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The tile fragments

A group of glazed tile fragments¹ showing scenes of an Assyrian campaign in Egypt was found during excavations in Nimrud (fig. 1a) undertaken by Sir Austen Henry Layard in early December 1849. A short description of the tiles was published by Layard in 1853, in *Discoveries in the ruins of Nineveh and Babylon, with travels in Armenia, Kurdistan and the desert* (1853a), chapter VII, p. 164–167, and again with a few differences in 1867, p. 52–55 and thereafter, mentioning ten tile fragments and giving a short description of each object. In addition, 11 sketched drawings were published in colour in the large folio volume *A second series of the Monuments of Nineveh* (1853b), pl. 53–54. These drawings were based on the sketches made in pencil and watercolour drawn by the artist Frederic Charles Cooper who accompanied Layard on this expedition, and which are now part of the Original Drawings Series (Or. Dr. II, pl. XXXV, XXXVI) at the British Museum.² In this publication the drawings were unfortunately not reproduced to scale, which makes a comparison between them and the surviving fragments difficult. This is especially true for N2067 and N2069d, which are actually substantially larger than shown. It seems likely that Cooper had to be as economical as possible with his drawing materials,³ which might explain the small size of his sketches of these tiles, drawn at a very small scale (between 1:2 and 1:4) and on different offcuts of paper varying in size between 13.8 × 14.2 cm to 14.5 × 19.7 cm.

In addition, other tile fragments were included in these plates that are not part of the Egyptian campaign series, while other fragments belonging to this series were not illustrated at all. As a result, this apparently comprehensive, but actually incomplete and misleading presentation made it very difficult to recognise additional fragments from this series and obscured the possibility of making joins between known material.

The drawings by Cooper are very detailed and although, as we will show, some of these details have to be treated with care, these sketches provide a very valuable source for the interpretation of the decorative scheme of the battle scene despite the state of preservation for most of the fragments, which is now very poor. It is unknown when these drawings were made but Cooper's diary mentions drawing "*painted bricks*" several times, including shortly

¹ According to Reade, glazed brickwork had three categories in relation to their glazing: a) glazed on the square side or face, b) on the edge and sometimes on part of an adjoining edge or side, c) on one edge moulded and glazed (Reade 1979d, 19). The tiles studied in this paper clearly fall into category a), which is mainly glazed on the face of the tiles as there is no clear evidence of glazing on the lateral edges. Because of this, we call the glazed objects in this article tiles and not bricks.

² For a summary of Cooper's work as the artist on Layard's second expedition, see Curtis 2010.

³ This is strongly suggested by a letter from Layard to Ellis, principal librarian at the British Museum on the 13th May 1850: "*Badly in want of drawing paper.*" See British Museum Trustees Original Letters and Papers XLIII, 13/05/50.

after the discovery of these tiles.⁴ Unfortunately, it remains unclear if he ever means exactly this material or tiles from other findspots within Nimrud. Given the surprising differences in the details of the depictions, as well as in the colouring, the impression is given that he drew them either hurriedly without very close observation, or that he made only rough sketches, which were later coloured and reworked.⁵ As the diary shows (fn. 4), Cooper chose to draw smaller items like bricks when at the house in bad weather or in the evening when not at site. It is therefore entirely possible as well that the poor lighting conditions led to these discrepancies.

The stylistic execution of the scenes can be easily dated to the 7th century BC.⁶ Furthermore, the depictions on the tiles show an Egyptian campaign that must have taken place under Esarhaddon or Ashurbanipal, also suggesting a dating to the 7th century BC. Since this area of Fort Shalmaneser is known from inscriptions to have been refurbished under Esarhaddon, it is almost certain we should credit the tiles to him.⁷ Another dating criterion is the unique depiction of a tower house, a type of building that only emerged in Egypt around 660 BC (see discussion below, p. 30–31).

Circumstances of discovery

Layard's short description in the publication mentions the findspot of the tile fragments as follows: *"In the south-east corner of the quadrangle, formed by the low mounds marking the walls once surrounding this quarter of the city of Nineveh, or the park attached to the royal residence, the level of the soil is considerably higher than in any other part of the inclosed [sic] space. This sudden inequality evidently indicates the site of some ancient edifice. Connected with it [...] is a lofty, irregular mound, which is known to the Arabs by the name of the Tel of Athur, the Lieutenant of Nimroud. Tunnels and trenches opened in it showed nothing but earth [...] Remains of walls and a pavement of baked bricks were, however discovered in the lower part of the platform. The bricks had evidently been taken from some other building, for upon them were traces of colored figures and patterns, of the same character as those on the sculptured walls of the palaces. Their painted faces were placed downwards, as if purposely to conceal them, and the designs upon them were in most instances injured or destroyed. A few fragments were collected and are now in the British Museum. The colours have faded, but were probably once as bright as the enamels of Khorsabad. The outlines are white, and the ground a pale blue or olive green. The only other color used is a dull yellow."*⁸

