in one of its long walls (PK.2 and DR.5, fig. 45). Possibly, there were more such tombs but both graveyards are not fully documented. At Duruyeh a single large stone plate was built into the side of the tomb. At Pa-yi Kal a short corridor was present. Similar side entrances were also present at Iron Age III tombs at Gul Khanan Murdah (also insufficiently documented, cf. Haerinck & Overlaet 1999, p. 154, ill. 28). In the relatively deep tomb at Pa-yi Kal the entrance is limited to the upper half of the wall. This is also the case at a number of the deepest tombs at Bard-i Bal. The entrances are in the short sides but they seem to evolve towards a similar short corridor (BB.1, 10 and 17).

**Kutal-i Gulgul B3**

**Bard-i Bal 2**

**Bard-i Bal 27**

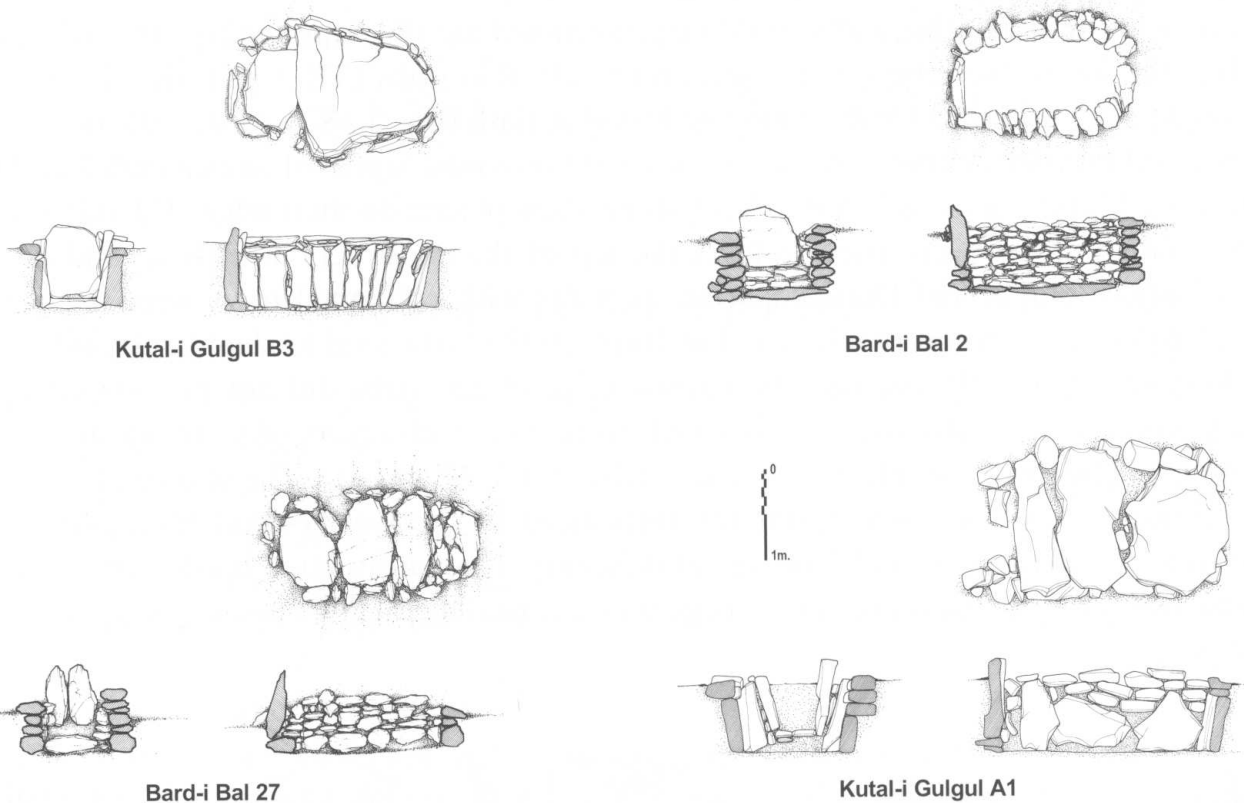**Kutal-i Gulgul A1**

Fig. 44. Entrances in one of the short walls of the tombs.

KT.B3: single door stone on threshold
BB.27: double door stone on threshold

BB.2: single door stone on threshold
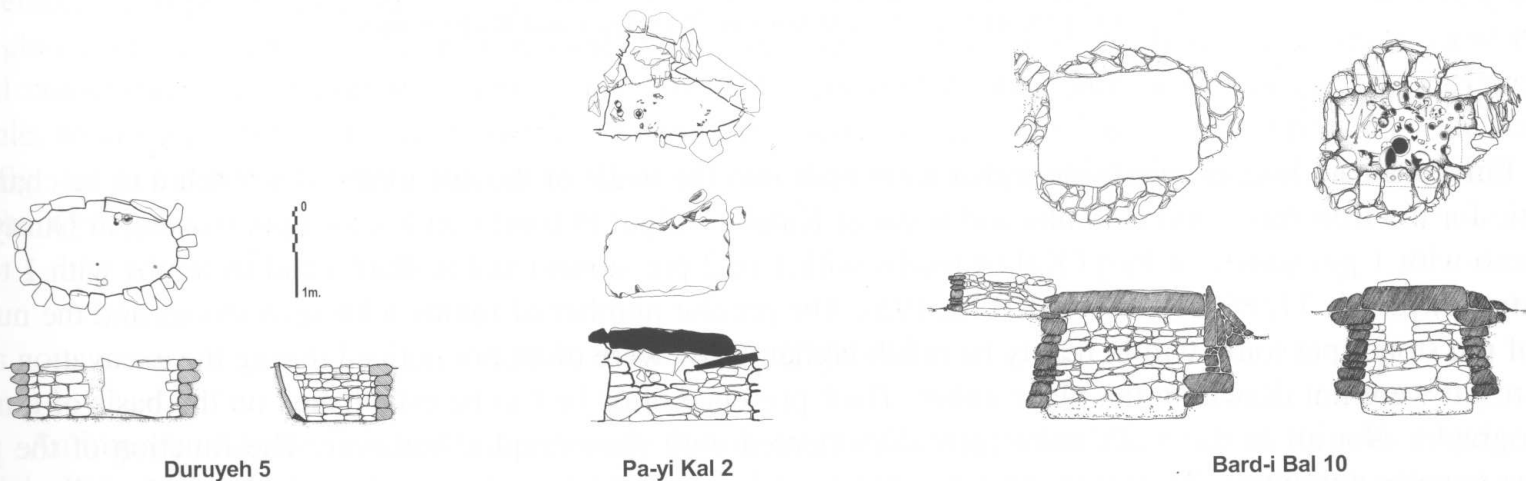KT.A1: open entrance with threshold and door posts



**Duruyeh 5**

**Pa-yi Kal 2**

**Bard-i Bal 10**

Fig. 45. DR.5 and PK.2 with entrances in the long walls, BB.10 with a narrow entrance in the short wall.

**The construction of the walls:**

The material from which the tomb walls were erected, probably depended largely on the locally available building materials. Use could be made of boulders, available from riverbeds, or of stone slabs from nearby layers. There are no indications that stones were worked to adapt their size or shape. At the Iron Age III graveyard of Gul Khanan Murdah the stone slabs which were used to construct the tombs apparently came from a ridge higher up the slope (Haerinck & Overlaet 1999, p. 153, pl. 110-111).

The various ways in which the walls could be constructed are illustrated in fig. 46. At Tepe Kalwali and at Pusht-i Kabud the tombs were built with large, relatively thin slabs (TK.1 and TK.12). A wall often consisted of one single slab. Identical tombs were excavated at Ilam (fig. 5 / Soto-Riesle 1983, fig. 6).

The walls of other tombs either consisted of several horizontal layers of stones (BB.1 and BB.52), often with a bottom row of larger ones (KT.A10), or of stone slabs placed on their edge (KT.B2, KT.B3, ChCh.2). In this last case, small stones were used to level the top of the construction. This second construction was mostly used at Kutal-i Gulgul and Duruyeh, whereas walls with horizontal rows were the preferred type at Bard-i Bal and Pa-yi Kal. At Kutal-i Gulgul and at Duruyeh the slabs tend to slant backwards. This may have been done deliberately, probably because the narrow edge of the slabs did not provide enough stability to ensure that they would not fall inwards. Walls which were built with layers of stone on the other hand, were sometimes sloping slightly inward (PK.3, 6, 8 and 9, BB.10, 17, 27 and 68). The choice of stones and the chosen building techniques may have been primarily influenced by the locally available building materials and seems to have little significance as a chronological indicator. The construction hardly differs from that of the Chalcolithic and Bronze Age cist tombs in the region (see Vanden Berghe 1979, passim / Haerinck & Overlaet 1996, p. 9-10, 12, figs., pl. 8-27, 61-67).
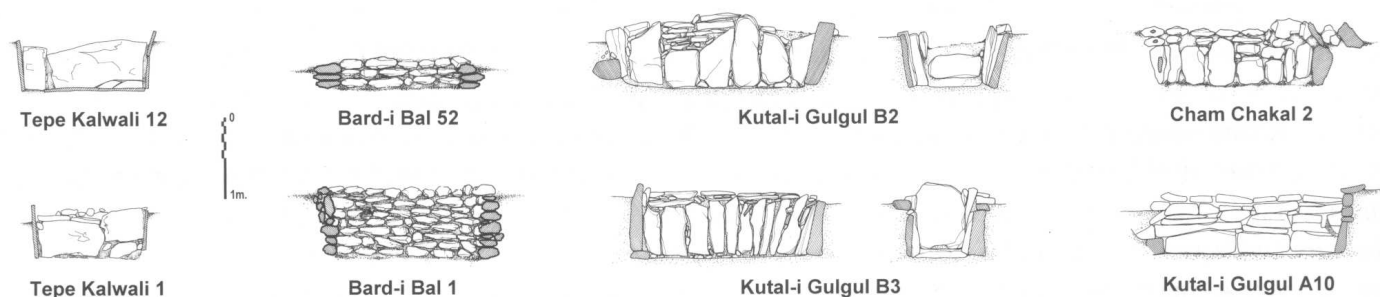


Fig. 46. Various wall constructions of Iron Age I and II cist tombs.

**The "pin stones":**

Pin stones are long pointed stones that were built into the walls of the cist tombs. They seem to be characteristic for the Iron Age I and II tombs and occur at Kutal-i Gulgul (9 tombs with 1 to 3 pin stones), at Duruyeh (1 tomb with 1 pin stone), at Pa-yi Kal (4 tombs with 1 to 2 pin stones) and at Bard-i Bal (8 tombs with 1 to 5 pin stones)(pl. 61, 71, 80-81, 157, 161, 175, 195). The precise number of tombs with such stones and the number of pin stones per tomb will in reality be much higher. They were often not noticed during the excavation and as a result were not drawn on the plans either. Their presence often had to be established on the basis of tomb-photographs. Not all of the walls were fully documented with photographs, however. The function of the pin stones remains enigmatic. They may, for example, have been used to attach something to the tomb walls.

**The floors:**

Most tombs have no special floor. Their sand bottom may once have been covered with textiles or other perishable materials but this did not leave any traces. Tepe Kalwali is exceptional, as the same kind of stone slabs that were used for the walls of the tombs were placed on the floor as paving tiles. At the other graveyards, paving tiles are exceptional. They are only found in four additional tombs, KT.A10 and 11, DR.2 and BB.2.
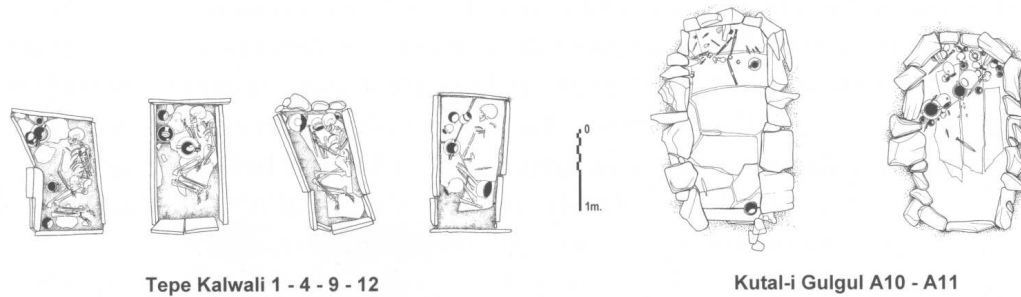
**Tepe Kalwali 1 - 4 - 9 - 12**          **Kutal-i Gulgul A10 - A11**

Fig. 47. Iron Age I and II tombs with paving tiles.

## The construction of pit graves

Only 8, possibly 9 pit graves were registered, which represents less than 8% of all the tombs investigated. As was discussed earlier, however, the techniques used to locate and excavate graves may have distorted this figure in favour of the cist tombs. Pit graves were discovered at Chal Asat Darik (D.1 to D.3), at Tulakahnam (AW.3 to AW.6), at Kutal-i Gulgul (KT.A14) and possibly also at Duruyeh (DR.11), the data on this last tomb are, however, unreliable. Only KT.A14 was adequately documented. The information on the remaining pit graves is either incomplete or contains contradictions. Grave D.2, for example, had paving tiles according to the notes but there are none present on the drawings. Tomb D.11 is a pit grave according to the notes, but some stones can be seen on the field drawing.

An all important question with regard to the size and shape of the pit graves is whether the excavator was able to correctly detect the limits of the pits. It is entirely possible that the drawings of the graves were nothing more than rough sketches based on the limits of the skeletal remains and the burialgoods. They may not reflect the actual pit which was dug when the burial took place. There are no notes or detailed field drawings on which colour or structural soil changes are taken down, which could provide clues as to the exact size or shape of the burial pits. In the case of some of the Tulakahnam graves, not even sketches were made, only the length and width of the burial pit was written down.

KT.A14 had been covered with a single large cap stone and has a stone slab closing its entrance. The only difference with the Kutal-i Gulgul cist tombs is the construction of the three side walls. In view of the sheer weight of the cap stone of KT.A14 one could be inclined to suppose the necessity of, for example, a wooden wall construction to support the stone and to avoid the collapse of the tomb. When the soil is sufficiently stable, however, it can support considerable weights. A good example from Luristan is provided by the zemga on fig. 43. The lower part of the wall consists of the natural soil and supports the stone part of the wall as well as the roof.

## The use of tombs

An important distinction has to be made between tombs which were built to be used only once and tombs which were meant to be used several times. A collective tomb had to be large enough to harbour various deceased and their burialgoods and had to have an entrance which could be re-opened. It is, however, not always possible to make this distinction. The tomb constructions are not necessarily very different from one another and only in a minority of the tombs skeletal material was sufficiently preserved to allow any significant conclusions. Human remains were unfortunately rarely registered with the accuracy needed to allow a precise count of the burials. It must be born in mind, that both the retrieval and study of skeletal remains is a specialised task which can be extremely difficult, particularly in the case when as in the Pusht-i Kuh tombs, older remains were disturbed by more recent burials. An exemplary excavation in this regard was the rescue

excavation at the Iron Age cemetery of Ilam. The collecting of human remains during these excavations and the study of them afterwards by Soto-Riesle revealed the existence at the same cemetery of both individual and collective Iron Age tombs with up to 31 individuals. Paleo-pathological research not only revealed the presence of diseases such as arthritis and the hereditary thalassemia major, but also the occurrence of trepanation. Youngsters were underrepresented in comparison with adults. Children below the age of 6 were even completely lacking (Soto-Riesle 1983, p. 191). Unfortunately, the archaeological data on the Ilam cemetery have not yet been published, restricting the possibility to make full use of these results.

A distinction has also to be made between the tombs which were meant to be re-used and those which have been re-used at random. The social rules and customs which allowed people to use certain tombs or made them construct new ones now elude us, since we have no knowledge at all about the social organisation of the Iron Age population. In a number of cases, it is obvious from the timespan between the consecutive uses of a tomb that any relation between the users is improbable. The most extreme examples of this are an Early Bronze Age tomb at War Kabud Mihr (Arkavaz district) which was re-used in the Sasanian era (Vanden Berghe 1972, p. 3-13, fig. 1-3, pl. I-V), and an Iron Age III tomb at Dam Shaft Paliyah (Aivan district) which was re-used in the Parthian era (Vanden Berghe 1980, p. 45, fig. 16-17). Also in a number of Iron Age IA tombs, there were sometimes long periods of inactivity and tombs were not re-used until the Iron Age II or III phase (PK.9, BB.62, SHP.1).

Re-use of tombs has been attested from the Iron Age IA phase onwards at Cham Chakal, Kutal-i Gulgul, Bard-i Bal and Shurabah and thus appears to have been a widespread custom. At Duruyeh, however, there were no indications that re-use has ever occurred. The tombs are to be dated at the very beginning of the Iron Age IA and may indicate that collective tombs were introduced in this phase. With the limited number of Iron Age I-II tombs which have been excavated, it cannot be excluded, however, that individual and collective tombs simply co-existed beside one another. At Kutal-i Gulgul, the position of the burialgoods in the tombs makes it clear that each time a new corpse was buried, the human remains and the older burialgoods were indiscriminately piled up at the back or the side of the tomb chamber. Sometimes special attention seems to have been paid to the skulls. At KT.B2 three skulls were placed alongside each other against one of the sidewalls.

In the Iron Age IIB individual tombs are encountered at Tepe Kalwali and at Pusht-i Kabud. By this time, collective tombs may already have been largely outdated, as individual tombs were also standard practice in the following Iron Age III. No re-use of tombs has been attested at Chamahzi Mumah, War Kabud and Sar Kabud. Only at Djub-i Gauhar 7 of the 66 tombs were found to contain the remains of more than one human being (Haerinck & Overlaet 1999, p. 7-10, pl. 19, 22, 35, 52, 53). In 4 of these the remains of one adult and of a child, age 6 to 8, was found, in two tombs were the remains of two adults and in one tomb of four adults. An important difference, however, is that the skeletons and the burialgoods were apparently not disturbed and in one case the position of the skeletons clearly suggests that they were buried simultaneously (tomb 32). On the whole, it seems to be a different situation from that in the Early Iron Age tombs.

## *The typological development of the tombs*

An important element in the planning and construction of a tomb must have been whether it was meant to be individual or collective. Also the social position of the deceased, or the group in the case of a collective tomb, must have played a role in the choice of the location, the materials to be used and the size. It has already been pointed out that in the Iron Age III graveyard at Chamahzi Mumah, it was noted that the tomb with an unusually large and heavy cap stone also contained the most valuable burialgoods. Such elements may not always be noticeable in the excavations simply because important burialgoods may have been made of perishable materials.

The following table illustrates the main types of burial constructions in their building phase. It should be born in mind that many tombs remained in use during a long time or were sometimes re-opened after a long period of disuse. The concept, shape and construction methods of the tombs were therefore part of the living
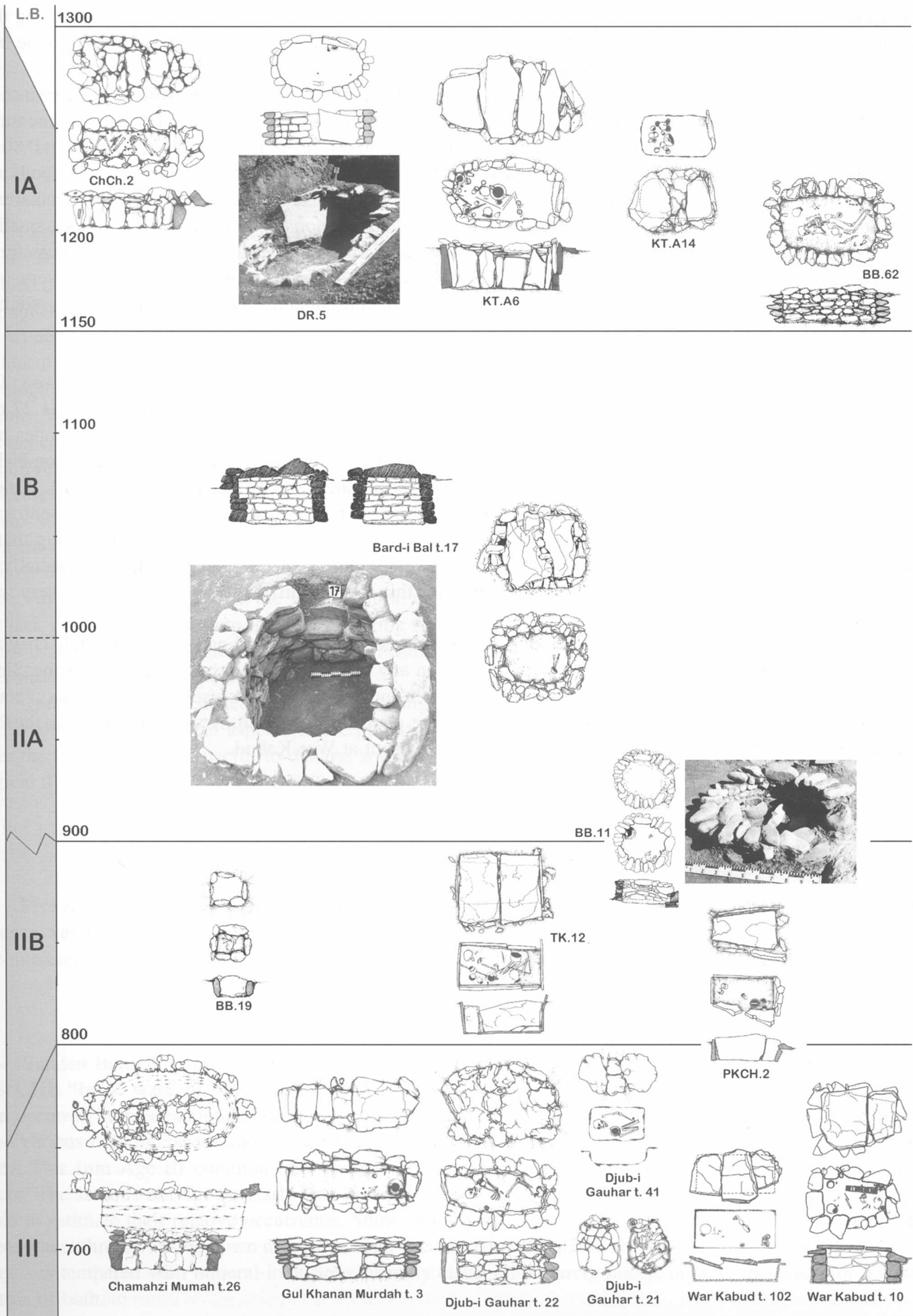
Fig. 48. Survey of Iron Age tombs according to their building phases.

memory of the population, sometimes until long after they were originally built. So, it is not surprising that some of the constructional elements already encountered in Chalcolithic tombs, continue to be used in the Iron Age III phase.

