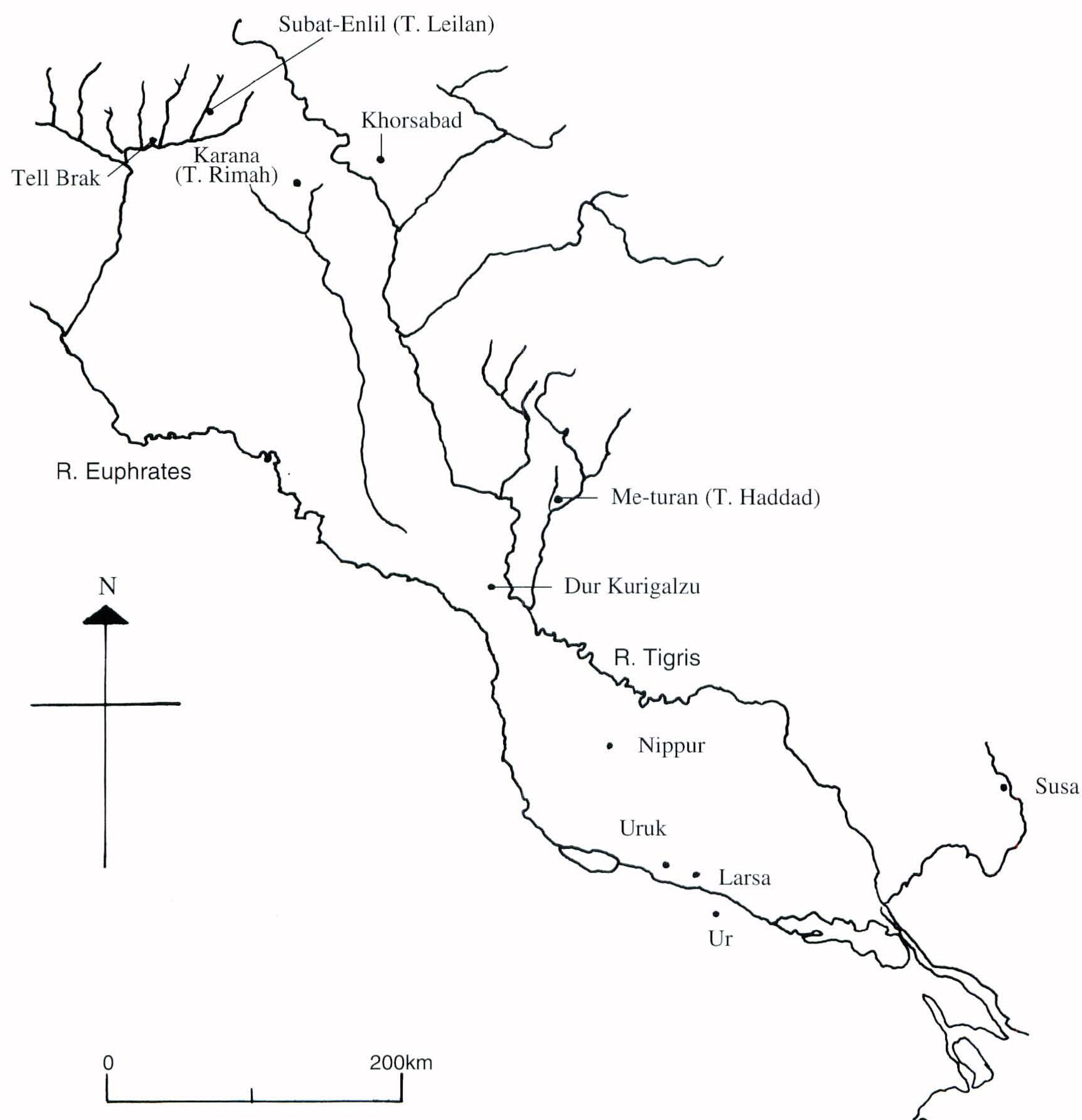


## MOULDED MUD-BRICK AT DUR KURIGALZU

Tim CLAYDEN\*

### Introduction

This paper highlights the use of mud-brick to form a figurative frieze at Dur Kurigalzu; and suggests that it was built in the reign of Kurigalzu I (x-1375 B.C.). In doing so it underscores the original nature of the development of such decoration by the early Kassite kings and that it was probably the genesis of the spectacular glazed brick facades of the neo- Babylonian and Assyrian periods.



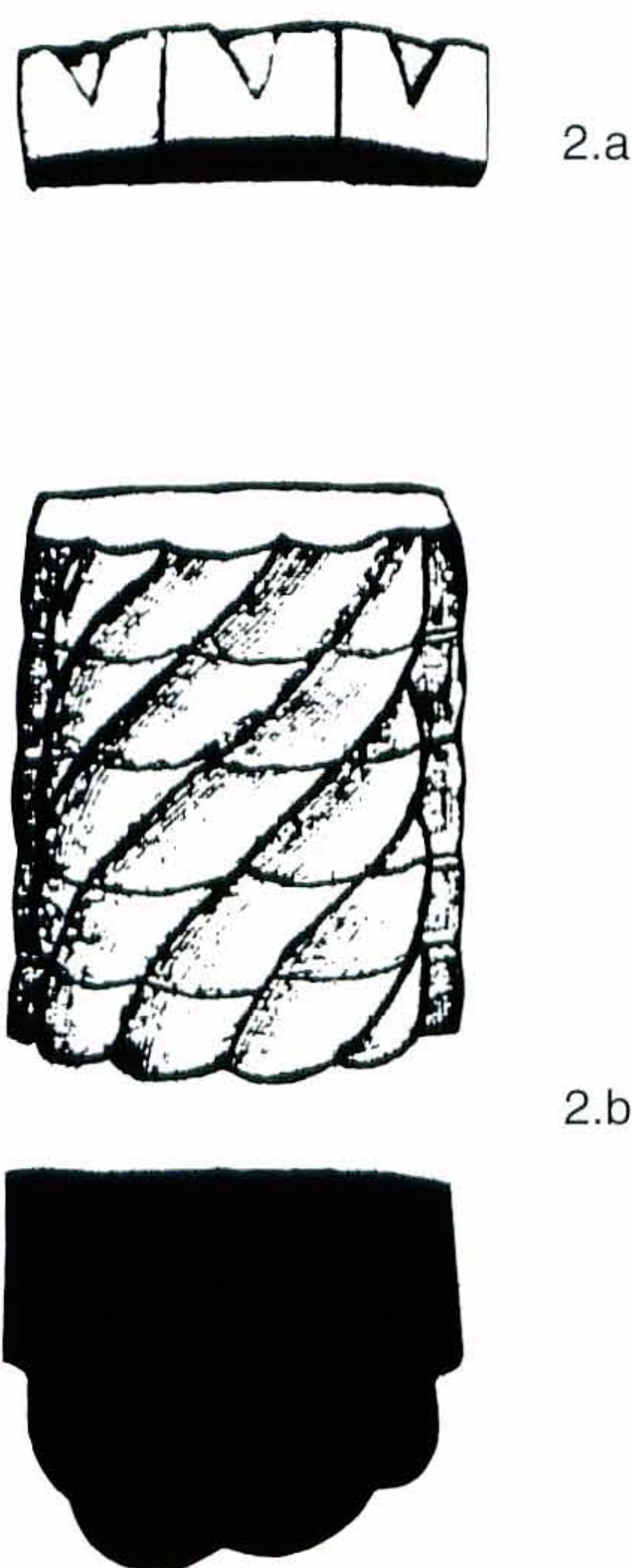
**Fig. 1** Map showing the locations of sites mentioned in the text.

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## Background

The earliest published example of moulded mud-brick was by Loftus (1857: 236; See Figure 2.a and b). The bricks, which Loftus dated to the Parthian period, were found at Uruk and neighbouring sites. Subsequent extended discussion of moulded mud-brick decoration has appeared in connection with excavated examples—two from Susa (Mecquenem 1922: 128–130; and Amiet 1976); Uruk (Jordan 1930: 28–30; Tafel 15 and 16); Karana (Tell al-Rimah) (Oates 1967: 79–80, 84 and 88–90); Larsa (Huot et al 1976: 16–17 and 24–5: Figures 5–6, 12–13, 28 and 33–34; Plates I.1–4; II and III.3–4) and Šubat-Enlil (Tell Leilan) (Weiss 1985: 10–1). Moorey (1994: 309–12) provides a broader review of the subject.



