PITHOI WITH CUNEIFORM AND HIEROGLYPHIC INSCRIPTIONS FROM UPPER ANZAF FORTRESS

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The Anzaf Fortresses consist of two parts, namely the Upper and the Lower Anzaf*. The Lower Anzaf Fortress lies 11 km north-east of Tušpa (Van Fortress), the capital of the Urartian Kingdom, and close to the modern Van-Iran railway line and main road to Iran (Fig. 1)[1].

The Anzaf Fortress, some 900 m to the south of Lower Anzaf Fortress, was built by Minua, son of the Urartian king Išpuini (c. 810-786 B.C.). As with the Lower Anzaf, we do not know the Urartian name of the Upper Anzaf Fortress. The Upper Anzaf is ten times larger than the Lower Anzaf, covering an area of 60,000 m². At 1995 m. above sea level, the Upper Anzaf is the highest site in Turkey. In contrast with the Lower Anzaf, the Upper Anzaf was built as an important centre for the

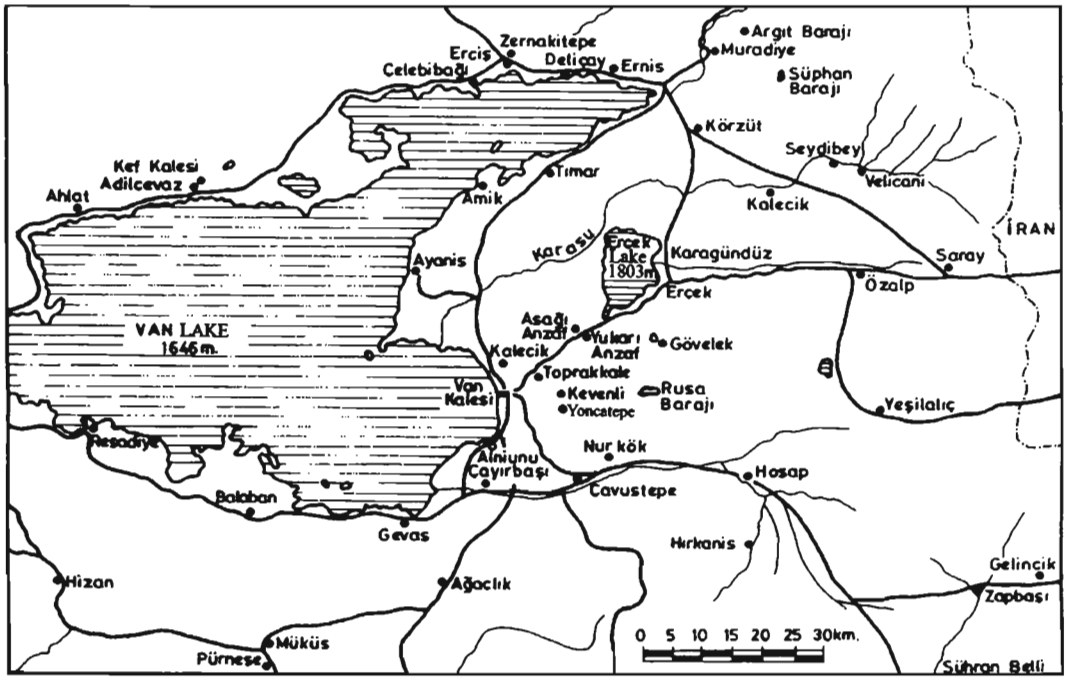

Fig. 1

* This work was supported by the Research Fund of Istanbul University. Project Number: 1597/30042001. We thank Roberto Dan for the layout of the illustrations.

[1] O. Belli, Die Ausgrabungen an der urartäischen Festung Anzaf bei Van, "Arkeoloji ve Sanat Dergisi", 54 / 55, İstanbul 1992, p. 28.

storage of agricultural products from the surrounding fertile lands. The water collected in the small dam 1 km to the east, built by King Minua, played a significant role in agriculture[2]. Amazingly, with minor alterations, this dam is still in use today, aiding cultivation of the fertile land lying to the north. The lower city, lying to the south of the fortress, covers an area of 141,000 m² (Fig. 2) and, with its thick surrounding walls, remains within the borders of modern village of Dereüstü (formerly Anzaf). One of the best examples of early Urartian settlements, this lower city was planned and built at the same time as the fortress[3].

The earliest known square-planned temple dedicated to Haldi, the national god of the Urartian Kingdom, was built in the Upper Anzaf Fortress[4]. Also, 22 different monumental marks were hewn into rock-cut surfaces in the eastern and northwestern parts of the fortress, symbolising the sanctity of the place[5]. None of the other fortresses built in the reign of King Minua have such a variety of monumental rock-cut signs. If we bear in mind the limited number of monumental rock marks at Tušpa, the Urartian capital, and in the area around Meher Kapısı, we can easily understand that the Upper Anzaf Fortress was an important cultic centre. In addition, the unique depictions of the Urartian deities on the votive shield from the room on the west side of the temple, in which other objects and weapons dedicated to the God Haldi were also found, confirm that the fortress was a cult centre[6].

The Upper Anzaf Fortress displays all stages of development in Urartian architecture, the buildings within the fortress being constructed at different periods during the 200 years that elapsed between its establishment and its collapse. The eastern gate of the lower city, the storage buildings attached to the western fortress walls, the northern and southern gates of the fortress with the High Tower protecting them and the temple with its courtyard were discovered during excavations which have been continuing since 1991[7].

Kitchen and Storeroom

The kitchen, with a rectangular plan and measuring 21 m x 5 m, lies to the north of the Haldi Temple and to the east of storeroom 5. Its eastern wall has a height of 3.5 m; the collapsed walls of buildings in the east had extensively de-

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[2] O. Belli, Neue Funde urartäischer Bewässerungsanlagen in Ostanatolien, in: U. Finkbeiner – R. Dittmann – H. Hauptmann (Eds.), *Beiträge zur Kulturgeschichte Vorderasiens, Festschrift für Rainer Michael Boehmer*, Berlin 1995, p. 27.

[3] O. Belli, Bronze Votive Rings with Cuneiform Inscriptions from Van – Upper Anzaf Fortress, in: R. M. Boehmer – J. Maran (Eds.), *Lux Orientis, Archäologie zwischen Asien und Europa, Festschrift für Harald Hauptmann zum 65. Geburtstag*, Rahden / Westfalen 2001, p. 40.

[4] O. Belli, Bronze Quivers with Cuneiform Inscriptions from Van – Upper Anzaf Fortress, in: A. Sagona (Ed.), *A View from the Highlands: Trans-Caucasus, Eastern Anatolia and Northwestern Iran, Studies in Honour of C.A. Burney*, Melbourne 2004, p. 280.

[5] O. Belli, Monumentale Felszeichen im Bereich urartäischer Festungsanlagen, "Anadolu Araştırmaları", 11, İstanbul 1989, p. 98.

[6] O. Belli, Excavations at the Upper and Lower Anzaf Urartian Fortresses, in: O. Belli (Ed.), *İstanbul University's Contributions to Archaeology in Turkey (1932 – 2000)*, İstanbul 2001, p. 168.

[7] O. Belli – A. Dinçol and B. Dinçol, Royal Inscriptions on Bronze Artefacts from the Upper Anzaf Fortress at Van, "Anatolica" 30, Leiden 2004, p. 2.