During the Iron Age IA phase the tombs are mostly rectangular to slightly oval. Due to the presence of an entrance on one of the short sides this evolves more or less into a horseshoe shape. The internal measurements of the collective tombs at Kutal-i Gulgul vary between 1.90 and 2.30 metres in length, between 0.80 en 1.20 metre in width and between 0.70 en 1.10 metre in depth. Considering the large amount of burialgoods and consequently of burials, this is not particularly large. The somewhat older IA tombs at Cham Chakal and Duruyeh, which were not or only in a limited fashion re-used (2 skeletons at ChCh.2), are somewhat smaller. At Duruyeh the internal measurements are between 1.20 and 2.00 metres in length, 0.60 and 1.00 metre in width, and have a depth between 0.30 and 0.70 metre. Therefore, the tombs at Kutal-i Gulgul may very well have been planned to be re-used from the very start and may consequently have been built simply slightly larger, as those from Duruyeh.

In the Iron Age IB-IIA a number of tombs were built which were more adapted to collective use. The two almost identical tombs BB.10 and BB.17 have become more squarish (1.50 x 1.20 and 1.35 x 1.22 m.) and considerably deeper (1.15 and 0.95m.). Both tombs are covered with unusually large cap stones and have a narrow entrance in the upper half of one of the sidewalls. Tomb BB.1, which is probably somewhat older, already shows some of these characteristics, although they are less pronounced (pl. 155-156). It measures 1.60 by 1.05 metre and has a depth of 0.70 metre. It has two large cap stones and a narrow entrance in the top half of the wall. A small circular tomb is build against the cap stone of BB.10 indicating that it must be of a later date (BB.11). It seems to be a further development of the squarish tombs, especially of tomb BB.17 with its rounded corners. A precise dating for this tomb is difficult and the tomb may very well date from the Iron Age IIB phase.

In the Iron Age IIB a new type of individual tombs occurs at Tepe Kalwali and Pusht-i Kabud. They are built with stone plates and can be considerably smaller than any of the previously built Iron Age tombs. Since they were covered with relatively light stone plates and were not meant to be re-used, the cap stone(s) could be put in place after the deceased and his burialgoods were placed in the tomb. A side entrance was thus no longer a necessity. Similar sized Iron Age III tombs were present at War Kabud.

# THE IRON AGE I-II GRAVEYARDS IN THE PUSHT-I KUH: THE BURIALGOODS

## Ceramics and Faience Vessels

Ceramics and faience vessels represent approximately 64% of the total amount of registered burialgoods. As a standard procedure, the excavator had a drawing made of each item. The measurements, the colour and a reference to the shape were taken down in the inventory book. A selection of the vessels was also photographed. A small selection of the pottery of the excavations until 1972 is now kept in the Royal Museums of Art and History in Brussels. In general, however, it must be admitted that the data, especially those on the technical aspects of the pottery, are often incomplete and are certainly not up to the modern standards of ceramological research. This is not surprising if one takes into account the circumstances of the pioneering expeditions. When Louis Vanden Berghe started his Luristan project in 1965, his goal was to obtain an insight into the general chronology of the area and to date the various types of bronzes from Luristan. Detailed analyses within restricted phases were not a priority. Notes on the paste of pottery, the temper, the colour, the forming processes and surface finishes are virtually non-existent. In the best case, some general remarks concerning groups of pottery were written down on the field drawings. The definition of the surface colour was the only element that was consistently noted. Prior to 1975, however, the colour was described without the use of any reference system. It was not until 1975 that the Munsell Soil Colour Chart was introduced as a standard reference. An additional problem in the interpretation of the field notes, including the drawings and the colour, is the lack of consistency, due to the ever changing staff of the earliest BAMI expeditions, a staff, which sometimes lacked an archaeological training. As a result, the quality and accuracy of the object registration fluctuates strongly from one expedition to another.

Under those circumstances it is not surprising that the excavator emphasised in his preliminary reports and studies, the typological aspects of the pottery and only exceptionally went into technical details. Whatever the limitations, it is useful to discuss some of his technical interpretations before going into the typological discussion.

## Technological Groups

Five main categories of ceramics are distinguished, buff pottery, grey to black pottery, painted pottery, faience vessels and glazed pottery. These distinctions, however, sometimes appear to be unreliable or incomplete.

## Buff Pottery

Vanden Berghe described the Early Iron Age pottery as a whole as buff ware (Vanden Berghe et alii 1982, p. 61). His "buff" ware, however, incorporates pottery with colours ranging from red to black. The same problem occurred in his descriptions of the Iron Age III pottery where the "common buff ware" designation covered various colours, pastes and surface treatments (Haerinck & Overlaet 1998, p. 8; 1999, p. 15, compare colour-plates G-H). This Iron Age III common buff ware is usually wheel thrown but freehand forming did occasionally occur. The same is true for the Early Iron Age pottery but with the limited information available, it is not possible to estimate their relative occurrence. Some of the pottery shapes reflect a specific shaping method, they were wheel thrown upside down and the bottom was closed at the end of the forming process (see p. 119). The clay was tempered with mineral inclusions (usually chalk grids, rarely mica), organic inclusions or a combination of both.
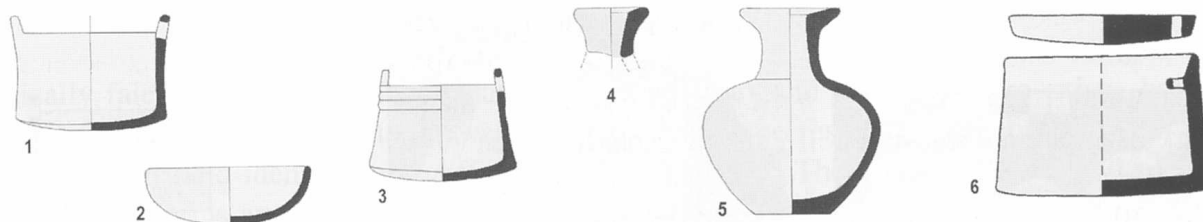
Fig. 51. Faience vessels from Tell Imlihiye, Tell Zubeidi and Mari. (scale 1:4)
1. Bucket, yellow-white faience, Tell Imlihiye / 2. Bowl, yellow-white faience with traces of painting, Tell
Imlihiye / 3. Bucket, white faience with green glaze, Tell Zubeidi / 4. Neck of vase, yellow-white faience,
Tell Imlihiye / 5. Vase, white to green faience, Tell Zubeidi / 6. Pyxis with stopper lid, Mari.
(after Boehmer & Dämmer 1985, Taf. 27 and 143 / Jean-Marie 1999, pl. 34)

## Glazed Pottery

Glazed pottery is rare in the Pusht-i Kuh tombs. An Iron Age IA phase teapot and a dish from Kutal-i Gul-gul, on which there is uncertainty whether they are made of faience or glazed pottery, have been discussed above. Apart from these two vessels, only two small glazed pottery vases are known. They cannot be dated earlier than the very end of the Iron Age II, however, and may in fact date from the early Iron Age III. They were found together with teapots with tubular spouts, a shape which is characteristic for the Iron Age III in the Pusht-i Kuh. Tomb 10 at Darwand B also contained a small grey-black vase which belongs to the distinctive Iron Age III fine grey ware. Consequently, there is no definite evidence for the presence of glazed pottery in Iron Age I or II graves of the Pusht-i Kuh. Even in the Iron Age III Pusht-i Kuh graveyards glazed pottery remains extremely rare. When it occurs, it may have to be considered as Assyrian import: one vessel at Gul Khanan Murdah (Haerinck & Overlaet 1999, p. 163, ill. 34, pl. 123), one vessel at Chamahzi Mumah (Haerinck & Overlaet 1998, p. 11, ill. 3, pl. 38) and three at Tepe War Kabud (Vanden Berghe 1968b, p. 123, fig. 27, pl. 24d).
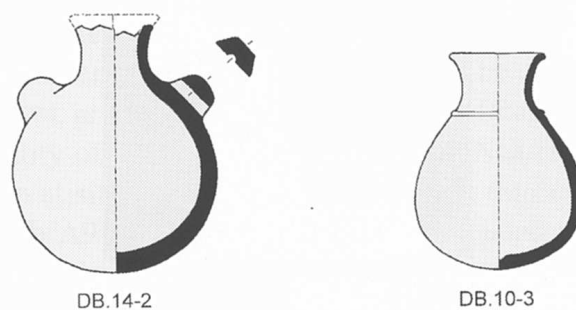


DB.14-2                    DB.10-3

Fig. 52. Two glazed pottery vases from Darwand B. (sc. 1:4)

## Typological groups

### Introduction

The present typology, based on shape and dimensions, aims at distinguishing chronological indicators within the repertoire of the Pusht-i Kuh pottery. Since the specific function of most vessels remains elusive, traditional names have been used which do not necessarily reflect the true function of the vessels. One such example is the "teapot", a designation commonly used in Iranian archaeology for a wide variety of spouted bowls and vases, whose function, however, has nothing to do with tea whatsoever (Yon 1981, p. 232). It is important to emphasise that all the pottery comes from tombs. As a result, it is improbable that the present discussion will cover all types of Iron Age I and II pottery found in the Pusht-i Kuh. One can expect that certain shapes were simply not deposited in tombs. For example large storage vessels are completely lacking. The same is true for the Iron Age III period where only one storage vessel is known and this because it was used as a burial coffin (Haerinck & Overlaet 1999, p. 9, 15, ill. 3, pl. 14, 50).

The following six main pottery groups are distinguished on the basis of shape, size, proportions and the presence or not of spouts and handles: vessels with handles and spouts (pitchers and teapots), vases, beakers, bowls, dishes and finally a miscellaneous group. In the following survey the main characteristics of these six groups are indicated and some examples are shown. Further sub-divisions are listed but will be discussed in more detail further on.

## Vessels with handles and spouts: pitchers and teapots.

This group assembles the vessels which have either a handle or a lug in combination with a spout. The pitchers are more slender than the teapots. Their height exceeds their maximum diametre. The height of the teapots on the contrary is either smaller than their diametre or equals it.

*Pitchers*
Pitchers with pinched spout
Pitchers with open spout
Pitchers with bridged open spout
Exceptional pitchers

*Teapots*
Teapots with bridged open spout
Teapots with open spout
Teapots with bridged open spout and basket handle
Teapots with bridged half open spout
Teapots with tubular spout
Teapots with tubular spout and basket handle
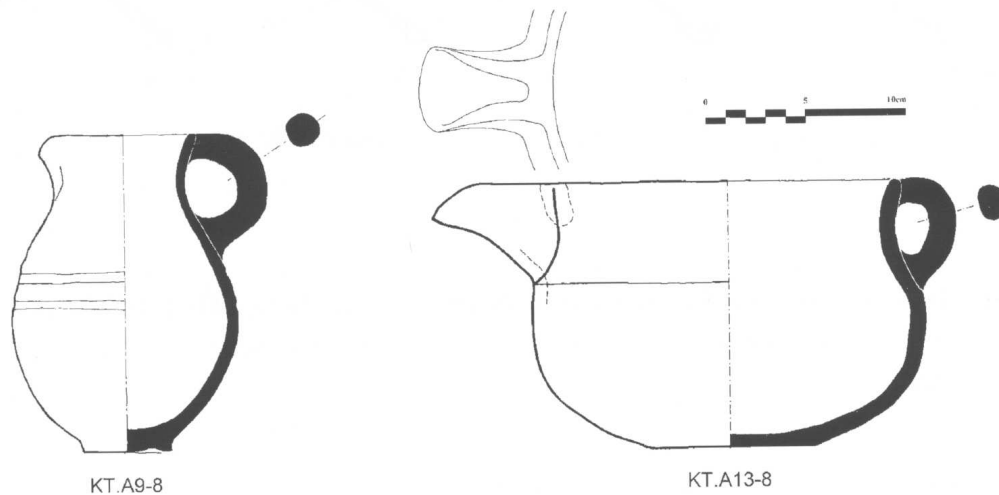Teapots with beak spout and base pouch



KT.A9-8

KT.A13-8

Fig. 53. An Early Iron Age pitcher and a teapot. Sc. 1:4.

## Vases

Vases have a closed shape — the opening is smaller than the largest diametre — and a distinct neck and shoulder. They can have one or more small handles or (pierced) lugs. A distinction is made between high vases (the height exceeds or equals the maximal diametre) and low vases (the maximal diametre exceeds the height).

*High vases*
Plain high vases
High vase with 1 handle (jug)
High vases with 1 or 2 plain lugs
High vases with 2 vertical handles or lugs
High vases with 2 horizontal lugs
High vases with 3 to 4 handles or pierced lugs

*Low vases*
Plain low vases
Low vases with 2 pierced lugs


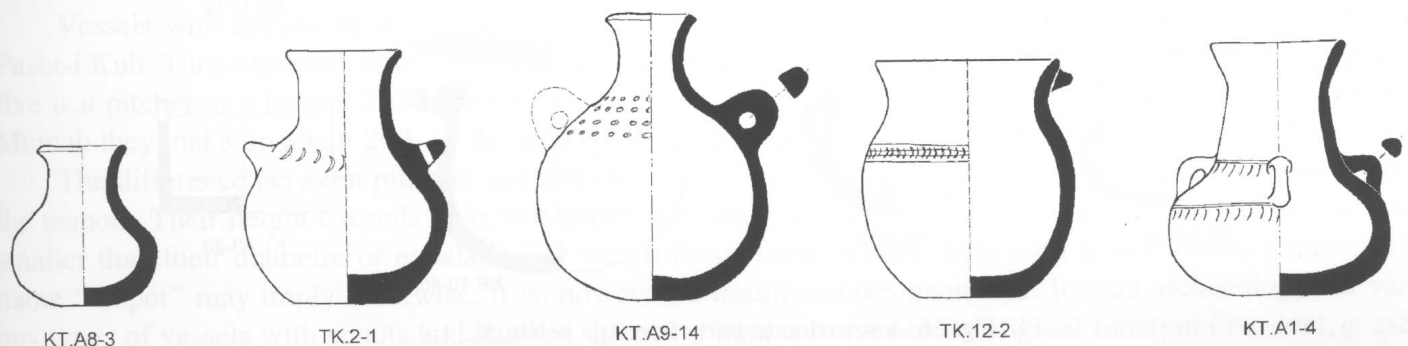
KT.A8-3

TK.2-1

KT.A9-14

TK.12-2

KT.A1-4

Fig. 54. A selection of Early Iron Age vases. Sc. 1:4.

## Beakers

Beakers are small vessels, usually not higher than 14 cm, which combine slender proportions (their height exceeds their diametre) with a wide opening. They can have a handle and a distinct neck or shoulder. Their size and proportions makes them suitable as drinking vessels, although this does not necessarily identify them as such.

Concave beakers
Beakers with a handle
Globular beakers with small raised disc base
Iron IA carinated beakers and Iron I S-beakers

KT.A11-19          KT.A8-2          BB.27-5          KT.A10-26          DR.3-4          KT.A2-31
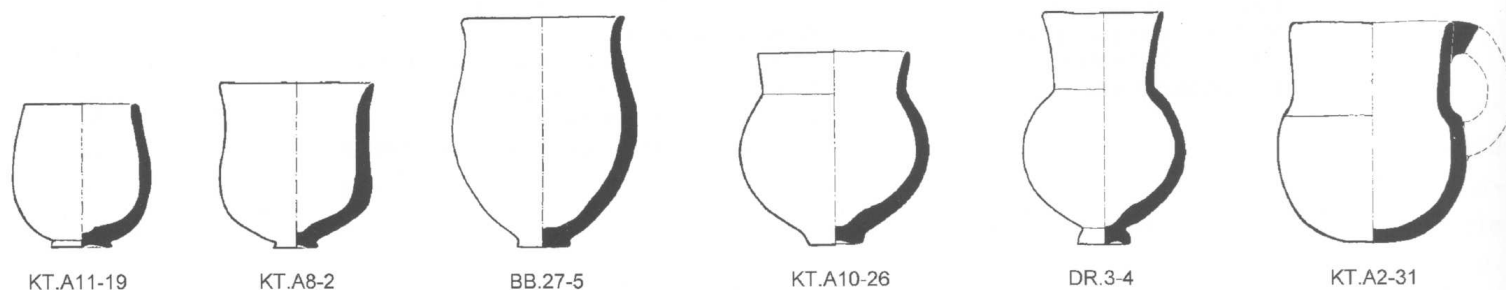
Fig. 55. A selection of Early Iron Age beakers. Sc. 1:4.

## Bowls

Bowls typically have a wide opening and are of compact proportions. Their height is smaller than their diametre but still exceeds or equals half of it. This last element distinguishes them from the dishes. They may have lids, handles or lugs.

Plain open bowls
Plain closed bowls
Plain S-shaped bowls
Bowls with vertical handles or lugs
Bowls with plain lugs
Bowls with 1 handle (cups)
Bowls with 2 horizontal lugs (pyxis)
Bucket

BB.68-9          SHP.1-7          KT.A3-19          BB.10-52

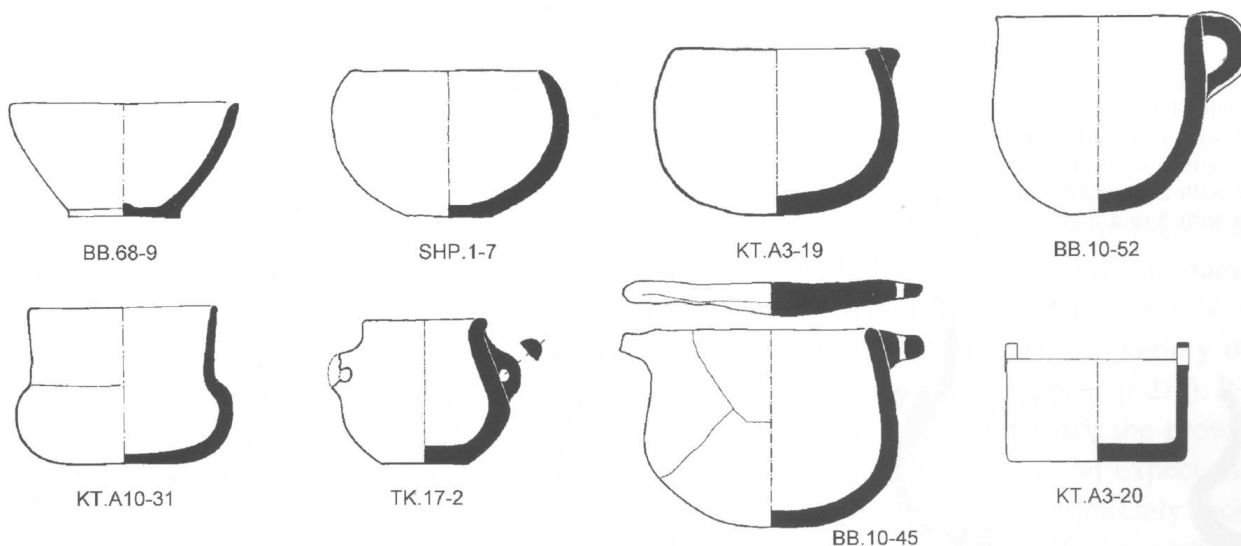KT.A10-31          TK.17-2          BB.10-45          KT.A3-20

Fig. 56. A selection of Early Iron Age bowls. Sc. 1:4.