**Fig. 2.a and b** The moulded mud-bricks found at Uruk and neighbouring sites by Loftus (1857: 236).

## Engaged Columns of Carved or Moulded Brick

What may be the first use of carved or moulded mud-brick used as column elements was found at Ur in wall collapse at the ‘Treasury of Sin-iddinam (circa 1849–1843 BC) which Mallowan (1976: 92) described as follows:

‘... the half bricks had half circles in relief on two adjacent vertical faces, the whole bricks only upon one face ...’

The earliest unequivocal representation in carved or moulded mud-brick of a palm trunk as a decorative element of a building was found at Ur. On the N.W. side of the ziggurat complex Warad-Sin (circa 1834–1823 BC) built a structure (the so-called ‘bastion’) which featured columns of carved or moulded bricks which Woolley (1939: 42–3, Pls. 29.a and b; 30.a and 71) described as follows:

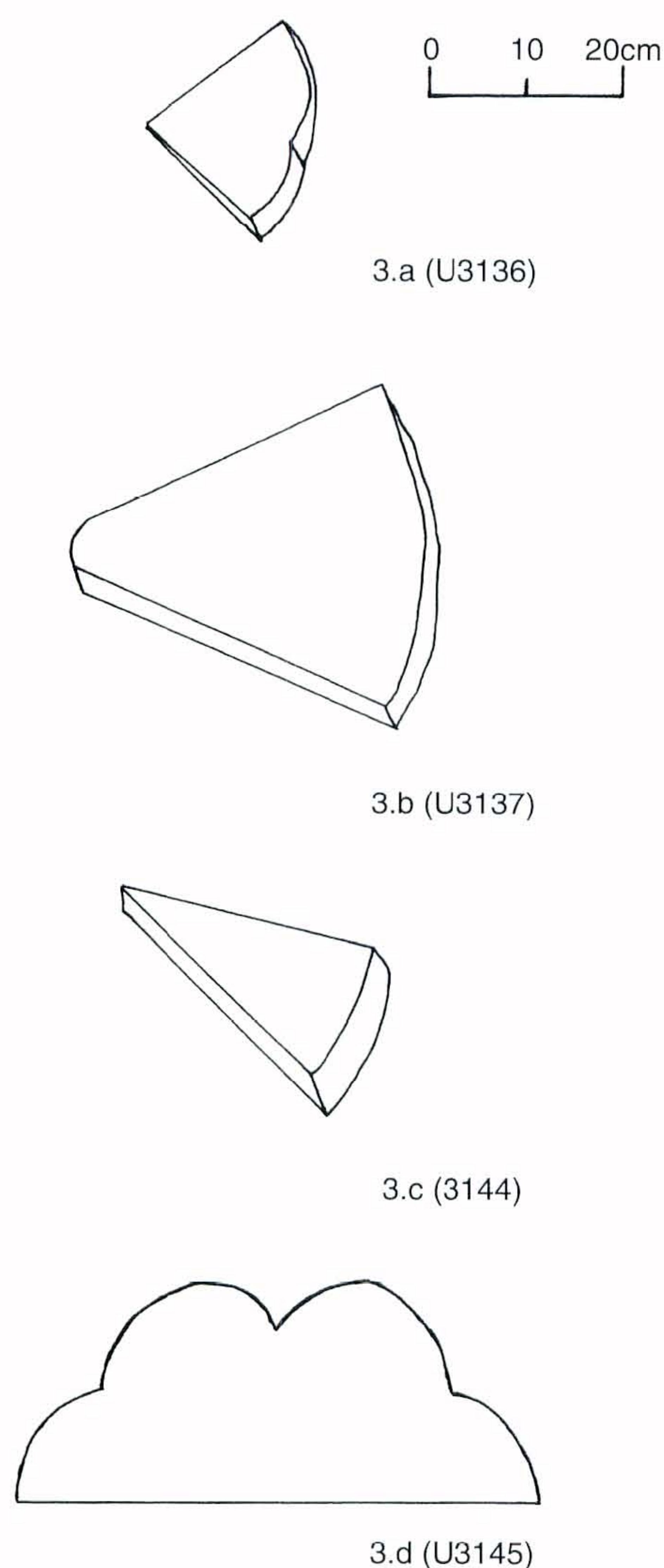
‘... segmental in shape and with the outer edge not only rounded to the curve of the column-shaft, but with a further boss in relief so that each set of three bricks ... produced a truncated triangle standing out



from the column in low relief; these triangles ... set in rows one above another, made of the brick shaft a very close imitation of a date palm trunk ...'

In neither instance was an illustration of the bricks published, but in his finds register notebooks (now held in the British Museum), Woolley notes and provides rough drawings of similar bricks found in scatter in front of the (É).DUB.LÁ.MAḤ(U 3136, U 3137, U 3144 and U 3145<sup>1)</sup>, See Figure 3.a–d).

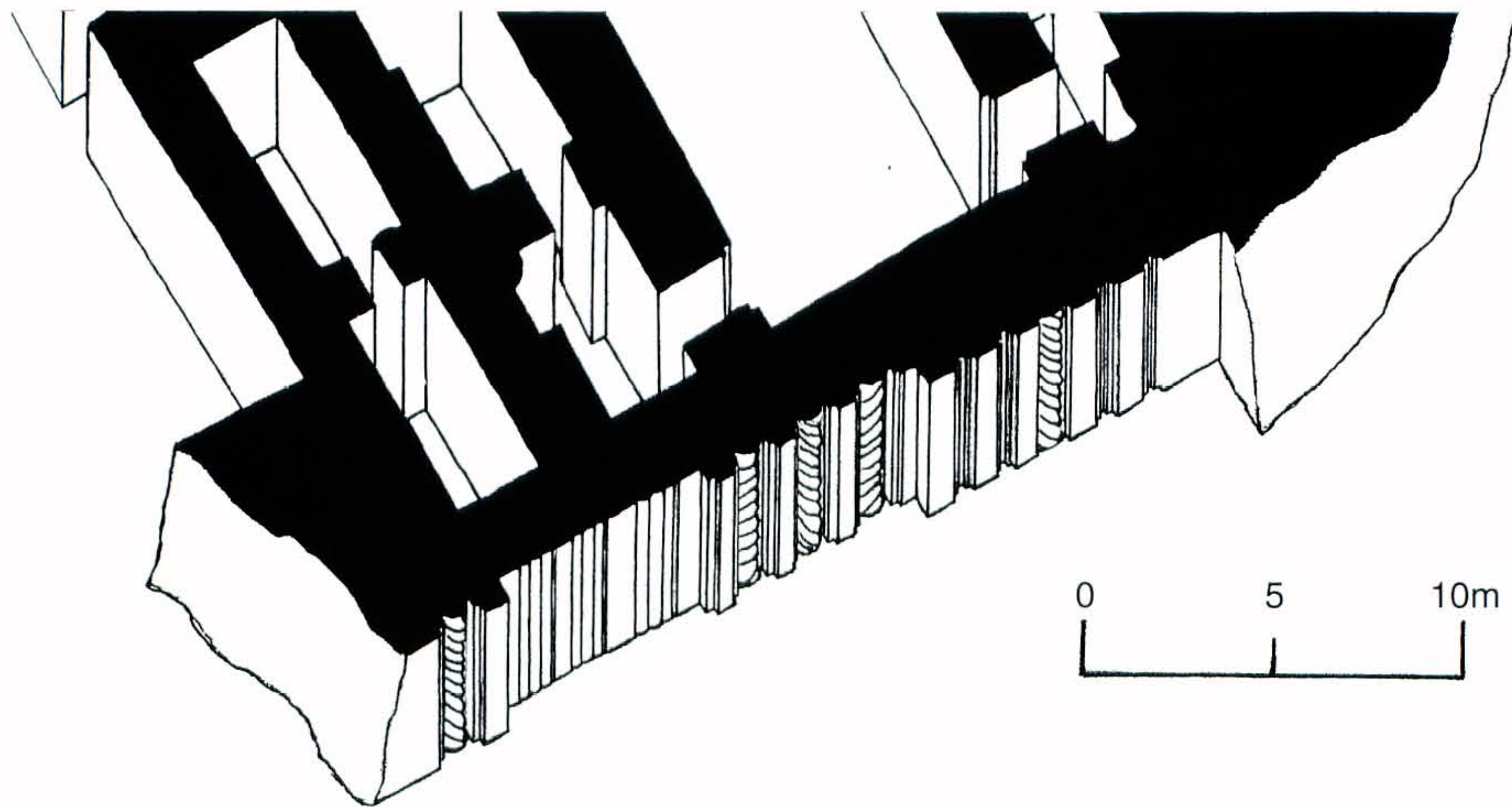
The most spectacular use of such decoration, however, appeared in sites in northern Mesopotamia in the 19th and 18th centuries BC–Šubat-Enlil (Tell Leilan) (Weiss *ibid*) and Karana (Tell al-Rimah) (Oates *ibid*). In both instances a complex series of geometrically arranged barley-twist spiral and palm trunk engaged columns decorate the exterior of temples (Figures 4 and 5). At Me-turan (Tell Haddad) engaged columns said to be similar to those found at Karana (Tell al-Rimah) were found decorating the