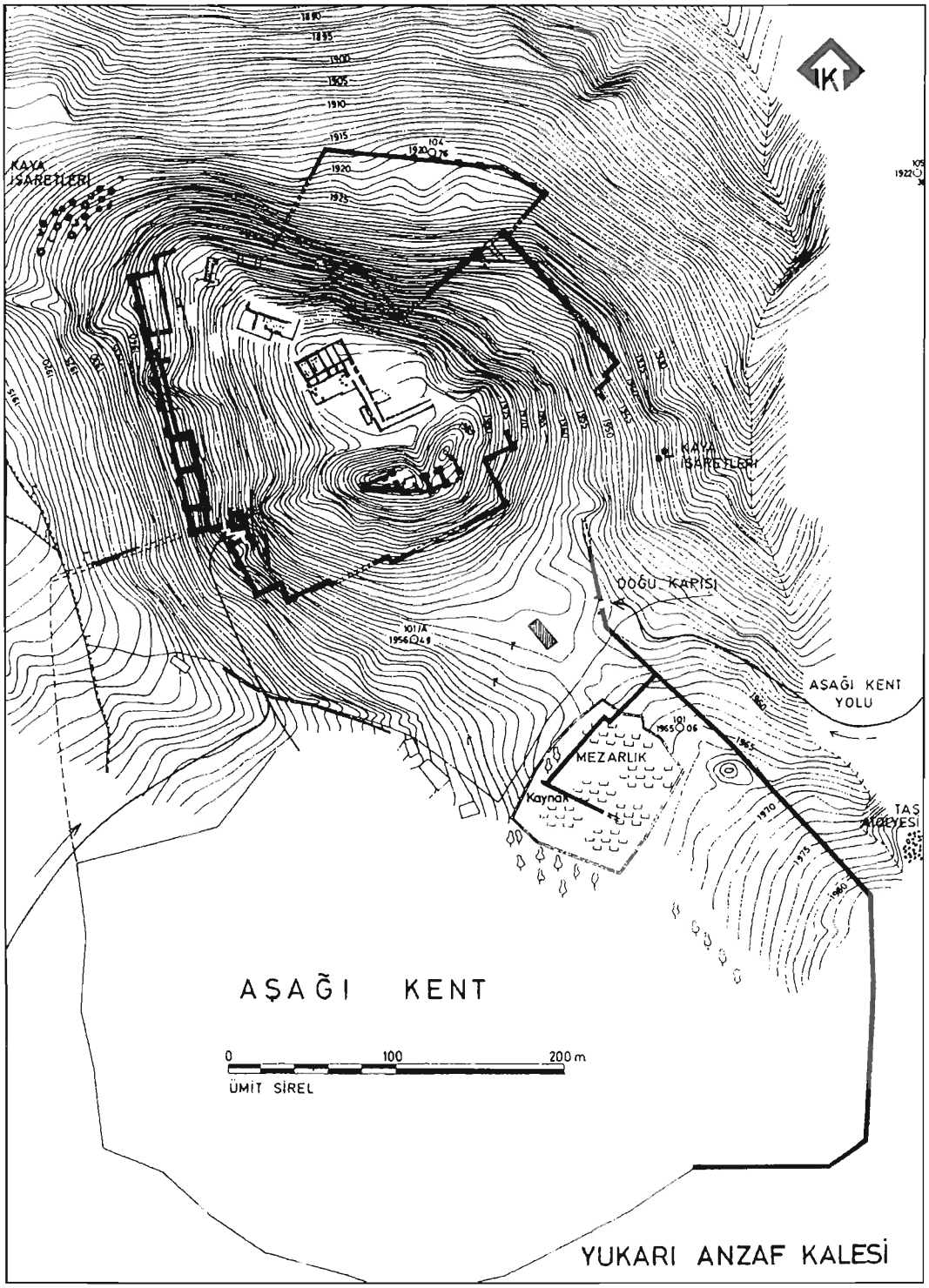

Fig. 2 – Plan of Yukarı Anzaf Kalesi.

stroyed the west wall. The floor is of stamped clay and the room yielded an oven and two pithoi. Among the other finds are lumps of iron, stone bowls, large quantities of lentils (*Lens culinaris*) and wild peas (*Cicer anatolicum*) and traces of red (hematite), yellow (limonite), blue and white paint[8].

Storerooms with Pithoi (figs. 3-9)

Two storerooms with pithoi are located 16 m north of the kitchen, built adjacently and running in a north-south direction. Storeroom I measures 5 m × 10 m and it too has a rectangular plan; its mud-brick walls were painted in blue. Storeroom 2 is entered by a 1.60 m wide door at the northeast corner of Room 1 and has fourteen pithoi buried into the ground up to their bodies (Fig. 3-4). The diameters of the lips vary between 70-80 cm and some of the pithoi are extremely large in size, as confirmed by the writing on the belly of these pithoi, especially the linear script, which indicate that they had a capacity of 7 *aqarqi* and more, that is to say, 1750 litres.

A 1.60 m thick wall separates storerooms 1 and 2. The latter measures 5 m × 10 m and bears traces of blue and white paint. The east wall has four niches placed at 1.5 m intervals (Fig. 5). These are 55 cm high, 60 cm wide and 55 cm deep, carved probably to contain various objects and vessels. The 1.20 m wide door opening on the south wall opens into another room, which is linked to the room with pithoi to its east.

The impressions and graffiti on the pithoi

The signs and marks on the upper surfaces of the pithoi belong to two distinct types, the manner in which they were made being in direct relation to their meaning: we can see potters' marks and indications of the capacity of the vessels. The latter information is provided with two alternating kinds of writing, cuneiform and linear.

The two plans of the storerooms I and II (figs. 4 and 9) show the situation regarding the various pithoi and the writing or impressions they bear. Some have no markings whatever whilst the majority have potters' marks. Some have both potters' marks and linear signs (in storeroom I and II) and others have potters' marks and cuneiform signs (in storeroom II). In two cases we find linear signs without potters' marks but there are no cases where both cuneiform and linear inscriptions are found. These two systems were alternative means of indicating the quantity of liquid contained in the pithoi.

Potters' marks

Impressions of the manufacturers' marks were made before the vessels were baked and, at Anzaf, consist mainly of various combinations of small circles, iden-

[8] O. Belli, Excavations at Van – Lower and Upper Anzaf Urartian Fortresses: An Intermediary Evaluation (1991 – 2002), "Colloquium Anatolicum", II, İstanbul 2003, p. 10.