## Dishes

Dishes always have a wide opening and are of compact proportions. Their height is smaller than half of the diametre. They can have lugs, a pedestal or feet.

Plain open or closed dishes
Dishes with one plain lug
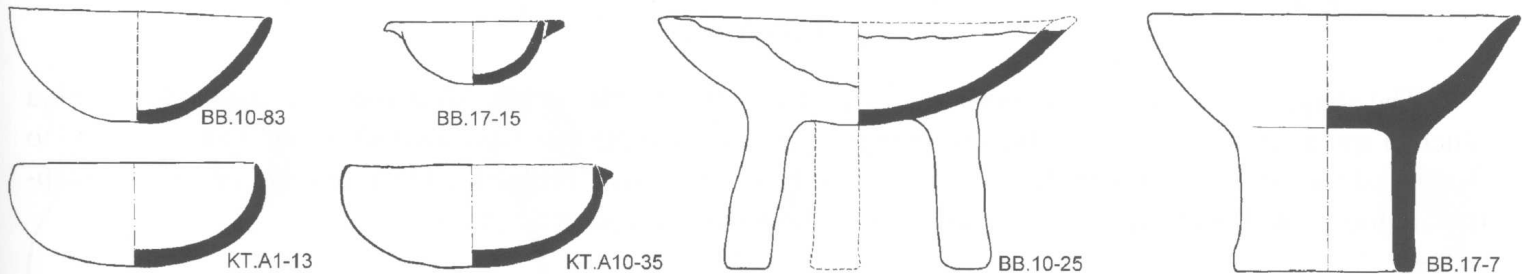Dish with 2 horizontal lugs (pyxis)
Dishes on pedestals or feet

Fig. 57. A selection of Early Iron Age dishes. Sc. 1:4.

## Miscellanea

Some pottery utensils (ladles) and an unidentifiable angular fragment are discussed under the heading miscellanea.
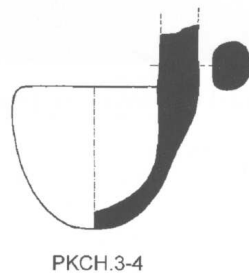
Fig. 58. An Iron Age ladle with deep cup and vertical handle. Sc. 1:4.

## *Vessels with handles and spouts: pitchers and teapots*

Vessels with spouts, be it a pitcher or a teapot, are present in nearly all of the Iron Age tombs of the Pusht-i Kuh. They represent about 18% of the registered Iron Age I-II pottery, which means that nearly one in five is a pitcher or a teapot. The situation does not change in the Iron Age III. At the graveyard of Chamahzi Mumah they make up about 20% of the pottery, at Gul Khanan Murdah 22% and at Djub-i Gauhar even 35%.

The difference between pitchers and teapots lies in their proportions. The pitchers are more slender than the teapots. Their height exceeds their maximum diametre. The height of the teapots on the contrary is either smaller than their diametre or equals it. For which fluids these vessels were used is not known although the name "teapot" may imply otherwise. It is, however, a traditional designation in Iranian archaeology for various types of vessels with spouts and handles. It has no implication as to its original function (Yon 1981, p. 232).
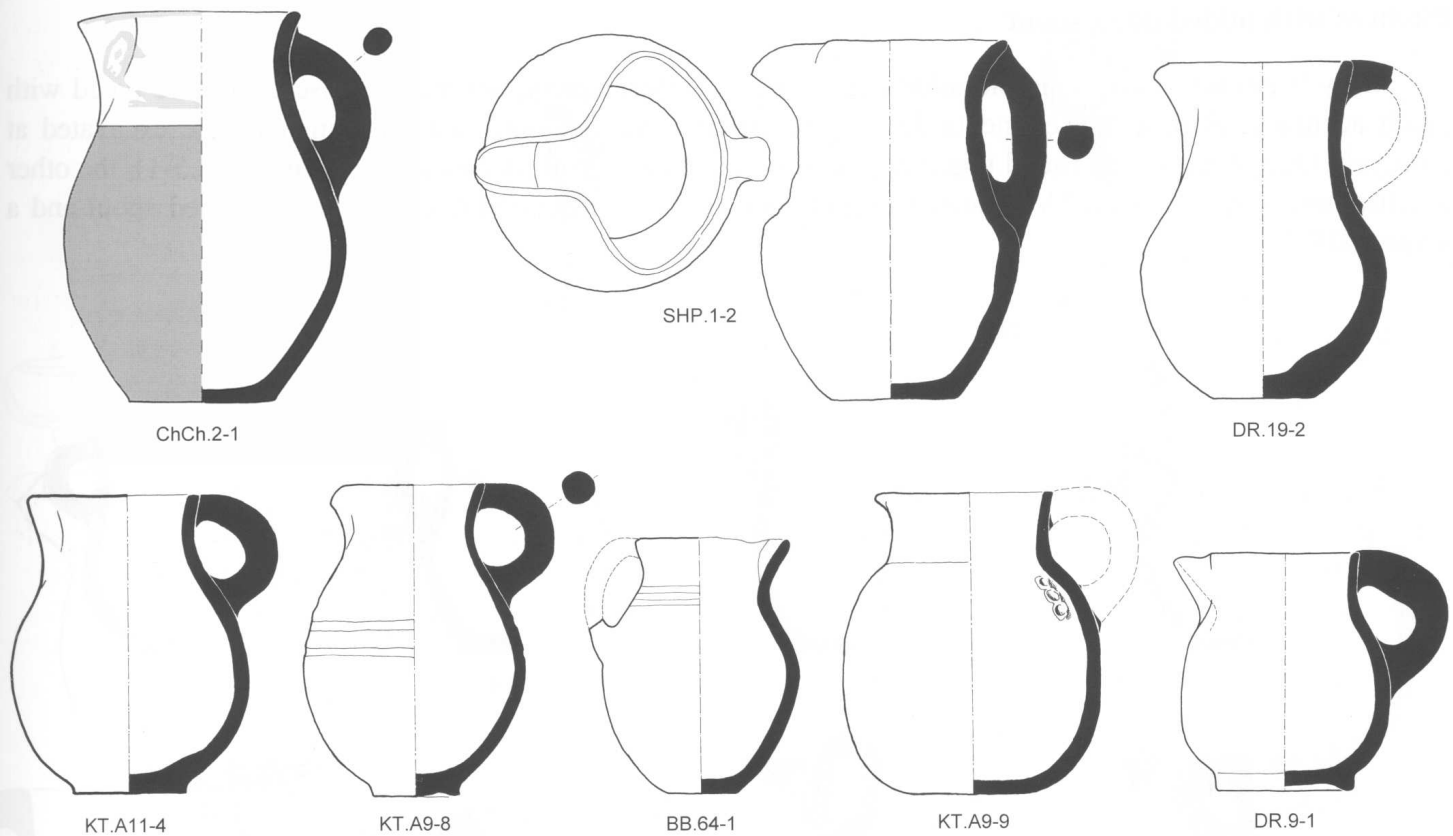
Fig. 60. Selection of pitchers with pinched spout from the Iron Age I-II in the Pusht-i Kuh. Sc. 1:4.

| Grave-nr. | Object | Material | Remarks | H. | Diam. |
|---|---|---|---|---|---|
| ChCh.2-1 | Pitcher | Yellow-red pottery | Colour: 7.5YR-6/6, pinched spout, reddish-brown paint | 200 | 145 |
| KT.A2-11 | Pitcher | Buff ware | Pinched spout | 161 | 140 |
| KT.A2-12 | Pitcher | Buff ware | Pinched spout | 135 | 125 |
| KT.A3-3 | Pitcher | Buff ware | Pinched spout | 123 | 105 |
| KT.A5-10 | Pitcher | Buff ware | Pulverised, pinched spout | 115 | 107 |
| KT.A6-2 | Pitcher | Buff ware | Pulverised, pinched spout | 150 | 142 |
| KT.A6-3 | Pitcher | Buff ware | Pinched spout, potter's mark on shoulder | 140 | 134 |
| KT.A6-4 | Pitcher | Buff ware | Pulverised, pinched spout | 115 | 125 |
| KT.A7-11 | Pitcher | Buff ware | Pinched spout | 129 | 116 |
| KT.A9-8 | Pitcher | Buff ware | Pinched spout, decorated with horizontal incised lines | 159 | 112 |
| KT.A9-9 | Pitcher | Buff ware | Pinched spout, potter's mark on shoulder | 153 | 130 |
| KT.A11-4 | Pitcher | Buff ware | Pinched spout | 150 | 122 |
| KT.A11-5 | Pitcher | Buff ware | Pinched spout | 110 | 98 |
| KT.A14-2 | Pitcher | Buff ware | Colour: 10YR-7/4, pinched spout | 113 | 127 |
| KT.A14-3 | Pitcher | Yellow-red pottery | Colour: 5YR-7/6, pinched spout | 158 | 130 |
| KT.A14-4 | Pitcher | Yellow-red pottery | Colour: 7.5YR-7/6, pinched spout | 145 | 117 |
| DR.2-1 | Pitcher | Buff ware | Pinched spout | 166 | 141 |
| DR.7-1 | Pitcher | Grey ware | Pinched spout | 145 | 130 |
| DR.9-1 | Pitcher | Buff ware | Pinched spout | 120 | 105 |
| DR.13-4 | Pitcher | Buff ware | Pinched spout | 100 | 85 |
| DR.18-3 | Pitcher | Buff ware | Pinched spout | 110 | 100 |
| DR.19-2 | Pitcher | Buff ware | Pinched spout | 170 | 124 |
| BB.27-2 | Pitcher | Buff ware | Pinched spout | 126 | 129 |
| BB.42-1 | Pitcher | Buff ware | Pinched spout | 170 | 130 |
| BB.58-1 | Pitcher | Buff ware | Pinched spout | 149 | 104 |
| BB.61-1 | Pitcher | Buff ware | Pinched spout | 125 | 99 |
| BB.64-1 | Pitcher | Buff ware | Pinched spout, decorated with horizontal incised lines | 130 | 101 |
| SHP.1-2 | Pitcher | Buff ware | Pinched spout | 182 | 130 |
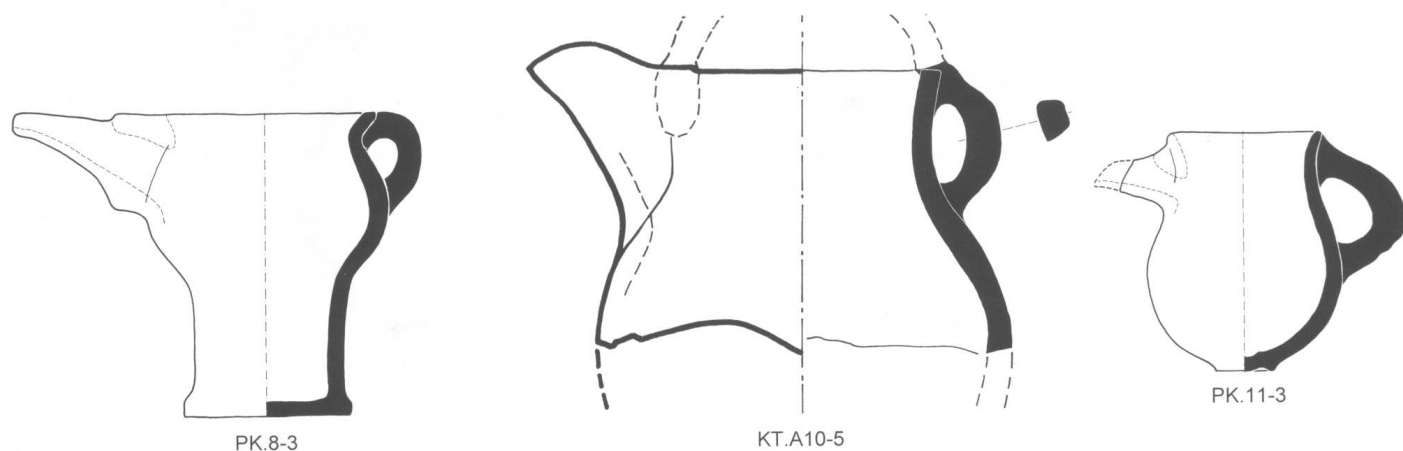
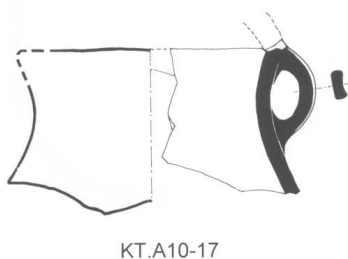Fig. 63. Exceptional shapes of pitchers from the Pusht-i Kuh. Sc. 1:4.



Fig. 64. Vessel fragment, probably of a pitcher with basket handle, similar to KT.A10-5 of fig. 63. Sc. 1:4.

The pitcher PK.11-3 has a partially closed spout with a pinched bridge to the rim of the vessel. Baba Djan III related painted ware was found in the same tomb, suggesting a late 9th. or 8th. century date. The presence of the pinched bridge supports this late Iron Age II or Iron Age III date. In the Pusht-i Kuh it is a popular element of teapots with tubular spouts which start to appear in an Iron Age IIB context at Darwand B. It becomes a distinctive feature in the Iron Age III and it is encountered at sites such as Chamahzi Mumah, Djub-i Gauhar, Gul Khanan Murdah and War Kabud (Haerinck & Overlaet 1998, ill. 4, 5; 1999, ill. 6, 9, 32 / Vanden Berghe 1968b, fig. 30; 1987, p. 228-229, fig. 11-13).

| Grave-nr. | Object | Material | Remarks | H. | Diam. |
|-----------|--------|----------|---------|-----|-------|
| KT.A10-5 | Pitcher | Buff ware | Basket handle, bridged open spout | - | 200 |
| PK.8-3 | Pitcher | Buff ware | High foot, beak spout | 145 | 116 |
| PK.11-3 | Pitcher | Buff ware | Bridged, partially closed spout | 115 | 92 |

## Teapots

Teapots are the main group of pottery throughout the Iron Age in the Pusht-i Kuh. They are important in as much as they allow a distinction between the Iron Age I and II on the one hand, and the Iron Age III on the other. The characteristic type of teapot of the Iron Age I and II is the teapot with a short open spout and a vertical handle. Teapots with basket handles and tubular spouts start appearing at the end of the Iron Age II and become the principal shape during the Iron Age III (fig. 65). A short open spout occurs in the Iron Age III only in combination with either a basket handle or a knob instead of a handle.

Several groups can be distinguished within the category of the Iron Age I and II teapots on the basis of elements such as the shape of the spout, the type of handles and so on (fig. 66). The main group, which will be discussed in detail first, are the teapots with a combination of a bridged open spout and a vertical handle. The other shapes are much rarer.
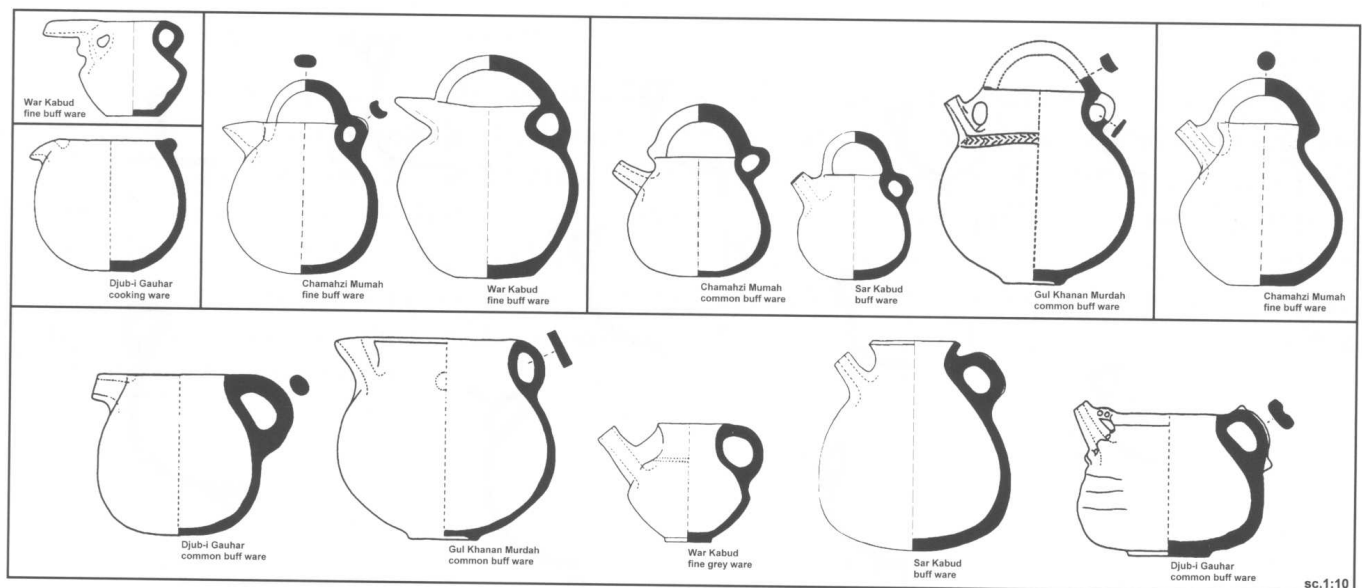
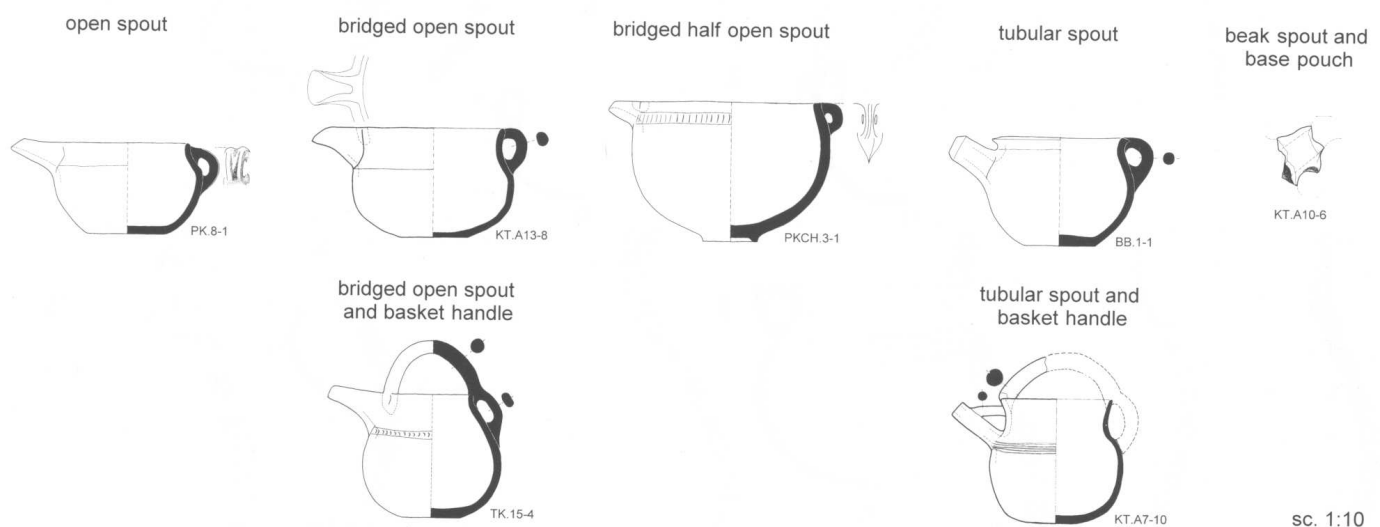Fig. 65. Survey of Iron Age III teapots from the Pusht-i Kuh.

Fig. 66. Survey of the various types of Iron Age I-II teapots from the Pusht-i Kuh.