⁴ Diary of F.C. Cooper, 1st January – 22nd August 1850, Archive no. 449-184.11, Department of the Middle East of the British Museum (kindly transcribed for this article by Jocelyn Slocum as part of her Museum Studies placement). Following the discovery of the tiles in December 1849, in his diary, from 22nd January to 4th February 1850, Cooper mentions drawing "painted bricks" on five different days nearly always during bad weather or in the evenings after dinner. For example on 22nd January: *"After dinner made a drawing of a painted brick."*, or on 1st February: *"Doubtful weather. Remained at home and drew 4 more painted bricks."* Unfortunately, he does not always give the exact number of pieces drawn, but it was at least 9+x fragments, which interestingly almost equals the 11 sketches with added watercolour of fragments titled "painted bricks" in the Or. Dr. II, pl. XXXV, XXXVI.

⁵ See for example the changes made by Cooper to the leg of the Assyrian soldier on fragment Layard No. 2 (N2069a). For a more detailed description see below, p. 15.

⁶ Nadali 2006, 110, citing Albenda 1982, 12; see also Nunn 1988, 183.

⁷ So as well Nadali 2006, 110.

⁸ Layard 1853a, 165–166.

This findspot of the “*Tel of Athur*” likely relates to the mound of Tulul el-Azar⁹ near the south-east entrance of Fort Shalmaneser (fig. 1b).¹⁰ The fort was renovated under Esarhaddon, who built an elaborate postern gate and ashlar retaining wall with a residence on the terrace above.¹¹ He also renovated other parts of Fort Shalmaneser, as shown by repairs and 7th century wall paintings.¹²

Some scholars have suggested that the tiles originate either from the south-east corner of the inner south-east courtyard of Fort Shalmaneser, outside the throne room¹³ or from courtyard T¹⁴ where the tiles are thought to have adorned an outer façade (fig. 1c). However, it would be unusual for a façade, particularly outside the throne room, to be decorated with glazed tiles in exactly this way, as there are no other exact parallels for this (although it is noticeable that Esarhaddon’s South-West Palace on the acropolis at Nimrud has an unusual layout in general). Given the probable height of the buildings of some 6-7 metres in this area of Fort Shalmaneser, it is possible that the tiles may have fallen and travelled a considerable distance from their original location. The vicinity of room T25 as a fourth possible location is suggested by Reade for the same general area (fig. 1c).¹⁵

Another possibility might be that the tiles could have decorated the buildings on the terrace above the new postern gate.¹⁶ It might be significant that in Layard’s later revision of the publication 14 years later, he changed the findspot from “*Remains of walls and a pavement of baked bricks were, however, discovered in the lower part of the platform.*”¹⁷ to: “*Remains of walls and a pavement of baked bricks were, however, discovered at the foot of the high mound.*”¹⁸ This suggests an original findspot of the tiles in the south-western part of Fort Shalmaneser or even the building on the terrace above the gate, instead of the throne room as suggested until now.

This theory is supported by the contemporary map of Felix Jones (fig. 1b), whose caption “*Tel Yazur*” designates the western-most part of the four peaks of the mound, which equals the raised terrace and postern gate area at the south entrance.

The surviving documentation allows us to follow the history of these objects from the time of their discovery to their arrival in the British Museum. Interestingly, in Layard’s journal (August 1849 – May 1850)¹⁹ his account of the discovery of the tiles receives a detailed but concise entry. The following entries are relevant:

⁹ The name of the mound has several variants such as Tel of Athur, Tulul el-Azar or Tel Yazár.

¹⁰ Nadali 2006, 109; Nunn 1988, 182.

¹¹ Esarhaddon’s longest surviving Nimrud inscriptions are found here as well. Parts of it say: “(...) *I incorporated unused land as an addition (to it), raised the terrace with massive stones from the mountains, (and) built a palace for my lordly pleasure on it.*” Leichty 2011, 164, no. 81.

¹² Reade 1970, 127.

¹³ Nunn 1988, 183, citing Oates 1959, 111, fn. 20 and Postgate and Reade 1976–1980, 317; Nadali 2006, 109.

¹⁴ Nadali 2006, 109, citing Postgate and Reade 1976–1980, 317; Oates and Oates 2001, 183–184.

¹⁵ “*Layard found them built into a pavement, whose whereabouts is unknown, though part of one similar tile was found in 1962 in the fill of the south doorway of T 25.*”, Reade 1970, 127.