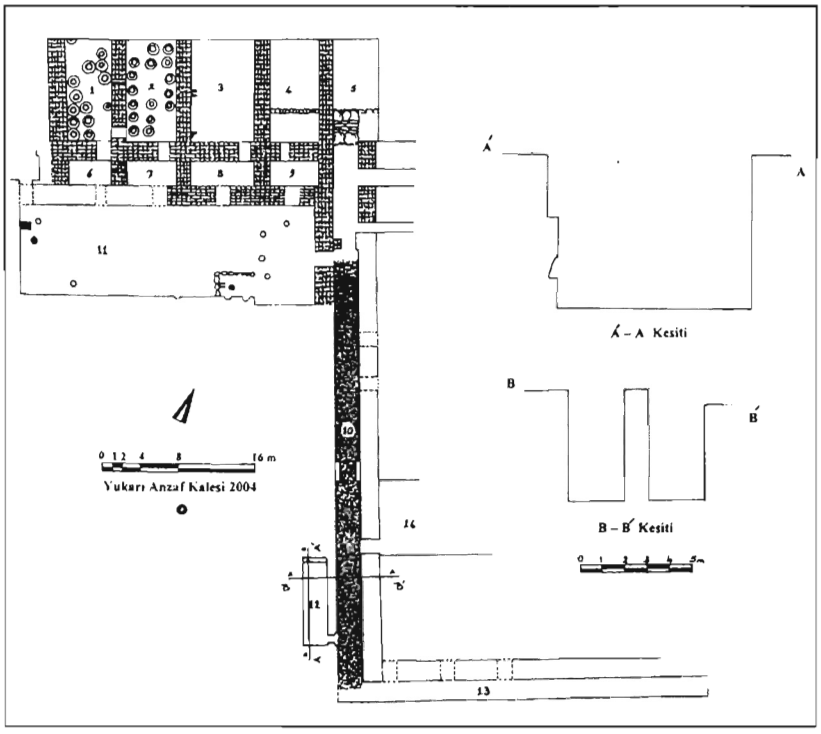

Fig. 3 General plan of the storeroom complex.

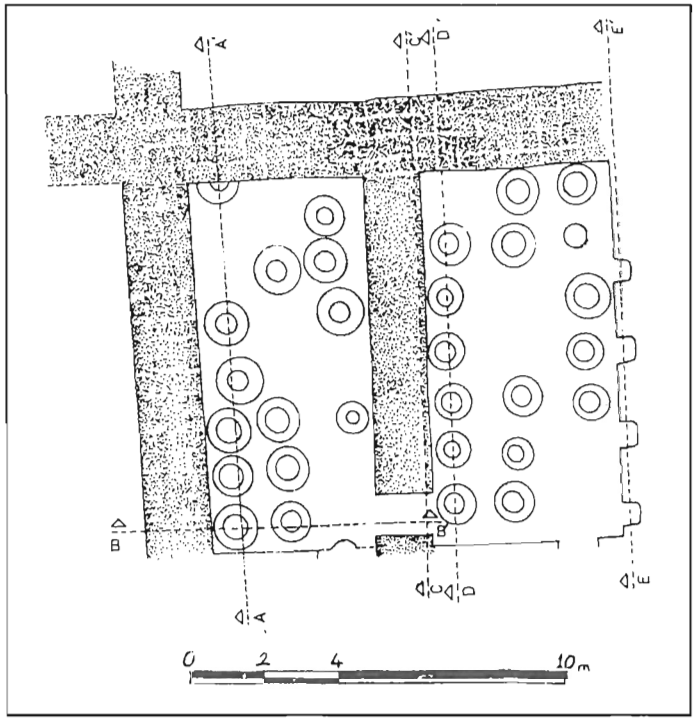

Fig. 4 · Plan of the storerooms I-II.

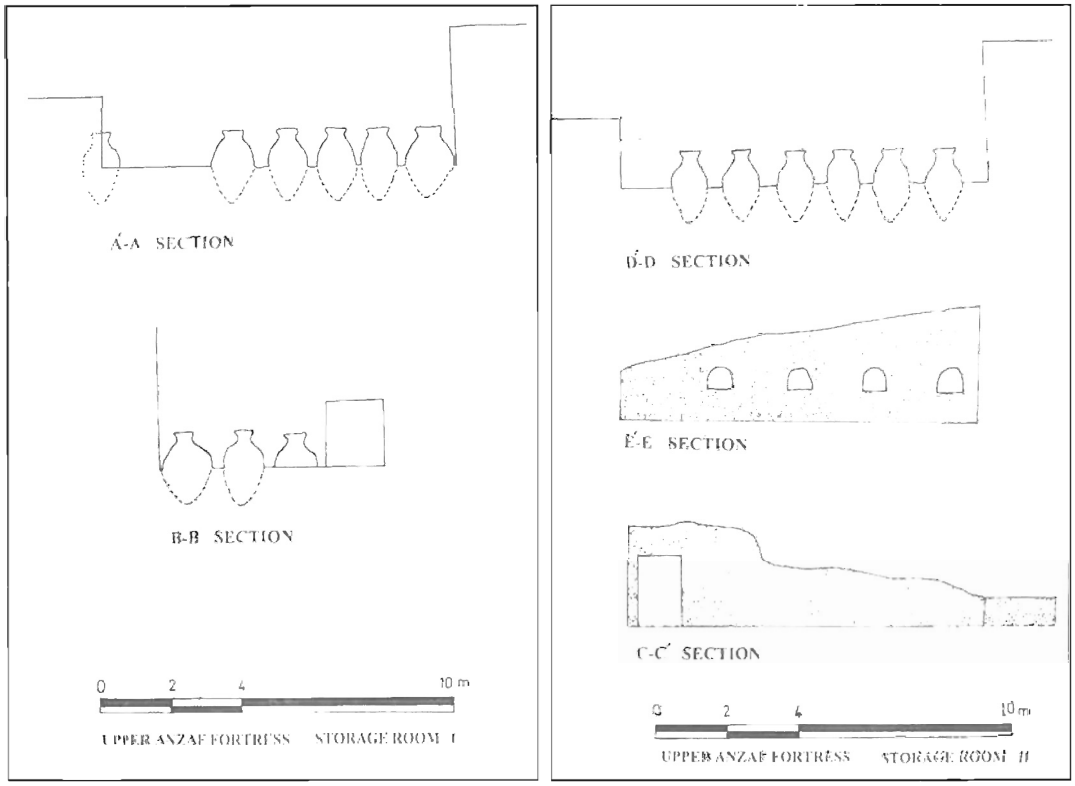

Fig. 5a-5b - Sections of the storerooms I and II.

Fig. 6 – The storeroom I, from the north.

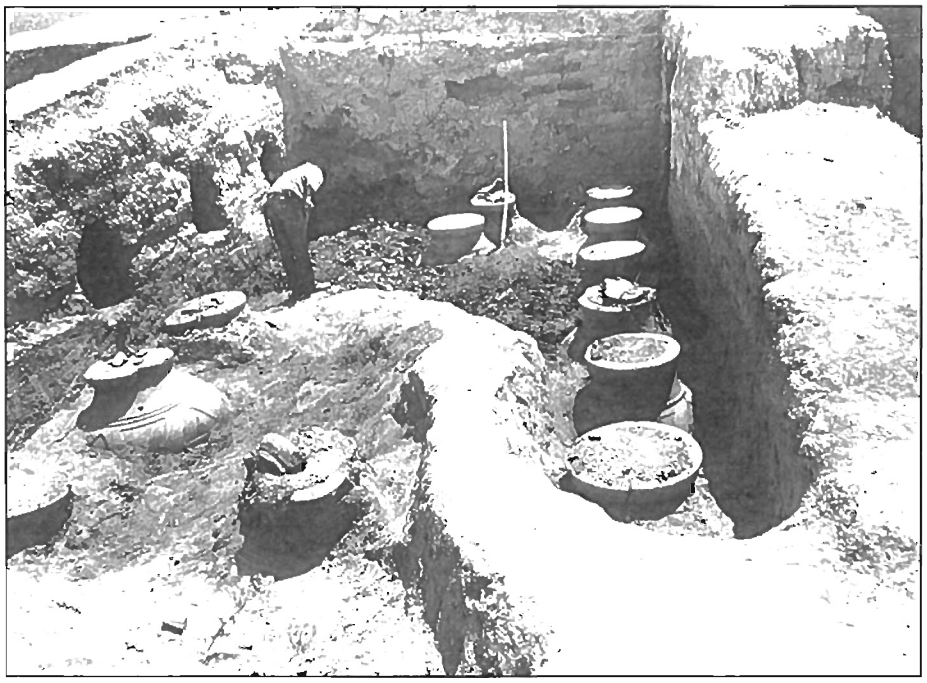

Fig. 7 – The storeroom II, from the north.