## Teapots with bridged open spout

### General shape:

Three groups of teapots with bridged open spout can be distinguished on the basis of the shape of their body. The first group (fig. 67:1-5) displays a simple, closed bowl shaped body with a flat or rounded base. The second group (fig. 67:6-11) has a vase like body, i.e. there is a distinctive shoulder and neck. The transition from the body into the neck is flowing. This last detail distinguishes the second from the third group (fig. 67:12-16) which has a well defined neck, usually with a hollow or straight profile. A sharp distinction between these two groups is not always possible. All three groups are found simultaniously throughout the Early Iron Age. Whereas groups 2 and 3 occur approximately in equal proportions, group 1 is much rarer. It accounts for only about 15% of all teapots. They are well represented at Kutal-i Gulgul which suggest that they were most popular during the Iron Age I. They are rare in Iron Age II finds and are virtually absent among the Iron Age III pottery.
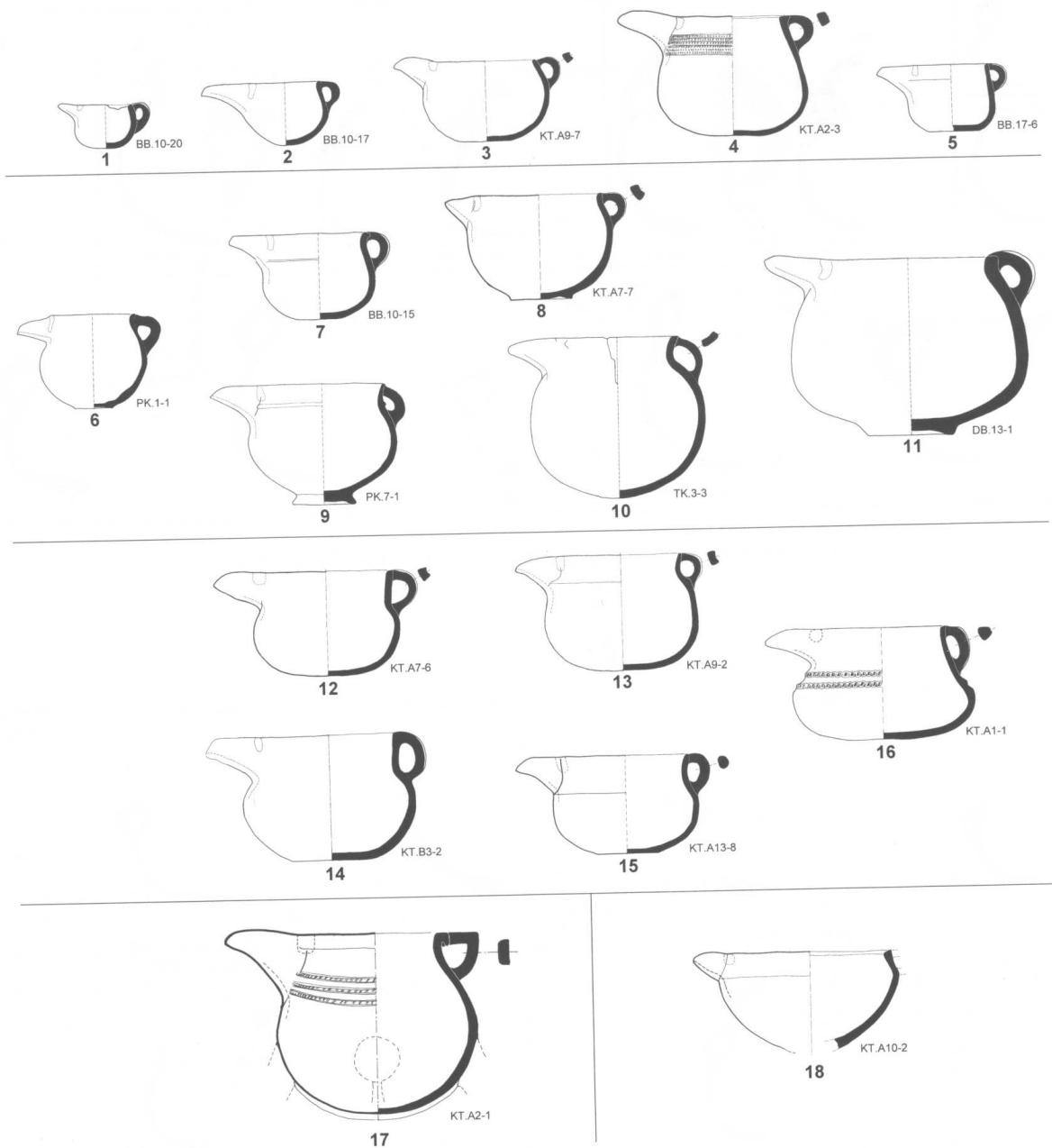
Fig. 67. Main types of Iron Age I-II teapots with bridged open spout and vertical handle (sc. 1:10).

Two teapots are of an exceptional type. The first one has a bowl shaped body and a distinct straight, inclined shoulder (fig. 67:18: KT.A10-2). The second one is a tripod teapot (fig. 67:17: KT.A2-1/colour plate XVII). It comes from a re-used tomb and cannot be associated with a specific grave with absolute certainty. Nevertheless, its position near the most recent grave of a man with an iron sword, suggests an Iron Age IIB date. It is noteworthy that not a single fragment of the feet was recorded. Their original presence can only be deduced from the impressions they left on the bottom of the vessel and from the remaining clay ridges, which ran from every foot to the centre of the bottom. It seems therefore that the feet had already disappeared when the vessel was deposited in the tomb. The remaining impressions indicate hat the feet were hollow and had a circular cross section. Also other details of the teapot such as the triangular handle and the profile of the lip are unique features.
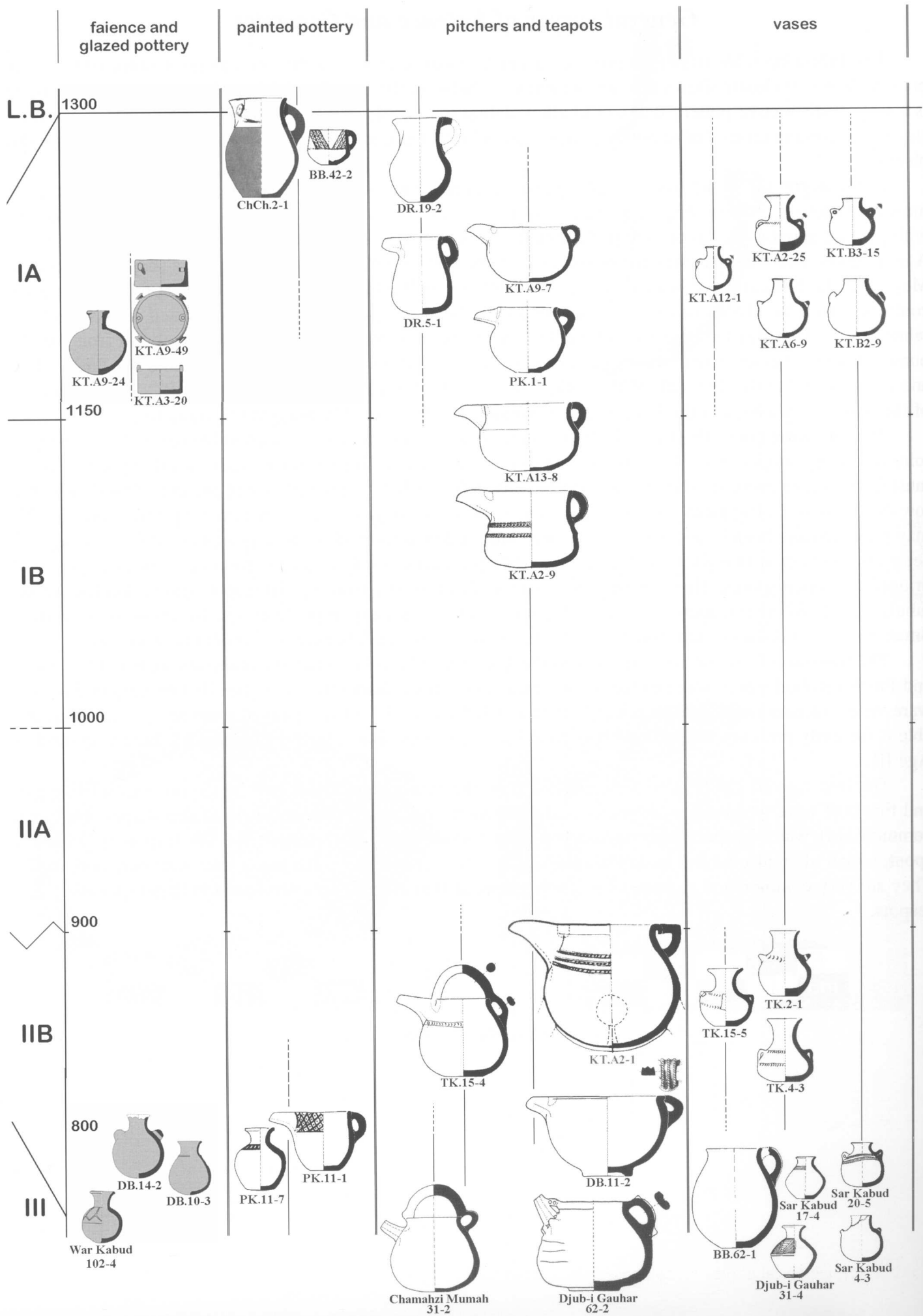
# General survey of Faience and Ceramics

The following table (fig. 117) provides a quick visual reference to the chronological range of the main pottery shapes. It clearly shows that our present knowledge of the Iron Age IB-IIA phase is insufficient. There is a lack of distinctive pottery that would allow dating the burials within this relatively long timespan. As it stands, the continuation of most pottery shapes can only be deduced from their occurrence before and after this phase.

At the beginning of the Iron Age IA, pitchers with pinched spout and "Iron IA carinated beakers" are the most characteristic pottery shapes. In the course of the Iron Age IA phase, teapots start replacing the pitchers with pinched spout as the all present burial gift. The pitchers seem to illustrate the continuing of a Late Bronze Age tradition, while the IA carinated beakers may very well be either an actual import or a shape derived from Mesopotamia. The carinated beakers are found together with the Iron I S-beakers that are of related shape and could very well be a local, or a more simple imitation. Several types of bowls with carinated neck seem to be related to the IA carinated beakers and would seem to be present mainly, if not exclusively, in Iron Age IA burials. Faience vessels (small vases, pyxis and buckets) illustrate Late Kassite imports into the Pusht-i Kuh and can be dated to the 2nd. half of the 13th. century or the 1st. half of the 12th. century BC. The destruction of the Kassite townships in the Diyala region around 1160 BC probably brought this trade to an end.

The following phase IB-IIA is insufficiently known. The presence of a coherent but partly different repertoire of pottery shapes in the Iron Age IIB in graveyards such as Tepe Kalwali, indicates that pottery shapes must have further evolved. The absence of precisely dated IB-IIA tombs makes it at present impossible to follow this process. Consequently, some of the shapes, which are now seen as characteristic for the Iron Age IIB, may prove to have been in use much earlier once more information will become available. At the Iron Age IIB cemeteries teapots with basket handles and a double grooved vertical handle are found as well as teapots with bridged half-open spouts. They are precursors of the characteristic Iron Age III teapot with basket handle and tubular spout. Whether teapots with tubular spout already are present in the Iron Age IIB phase is not certain. Small bowls and dishes of the Iron Age IIB often have a very small handle or a small lug at the rim.

The transition from the Iron Age IIB to the Iron Age III can be noted at cemeteries such as Darwand B and Pusht-i Kabud where some of the tombs already contained distinctive Iron Age III fine grey or fine buff ware vases. Occasionally, glazed pottery vases and Baba Djan III related painted ware are present. Remarkable is the early presence of ladles with vertical handle, a shape that is well documented in bronze in the Iron Age III.

The Iron Age III can be well distinguished from the earlier phases, not only by the presence of fine grey and fine buff ware which often shows incised decorations, but also by a number of altered shapes among the common buff ware. Teapots with open spout have become rare, characteristic are the teapots with tubular spout, which often also have a basket handle. A distinctive new shape is the jug, a vase with only one handle. They are very common and at some sites (for example at War Kabud) are even found in larger quantities than teapots.
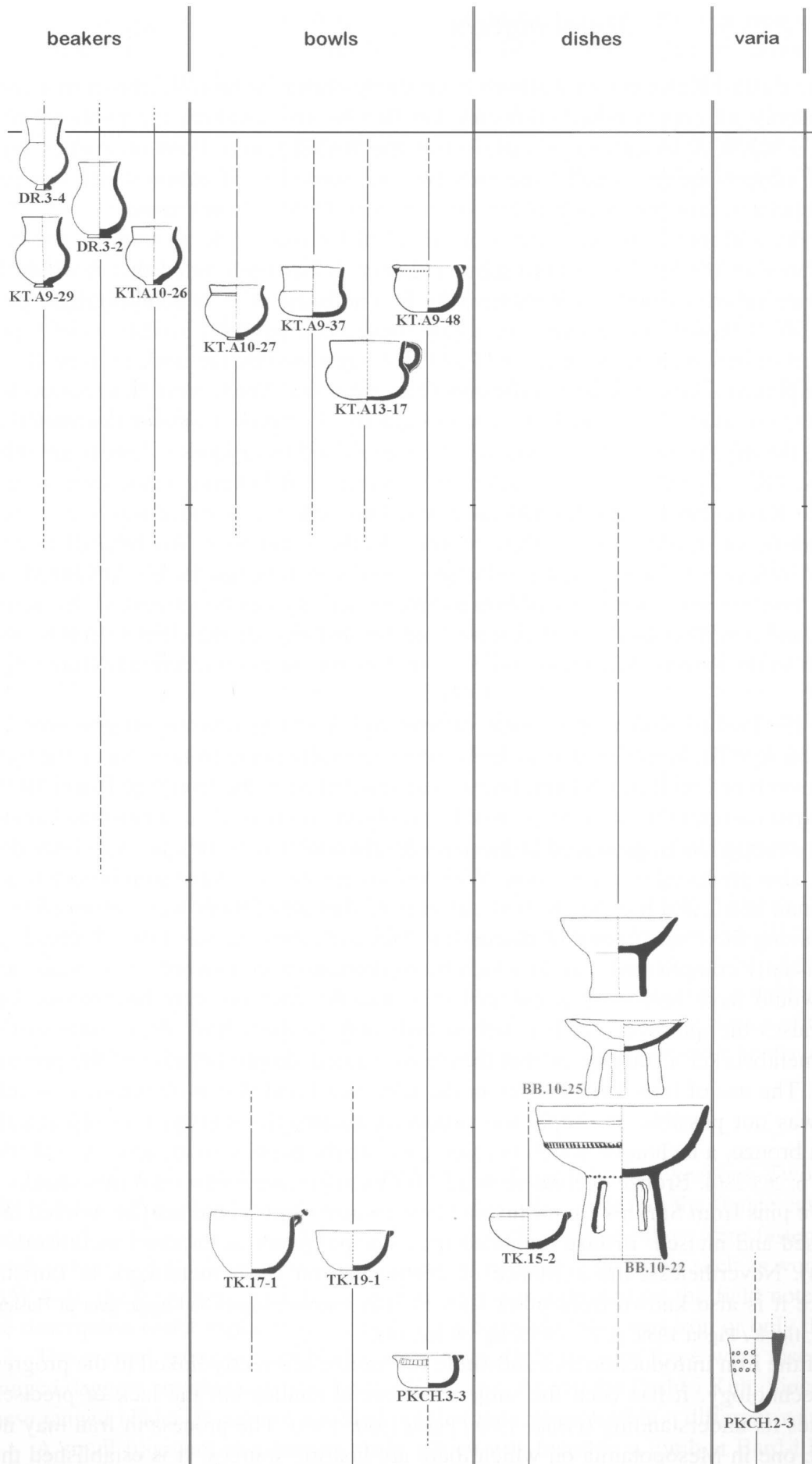
| faience and glazed pottery | painted pottery | pitchers and teapots | vases |

L.B. 1300

IA

1150

IB

1000

IIA

900

IIB

800

III

ChCh.2-1
BB.42-2
DR.19-2
KT.A9-7
DR.5-1
PK.1-1
KT.A13-8
KT.A2-9
KT.A9-49
KT.A9-24
KT.A3-20
KT.A12-1
KT.A2-25
KT.B3-15
KT.A6-9
KT.B2-9
TK.15-4
KT.A2-1
TK.15-5
TK.2-1
TK.4-3
DB.14-2
DB.10-3
PK.11-7
PK.11-1
DB.11-2
BB.62-1
Sar Kabud 17-4
Sar Kabud 20-5
Sar Kabud 4-3
Djub-i Gauhar 31-4
War Kabud 102-4
Chamahzi Mumah 31-2
Djub-i Gauhar 62-2

Fig. 117. Chronological survey of the pottery

## *Metal objects*

The metal finds from the Pusht-i Kuh tombs are almost exclusively objects in bronze, iron or in a combination of both (for convenience all copper based alloys are labelled bronze, awaiting the publication of results from Stuart-Fleming's MASCA based analysis project of the BAMI finds). Precious metals were hardly found. The only silver objects are five small lunar crescents and some sort of button which was part of an iron bracelet. This last item is, however, inadequately documented. Gold was not found.

The quantity, the diversity and the sheer existence of a canonical Luristan style all point to the economical and cultural importance of the local Luristan bronze industry. It has been noted that it would be highly improbable that such an industry could thrive exclusively in a nomadic or even semi-nomadic population (Moorey 1969, p. 137-138). Although nomadism may always have been part of Luristan society, permanent settlements, the existence of which in the Iron Age I and II is suggested by the finds at Tepe Guran and Surkh-i Dum, must have played a vital role within the economic structure. Much more field research is needed, however, to reveal the complex background of such an industry. The provenance of raw materials such as iron, copper and tin, the organisation of the industry, their tools and techniques... hardly anything is known about these aspects. The only traces of the actual metal production is Schmidt's discovery of iron slag on the floor of a room at Kamtarlan I in the Rumishgan plain. The excavated surface was too limited, however, to reveal more significant information. In fact, contrary to the situation in Anatolia (Belli 1991, p. 31-39, fig. 10-16, map 3), the research on mines and production centres in Iran has hardly advanced. At Hasanlu, for example, some iron ore was found and an iron industrial activity can be suspected. No actual traces were found, however, and it is thought that it may have been located outside the citadel. In this case, one would have to look for it in the surrounding plain, under several metres of more recent alluvium (Pigott 1989, p. 70-71).

Iron was introduced in the Pusht-i Kuh in the course of Iron Age I and gained importance progressively. It was not until the Iron Age III, however, that weapons were generally made from it. Since the technology of cast iron was not developed until much later, bronze remained even in the Iron Age II and III the principal alloy for all decorative castings (Moorey 1994, p. 264). Local objects such as idols, whetstone handles and spike butted axe heads continued to be produced in bronze with the lost wax technique. Similarly decorated items were, however, also produced in forged iron. Well known are the decorated iron bracelets and the swords with bearded human heads and lion heads. It is unfortunate that all of them were retrieved from uncontrolled excavations, leaving their age a point of discussion (Muscarella 1989 / Moorey 1991). Technological research showed the unusually complicated way in which these decorative iron swords were made and also pointed out that they would have been of less use in battle than the contemporary bronze weapons (Rehder 1991, p. 15-16). This raises the question whether such swords may possibly have been some sort of "masterpiece" finalising a metalworker's training or that they were valued simply because of the prestige associated with the material. The use of iron for jewellery in the Iron Age I and II was obviously a significant sign of prestige. If it was not possible or simply too expensive to afford complete iron objects, the material was combined with bronze, a technique which became particularly popular in the Iron Age II (Pigott 1989, p. 72-74 / Moorey 1994, p. 285-286). Bronze decorative heads, for example, were cast onto iron shanks to produce clothing pins. Votive pins from Surkh-i Dum illustrate how bronze heads could also be worked into sheet metal that was embossed and incised. Bronze remained the principal material for sheet metalwork in Luristan (Moorey 1994, p. 264). Nevertheless, the existence of decorated iron sheet metalwork in Luristan should not be excluded since it is also known from other sites in Iran (quiver plaques and horse gear at Hasanlu IVB, see Muscarella 1989b, p. 28, fig. 8 / Pigott 1989, p. 71, 74-75, fig. 6b and 14).

The speed and extent of the iron introduction as a substitute for bronze is directly linked to the progress made in the iron working technology. It has been the subject of several studies but the lack of precisely dated iron objects complicates its understanding (Pleiner 1969 / Pigott 1980; 1989). The process in Iran may not be all that different from the one in Mesopotamia on which there are historic sources. It is established that at least since the 13th. century BC iron was being worked at several centres. It was not a massive production but rather one of exceptional items which were exchanged as part of royal gifts (Maxwell-Hyslop 1974,

p. 140-142 / Pleiner 1969, p. 70-82). It was not until the 9th. century BC that iron weapons and utensils became more widely used. Tukulti-Ninurta II (890-884 BC) mentions that his army used iron axes and that he received iron and 100 iron daggers as tribute. Ashurnasirpal II (883-859 BC) states that his armies used iron axes and bronze adzes on their venture through the mountains (Maxwell-Hyslop 1974, p. 142, 147-148 / Curtis, Wheeler, Muhly & Maddin 1979, p. 369). Regular references to iron weapons and utensils, without the connotation of value, and to large amounts of iron as tribute or as spoils of war, only appear in the 9th. and particularly in the 8th. century BC (Pleiner & Bjorkman 1974, p. 286-296 / Waldbaum 1980, p. 82). This fits very well with the picture which arises from the Pusht-i Kuh graveyards. It is not until the Iron Age III that the armaments (swords, axes, arrowheads) and tools (adzes) are consistently made of iron (Vanden Berghe 1987, p. 231).