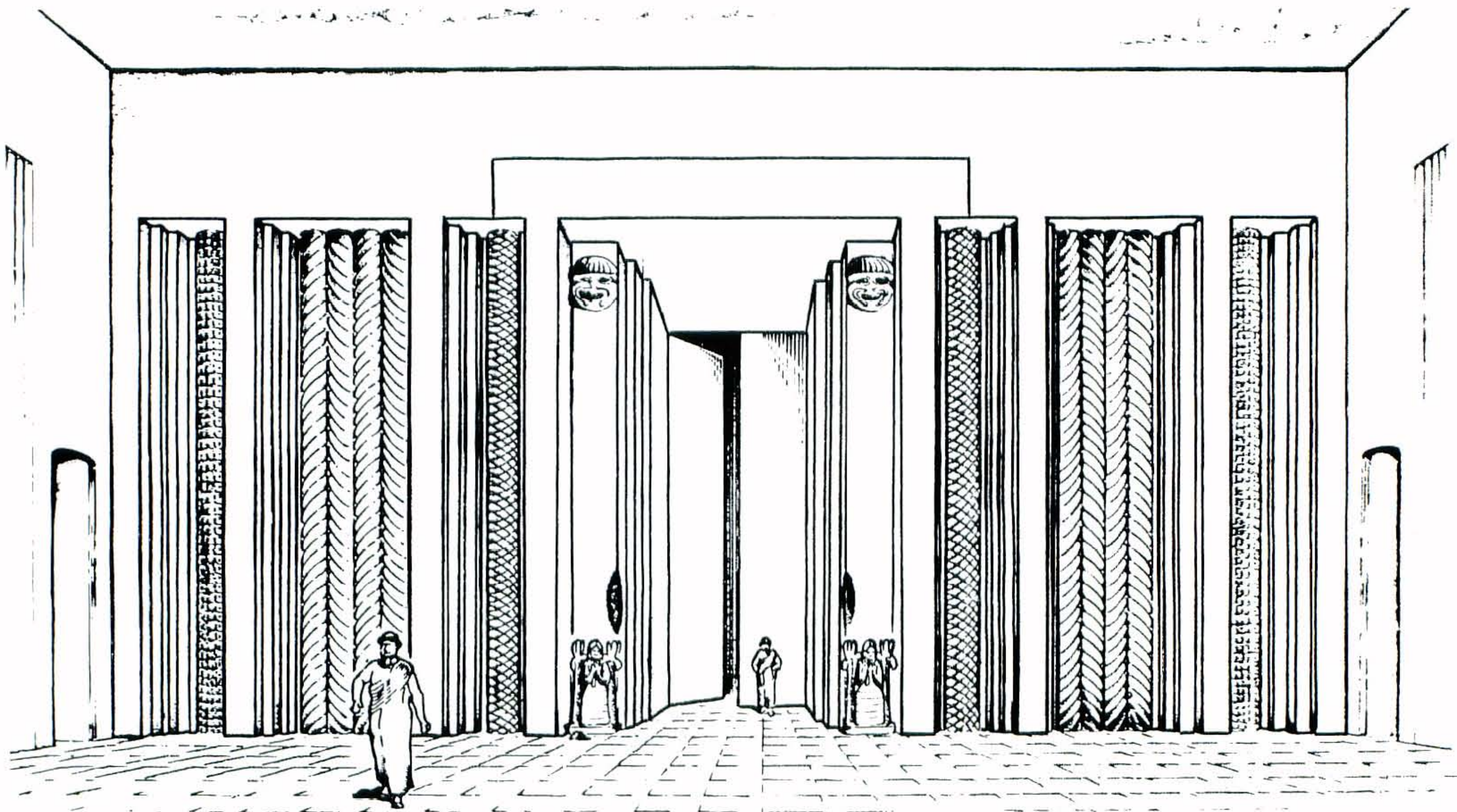
**Fig. 3.a–d** Moulded bricks found by Woolley loose at the (É).  
DUB.LÁ.MAḤ at Ur (U 3136–7 and U 3144–5).

1) The register provides the following dimensions for the bricks: U 3136–14.4×14.4×8 cm.; U 3137–32×32×5.5 cm.; U 3144–28×16×7.8 cm.; and U 3145–30.4×12×8 cm.





**Fig. 4** The exterior of the decorated building at Subat-Enlil/Tell Leilan (After Weiss 1985a: 209, Fig. 44).

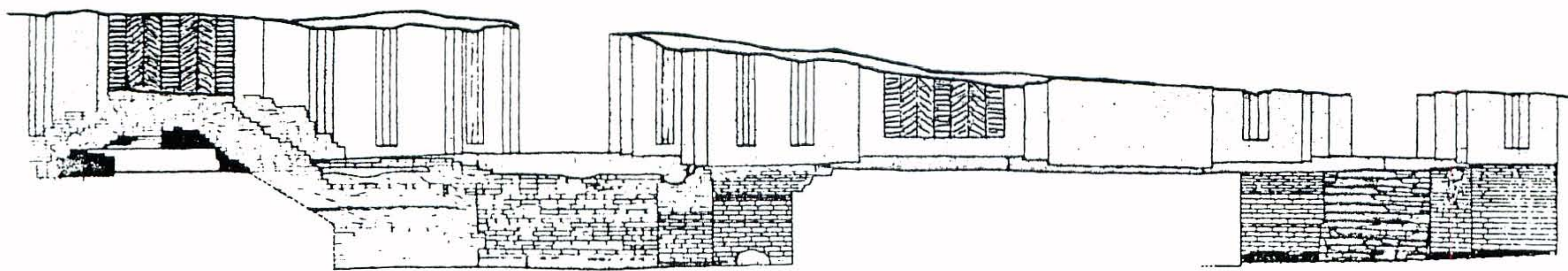


**Fig. 5** Restored view of the interior facade of the temple courtyard at Karana/Tell al-Rimah (After Dalley 1984: 115, Fig. 38).

walls of the courtyards of a palace/temple (Muhammed 1992: 24). A carved relief of a palm tree and a female deity (?) were also found (Muhammed *ibid*)<sup>2</sup>. In Babylonia the only extant example, and that of lesser quality, was found decorating the temple at Larsa (Huot et al, *ibid*; See Figure 6). At Tell Brak (Oates et al 1997: 13–18; Plan page 4; photographs page 2) engaged columns decorated the exterior of a Mitannian temple and palace (mid sixteenth century BC). The columns at Larsa were refurbished in the Kassite period by Burna-buriaš II, Nazi-maruttaš and Kadašman-Enlil.

2) See Oates (*ibid*, 76–77; Plate XXXI.a) for a similar scene depicted in stone with an abraded dedication inscription found at Karana/Tell al-Rimah. Oates identifies the female deity as the goddess Lama, an intercessory god.





**Fig. 6** Section of the moulded/cut mud-brick facade in the courtyard of the Samas temple at Larsa (After Huot et al: 1976: 33, Fig. 5).