Fig. 8 – The storeroom II, from the south.

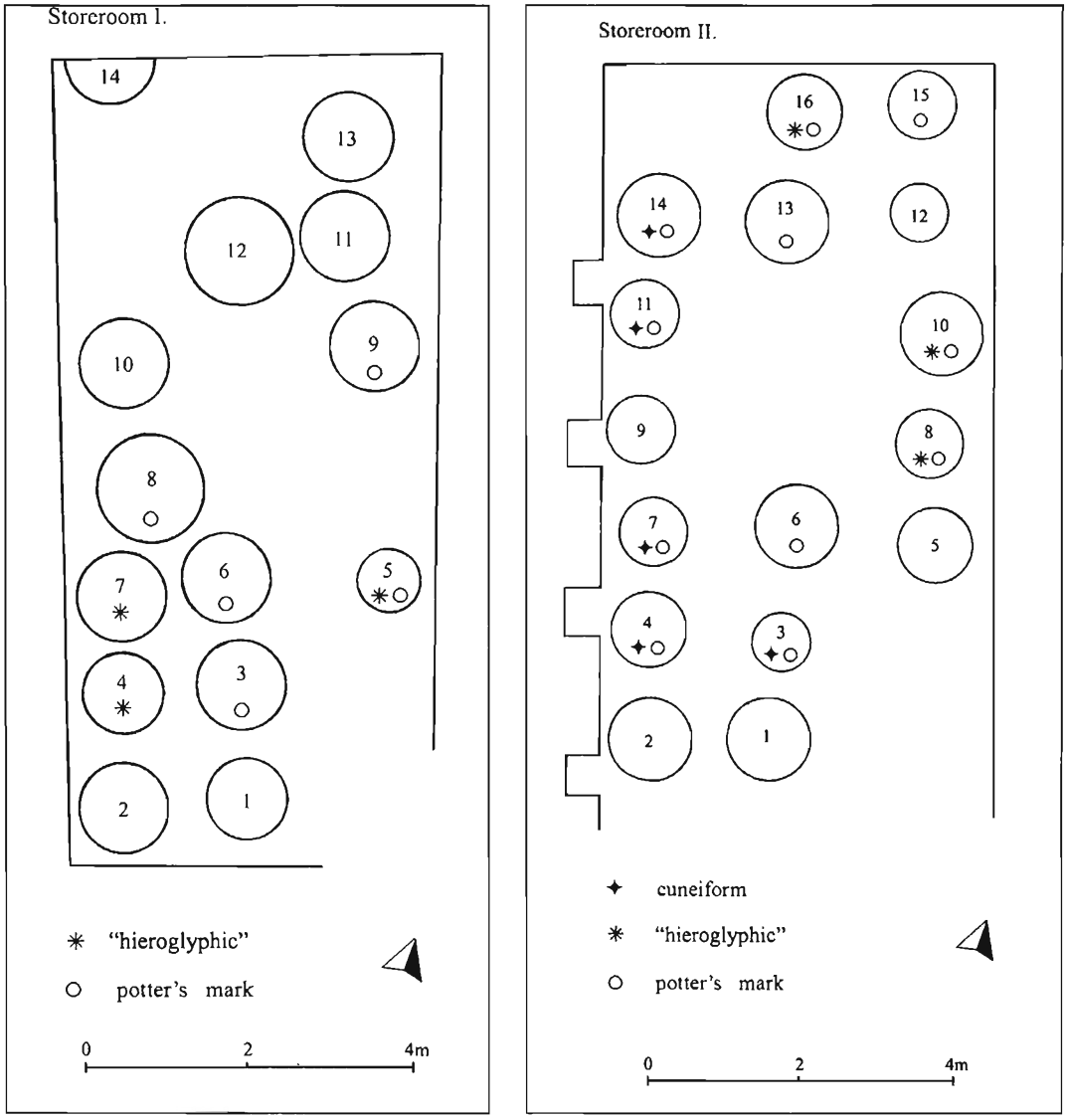

Fig. 9a-9b – Plan of both storerooms with indication of the presence of potter's marks and cuneiform or linear ("hieroglyphic") inscriptions on the pithoi.

tical in size and shape. These would appear to have been made by using lengths of small canes (figs. 10-15). In one case there are 5 impressions of a circular stamp divided into quarters, probably made from a circular piece of wood on which a cross was incised, with a dot inside each of the four quarter circles thus formed (fig. 15c, d). This stamp appears to be a typical potter's mark like those known to us from various early civilisations[9].

[9] We need only recall the material from Boğazköy: U. Seidl, *Gefässmarken von Boğazköy* (Boğazköy-Ḫattuša VIII), Berlin 1972, *passim*.

Fig. 10 – Potter's mark on pithos II 8.

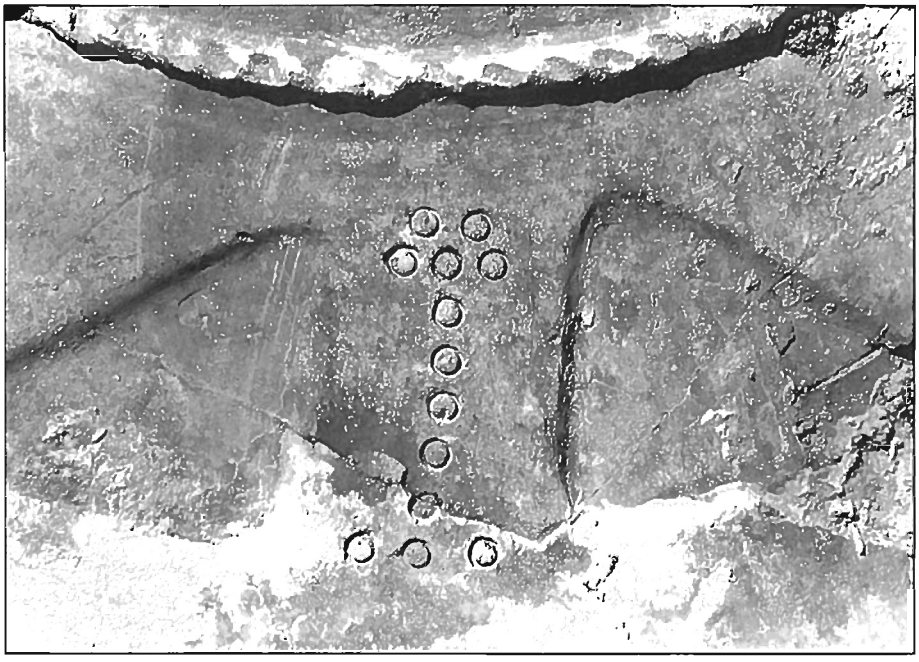

Fig. 11 – Potter's mark on pithos II 11.