The introduction of iron in the Pusht-i Kuh appears to coincide with that in Mesopotamia. In total 143 iron objects were found in the Iron Age I and II tombs of which only 22 were weapons. The majority were jewellery items (85%: finger rings, anklets, bracelets, pins and hair spirals). Not a single one of these could be dated with absolute certainty to the Iron Age IA. This is not totally unexpected since at the nearby contemporary Diyala settlements of Tell Imlihiye and Tell Zubeidi iron also remains exceptionally rare. Only one single iron toggle pin was found there (Boehmer & Dämmer 1985, p. 64, Taf. 151:674). Iron jewellery becomes more widely used in the Pusht-i Kuh in the Iron Age IB-IIA. Iron jewellery was also found in a tomb at Tepe Guran in the Hulailan which can be dated to the 11th.-10th. century BC. Iron finger rings were found on the male skeleton which still had a bronze dagger (fig. 16). Iron weapons such as daggers and blades are not found in the Pusht-i Kuh until the Iron Age IIB and even then iron is still not used for certain categories such as arrowheads. Even at graveyards which represent the transition from the Iron Age IIB to III, such as Pusht-i Kabud and Darwand B, the arrowheads are still made of bronze. It is only from the Iron Age III onwards that they are always made of iron. It indicates that by then the material had become very common and had lost all conotation of value or prestige. It is in the same context that one has to interpret the virtual disappearance of iron jewellery in the Iron Age III. Not a single iron finger ring was found in the Iron Age III graveyards, the only exception are a few iron bracelets and anklets. Being more durable than finger rings, these exceptions may very well have been the last surviving products of a past tradition.

## Bronze and iron knives and daggers

Al the blade weapons from the Iron Age I and II tombs are either knives or daggers. Their total length never exceeds 44 cm. This contrasts with the iron swords from the Iron Age III tombs which can reach lengths of up to 68.5 cm. (Chamahzi Mumah: Haerinck & Overlaet 1998, p. 18-20, ill. 7, pl. 50). Apart from one small iron knife, all the blades are double edged, which means that they could be used as a stabbing and as a slashing weapon. Since the grip is the most characteristic element of the weapon and the choice of material places limitations on the blacksmith's ability to shape the hilt, bronze and iron specimens will be discussed separately.

### Bronze knives, daggers and a blade fragment

There is much uniformity among the Iron Age I and II bronze weapons. Two groups can be distinguished. The main group are the flanged daggers which have the blade and the flange cast in one piece. The flange is the central section of the grip and always has a raised rim. The inlays were fastened with rivets, rim flaps or a combination of both. They were usually made of perishable materials such as wood, bone or ivory. In one case (AW.4-4), the inlay may have been of iron. Iron was indicated on the field notes with regard to the grip but the description is not explicit as to whether the complete inlay was iron or only the rivets or some decoration.

The second group are the blades with tangs. Only three of these were discovered which shows that the flanged daggers are characteristic for the Early Iron Age in the Pusht-i Kuh. Since no grips were preserved on these tanged blades, it can not be ruled out that they were used in a different way, for example as spearpoint.

A small fragment of a bronze blade, which was found in a tomb at Bard-i Bal is double edged. It looks as if it is a fragment of a dagger blade. The way it is worn off suggests it may have been used as a scraper (BB.70-15).
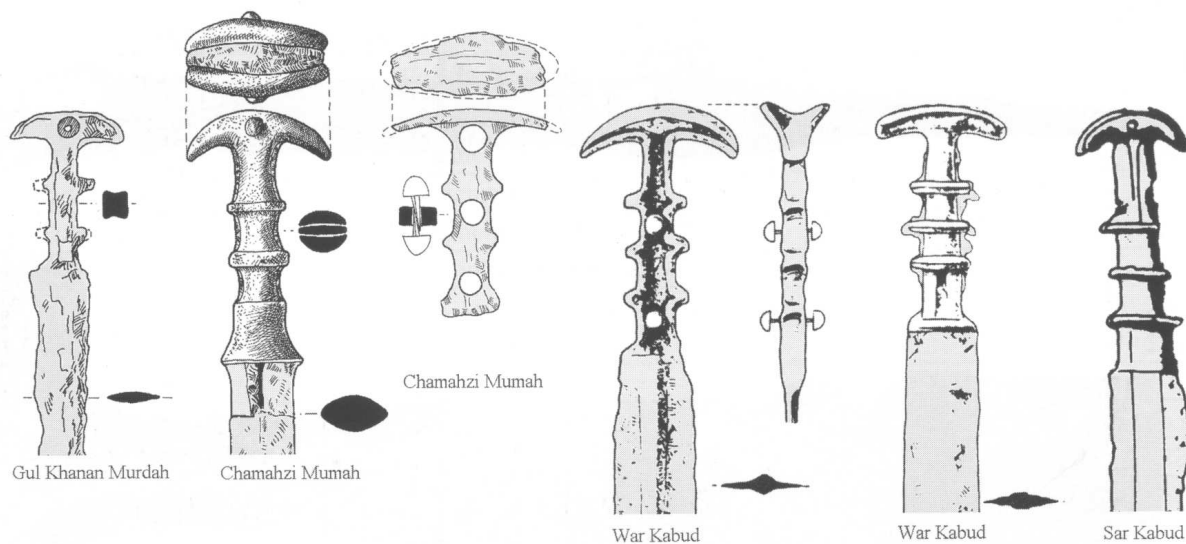
Fig. 133. Daggers and swords from Iron Age III tombs in the Pusht-i Kuh. (sc. 1:4)
(after Haerinck & Overlaet 1998, ill. 7; 1999, ill. 36 / War Kabud and Sar Kabud not published)

The BAMI excavations have established that by the Iron Age III in the Pusht-i Kuh, iron had totally replaced bronze for the production of blades. The five iron flanged daggers could date from the Iron Age II or possibly even from the very beginning of the Iron Age III. It is worth mentioning that all the armament which was excavated at Tepe Kalwali is made of iron. Since the total of the burialgoods at this Iron Age IIB site points to a poor rather than to a wealthy society, this indicates that iron was no longer extravagantly expensive or luxurious. The transition from iron to bronze for items such as daggers or knives in the Pusht-i Kuh must be situated in the Iron Age II. The complete replacement, including for items such as arrowheads, seems to have been a fact at the beginning of the Iron Age III.

## Bronze spike butted axe heads

The "spike butted axe heads" are among the best known canonical Luristan bronzes and many specimens can be found in museums and private collections. Nevertheless, little is known about their function, their chronological or regional distribution. These axe heads were named after the characteristic spikes on the butt. They have a curved blade which ends in a cutting-edge which stands usually oblique, in extreme cases even at a right angle to the handle of the axe. In some cases the cutting-edge was never sharpened which casts doubt on the practical use of these weapons. The shaft hole is decorated with ridges which run from the junction with the blade to the separate spikes. There are, however, many variants. The row of spikes can, for example, have been doubled or the spikes can be shaped as animals or animal heads. The blades are sometimes springing from a predator's open jaw. They can bear cast or incised decorations and sometimes small animals are mounted on their upper edge. This wide repertoire is mainly known from specimens without provenance, however, among which there are unfortunately also many forgeries (an extensive and critical survey of types and variants is provided by Moorey 1971, p. 49-55, nrs. 14-21, pl. 2-3 / Amiet 1976, p. 36-39, nrs. 48-55, fig. 25-26 / Calmeyer 1969, p. 66-70, Abb. 66-69, Taf. 4 / Muscarella 1988, p. 189-191, nrs. 304-305).

Only 13 specimens or fragments have up to now been discovered during controlled excavations, 7 in the Pusht-i Kuh (fig. 134), 4 in the Pish-i Kuh (fig. 135 top row) and 2 at Zalu Ab in Kurdistan (fig. 40, 135). The seven spike butted axe heads or fragments from the Pusht-i Kuh were found at two sites, Bard-i Bal and Kutal-i Gulgul. Those from Bard-i Bal were all deliberately damaged. None of the axe heads can be dated precisely within the Iron Age I-II because of the multiple re-use of the tombs. There are some indications, however, that spike butted axe heads already were in use during the Iron Age I. Tomb 26 at Bard-i Bal was re-used in the Iron Age III but among the earlier burialgoods there are Iron Age IA Kassite shell finger rings.
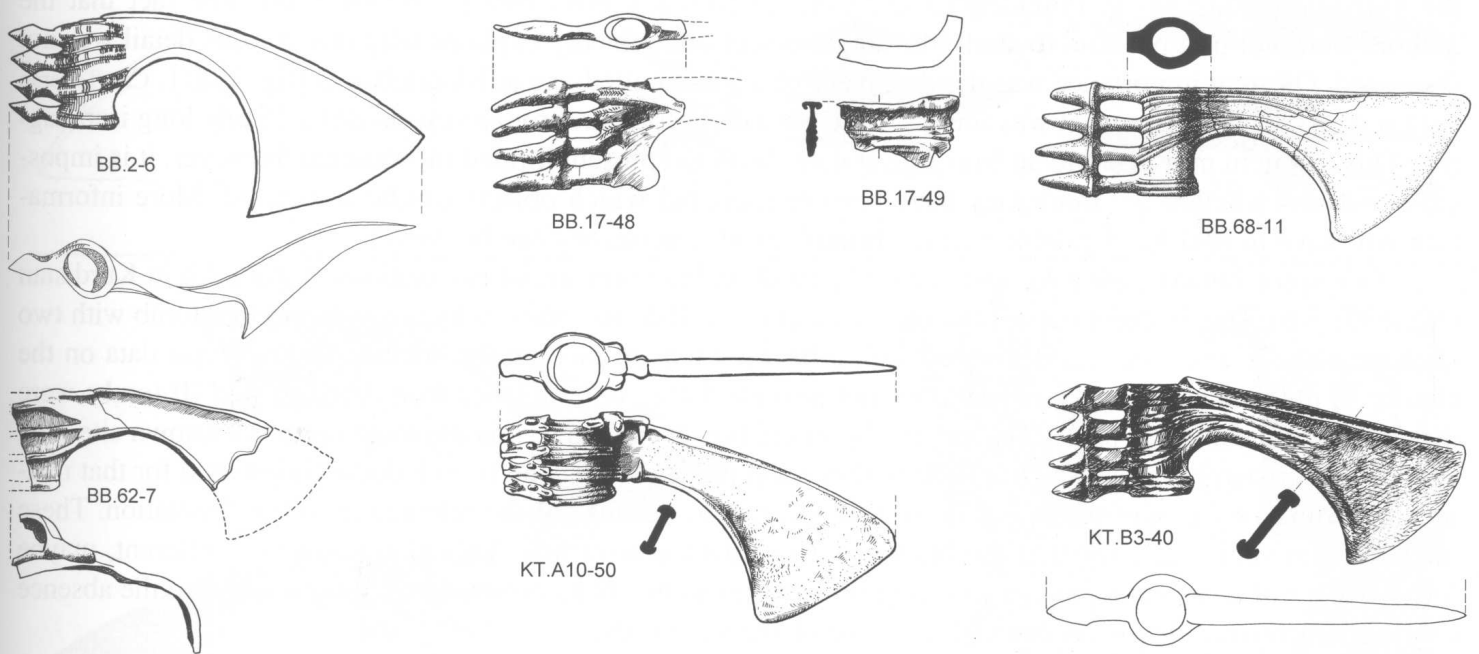
Fig. 134. Spike butted axe heads and fragments discovered by the BAMI in the Pusht-i Kuh. (sc. 1:4)

| Grave-nr. | Object | Material | Remarks | H. socket | L. |
|-----------|--------|----------|---------|-----------|-----|
| KT.A10-50 | Spike butted axe head | Bronze | Animal head spikes, blade springing from a predator's jaw | 45 | 194 |
| KT.B3-40 | Spike butted axe head | Bronze | | 56 | 205 |
| BB.2-6 | Spike butted axe head | Bronze | Deliberately distorted | 56 | 215 |
| BB.17-48 | Spike butted axe head | Bronze | Fragment | 53 | - |
| BB.17-49 | Spike butted axe head | Bronze | Fragment, distorted | - | - |
| BB.62-7 | Spike butted axe head | Bronze | Fragments, distorted and broken | 50 | - |
| BB.68-11 | Spike butted axe head | Bronze | distorted and broken, cutting-edge not sharpened | 56 | 230 |

The presence of an Iron I S-beaker in the tomb suggests also an early date for BB.2-6. In tomb KT.B3, a tomb that was constructed during the Iron Age I and that has been re-used several times, the axe-head was found with the objects which were pushed back to make room at the time of the last (female) burial.

Only four axe heads or fragments were discovered during controlled excavations in the Pish-i Kuh, two at Surkh-i Dum, one at Khatunban and one at Tang-i Hamamlan (fig. 135). The Tang-i Hamamlan fragment is said to be part of a cache with, for example, a bronze horse bit, flanged daggers, arrowheads and a bottle shaped support of an idol (Thrane 1964, p. 158-159, fig. 5). There is, however, insufficient evidence to confirm this association and in fact it is possible they come from one or more tombs (see p. 30). Two spike butted axes were discovered at the sanctuary of Surkh-i Dum, one of which is a miniature which measures only 7.1 cm. in length (fig. 135:3, Schmidt, van Loon & Curvers 1989, p. 256, pl. 176b). Similar unprovenanced miniatures are known but their precise function remains enigmatic. They may have been used as amulets or may have been produced as ex-voto's or symbolic burialgoods (Haerinck & Overlaet 1985, p. 392-394, 407-410, fig. 2). The second axe-head from the Surkh-i Dum sanctuary is also smaller than most known specimens. It measures merely 14.1 cm. in length and displays some additional divergent features (fig. 135:4, Schmidt, van Loon & Curvers 1989, p. 255-256, pl. 176a). The spikes are unusually long in comparison to the blade and the cutting edge has a thickened rim. Further it is not the blade which springs from the predator's jaws but the spikes. On the photograph one cannot see a shaft hole at the top of the axe head, whereas normally this runs right through. It may be a votive axe head without a socket or the socket may simply not run through but even this would be a unique feature. According to the excavation report the present location of the object is not established, although it could be at

## Whetstones and bronze whetstone handles

The use of bronze weaponry during the Early Iron Age explains the presence of whetstones in the tombs. Bronze blades need to be whetted regularly, much more than iron ones. Almost any stone with a smooth surface could be used for this purpose but sometimes stones were cut in specific shapes. Small, flat or stick like stones were light enough to be carried around and could be perforated and fitted with a small string or bronze ring for suspension from a belt. In Luristan they were sometimes fitted with bronze sockets in the shape of simple animals or fantastic combinations of various animals and even human beings. Again, most of these canonical Luristan bronzes are unfortunately known from illegal excavations. It is noteworthy that many of these unprovenanced handles were sold without a whetstone. That such handles can be found in tombs without stones can now be confirmed by the BAMI excavations.

Four bronze handles were excavated at Bard-i Bal, three of which had an actual whetstone. Nine whetstones without bronze handles were excavated at Bard-i Bal, Kutal-i Gulgul and Cham Chakal. Three groups can be distinguished (fig. 146): the stick shaped whetstones (group 1), the flat whetstones (group 2) and the whetstones with bronze handles (group 3).
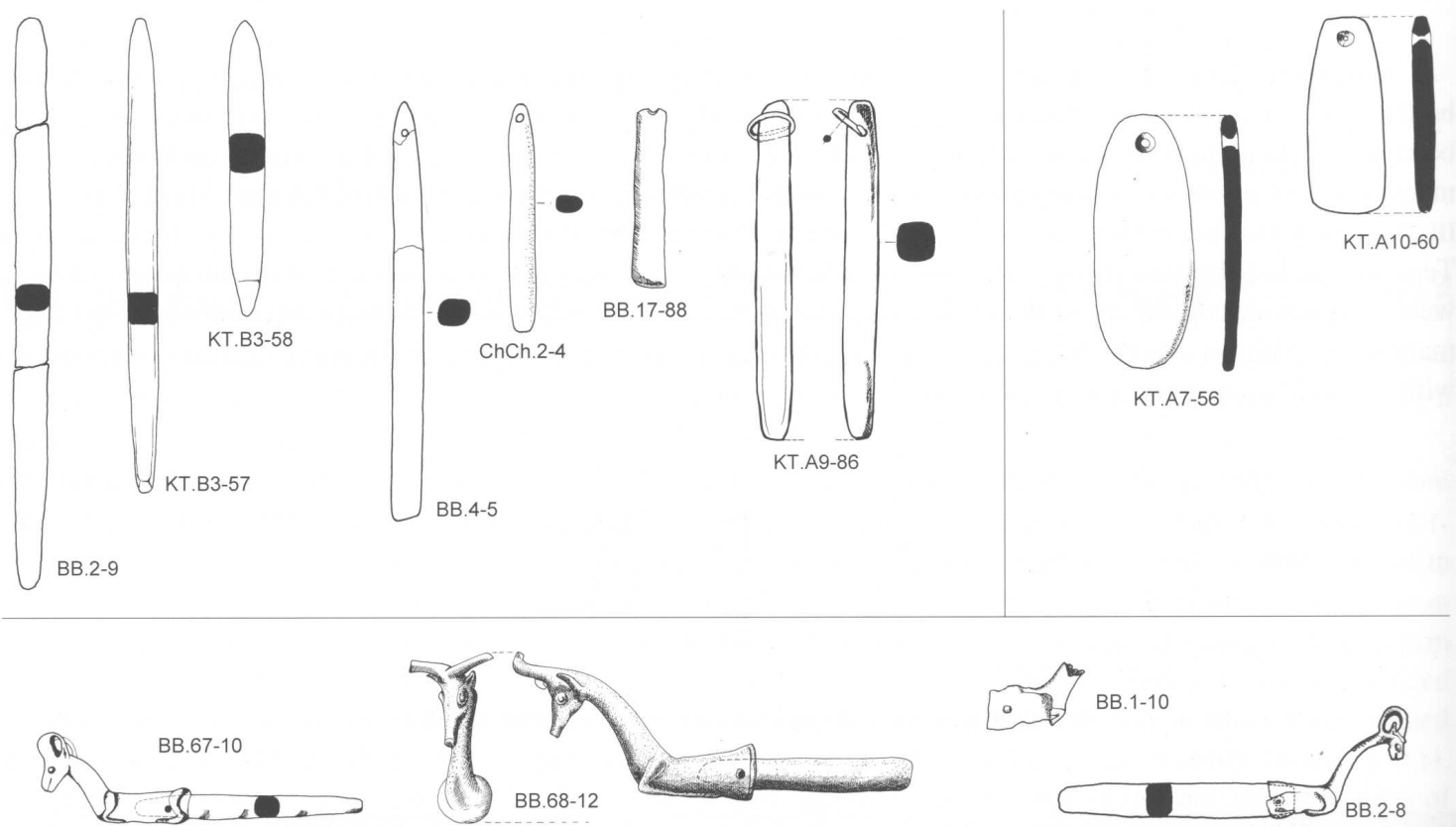