¹⁶ Russell 1999a, 146.

¹⁷ Layard 1853a, 165.

¹⁸ Layard 1967, 55.

¹⁹ British Library, Ref. ADD. MS 39096.

“Nov. 27. *Changed Karkhaneh – opening trenches in SE and NW corner, very promising mound [...] rode to Mosul.*”

“Dec. 3. [...] *In Asad’s Karkhaneh the workmen had come upon a flooring of brick – and a drain beneath. Some of the bricks were painted with figures, horses, chariots – none entire – but some valuable fragments extracted. The painted side turned downward and the bricks evidently brought from elsewhere such as were found with inscriptions belong [sic] to the builder of the centre palace. [...].*”

“Dec. 4. *Painted bricks still come out in Asad’s Karkhaneh. [...].*”

“Dec. 5. *Painted brick with figure of King x attendants from centre of mound – the only specimen of the King hitherto found.*”²⁰

“[Dec.] 24. *At Mound – change Asads [sic] karkhanehs to space within enclosure.*”

Layard mentions the tiles being found in the workings, or “*karkhaneh*”²¹ of one of his foremen, in “*Awad’s Karkhaneh*”, which so far cannot be located more precisely other than in the vicinity of Fort Shalmaneser. The entry of 24th December suggests an area beyond the enclosure of the Fort, which would fit well to the raised terrace suggested above.

The description by Layard mentions that the tiles were found lying face down and he therefore interprets them as reused in a pavement (see quote above p. 3). Another, more likely, possibility would be that the tiles had fallen face down from a wall. As no illustration or photograph of the findspot is known, it is now very difficult to tell from the surviving accounts alone.

In addition, following our reassembly of the two most substantially preserved tiles, it became clear that both showed several relatively fresh marks from small pickaxes on their decorated faces in the areas of the breaks (see N1036+N2069a, fig. 8a and N2069e, fig. 2g+h and fig. 15a). This was a surprise, given Layard’s comment that the tiles were found face down and suggests that in fact at least some must have been face up, or that they were perhaps deliberately broken up after discovery (perhaps for extra payment per piece). Layard was at times absent from the excavations, as can be seen from Layard’s and Cooper’s diaries, so this must remain a possibility.²² From our point of view, it also suggests that Layard had deliberately selected near complete tiles, or scenes, to be preserved but that the knowledge of the joins was lost almost immediately (as Cooper’s drawings do not recognise these joins) and had certainly been forgotten by the time the pieces reached the British Museum. If this was the case, that near complete tiles had been found originally, it would help to explain why such unpromising material was selected for retention in the first place, since though we can now see that these fragments when joined are remarkable and unique pieces, this is not at all apparent at first sight due to the very poor state of preservation of the glaze.

²⁰ This entry of 5th December refers to another significant find of a “*painted brick*” from the acropolis mound that is not part of the Fort Shalmaneser material discussed here, in this case from the reign of Ashurnasirpal II, BM 90859 from the North-West Palace. This tile is slightly smaller with a size of 30.6 × 20.0 × 7.6 cm. See, for example, Nunn 1988, 167–168, pl. 124.

²¹ The term *karkhaneh* derived from the Persian for workplace. The supervisor’s exact name, Awad or Asad, cannot be identified with certainty here.

²² Significantly perhaps in this context, Cooper’s diary notes for 24th January 1850, in the month following the discovery of the tiles, “*A cabal this morning among the Arabs for baksheesh. Layard grim [...].*”

The next notice of the “*painted bricks*” can be found in Cooper’s diary mentioning drawing the fragments, quoted above (fn. 4) and then in a packing list sent by Layard in May 1850 to Sir Henry Ellis, principal librarian at the British Museum at the time. This list describes the tiles as packed in two small crates, and confirms our supposition above that some complete tiles were recovered and included in the shipment. After a case with „*painted bricks, ornaments &c chiefly from centre building in SE corner of quadrangle (Nimroud)*” he writes: “*XL painted bricks with figures and some entire [our emphasis] from SE corner of quadrangle [and clearly not from the centre building] - found used as flooring. XLI do do.*”²³

Afterwards the objects were floated by raft to Basra, the principal port in the south, where they were eventually loaded with some difficulty into the ship “*Apprentice*”. This left for England on 26th April 1850 and finally arrived in Queen Katherine’s Dock, London, at the end of September 1850.²⁴

In the British Museum, a notice in a gallery guidebook of the year 1900 mentions the tiles being on display in the “*Babylonian and Assyrian Room*”, in Wall-Cases 16–19: “*Nos. 191-195. A group of glazed bricks with raised patterns, from Nimrud. Uncertain period. [Nos. 90,148; 90,857; 90,860; 90,861 and 92,983.]*”²⁵

The tile ME 92183 has on its front the remains of a number written in red paint (fig. 3a) that can most likely be interpreted as its gallery number, which in the nineteenth century was often written directly onto the objects. Subsequently this number has been then mostly erased.