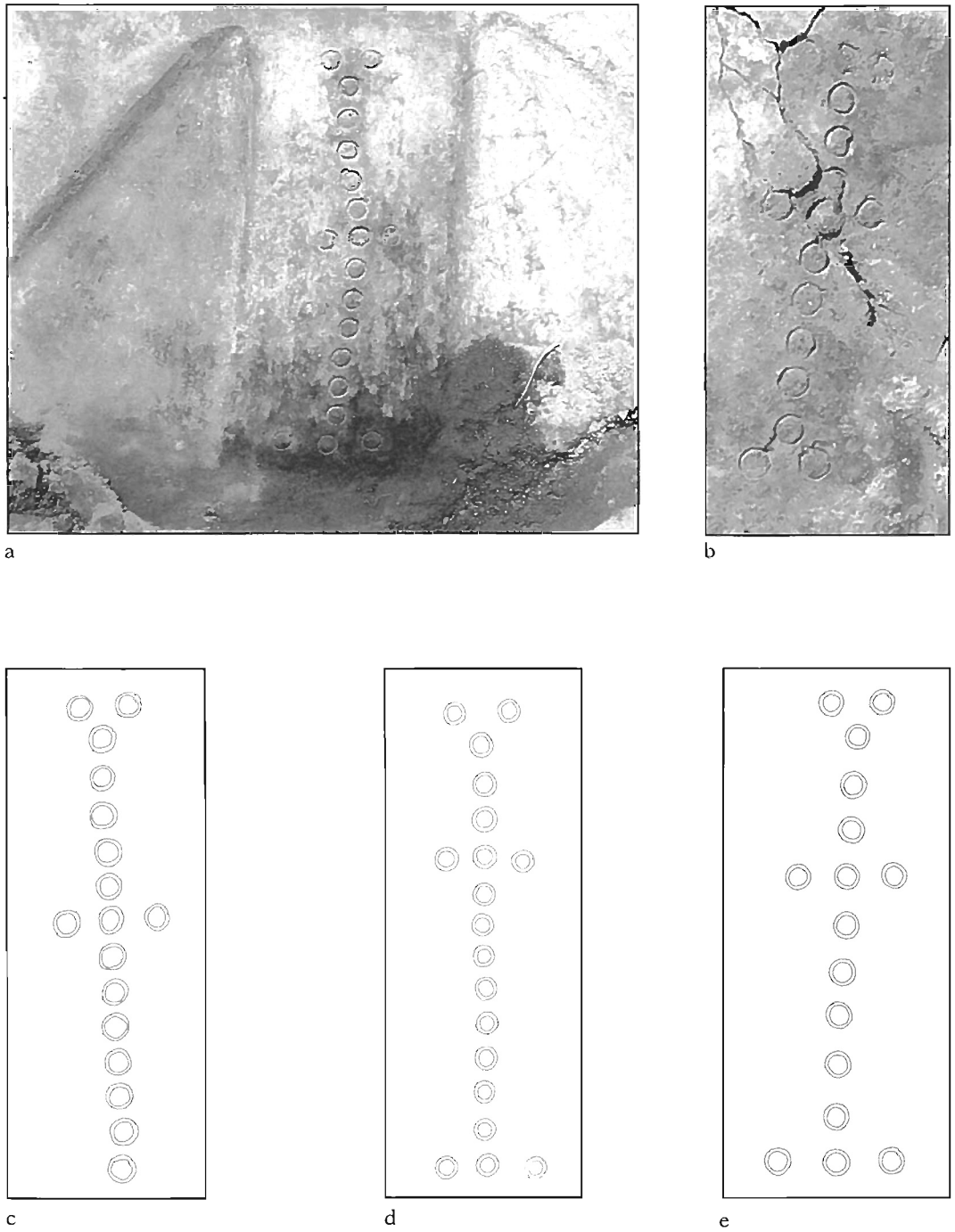

Fig. 12 – Potter's mark on pithoi: a) II 16, b) I 6, c) II 15, d) II 8, e) II 10.

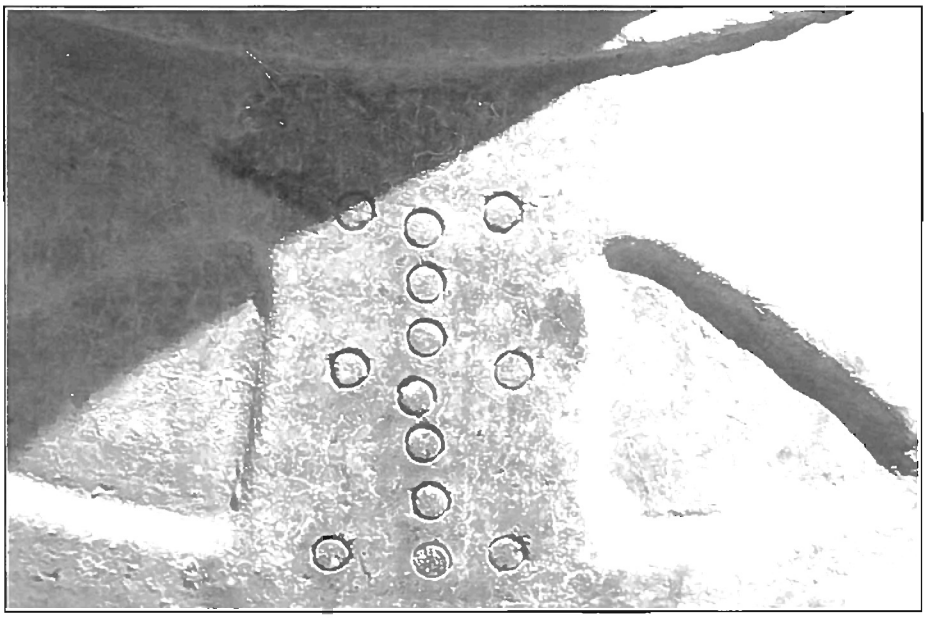

Fig. 13 – Potter's mark on pithos II 3.

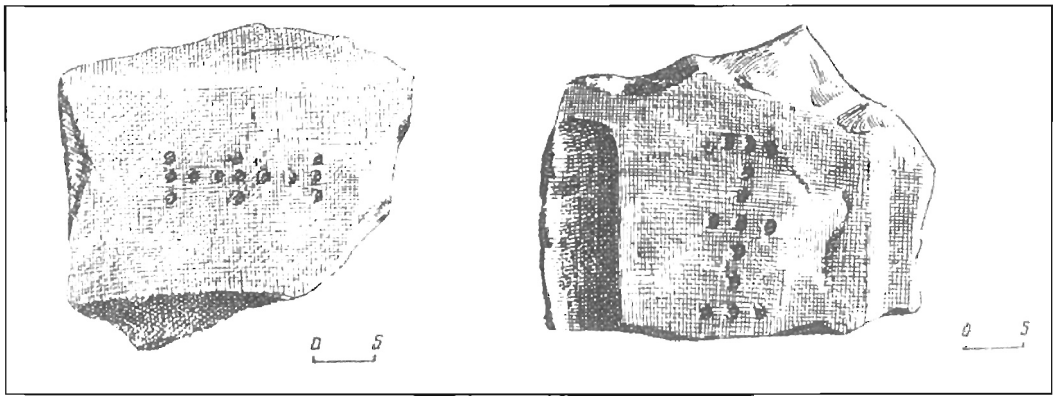

Fig. 14 – Marks on pithoi from Argištihinili (A.A. Martirosjan, *Argištichinili*, Erevan 1974, p. 118, fig. 74).