Fig. 146. Whetstones and handles from the BAMI excavations in the Pusht-i Kuh. (sc. 1:4)

| Grave-nr. | Object | Material | Remarks | L. | Diam. |
|---|---|---|---|---|---|
| ChCh.2-4 | Whetstone | Stone | Stick shaped with perforation | 114 | 14 |
| KT.A7-56 | Whetstone | Stone | Flat stone with perforation | 125 | 48 |
| KT.A9-86 | Whetstone | Stone + bronze | Stick shaped, bronze ring in perforation | 166 | 20 |
| KT.A10-60 | Whetstone | Grey stone | Flat stone with perforation | 97 | 37 |
| KT.B3-57 | Whetstone | Brown stone | Stick shaped | 233 | 15 |
| KT.B3-58 | Whetstone | Grey stone | Stick shaped | 144 | 18 |
| BB.1-10 | Whetstone + handle | Bronze | Fragment | 46 | - |
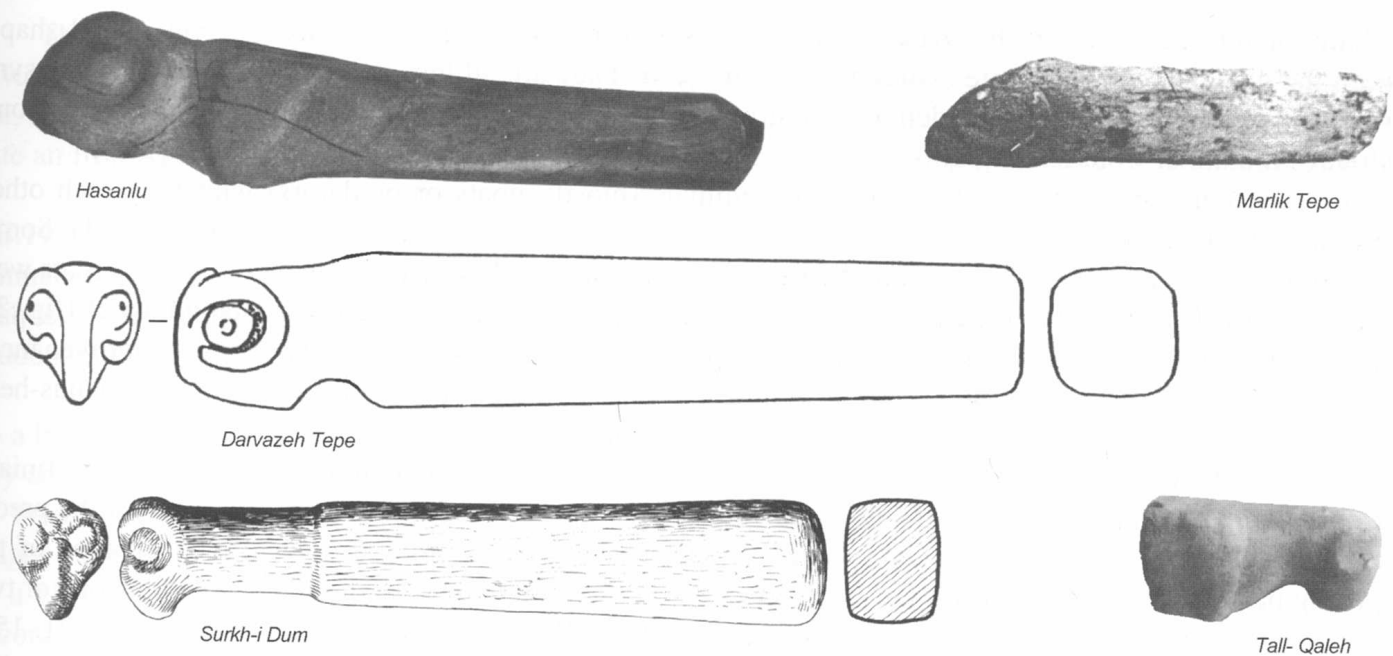
**Fig. 152. Large stone whetstones with ram's heads. (sc. 1:4)**
(Hasanlu, after Dyson 1961, fig. 12 / Tall-i Qaleh, after Haerinck & Overlaet 2003, fig. 16.10 / Darvazeh Tepe, after Jacobs 1980, fig. 35 / Surkh-i Dum, after Schmidt, van Loon & Curvers 1989, pl. 216f / Marlik Tepe, after Negahban 1996, pl. 130)

## Bronze idols and supports

In this category we will discuss a series of objects which can be subdivided in a number of groups which have been given many different names since they first became known. They are often mentioned as finials, standards, standard-finials, talismans, tubes, Stangen-Aufsatze and so on. Some of these designations may suggest a specific function or significance, whereas their true meaning still eludes us. The literature on these items is vast and many authors have made suggestions about their origin, their significance and their chronological development (an extensive survey is provided by Muscarella 1988, p. 136-141).
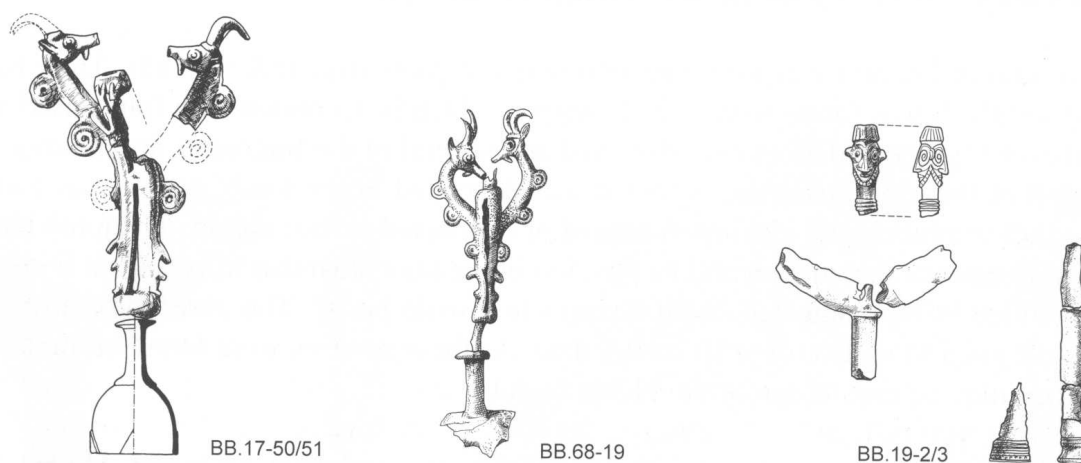


**Fig. 153. Idols from Iron Age I-II tombs in the Pusht-i Kuh. (sc. 1:4)**

| Grave-nr. | Object | Material | Remarks | H. | Width |
|-----------|--------|----------|---------|-----|-------|
| BB.17-50 | Idol | Bronze | 2 goats, 5 fragments, distorted | ca. 150 | ca. 120 |
| BB.17-51 | Support | Bronze | 4 x triangle in relief at the base | 65 | 42 |
| BB.68-19a | Idol | Bronze | goats, central tube, distorted | 105 | 58 |
| BB.68-19b | Support | Bronze | Fragmentary, distorted | 52 | 35 |
| BB.19-2+3 | Idol + support | Bronze | Fragments | - | - |

**Gul Khanan Murdah (fig. 155 nr. 4):** A 16 cm. high support with two protruding goat heads and a 5.8 cm. high tube were found together in an Iron Age III tomb at Gul Khanan Murdah (Haerinck & Overlaet 1999, p. 169-170, ill. 39, pl. 125d, 126). The presence of weapons indicated that it was a man's tomb. The short tube has a perforation at the side, which may have served to insert a peg for fixation.

**Chamahzi Mumah (fig. 155 nr. 5):** A 17.9 cm. high bronze support was found with a badly corroded iron statuette in a man's tomb at Chamahzi Mumah (Haerinck & Overlaet 1998, p. 30-31, ill. 13, fig. 49, pl. I, 66). An iron fragment which still adhered to the support indicated that it was used in a reversed position compared with the one from Tattulban.
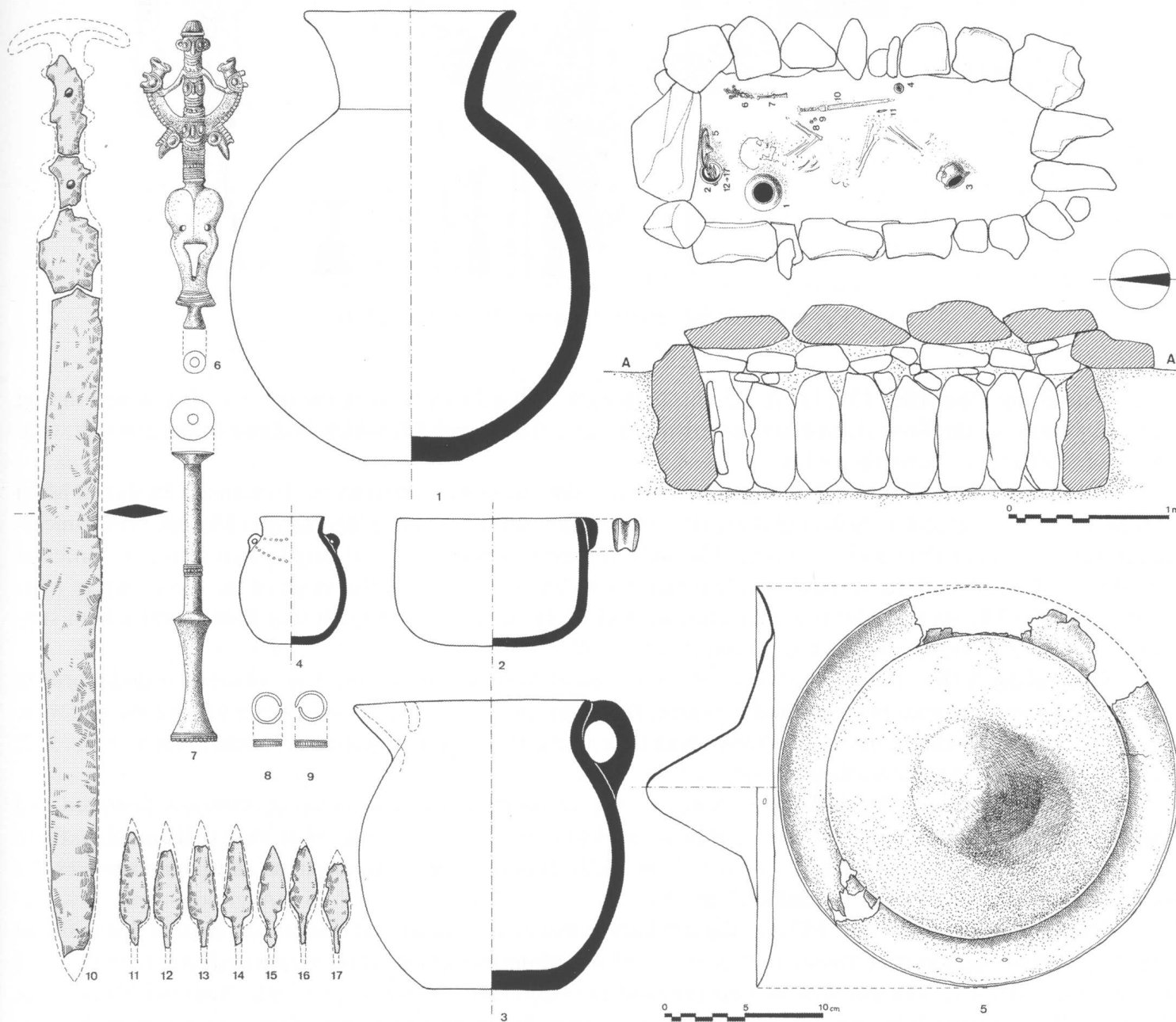
Fig. 156. The tomb and burialgoods of tomb 4 at Tattulban. (sc. 1:4)

## Idols and supports from the Pish-i Kuh:

Several supports and idols were discovered during controlled excavations in the Pish-i Kuh. Vanden Berghe and Maleki also witnessed the illegal excavations of two more idols, one with a support, at Cheshmeh Mahi.

| whetstone handles | daggers | axes | idols | arrowheads |
|---|---|---|---|---|

**L.B.** 1300

IA

BB.67-10
BB.2-8
BB.68-12
1150

KT.A11-27
KT.A4-18
BB.68-10
KT.A6-19
PK.3-10
BB.61-5
KT.A9-61

BB.62-7
BB.2-6
KT.A10-50
BB.68-11

BB.68-19
BB.17-50/51

DR.7-6
KT.A7-39

IB

1000

IIA

900

TK.12-7
TK.9-4
BB.10-95

BB.19-2/3

DB.8-4
DB.8-6

IIB

800

III

W.K.
Ch.M.
G.K.M.
Ch.M.
Ch.M.
W.K.
W.K.
S.K.
Djub-i Gauhar
Tattulban
Chamahzi Mumah
G.K.M.
Ch.M.
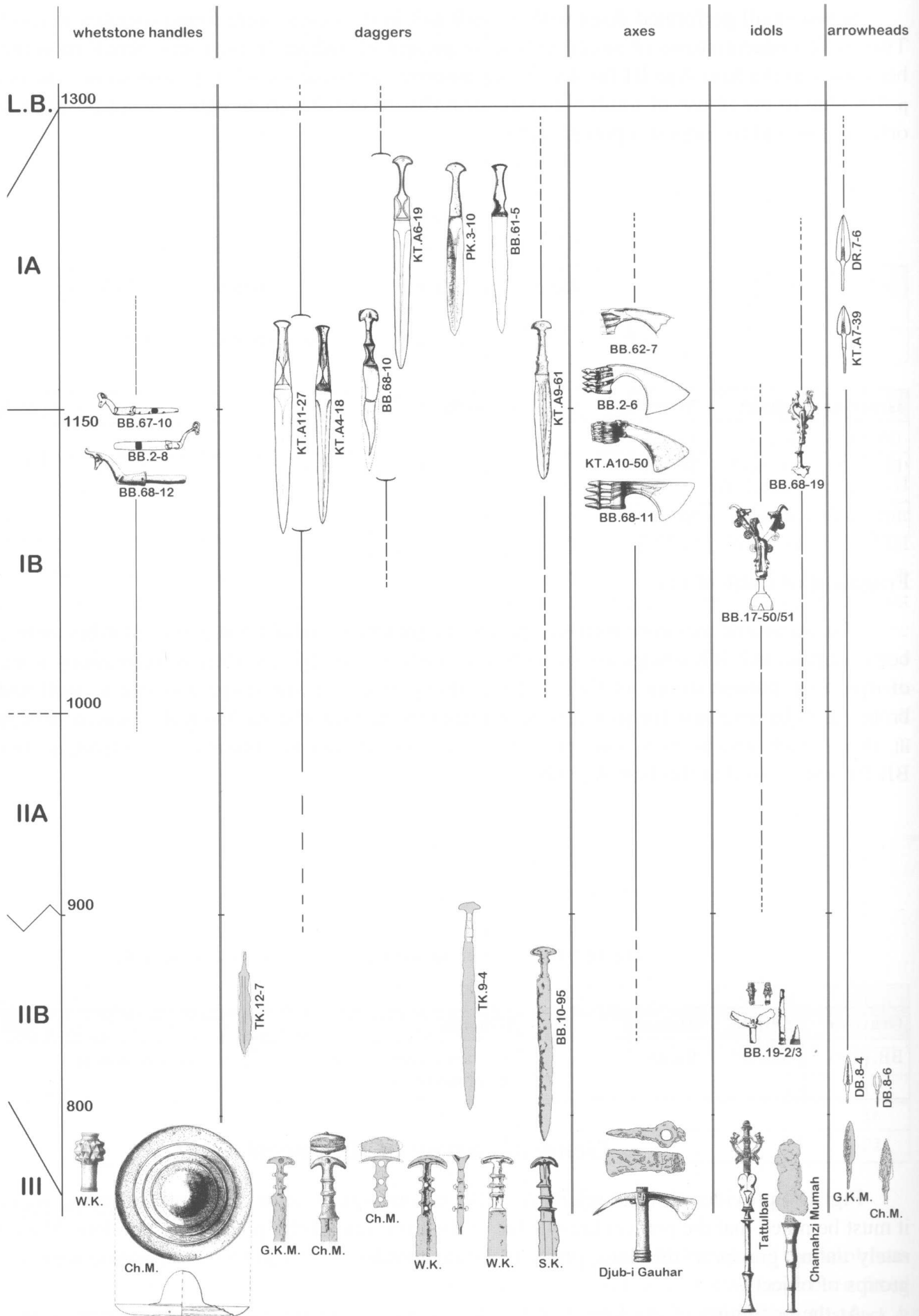
Fig. 184. Chronological survey of the metal finds

| anklets and bracelets | pins and finger rings | vessels |
|---|---|---|

DR.6-7

DR.1-7

BB.66-5

BB.66-6

SHP.1-40

BB.66-1/4

BB.70-17

KT.A4-22

BB.66-8

BB.64-8

BB.17-58

BB.1-11

BB.17-65

BB.29-18

BB.17-52

DB.8-8

Sar Kabud

Djub-i Gauhar

Chamahzi Mumah
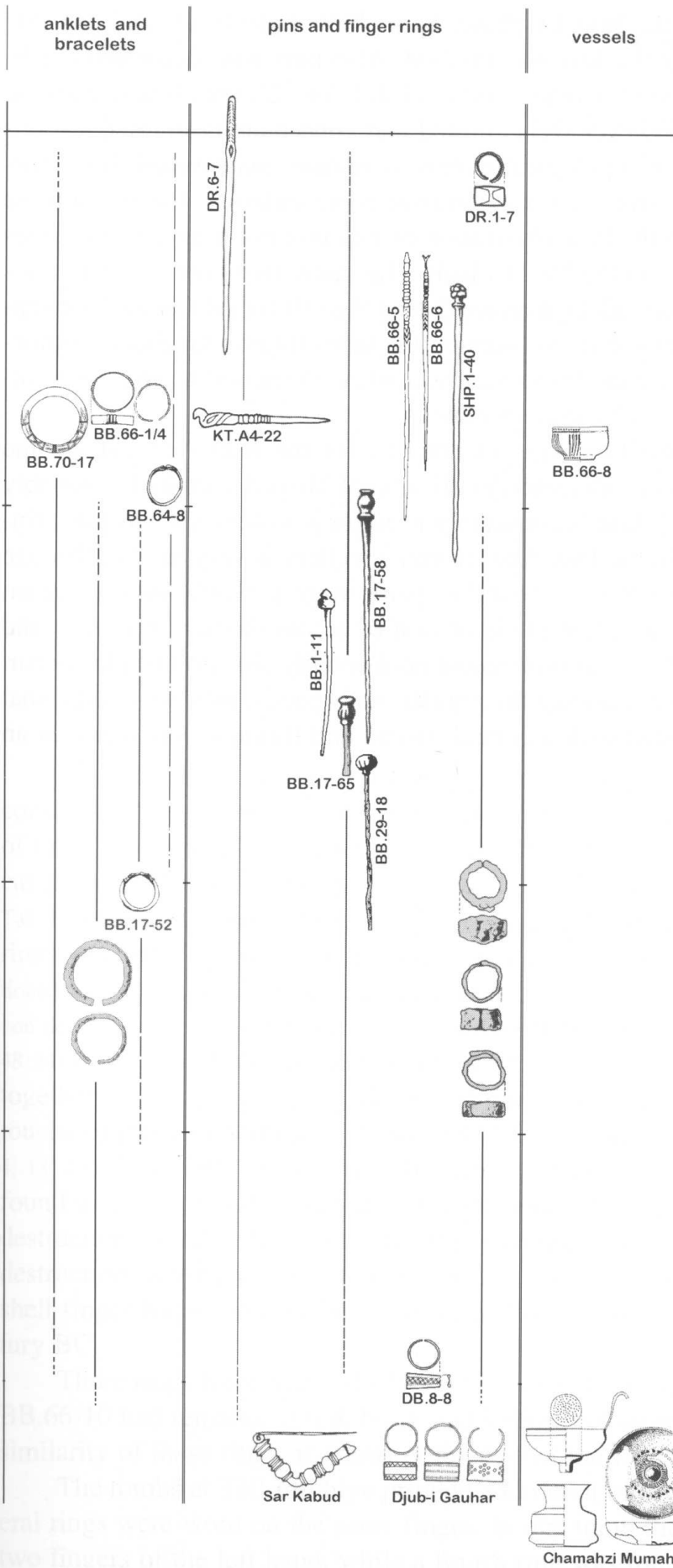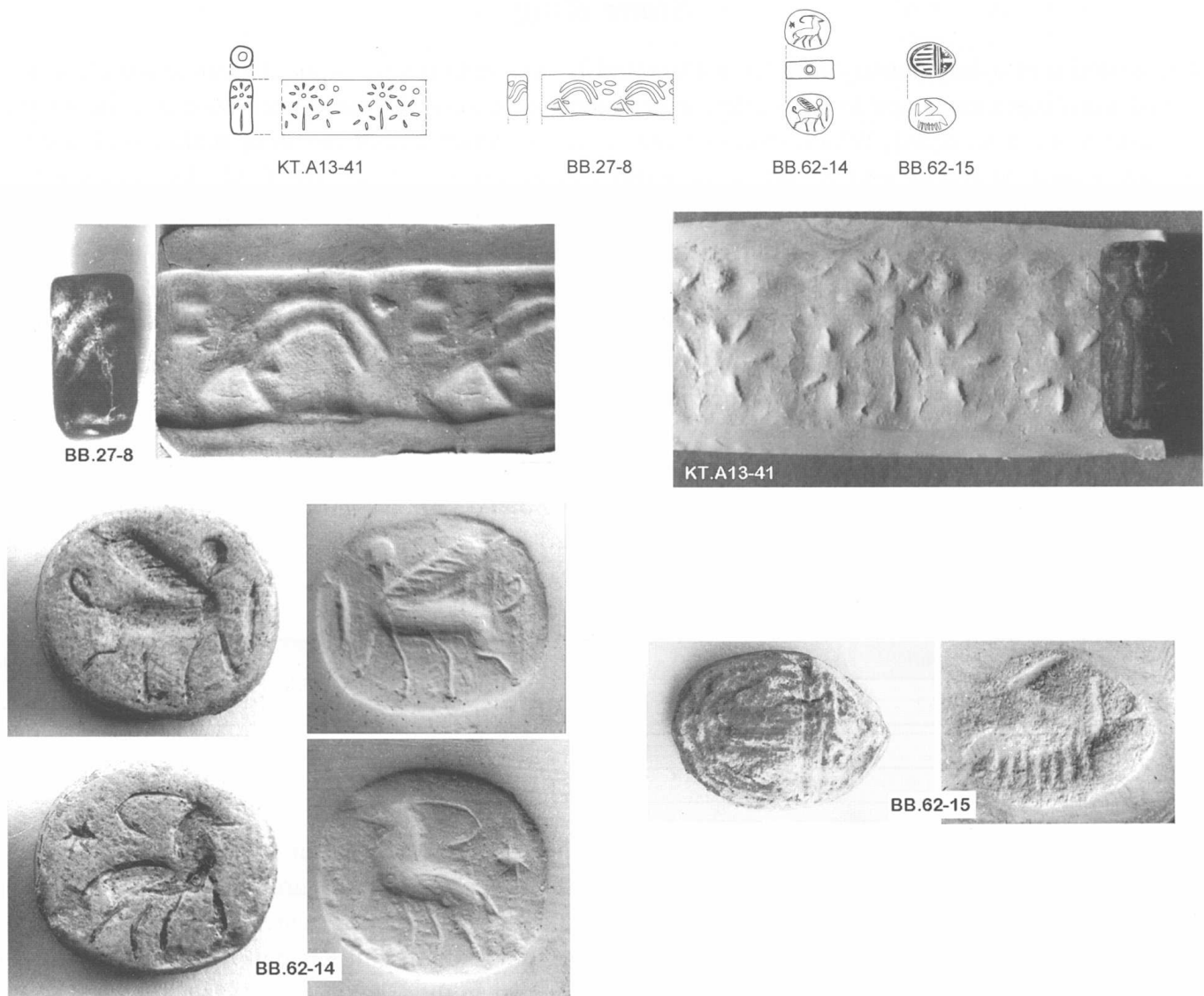
Fig. 187. Cylinder seals, a stamp seal and a scarab from the Iron Age I-II tombs in the Pusht-i Kuh.
(drawings sc. 1/4)

are common on Middle Elamite seals and the crude drawing may stand for a local imitation (compare Porada 1970, p. 76, 80-81, 85-87, nrs. 93-96, 102). Seals with a single animal, for example a goat with a cross above its back, were also discovered at Surkh-i Dum (see Schmidt, van Loon & Curvers 1989, p. 435 nr. 127-128, pl. 240:127-128).