### Moulded Mud Brick Figurative Decoration

Essentially the construction of engaged columns carved or of specially moulded bricks to represent palm-trunks had ended by the middle of the second millennium BC, though in a number of cases refurbishment of previously constructed columns continued. Thereafter, most especially in the neo-Assyrian period, palm trunks would be represented in metal sheathing covering mud-brick (eg. Khorsabad - Loud 1936: 97–8: Fig. 99<sup>3</sup>). However, the use of moulded mud-brick to decorate temple exteriors continued in a far more complex fashion. Without any apparent formative development the early Kassite ruler Kara-indaš (late 15th century BC<sup>4</sup>) built a small temple dedicated to Inanna within the ziggurat temenos at Uruk (Jordan *ibid*).

The Kara-indaš facade (Figure 7.a and b) was found wholly collapsed and had to be reconstructed (sections are now on display in the Vorderasiatische Museum, Berlin and the Iraq Museum, Baghdad). As reconstructed it depicts a repeated series of male and female deities holding vases from which streams of running water flow and frame the scene. Each brick is individually moulded and each figure consists of circa 15 bricks. A rough calculation suggests that a total of at least 500 moulded bricks was required to complete the front facade of the temple as restored. This implies a complex design and production task; and considerable expense of time and money.

Fragments of similar facades were reported to have been found at Ur and Dur Kurigalzu. At Ur Woolley (1965: 3) found ‘... loose in the ruins of temples particularly in those of É.NUN.MAḪ and (É).DUB.LÁ.MAḪ, moulded bricks with fragments of design in high relief; these unquestionably belong to human figures of more or less life size, and with them come simpler moulding, plain half circles or zig-zags representing flowing water. The bricks are not stamped, but their texture and their measurements assign them to Kurigalzu ...’ Also at Ur in a post-Kurigalzu and probably post-Kassite level of the ‘Magazine Building’ on the NW temenos wall area Woolley (*ibid*: 64) excavated ‘... a brick moulded with a design in high relief, apparently the top of the head of a human figure ...’ At Dur Kurigalzu Baqir (1944: 12) reported that he excavated fragments of figurative moulded mud brick (see below). In neither case were illustrations of the bricks published.

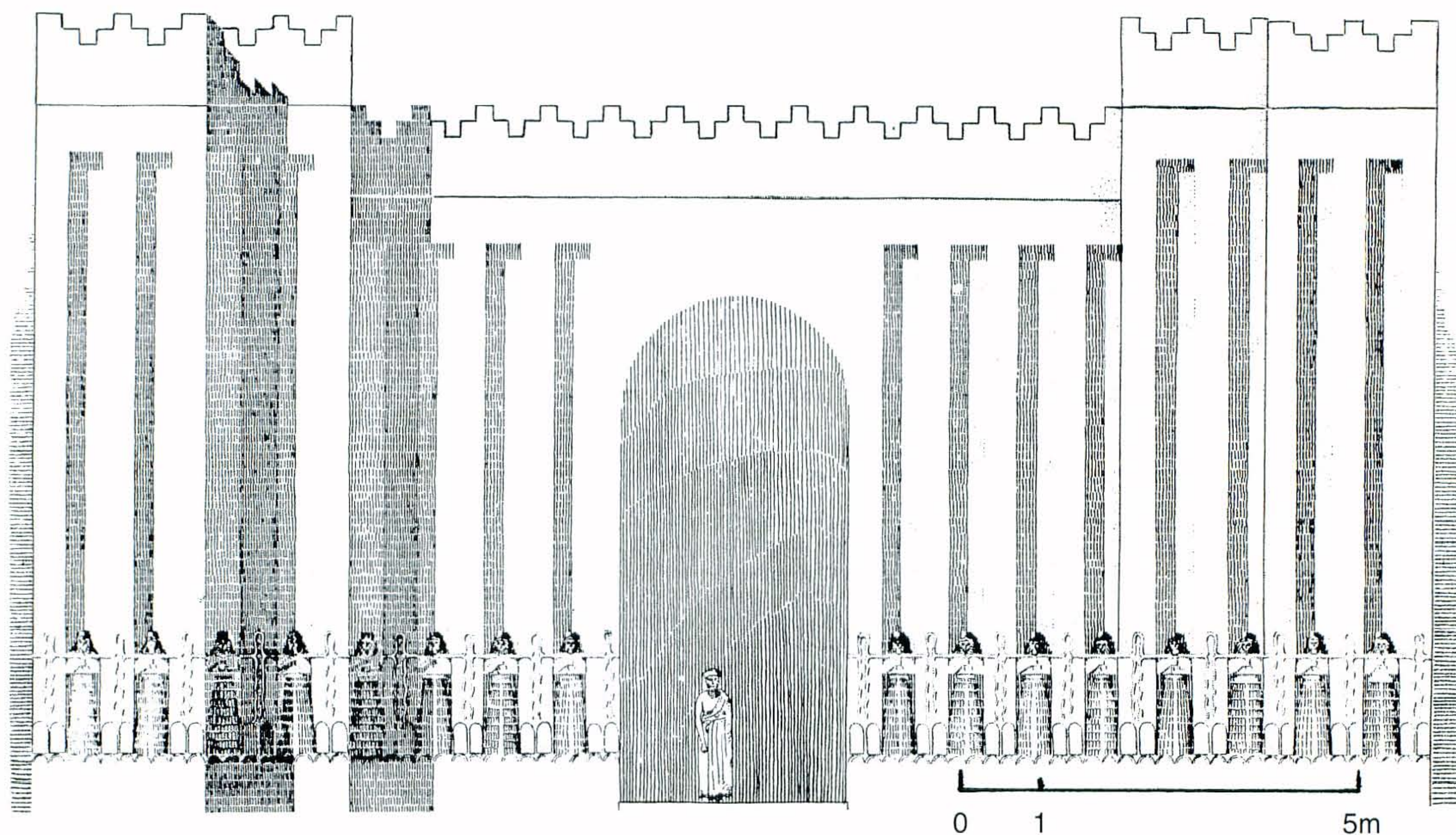
Kraus (1952; See Figure 8) published two bricks reported to have been excavated at Nippur (probably during one of the 1889–1900 seasons) depicting clasped hands. The bricks suggest a running frieze of repeated figures much like that at Uruk. An unprovenanced stone object (Møller 1995: 76–77, no.62<sup>5</sup>) closely resembling the face of the male deities of the Inanna temple facade. The eyes, nose, mouth, beard and framing hair survive. Its existence raises the intriguing possibility that similar friezes may have been executed in stone.

3) See however, the reference in the year name of year 2 of Gungunum (1932–1906 BC) of Larsa to the erection (presumably at Larsa itself) of two bronze date palms in the Temple of Šamaš (Ungnad 1938: 155, no.95 presumably at Larsa itself).