Both of these impressions are similar to examples found in the material from Ayanis[10]. In particular, Table I on page 153 of the work cited shows all of the signs that appear on pithoi and on pots in general. For the circles, refer to numbers 33-36 and 47 and, for the stamp, numbers 28 and 29. Unfortunately, this publication does

[10] See G. Kozbe, Ö. Çevik, H. Sağlamtimur, *Pottery*, in: A. Çilingiroğlu and M. Salvini (eds), *Ayanis I. Ten Years' Excavation at Rusahinili Eiduru-kai, 1989-1998*, (Documenta Asiana VI), Roma 2001, p. 85-153. See, however, M. Salvini, "Clay Bullae with Cuneiform and Hieroglyphic Inscriptions", in the same volume, p. 279-311.

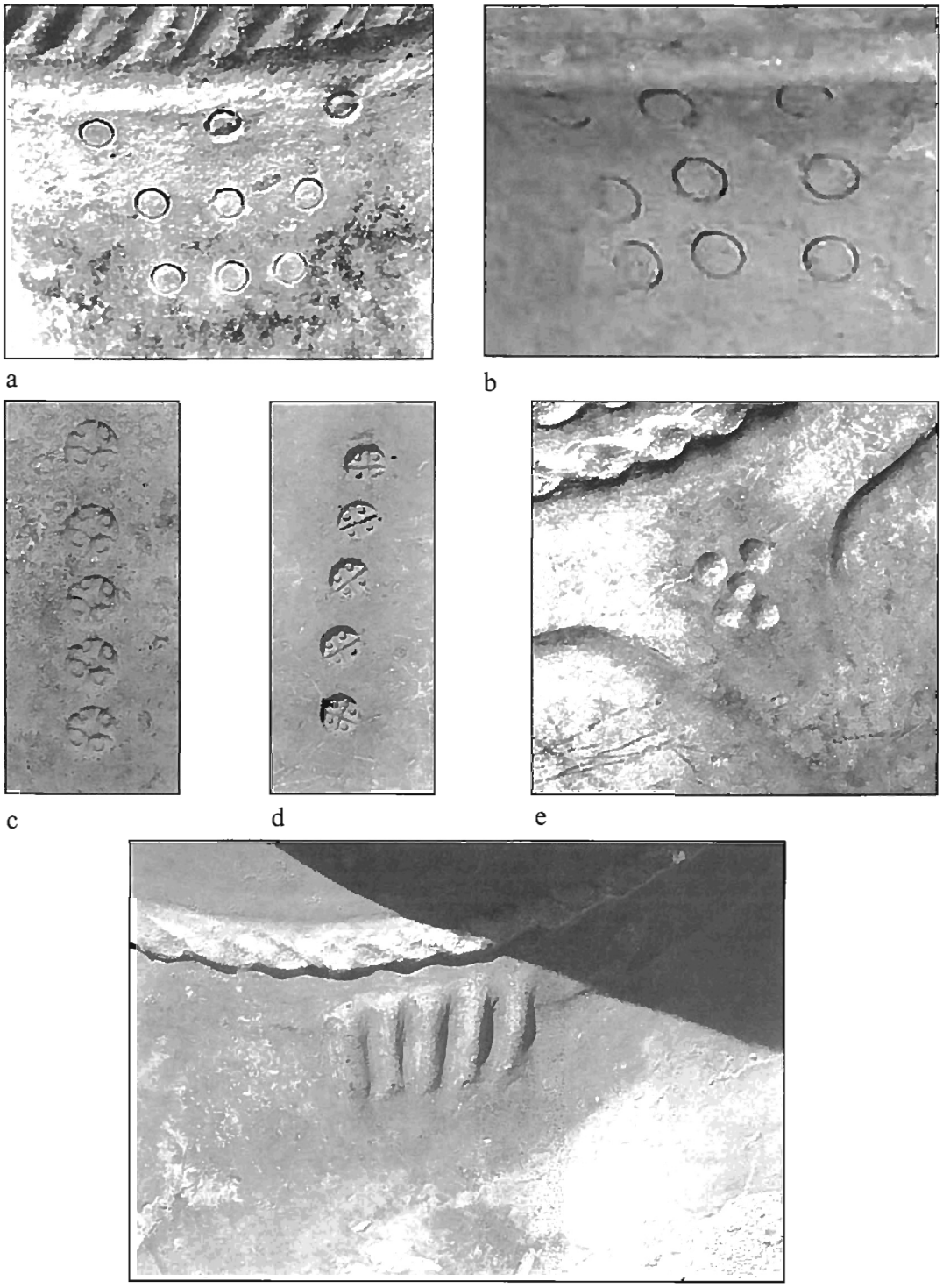

Fig. 15 – Potter's marks on pithoi: a) I 5, b) II 6, c) II 4, d) I 8, e) I 3, f) II 7.

a

b

c

d

Fig. 16 – Cuneiform indications of volume on pithoi: a) II 4, b) II 3, c) II 7, d) II 14.