The two faced faience stamp seal **BB.62-14** and the scarab **BB.62-15** were discovered next to one another in a tomb which is dated to the latter part of the Iron Age IA by the presence of Kassite shell rings. Because of its re-use in the Iron Age III and the disturbance of the gravegoods, however, there will always remain some doubt whether it belongs to this specific IA burial. Both seals reflect an Egyptian shape, which reached Mesopotamia and Iran from the Levant. They are widely found from the Early Iron Age onwards (Brentjes 1983, p. 34-35 / Briggs Buchanan & Moorey 1988, p. 16-17). The oval stamp seal bears on one side an ibex with a star above its back and on the other side a human headed winged sphinx. These two themes are not unusual on this type of stamp seal (compare Briggs Buchanan & Moorey 1988, p. 41, pl. IX:284, X:285, XI). Scarabs are only occasionally found on Iron Age sites in Iran. They occur at Hasanlu IVB (Marcus 1996, p. 40, 112-113, nrs. 53-55), at Tepe Siyalk B (Ghirshman 1939, p. 67-68, pl. XXXI: 7-14, XCVII) and at Susa (Amiet 1972, p. 286-287, pl. 190). One scarab was discovered in the Surkh-i Dum sanctuary (Schmidt, van Loon & Curvers 1989, p. 450-451, pl. 251:xxvi). The subject on BB.62-15 is not identifiable. As with the Kassite shell rings from this tomb, both seals are obviously imports into the region. In view of the rarity of imports altogether, it seems probable that they do belong to one and the same Iron Age IA burial.

# *Introduction*

The individual Iron Age I-II cemeteries will be discussed in geographical order, from the north-west to the south-east along the Kabir Kuh mountain range (fig. 1 and 4). Shurabah in the Chardaval district will be discussed last. Its location on the north-eastern side of the Kabir Kuh explains its closer contact with the Pish-i Kuh.

## *Aivan*

Darwand B (DB)
Chal Asat Darrik (D)

## *Chavar*

Tulakahnam – Awazeh B (AW)
Pusht-i Kabud (PKCH)

## *Ilam*

Tepe Kalwali (TK)
Cham Chakal (ChCh)

## *Arkavaz*

Kutal-i Gulgul (KT)
Duruyeh (DR)

## *Badr*

Pa-yi Kal (PK)
Bard-i Bal (BB)

## *Chardaval*

Shurabah – Payravand (SHP)
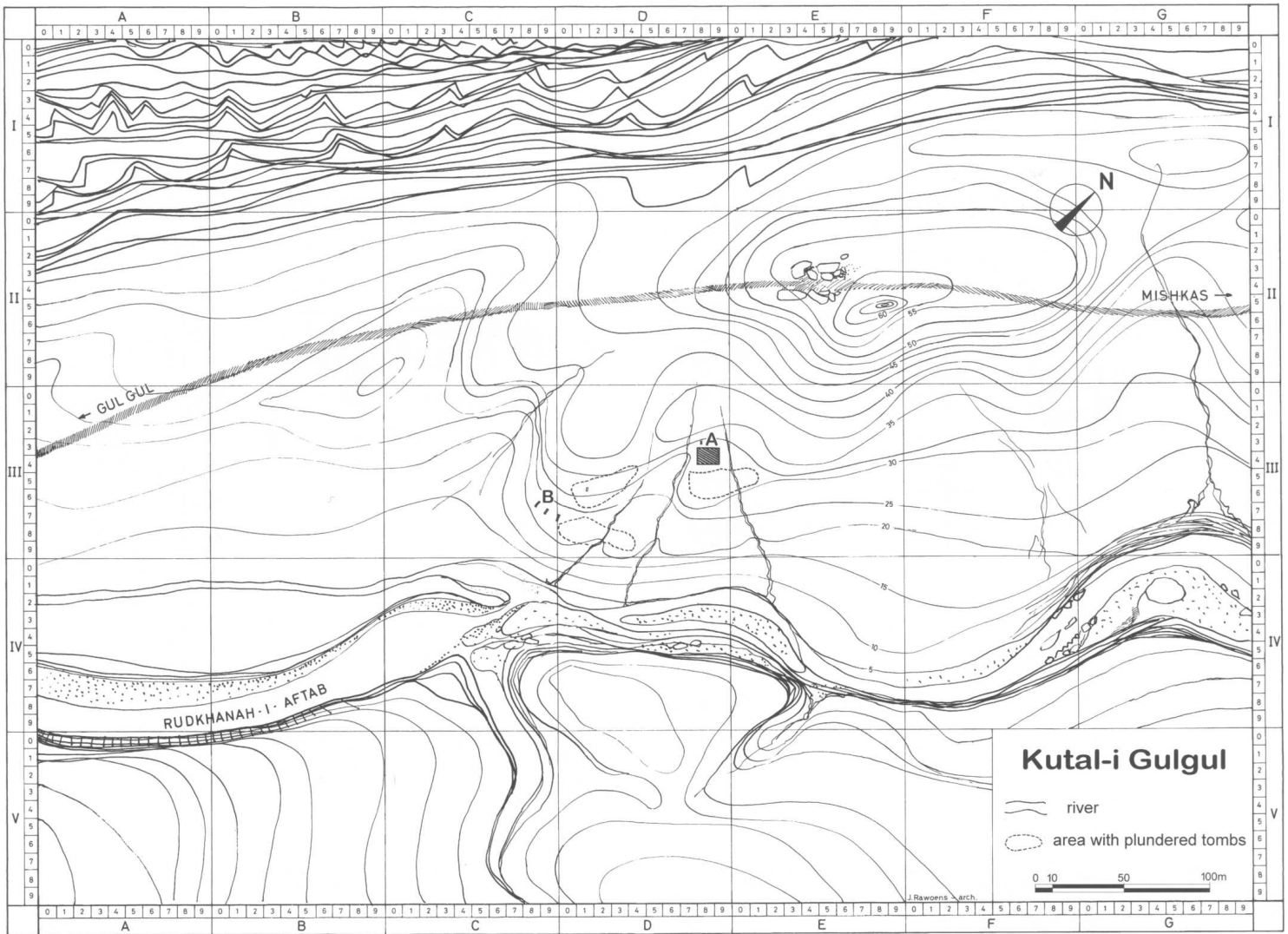
Fig. 220. Site map of Kutal-i Gulgul.
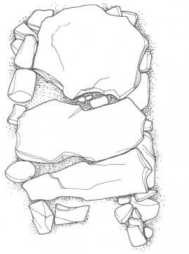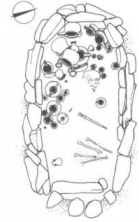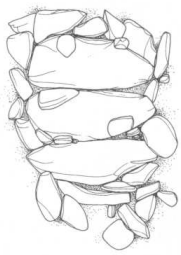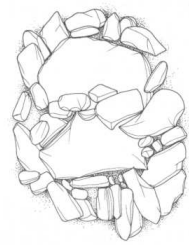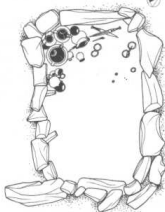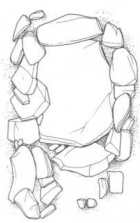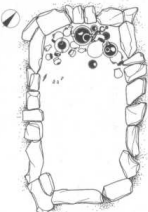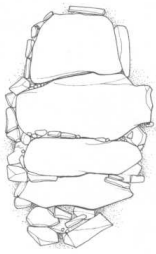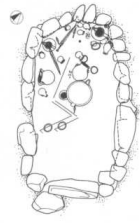
# The graveyard and the tombs

## The graveyard

Vanden Berghe describes the cemetery as a long stretch on a sloping riverbank in a narrow valley. Small irregular concentrations of tombs would have been present. The cemetery had been extensively plundered, making it difficult to locate an undisturbed area. There is no information on the exact extension of the cemetery, nor on the number of plundered tombs which were visible. Three zones with plundered tombs, covering an area of approximately 130 by 70 metres are indicated on the plan of the site (fig. 220). A sector of 13 by 10 metres with 13 tombs (tombs A1-A13) was excavated at the north-eastern side of the graveyard. Just next to it, an additional tomb was excavated in 1978 (A14). The first four tombs, which were explored in 1971, are located at the western end (B1-B4).

The available information is too limited to establish whether the complete cemetery belongs to the Iron Age I-II or to allow any conclusions concerning density or tomb distribution. The situation in sector A is not necessarily representative for the whole cemetery. In sector A the tombs are all placed parallel and are fairly close to one another, only two or three metres separate them. In sector A, as well as in sector B, the tombs are placed in such a way that the entrance points down the slope.

| Tomb | Cap stones | L. | W. | Open tomb | L. | W. | D. | Section / Remarks | Orientation axis in ° | Human remains | Obje |
|------|-----------|------|------|-----------|------|------|------|-------------------|----------------------|---------------|------|
| A1 |  | 2.50 | 1.80 |  | 2.20 | 1.15 | 0.85 | Entrance at SE side with threshold and door posts, no doorstone.  | 120°-300° | 2 | 27 |
| A2 |  | 2.50 | 2.00 |  | 2.00 | 1.00 | 0.80 | Entrance at SE side with threshold, no doorstone.  | 100°-280° | 2 | 69 |
| A3 |  | 3.10 | 2.00 |  | 2.20 | 1.00 | 0.70 | Entrance at SE side, stone slab (doorstone) fallen backwards. 3 pin stones in SW-wall.  | 130°-310° | 3 | 2 |
| A4 |  | 3.00 | 2.00 |  | 2.00 | 1.15 | 1.00 | Entrance at SE side with threshold and doorstone. 2 pin stones in SW-wall.  | 120°-300° | - | |
| A5 |  | 2.50 | 1.60 |  | 2.00 | 1.10 | 0.80 | Entrance with threshold at SE side, no doorstone.  | 135°-315° | - | |
| A6 |  | 2.80 | 1.80 |  | 2.00 | 1.10 | 0.80 | Entrance at SE side with threshold and doorstone.  | 140°-320° | 1 | |

impossible to distinguish between the different burials. There are no clear indications that the tomb was used over a long period. Among the pottery, pitchers and Iron Age IA carinated beakers provide a dating criterion. Kassite shell finger rings and a faience pyxis are imports which belong to the same phase. A bronze dagger of an unusual type in the Pusht-i Kuh (KT.A9-61), is close to Kassite weapons and may very well be an import also. Two vessels, a pitcher and a large vase with horizontal lugs (KT.A9-9 and KT.A9-20), bear a relief decoration or potter's mark that occurs in several other tombs at Kutal-i Gulgul (tombs A2, A3, A6, A11, B1, B3). The excavation notes also mention that a flat stone was placed on top of a large (pulverised) vase, "probably to close it". On pl. 81, one can notice the edge of this closing stone beneath the teapots KT.A9-4 and KT.A9-5. The vase itself was not drawn or registered.

Tomb A10: (pl. 91-96) The plan on pl. 91 provides only the position of the metal finds and of six pottery vessels in the tomb. One of these vessels, a "small vase with a ring-base", was pulverised and was not drawn or registered. Where exactly the remaining 33 pottery vessels were found is not specified in the excavation notes. The photo on pl. 91 shows, however, that a large amount of pottery was placed near, or on top of the entrance. Several bronze objects were found at the rear end of the tomb. There are flanged daggers, a spike butted axe head, arrowheads and two sheet metal objects which may be part of an idol and its support (KT.A10-51). An iron blade (KT.A10-57) and a bowl with a plain ledge shaped lug (KT.A10-34) were found nearer to the entrance of the tomb. This location and the use of iron armament points to a more recent burial. Other elements that point to one or more late, Iron Age IIB burials, are the presence of bowls and dishes with one plain lug (KT.A10-35 to 37) and of basket handles (KT.A10-5 and 17). However, Iron Age IA carinated beakers, Iron Age I S-beakers (KT.A10-22 to 24) and some of the S-shaped bowls (KT.A10-27 and 31) indicate that the tomb dates to the Iron Age IA.
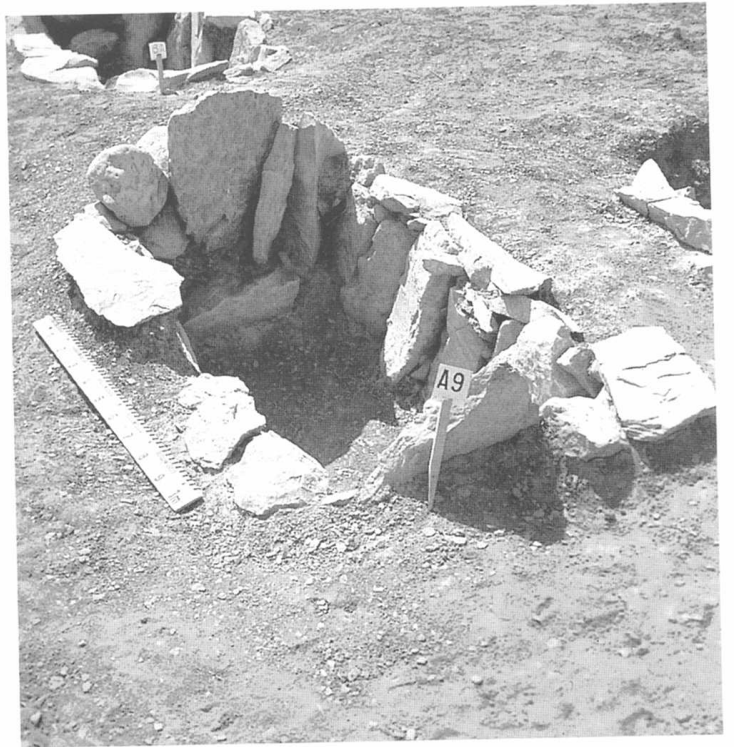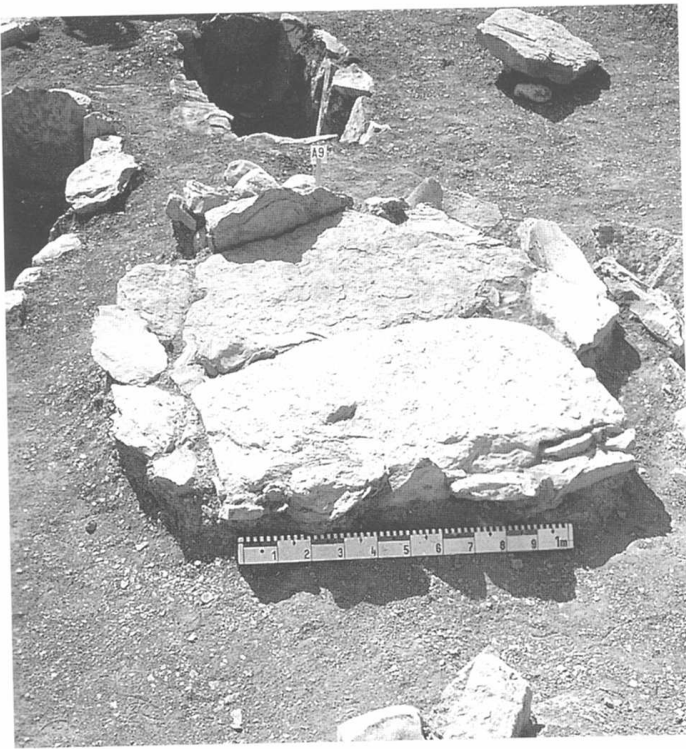
Tomb A11: (pl. 97-100) Burialgoods are concentrated in the rear part of the tomb. Some disturbed skeletal remains were found in the western corner. A skull was situated next to the eastern wall. The presence of two flanged daggers at the end of the tomb and another in the middle, close to some arrowheads, points to several male burials. Two pitchers at the back indicate an Iron Age IA date for the earliest use of the tomb (KT.A11-4 and 5). Other distinctive shapes are Iron Age I S-beakers (KT.A11-13 to 17). A large vase bears a kind of relief decoration or potter's mark that is also known from several other tombs at Kutal-i Gulgul (KT.A11-1, see tombs A2, A3, A6, A9, B1, B3).