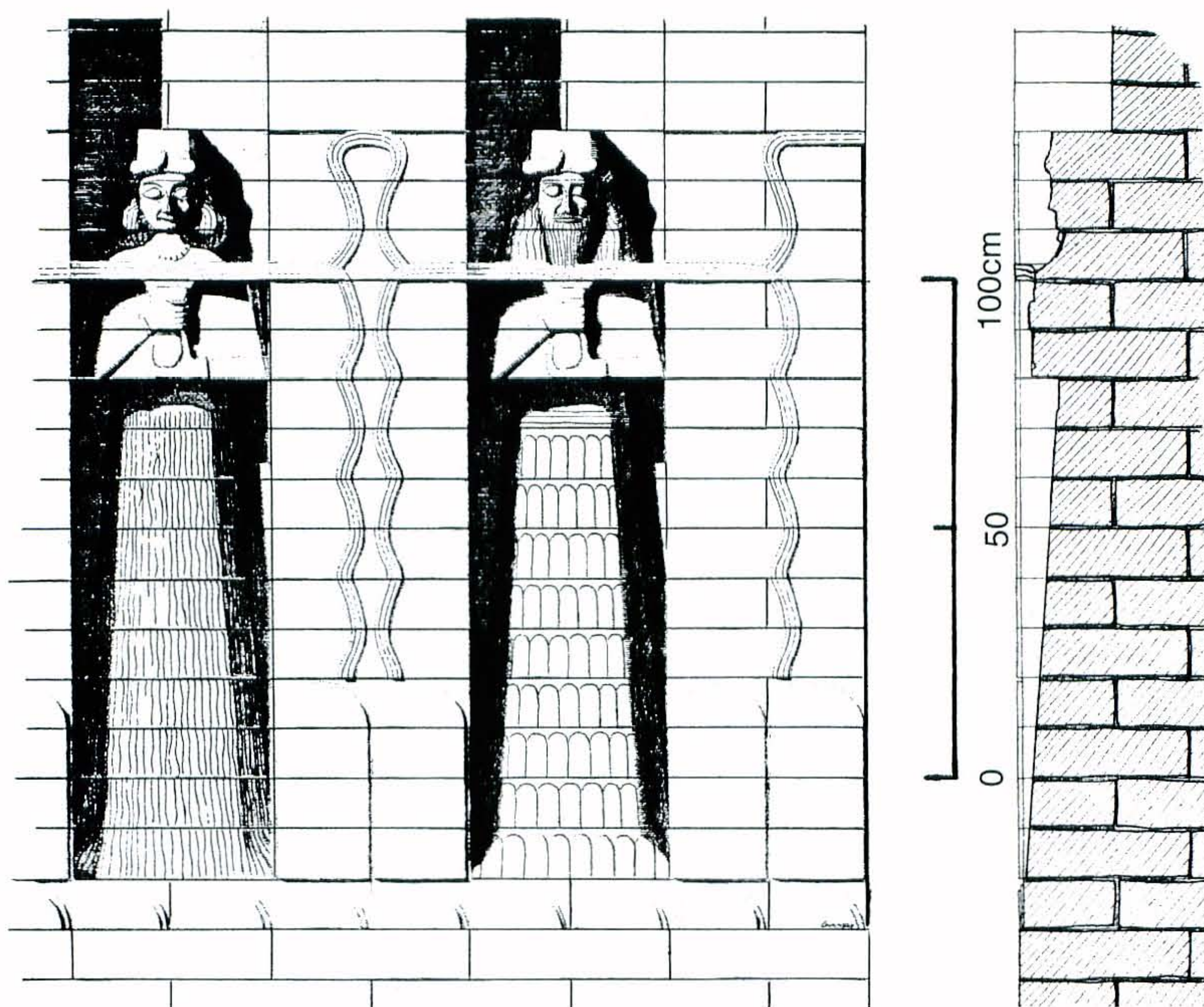
4) See Clayden (forthcoming) for an outline of the argument suggesting that Kara-indaš ruled Babylonia circa 1435–1414 BC.

5) Museum No. I.N. 2690. H: 12 cm; W: 22.5 cm. Bought in 1923 in Paris on the antiquities market.





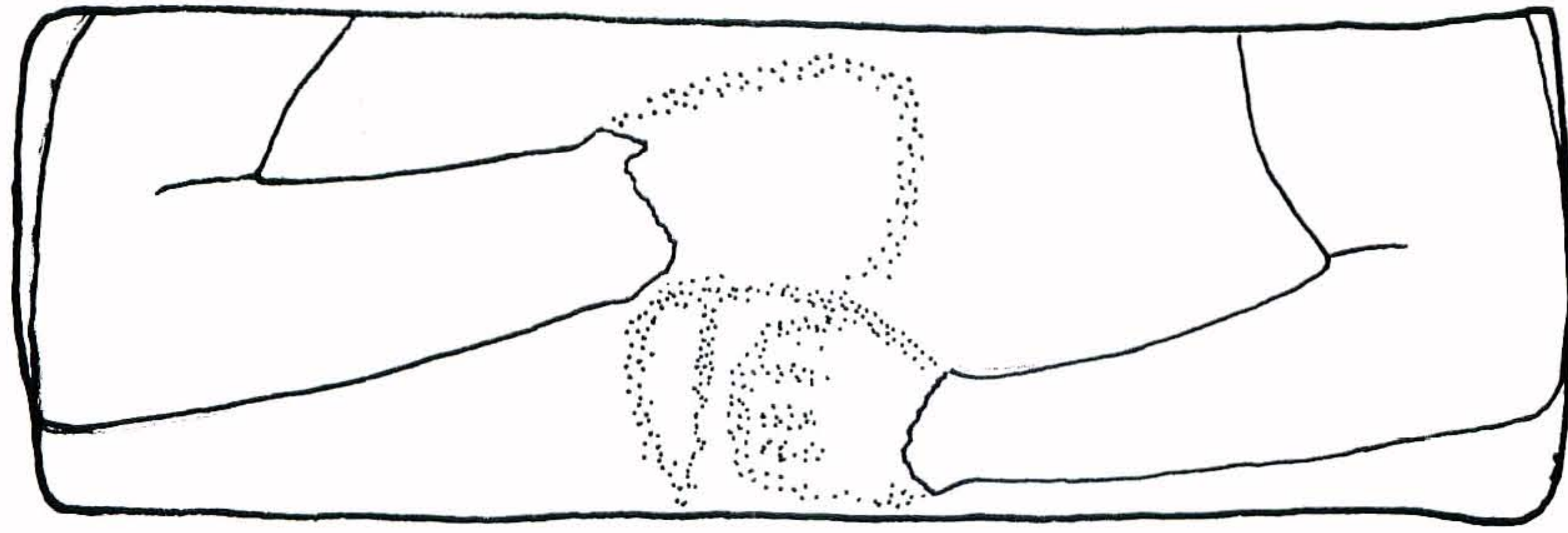
**Fig. 7.a** Reconstructed view of the western facade of the temple of Innana at Uruk built by Kara-indaš (After Jordan 1930: Tafel 16).



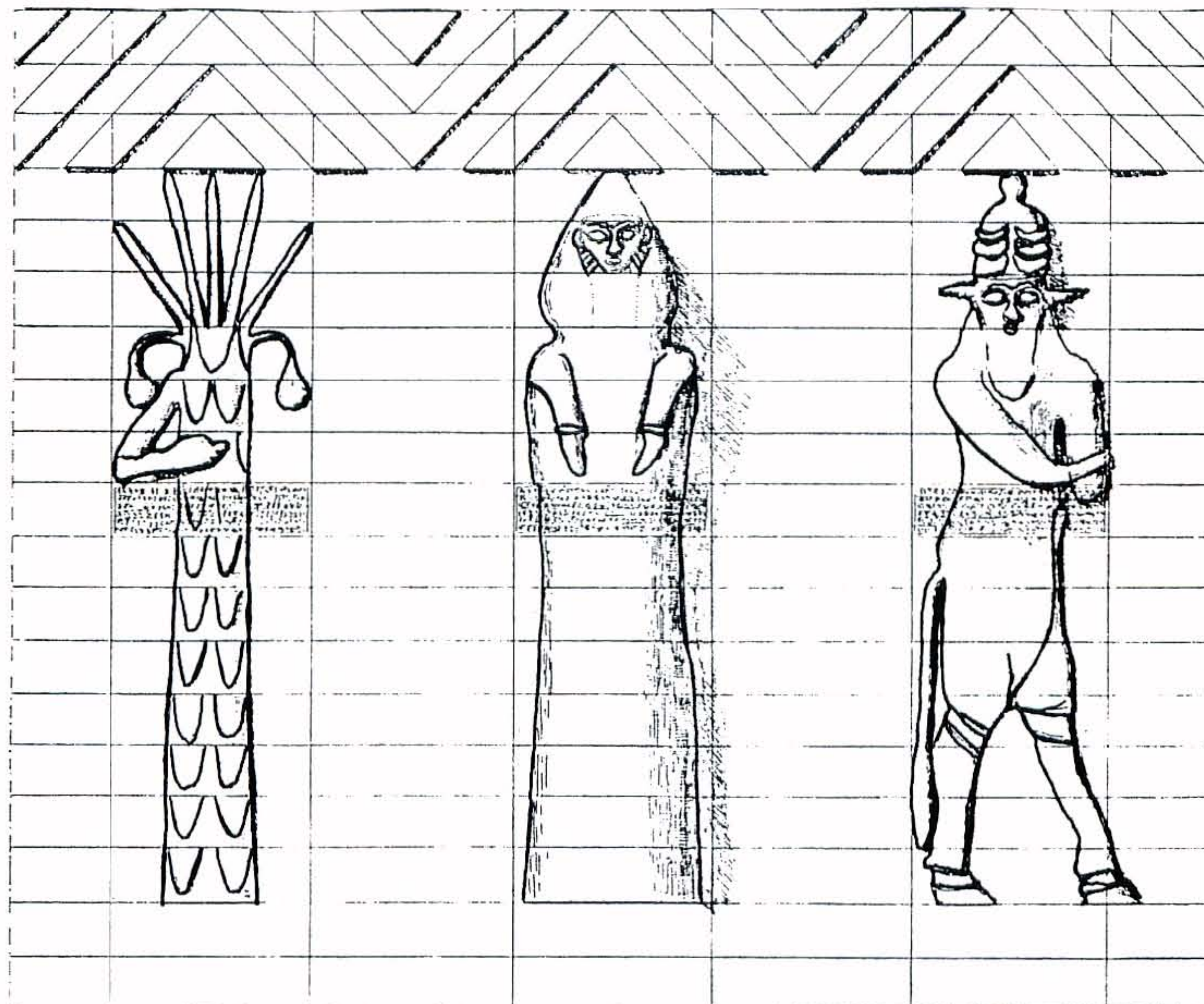
**Fig. 7.b** Detail and cross section of the reconstructed facade of the temple of Inanna at Uruk built by Kara-indaš (After Jordan 1930: Tafel 15).