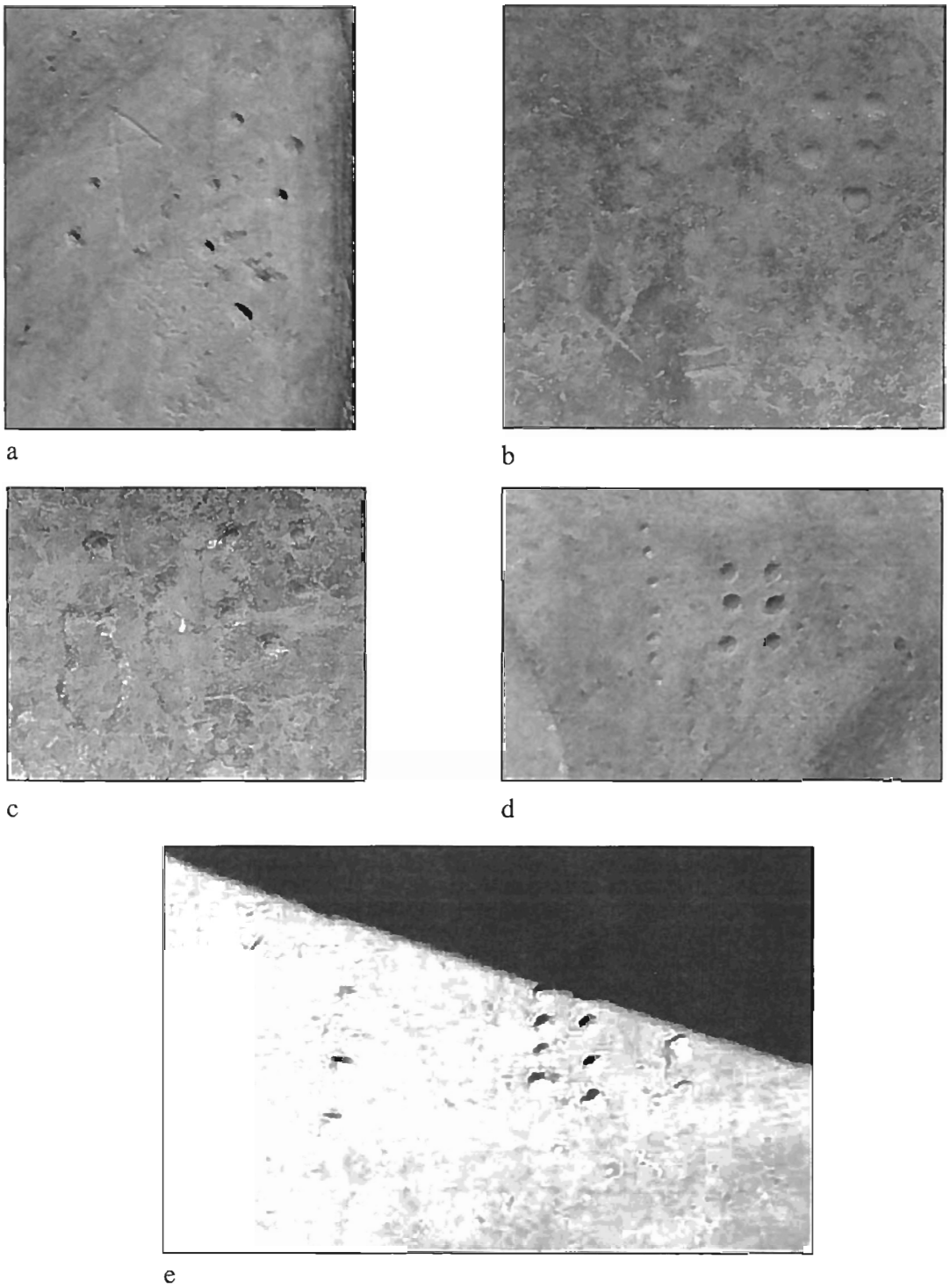

Fig. 17 – Linear signs on Anzaf pithoi: a) II 8, b) I 7, c) I 4, d) I 5, e) II 16.

not enable us to deduce whether these marks were made by incision or impression, an important factor in any evaluation. Most of the signs are potter's marks, with the exception of numbers 44, 45 and 62 – 69 which represent linear indications of volume. Numbers 62-69 are linear signs incised on the shoulders of small pots, where we can read 2, 3 or 4 LIŠ/DÍLIM. On the pithos II 3 (fig. 13) we have a combination of circular impressions made before the vessels were baked, in a design from the top to the bottom of three horizontal circles, two vertical, three horizontal, two vertical and three horizontal (12 in all). Precisely the same positioning and combination can be seen on two fragments of a vase from a house in the lower quarters of Argištiḫinili[11], although here the circles were apparently incised after baking.

Indications of volume on pithoi
(storeroom, I or II, and the number of the pithos)

Cuneiform markings (fig. 16):
Pithos II 3: "6 a-qar-qi"
Pithos II 4: "5 a-qar-qi 3 ṭí-ru-si"
Pithos II 7: "5 a-qar-qi 2 ṭí-ru-si"
Pithos II 11: "5 a-qar-qi"
Pithos II 14: "5 a-qar-qi 2 ṭí-ru-si"

The units of measurement are here given in full and not in acrophonic form (a., ṭí.) as is more usually the case. We know that these vessels were used to hold liquids thanks to the passage in the Annals of Sarduri where aqarqi and ṭirusi are used to measure quantities of wine and oil: HchI 103 A III = CTU A 9-3 VII 10: 1 ME 2 a-ti-bi 2 LIM 1 ME 33 ka-pi ŠE.PAD^{MEŠ} 1 ME 11 a-qar-qi GESTIN^{MEŠ} 86 a-qar-qi 7 ṭi$_5$-ru-si man-ka-li Ì^{MEŠ} "1022133 *kapi* (measures) of barley, 111 *aqarqi* (measures) of wine and 86 *aqarqi* and 7 *ṭirusi* of oil *mankali*".

Indications given in linear signs (fig. 17)

The same kind of information is given in the simple linear form. As already shown on the basis of material from Ayanis[12], this is a fairly simple, parallel system used as an alternative to cuneiform script. On the pithoi from Ayanis we have mainly cuneiform writing[13], whilst bullae from the same storerooms bear either cuneiform or linear signs giving the same information which has enabled us to decipher this kind of linear writing[14]. One example, so far the only one from Ayanis, is a large vase for libations (not a pithos) with a wide, flaring neck that has the same measurement of volume incised on the external and the internal surface. This has been deciphered as: 7 ṬIRUSI 1/2 ṬIRUSI 5 LIŠ [15] (fig. 18). The third, smaller unit

[11] A.A. Martirosjan, *Argištichinili*, Erevan 1974, p. 118 fig. 74 (here fig. 14).
[12] M. Salvini, *Ayanis I*, pp. 279-319: "Inscriptions on Clay".
[13] With three exceptions: the libation vessel in *Ayanis I*, p. 294, and the two pithoi P Ay-31 and 32 (*Ayanis I*, p. 297 and 311).
[14] M. Salvini, *Ayanis I*, p. 288 ff. (Group E: cuneiform), p. 293-302 (Group G: linear); p. 308-311 ("Inscriptions on Pithoi").
[15] M. Salvini, *Ayanis I*, p. 294 with drawing.

of measurement, the LIŠ, is so far lacking at Anzaf.

The "writing" runs from right to left and consists simply of numbers expressed by small incised balls, that on the right indicating the number of the *aqarqi* and the one on the left the number of *ṭirusi*, (as in I 5, II 16) or merely a number (II 10). We also find a mixed system where the second number is accompanied by the outline of a vase representing the *ṭirusi* (see I 4 , I 7 and II 8).

Pithos I 4: "5 AQARQI 1 ṬIRUSI" (to the left of the writing there is a vertical, serpentine incision)

Pithos I 5: "6 AQARQI 7 ṬIRUSI"

Pithos I 7: "5 AQARQI 5 ṬIRUSI"

Pithos II 8: "7 AQARQI 2 ṬIRUSI"

Pithos II 10: "7 AQARQI"

Pithos II 16: from right to left 3 , 8, 3 balls. It is not clear where this begins, and could refer to three units of measurement to be read 3 AQARQI 8 ṬIRUSI 3 LIŠ(DÍLIM), although this is far from certain.

The total volume of the 10 pithoi with clear measures amounts to 58 aqarqi and 1 ṭirusi, giving an average, therefore, of 5,8 per pithos, thus confirming that the pithoi from Anzaf are particularly large.

The information from Ayanis and Anzaf can be related especially to the linear writing of Karmir-blur. The drawings of the linear measures from storerooms 25 and 28 in *Karmir-blur II*[16] show an even more stylized "writing", running from right to left in which the *aqarqi* are indicated by small rounds in a open field whilst the *ṭirusi* to the left are isolated and identified by two scratches placed at right angles to each other (fig. 19). The average ranges from 3 to 5 with, in some cases, no *ṭirusi*. There are, instead, never more than 8 *ṭirusi*, as we find also in the cuneiform writing[17] from the storeroom 25. This led Piotrovskij to consider that the *ṭirusi* represented 1/9 of an *aqarqi*[18]. Whilst we also find 1/2 *ṭirusi* in cuneiform script, this is absent from in the linear notations. The system employed at Ayanis is more fully developed, the half *ṭirusi* appearing in both the cuneiform and the linear forms[19]. Moreover, at Ayanis we also have a third unit of measurement, indicated by the Sumerogram LIŠ (or DÍLIM) "bowl", in the cuneiform and linear systems. This corresponds to 1/20 of a *ṭirusi*, that is to say, roughly 1,2 litre.

The Urartian term equated with LIŠ(DÍLIM) could be *a-ru-si* [20], attested at Çavu-tepe on three pithoi, published by Dinçol[21] with the numbers 5, 8 and 10:

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[16] B.B. Piotrovskij, *Karmir-blur II. Rezul'taty raskopok 1949-1950*, Erevan 1952, pp. 68-73 (figs. 37-42).