Tomb A12: (pl. 101-102) This tomb is incompletely documented. Only two vessels and a shell finger ring were drawn and properly registered. However, the excavation notes mention the presence of at least 12 vessels : "1 teapot with bridged open spout, large vases with pierced lugs, small vases with pierced lugs, 4 beakers with ring bases, 2 bowls with carinated profile, one bowl with pointed base". The shell ring is related to the decorated Kassite shell finger rings and suggests and Iron Age IA date for this tomb.
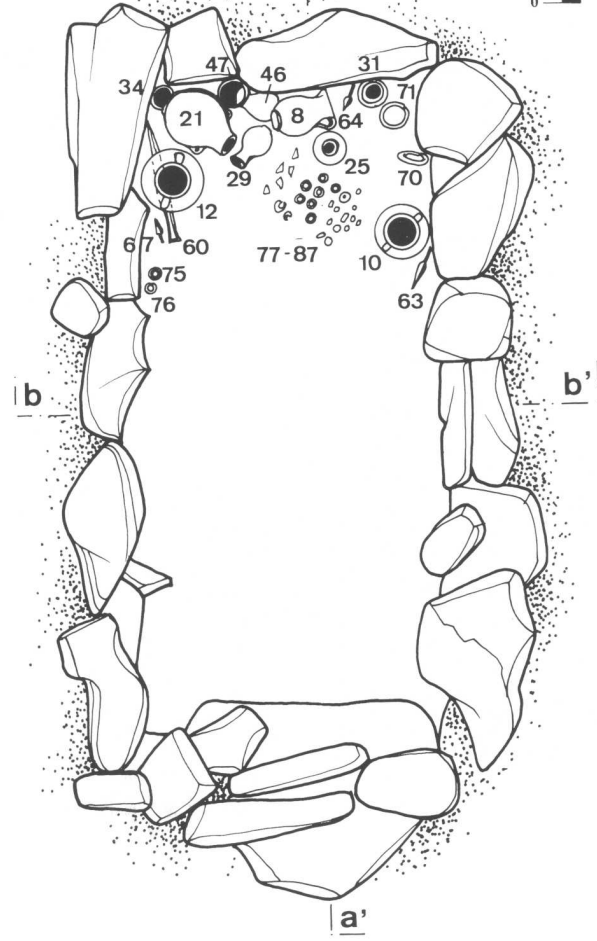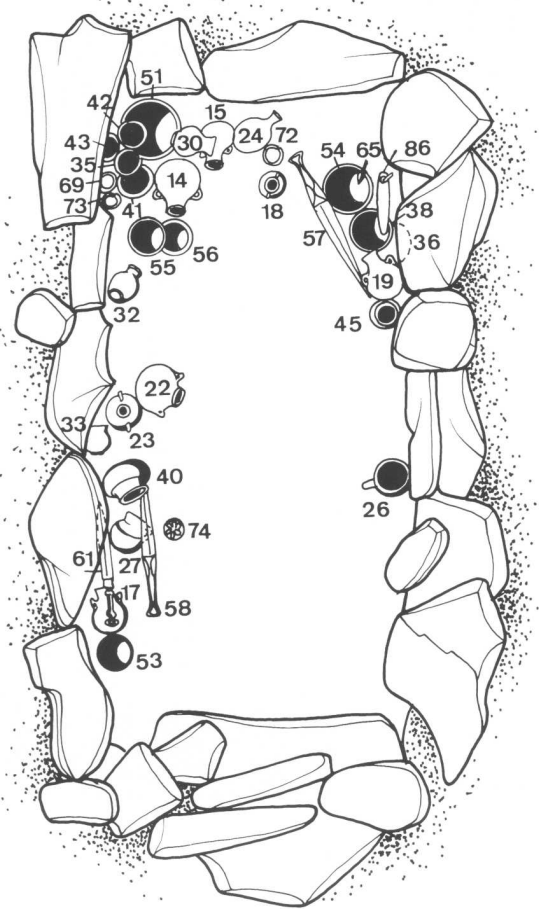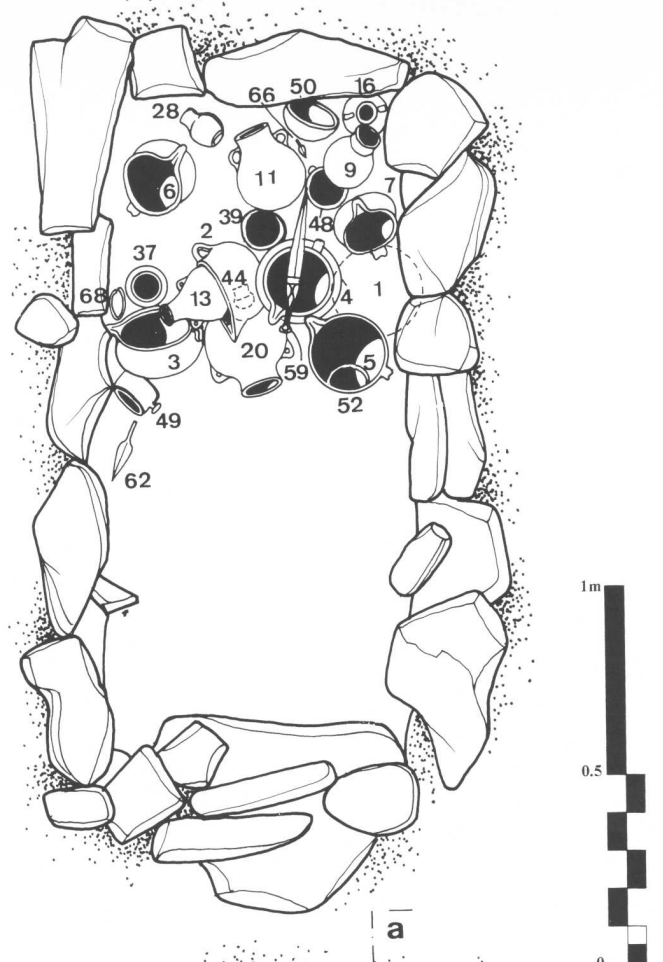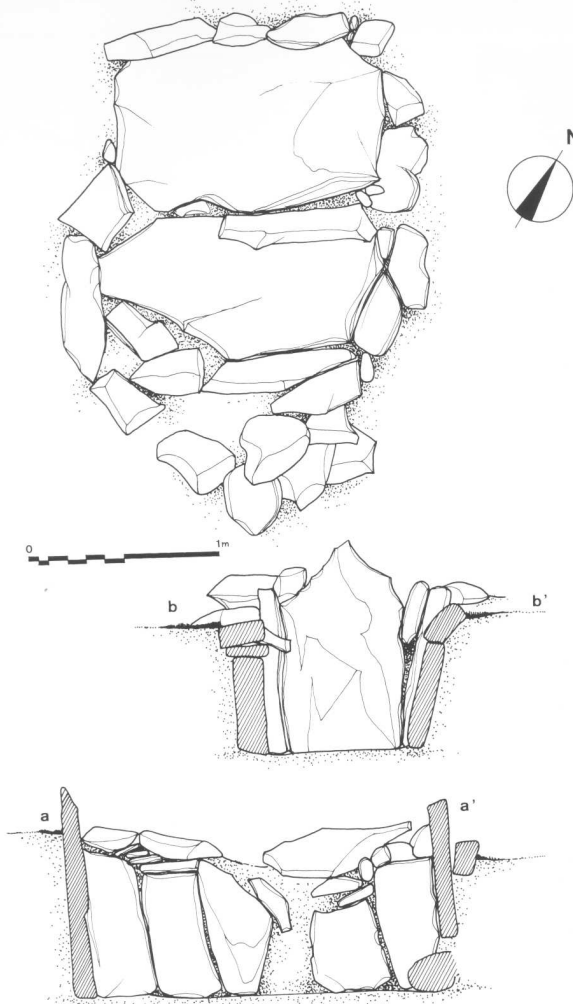
Tomb A13: (pl. 103-108) Skeletal remains were found at several places in the tomb. Without more precise details, however, it is not possible to state just how many people were buried in this tomb. The burialgoods were concentrated in the back and along the north-eastern wall. The presence of arms indicates male burials, the presence of an anklet points to at least one female burial. An Iron Age I S-beaker (KT.A13-20) and some bowls with a distinct S profile (KT.A13-21 to 24, 28) indicate that the tomb dates from the Iron Age I, possibly IA. The presence of a teapot with a double grooved handle and a high pedestal, on the other hand, provides an indication that the tomb was re-used in, or was used until, the Iron Age IIB (KT.A13-4).
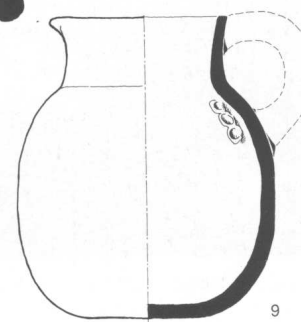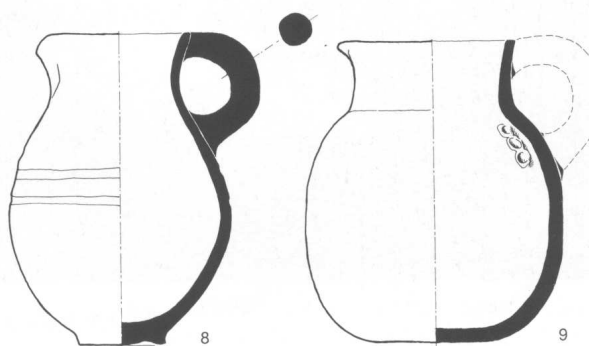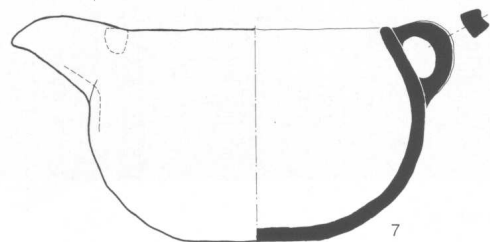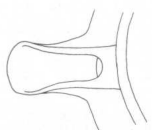
Tomb A14: (pl. 109-112) This tomb differs in construction from all others. The walls were not made of stones. Cap stones, on the other hand, were present and the entrance was closed with a stone slab. Seventeen pieces of pottery were discovered in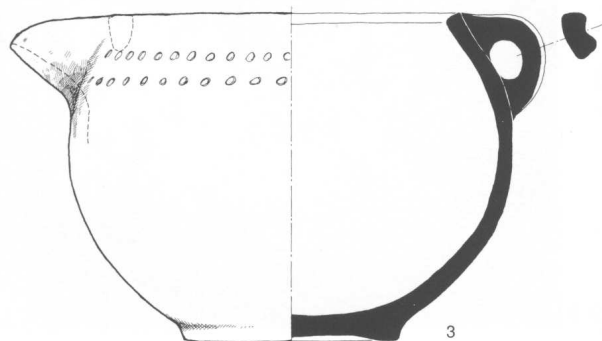 the rear part of the tomb. There are no indications that the tomb was ever re-used. The presence of pitchers (KT.A14-3 and 4) and of Iron Age I S-beakers (KT.A14-10 to 12) date this burial to the Iron Age IA.

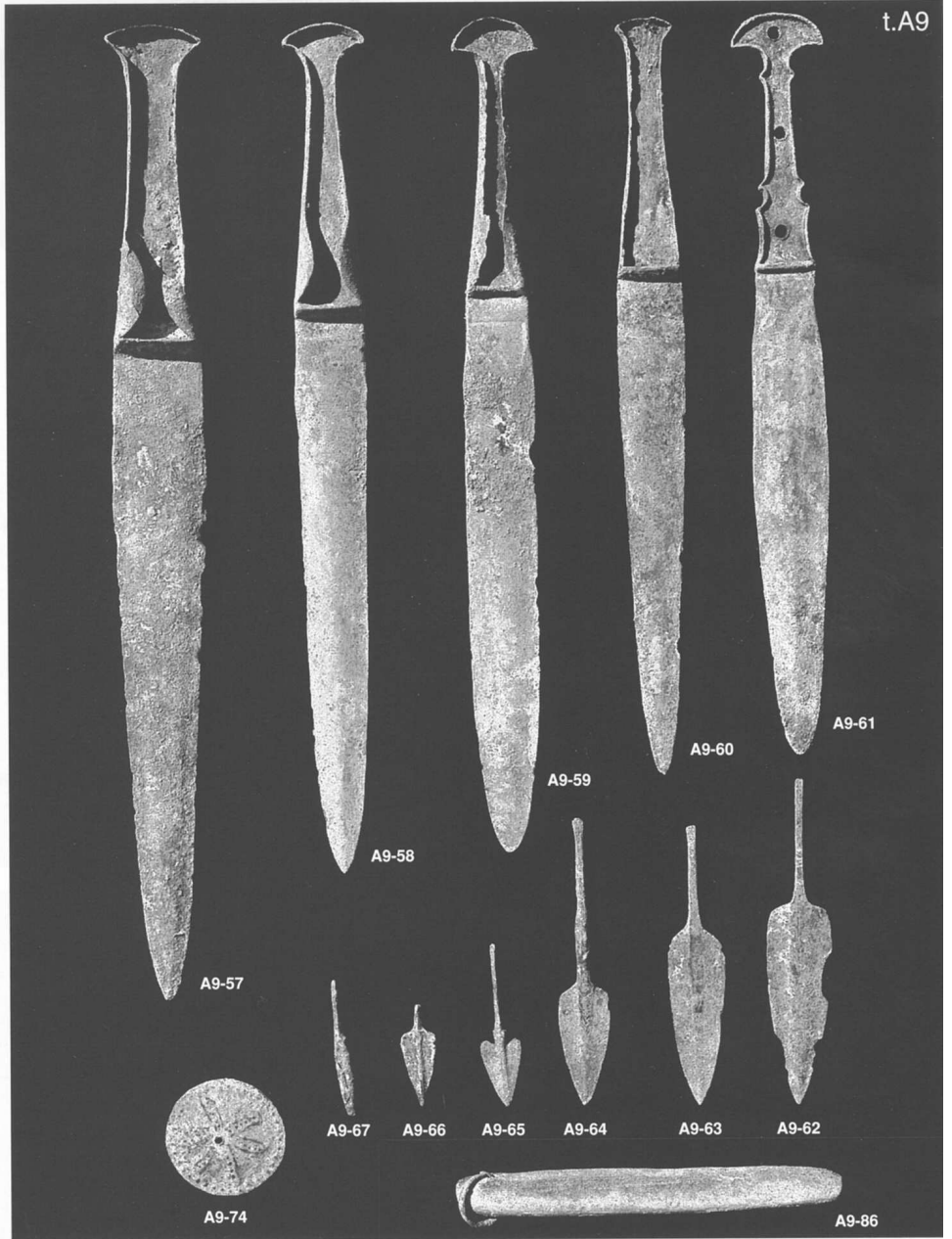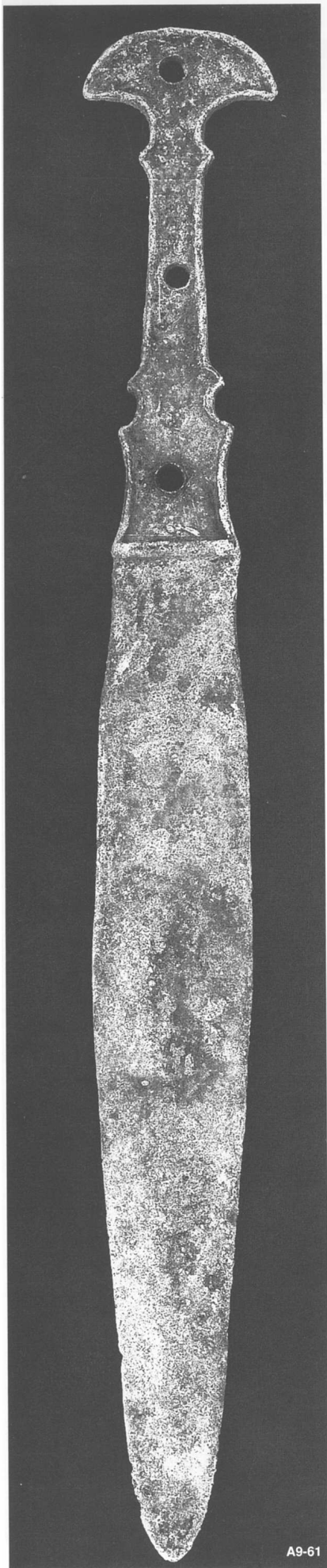| Grave-nr. | Inv.-nr. | Obj.-nr. | Object | Material | Remarks | H. / L. | W. / Diam. |
|---|---|---|---|---|---|---|---|
| KT.A13-25 | KT 72/463 | 318 | Bowl | Buff ware | | 70 | 83 |
| KT.A13-26 | KT 72/464 | - | Bowl | Buff ware | | 70 | 75 |
| KT.A13-27 | KT 72/465 | 319 | Bowl | Buff ware | | 120 | 150 |
| KT.A13-28 | KT 72/466 | - | Bowl | Buff ware | | 76 | 100 |
| KT.A13-29 | KT 72/467 | - | Bowl | Buff ware | | 95 | 107 |
| KT.A13-30 | KT 72/468 | - | Bowl | Buff ware | | 85 | 96 |
| KT.A13-31 | KT 72/469 | 320 | Bowl | Buff ware | | 65 | 81 |
| KT.A13-32 | KT 72/470 | - | Bowl | Buff ware | | 70 | 121 |
| KT.A13-33 | KT 72/471 | - | Bowl | Buff ware | | 62 | 110 |
| KT.A13-34 | KT 72/472 | 321 | Dish | Buff ware | | 58 | 127 |
| KT.A13-35 | KT 72/473 | 322 | Dish | Buff ware | | 50 | 122 |
| KT.A13-36 | KT 72/474 | - | Dish | Buff ware | | 40 | 108 |
| KT.A13-37 | KT 72/475 | 323 | Arrowhead | Bronze | Weight 21g. | 117 | 30 |
| KT.A13-38 | KT 72/476 | 324 | Anklet | Bronze | Open | 4 | 86 |
| KT.A13-39 | KT 72/477 | 325 | Bracelet | Bronze | Open | 3 | 62 |
| KT.A13-40 | KT 72/478 | - | Anklet | Iron | Fragment | 6 | - |
| KT.A13-41 | KT 72/479 | 326 | Cylinder seal | Black stone | Subject: "tree of life + stars" | 30 | 12 |
| KT.A13-42 | KT 72/480 | 327 | Beads (6) | Stone, shell, glas | 1 cowrie, 1 blue glass, 1 carnelian, 3 "stone" | - | - |
| KT.A13-43 | KT 72/481 | - | Lithic tools (8) | Grey and black flint | | 30-46 | 18-32 |
| KT.A14-1 | KT 78/1 | - | Teapot | Buff ware | Colour: 5YR-6/6, bridged open spout | 148 | 233 |
| KT.A14-2 | KT 78/2 | - | Pitcher | Buff ware | Colour: 10YR-7/4, pinched spout | 113 | 127 |
| KT.A14-3 | KT 78/3 | - | Pitcher | Yellow-red pottery | Colour: 5YR-7/6, pinched spout | 158 | 130 |
| KT.A14-4 | KT 78/4 | - | Pitcher | Yellow-red pottery | Colour: 7.5YR-7/6, pinched spout | 145 | 117 |
| KT.A14-5 | KT 78/5 | - | Vase | Buff ware | Colour: 5YR-6/6 | 103 | 83 |
| KT.A14-6 | KT 78/6 | - | Vase | Buff ware | Colour: 7.5YR-6/6 | 100 | 76 |
| KT.A14-7 | KT 78/7 | - | Vase | Yellow-red pottery | Colour: 7.5YR-7/6, horizontal incised lines | 156 | 149 |
| KT.A14-8 | KT 78/8 | - | Vase | Yellow-red pottery | Colour: 7.5YR-6/6, fragmentary, pulverised | 113 | 91 |
| KT.A14-9 | KT 78/9 | - | Vase | Pale buff pottery | Colour: 10YR-6/3 | 81 | 61 |
| KT.A14-10 | KT 78/10 | - | Beaker | Buff ware | Colour: 7.5YR-7/4 | 103 | 93 |
| KT.A14-11 | KT 78/11 | - | Beaker | Buff ware | Colour: 7.5YR-7/6 | 98 | 91 |
| KT.A14-12 | KT 78/12 | - | Beaker | Buff ware | Colour: 7.5YR-7/4 | 90 | 77 |
| KT.A14-13 | KT 78/13 | - | Bowl | Buff ware | Colour: 7.5YR-6/4 | 70 | 80 |
| KT.A14-14 | KT 78/14 | - | Bowl | Buff ware | Colour: 7.5YR-6/6 | 55 | 70 |
| KT.A14-15 | KT 78/15 | 72 | Bowl | Buff ware | Colour: 7.5YR-6/6 | 92 | 102 |
| KT.A14-16 | KT 78/16 | - | Beaker | Buff ware | Colour: 7.5YR-7/6 | 76 | 68 |
| KT.A14-17 | KT 78/17 | - | Beaker | Buff ware | Colour: 10YR-7/4 | 66 | 52 |
| KT.B1-1 | KT 71/1 | 68 | Vase | Buff ware | | 195 | 168 |
| KT.B1-2 | KT 71/2 | 69 | Vase | Buff ware | | 160 | 136 |
| KT.B1-3 | KT 71/3 | 70 | Vase | Buff ware | Potter's mark on shoulder | 170 | 168 |
| KT.B1-4 | KT 71/4 | 71 | Vase | Buff ware | | 165 | 104 |
| KT.B1-5 | KT 71/5 | - | Vase | Buff ware | Fragmentary | 120 | 103 |
| KT.B1-6 | KT 71/6 | - | Vase | Buff ware | Fragmentary, pulverised | - | 108 |
| KT.B1-7 | KT 71/7 | 73 | Bowl | Buff ware | | 85 | 100 |
| KT.B1-8 | KT 71/8 | 74 | Bowl | Buff ware | | 80 | 104 |
| KT.B1-9 | KT 71/9 | 85 | Bowl | Buff ware | | 65 | 102 |

Pl. 80  Kutal-i Gulgul, tomb A9.

Pl. 82  Kutal-i Gulgul, tomb A9.

Pl. 84  Kutal-i Gulgul, tomb A9.

t.A9

A9-61

A9-57

A9-58

A9-59

A9-60

A9-61

A9-67

A9-66

A9-65

A9-64

A9-63

A9-62

A9-74

A9-86

cm

A9-8

Pl. 89  Kutal-i Gulgul, tomb A9.