Excavations at Susa have recovered the only known extra-Babylonian examples of figurative decoration in moulded mud-brick. The first, recovered during the 1914–22 seasons at Susa, was originally reconstructed by its excavator Mecquenem (1922: 127–130, Pl. VI; Unvala 1928; See Figure 9). More recently fresh examination of the surviving bricks has led to slightly different conclusions as to the reconstruction of the frieze (Harper 1992; Bourgeois 1992). What is clear is that the decoration con-





**Fig. 8** Rough sketch (scale unavailable) of one of the moulded mud-bricks said to have been found at Nippur (cf. Kraus 1952).



**Fig. 9** First reconstruction of the Šilhak-Inšušinak facade at Susa (After Mecquenem 1922: Pl. VI—Note, however, more recent reconstruction in Harper 1992).

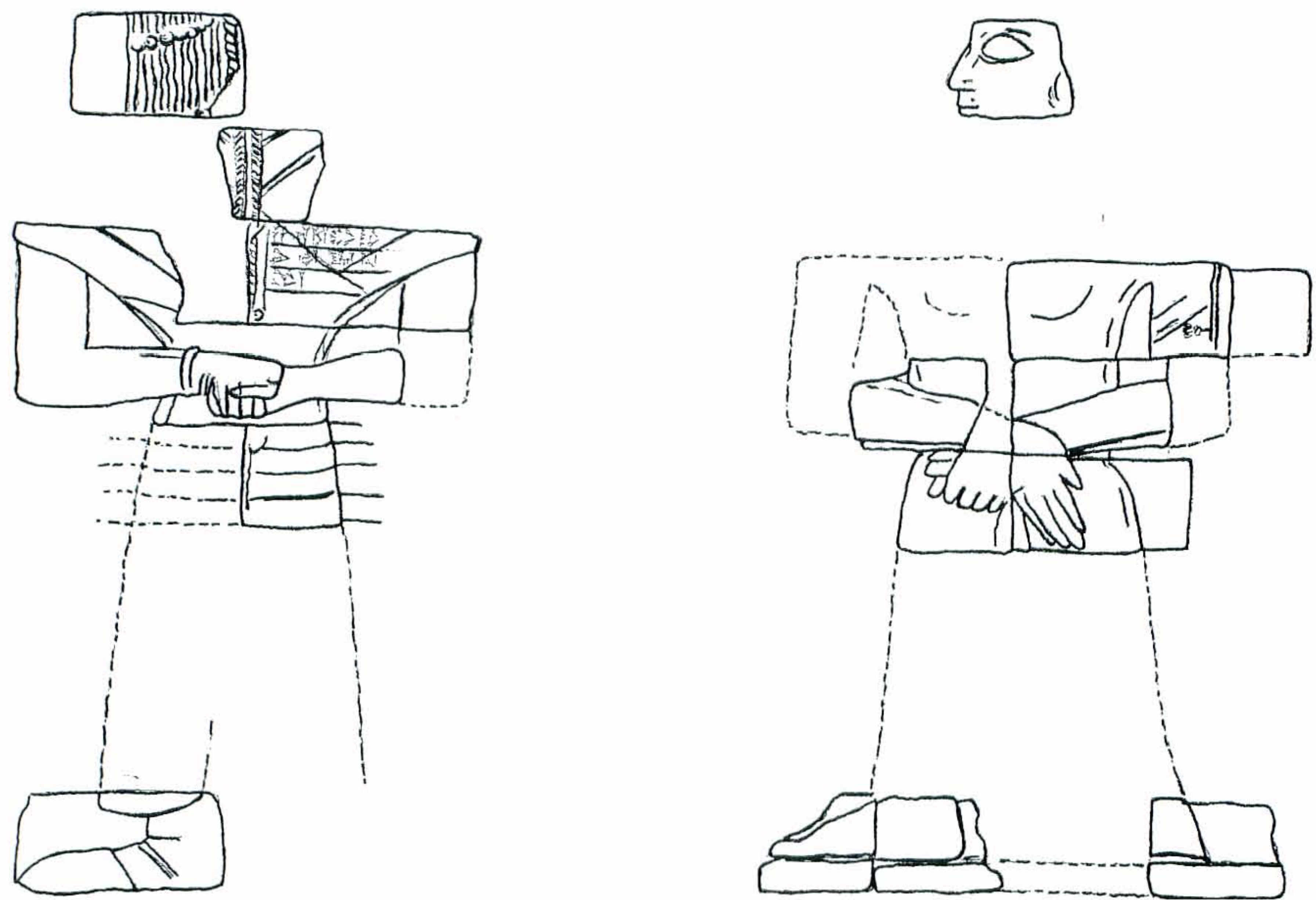
sisted of a series of bull-men and deities ('frontal figure') separated by palm-trees complete with foliage. Across the middle bricks ran a dedicatory inscription of Šilhak-Inšušinak (1150–1120 BC; Malbran-Labat 1995: 94–5, no.41). The second frieze, also from the reign of Šilhak-Inšušinak, is poorly preserved (Amiet 1976; Malbran-Labat *ibid*: 103–6, no.46) and a complete reconstruction is not possible (See Figure 10). However, what does survive suggests that the frieze depicted a series of male and female deities.

### **Moulded Mud-Brick at Dur Kurigalzu**

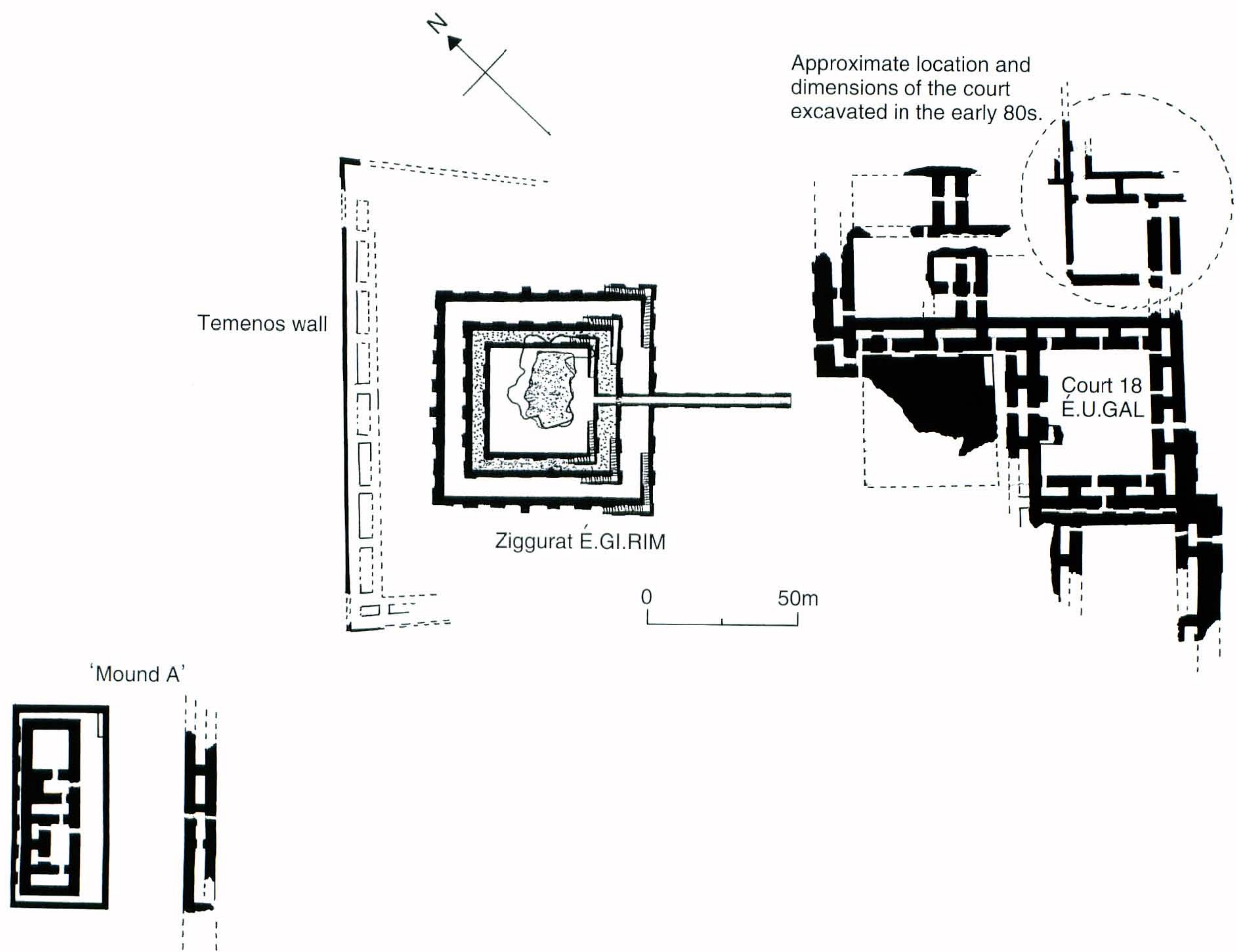
In a series of excavations begun in 1942 supplemented by extensive restoration work that continues today the temple and palace complexes at Dur Kurigalzu have been recovered (Figure 11). In 1943 (Baqir 1944: 12–3) fragments of a moulded mud brick facade were found in Court 18 of the temple complex:

'In the north corner of Court No. 18 we found several fragments of a moulded brick facade including parts of the dresses and horned heads of gods and animals. Unfortunately these were not discovered in situ. The facade was undoubtedly similar to that found in Warka dating from the middle Kassite





**Fig. 10** The second facade of Šilhak-Inšušinak from Susa (After Malbran-Labat 1995: 103).



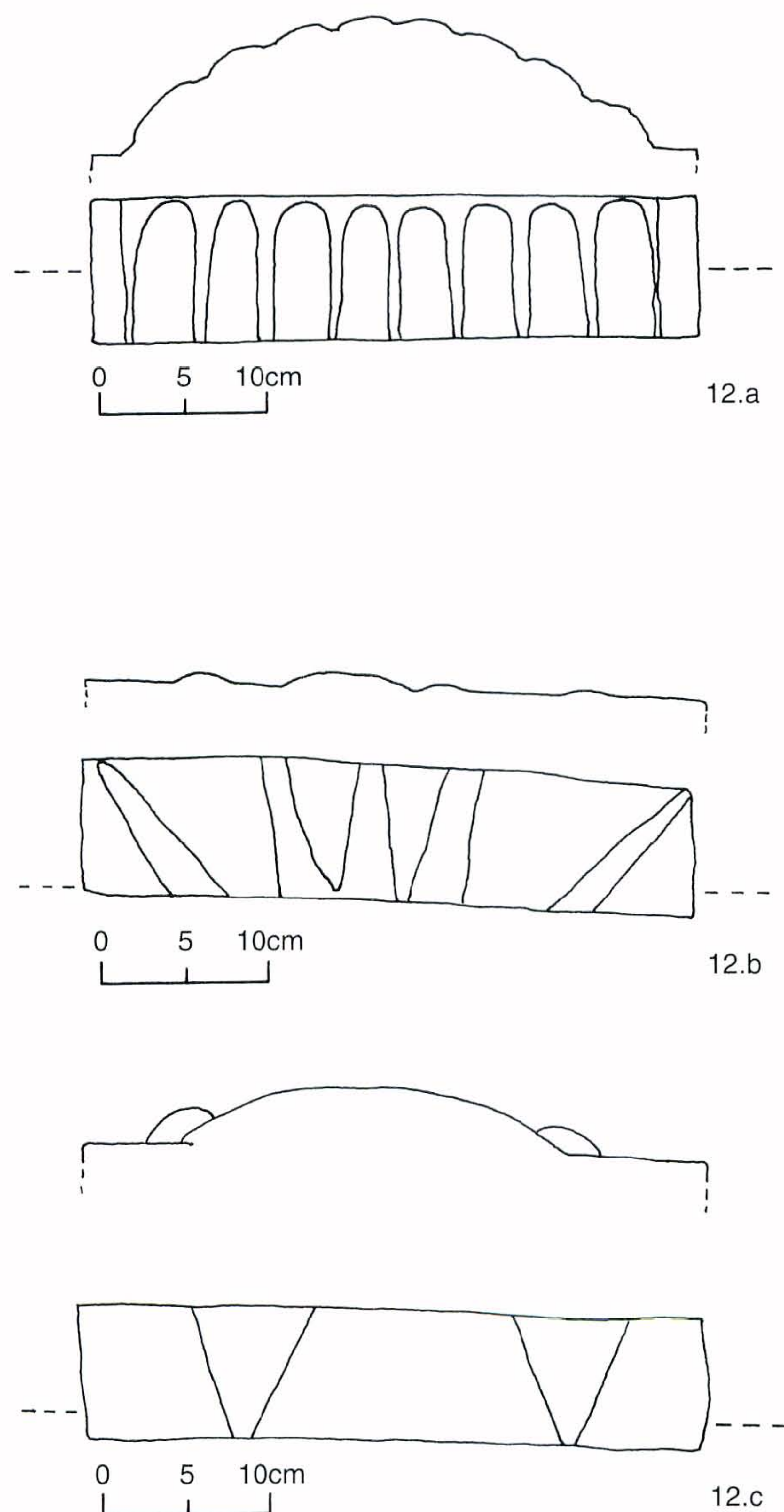
**Fig. 11** The ziggurat and temple complex at Dur Kurigalzu (after Baqir 1945: Pl. I; Jumailly 1971: 97, Plan 8; Personal observation January 1986).



period.'

Unfortunately no illustration of the bricks was published and in January 1986 staff at the Iraq Museum, despite an extensive search, were unable to locate the bricks. Muhammed Ali Mustafa, himself an excavator at Dur Kurigalzu, recalled having seen the bricks and confirmed their similarity to the Uruk exemplars (Pers. Comm. 12 January 1986).

In the late 70s and early 80s further excavations at Dur Kurigalzu revealed a courtyard to the NE of Court No. 18 (Figure 11 and Plate 1.a). The excavators discovered and left in situ a secondary construction which blocked the south corner of the court. This secondary construction which appears to have been a platform, included several moulded bricks (Plate 1.b–d). These appear to have been used to secure and shore up the edges of the secondary platform. Less than ten bricks were visible in January 1986 but three separate decorative elements were in evidence (Figure 12.a–c).



**Fig. 12.a–c** Rough sketches (no precise scales available) of moulded mud-bricks seen loose at Dur Kurigalzu.



Examination of the bricks found at Dur Kurigalzu urges parallels with elements of the Kara-indaš frieze at Uruk and the Šilhak-Inšušinak bricks at Susa. The Dur Kurigalzu brick depicting elongated half circles (Figure 12.a) is clearly similar to those used at Uruk to depict the robes worn by the male deities. The second type (Figure 12.b) has its closest parallel in the bricks from the Susa frieze depicting the foliage on the palm trees. The third brick (Figure 12.c) has no close parallel and might be identified as part of a palm tree trunk with the triangles representing the characteristic trunk scars.

In all we have evidence for the following representations in moulded mud brick at Dur Kurigalzu: – horned deities and palm trees. Given that similar decoration is only found in association with religious buildings, we may suggest, therefore, that somewhere in the temple complex of the É.U.GAL (‘House of the Great Lord’, George 1993: 90, no. 350) was a decorative frieze depicting a running series of deities and palm trees.