[17] *Karmir-blur II*, p. 67 fig. 36.

[18] For absolute values and the relationship between units of measurements for liquids, see. I. Reindell - M. Salvini, "Die urartäischen Hohlmasse für Flüssigkeiten", SMEA 43, 2001, 121-141.

[19] M. Salvini, *Ayanis I*, 289 f., 294 f.

[20] This term can be analysed as ar(u)=usi and be a noun derived from the verb aru- "to give", see M. Salvini, "I granai delle città urartee", Eothen 9 (Studi e testi I), Firenze 1998, 142sg. Hence the ratio of 1/20 as compared to the *ṭirusi* , approximately 1,2 litre, is also demonstrated..

[21] A. M. Dinçol, Çavuştepe kazısında çıkan yazıtlı küçük buluntular - I (Beschriftete Kleinfunde aus der urartäischen Burg Çavuştepe) - I, "Anadolu" 18, Ankara 1974, 105-121 (6 tabs.). See especially p. 116 on.

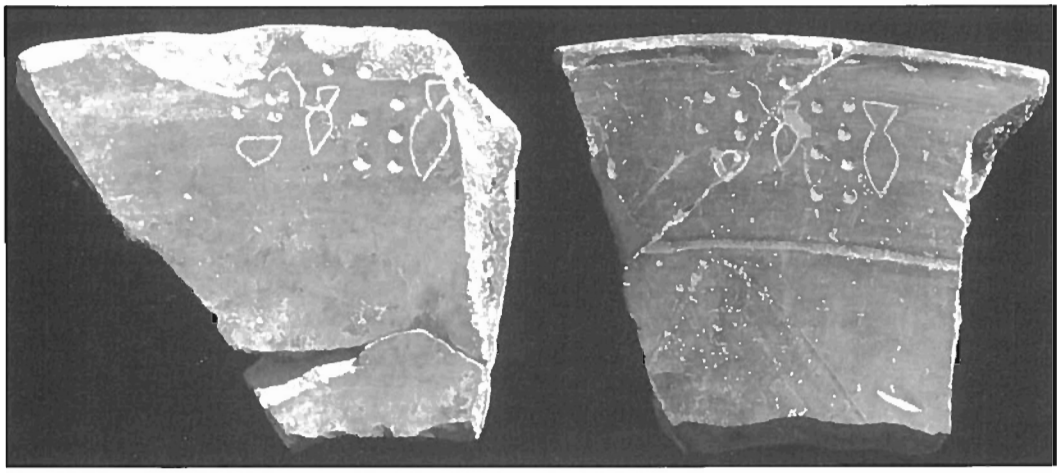

Fig. 18 – Linear measurements on a libation vase from Ayanis (*Ayanis I*, p. 294).

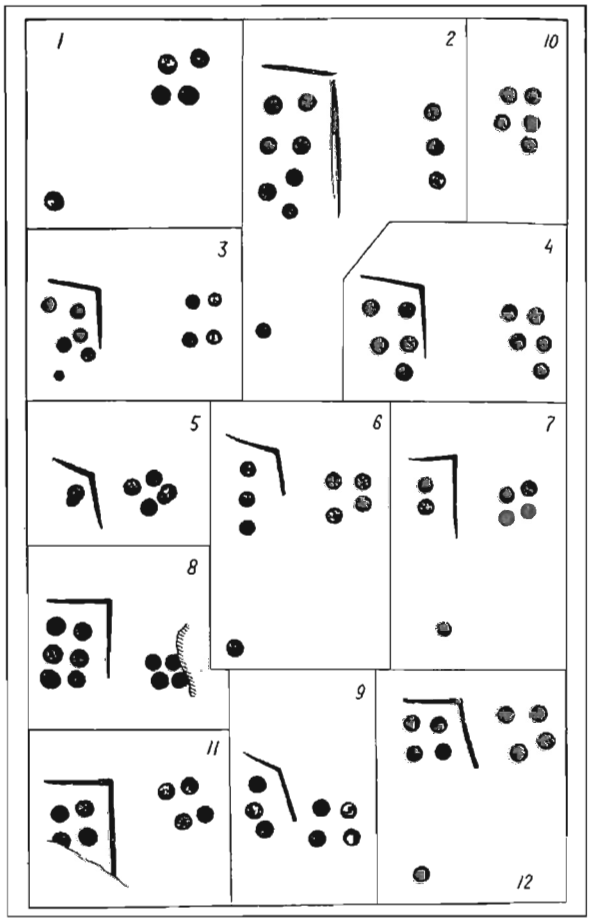

Fig. 19 – Linear signs on pithoi from Karmir-blur (from *B.B. Piotrovskij, Karmir-blur II*, p. 67).

N° 5: ṭ]í-ru-si 1 a-ru-si [this is probably the reading of LIŠ(DÍLIM)]
N° 8: -r]u-si
N° 10: x ṭí-r]u-si 1 a-[ru-si .

Dinçol understood that this must have been the "Untereinheit von terusi", but opted for an identification with the sign Labat 74, not with the meaning of 1/2, "one half" but with the reading BÁN/*sûtu*[22], in line with E. von Schuler's previous suggestion[23]. This is, in fact, a unit of volume for dry goods that cannot appear on pithoi alongside *aqarqi* and *ṭirusi*. Dry goods, barley and wheat, were calculated in terms of *kapi*, for which a corresponding sumerogram is also attested, BANEŠ (roughly 18 litres), which is equal to 3 *sâti* (1 *sûtu* = 6 litres)[24].

In terms of complexity, therefore, the linear system of Anzaf lies somewhere between those of Karmir-blur (the simplest), Kayalidere, Bastam, Toprakkale and Ayanis (the most complete). The greater or lesser degree of complexity and precision in the linear writings can be expressed as follows: 1st simple numerals and two units of measurements (Karmir-blur); 2nd numerals and two units of measurement with the symbol for the second (*ṭirusi*) (Anzaf); 3rd two units of measurement with numbers and symbols (Bastam, Kayalidere); 4th three units of measurement with symbols and notation of the *half ṭirusi* (Ayanis, Toprakkale). It should be added that, at Bastam[25], we find a particular situation: like at Ayanis, on the shoulders of jugs with numbers above a triangle, which is the stylised representation of a cup, we can read the incision x LIŠ.

Lastly, we can note that the kind of decoration found on the pithoi from Anzaf, consisting of large triangles and trapezoids, beneath a double, entwined string, is paralleled in particular at Karmir-blur[26]. This, together with other factors, such as the type of linear indication found on the pithoi, could suggest a close chronology. Although Upper Anzaf Kalesi was founded by Minua, we already have evidence of a presence there in the 7th century, such as the tablet and bulla found in 2001 and 2002[27]. Of particular significance is the fact that the name Išpiliuqu is the same as that of a high official, the "seal bearer", in Bastam, founded by Rusa II, son of Argišti II. This shows that, at least at that time, Anzaf was still a fully functioning economic centre.

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[22] "Anadolu" 18, p. 119.
[23] AMI NF 3, 1970, 103.
[24] M. Salvini, "Eothen" 9, 1998, 131-149.
[25] St. Kroll, *Bastam I*, p. 223.
[26] B.B. Piotrovskij, *Karmir-blur*, Leningrad 1970, figs. 11-13.
[27] O. Belli - M. Salvini, Two Clay Documents from Upper Anzaf Fortress near Van, SMEA 45, 2003, 141-152.