### **Date of the Dur Kurigalzu Moulded Mud-Brick Frieze**

I have demonstrated elsewhere (Clayden 1996: 112–117) that the foundation of the temple complex at Dur Kurigalzu should be dated to the reign of Kurigalzu I (x–1375 BC). The coherent design of the É.U.GAL layout strongly suggests that it was built as a single unit all at once. It is difficult to date precisely the date of the destruction of the temple complex (for evidence that it was destroyed by fire cf. Baqir 1944: 11). However, references (Brinkman 1984: 27, fn. 123) to a governor at Dur Kurigalzu in the 7th century BC and the discovery of a neo-Babylonian tablet within the temple buildings (Baqir 1944: 11) demonstrate that the town was still occupied at that point and the temple still extant. Excavation also revealed at least 4 phases of refurbishment (Baqir *ibid.*: 11; Pl. VIII. Fig. 10).

Although it is impossible to date the construction of the Dur Kurigalzu facade with any precision, two factors suggest that it formed part of the original temple built by Kurigalzu I. Firstly the only other dated example of such brick work dates to probably no more than 40 years before Kurigalzu I became king. As such the expertise and ‘fashion’ for such decoration would have probably still have survived. There is no evidence that it continued throughout the rest of the Kassite period. Secondly subsequent use of the temple complex and the appearance of the frieze in fragments in a secondary context suggests that at some later point although the original structure remained in use, wherever the frieze was situated was demolished. Additionally if Woolley’s attribution (see above) of the Ur fragments to Kurigalzu (I<sup>6</sup>) is correct, then we might posit a building program by Kurigalzu I that included the construction of moulded mud-brick friezes at Dur Kurigalzu and Ur.

On the other hand the bricks depicting the palm trunk and foliage are most closely parallel in the mid 12th century BC examples from Susa. This would argue a later date for the Dur Kurigalzu bricks. However, although it is not certain, the appearance of such decoration in Susa nearly two centuries after its appearance in Babylonia, suggests that the technique and inspiration was passed to Susa from Babylonia. Unless we are to argue that the Dur Kurigalzu facade is a copy of the Susa exemplars, the Dur Kurigalzu facade must be the earlier of the two. There were extensive contacts in the second millennium BC, both peaceful and warlike, between Elam and Babylonia (Stolper 1984: 32–44). Indeed one Kurigalzu inscription (Hilprecht 1896: 50, no. 43: Pl. 21; Brinkman 1976: 223, Q.2.63), probably to be dated to Kurigalzu II (1332–1308 BC<sup>7</sup>) raises the possibility of a temporary Kassite occupation of Susa. In the course of these contacts the Elamites would have seen the facade at Uruk and Dur Kurigalzu and taken the idea back to Elam.

6) Clayden (*ibid.*: 118–9) argues that the Kurigalzu who conducted extensive restoration and building work at Ur, was Kurigalzu I.

7) For the dating of this text see Brinkman (*ibid.*: 207) and Stolper (*ibid.*: 35 and footnote 260, p.84).



In parallel to the construction of moulded mud-brick facades scattered appearances of enamelled bricks that were to be used to spectacular effect in the following millennium, were already appearing (Sauvage 1994). The moulded mud-brick decoration that appeared so dramatically in Kassite Babylonia may be identified as the genesis of this decorative technique.

### Conclusion

Although moulded and cut mud-brick used to depict engaged palm trunks appeared in the early centuries of the second millennium BC (most extravagantly in northern Mesopotamia) its deployment soon ended. In the late 15th century BC, soon after the Kassite dynasty had established control in Babylonia, figurative moulded mud-brick facades appear with no evidence of preliminary development. The few reported moulded mud-bricks from Dur Kurigalzu probably date to the original construction of the É.U.GAL complex by Kurigalzu I. The appearance of similar facades at Susa may be ascribed to the influence of contacts between Susa and Babylonia. The facades might also have been the fore-runner of the more elaborate and decorative glazed brick facades of the first millennium BC.

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### Abbreviations

- RCS P.O. Harper, J. Aruz and F. Tallon (ed), *The royal city of Susa. Ancient near eastern treasures in the Louvre, Catalogue of an Exhibition at the Metropolitan Museum of Art, November 17 1992–March 7 1993*).
- UCPNES University of California Publications. Near Eastern Studies

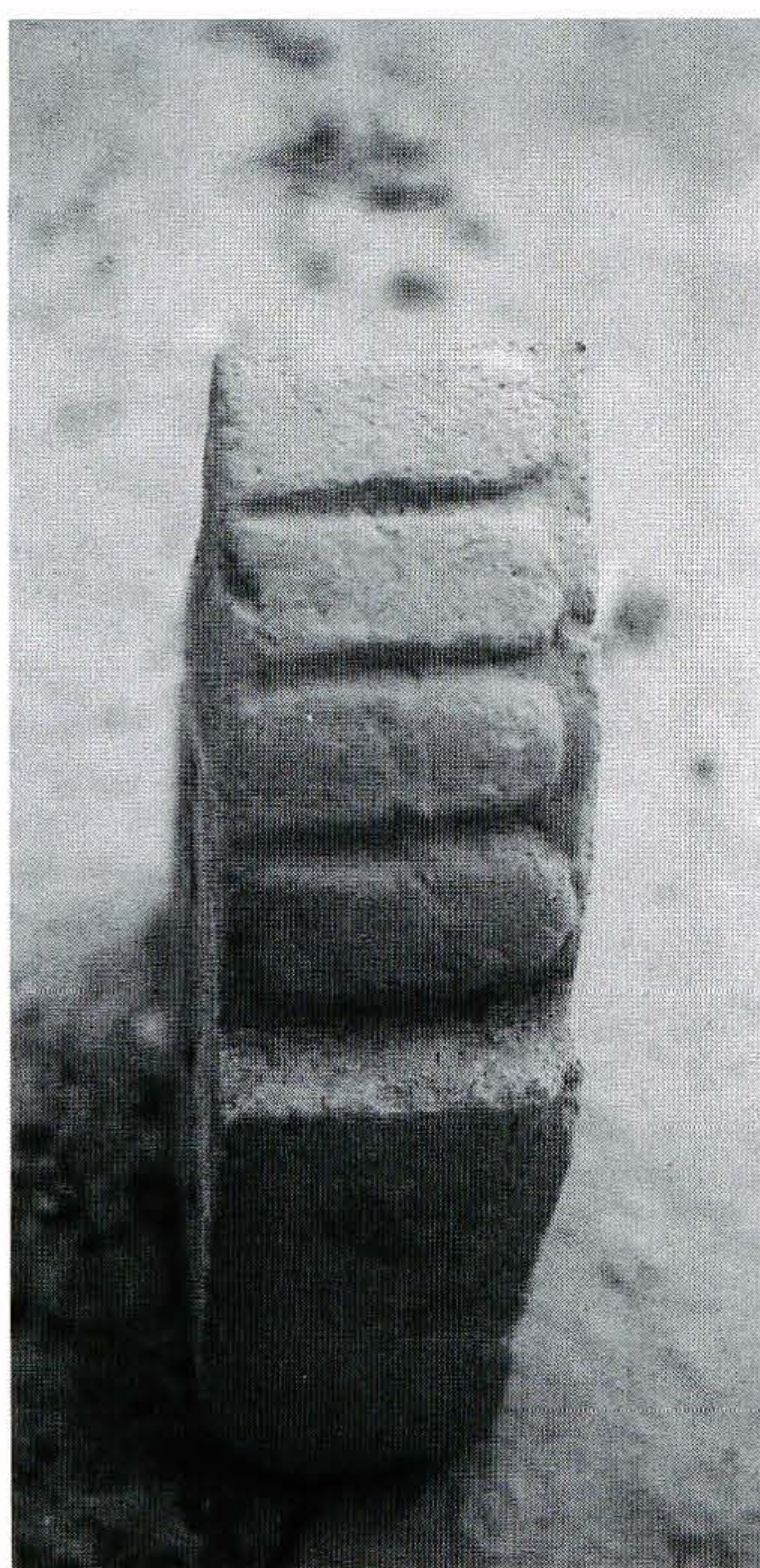
### Note

I gratefully acknowledge the support and interest of the Department of Western Asiatic Antiquities of the British Museum who in 1986 gave me access to the Ur site register. I should also acknowledge the dignified patience and openness shown to me by the late Dr. Mustafa in Baghdad in 1986.





a. New court, general view of bricks in re-used context.



b. Figure 12.a brick



c. Figure 12.b brick



d. Figure 12.c brick