Previous publications

The most comprehensive publication and study of the tiles so far was undertaken by Nadali in 2006. Titled “*Esarhaddon’s glazed tiles from Nimrud*”, it gives a detailed discussion of the tile fragments and previous published articles relating to them. It seems, however, that Nadali did not have the opportunity to study the surviving tiles himself: “*Unfortunately, the colours and designs of the original tile fragments are now barely visible, so that it is necessary to work from Layard’s 1853 publication.*”²⁶

Nunn published two sketches and three black-and-white photos of the fragments N1036+N2069a, N2025 and ME 92183.²⁷ One of the fragments was photographed by Nunn herself, meaning that she saw the objects, but she did not consider any further surviving fragments in her study. The tiles are also mentioned in numerous books and articles discussing Assyrian art and the development of complex narrative battle scenes.²⁸

All the discussions so far have been based on the original sketches done by Cooper, as published in 1853. Since none of the previous articles included a comparison of the original

²³ BL Add MS 38942:29, Layard in letter to Ellis, 13/05/1850.

²⁴ Gadd 1936, 58. The arrival of the “*Apprentice*” is mentioned in a letter to Ellis of 30/09/1850 by Finnis and Fisher (ship agents), see British Museum Trustees Original Letters and Papers XLIV, 30/09/50.

²⁵ Budge 1900, 94. Note the last of the five given numbers is the probably mistyped number 92,983 for tile ME 92183.

²⁶ Nadali 2006, 116.

²⁷ Nunn 1988.

²⁸ Andrae 1923, 13; Unger 1932, pl. 38; Reade 1979b, 95; Albenda 1982, 226; Nunn 1988, 183; Albenda 1997, 226.

tile fragments with drawings or photographs to modern standards, it was considered necessary to begin a proper primary study of these important objects, especially since a comparison with the sketches of Cooper showed several discrepancies with the original pieces. Astonishingly, by looking through the brick stores of the Department of the Middle East at the British Museum, further undocumented fragments were found, and remarkably, some of them even joined the already well-known and illustrated pieces.

Most of the fragments never received a full registration number at the British Museum. As the objects were still covered in excavation soil, and so clearly had never been properly cleaned or undergone a conservation assessment, it was felt necessary to include this as part of the documentation process. The authors would like to thank Loretta Hogan, Madeline Hagerman and Pingfang Wang from the Department of Conservation at the British Museum for their help and work on the objects.

After drawing and inking of the drawings, the objects were photographed to allow a reconstruction of the scenes with both the drawings and the photographs.

Even though detailed sketches of the tiles had been published in colour, it was not possible to match every piece with the number assigned to it by Layard. This is due to the very poor state of preservation that some of the fragments are now in. While the identification is very clear for nine of the tile fragments, there are two sketches (Layard no. 4 and 5) for which it was not possible to be entirely sure which original pieces they show.

Table 1 underneath lists the 13 identified fragments with their inventory numbers as well as Layard's number and whether Cooper drew them or not.

Frag.	Inventory no. British Museum	Layard's no.	Short description	Drawn by Cooper
1	ME 92183	9	Assyrian soldier stabbing	pl. 53 (partly)
2	N1036+N2069a	1+2	Libyan prisoners and Assyrian soldier	pl. 54
3	N2025	-	Standing soldier?	pl. 54
4	N2027	-	Small-scale Assyrian soldiers' feet	-
5	N2067	10	Egyptian tower house	pl. 53
6	N2069b	-	Part of an Egyptian tower house	-
7	N2069c	-	King's chariot	-
8	N2069d	7	Fortress and Assyrian soldiers	pl. 53
9	N2069e	8+3	Horse and dead Libyan underneath	pl. 53+54 (partly)
10	N2069f	6	Fish and floating Egyptian	pl. 53
11	N2069g	4 (?)	Cavalryman on horse?	pl. 54
12	N2069h	5 (?)	Chariot and horse	pl. 54
13	N2069i	-	Corner with register border	-

Table 1: Overview of tile fragments.

Conservation and technical examination of the tiles

When the work for this article began, some of the tiles were still partly covered in excavation soil and a thick layer of encrusted dirt (fig. 2a-b). A sample of this grey encrustation was analysed by means of Scanning Electron Microscopy-Energy Dispersive Spectroscopy (SEM-EDX) (see Appendix 1 for experimental details) and it was identified as a gypsum crust, darkened due to the presence of black carbon particles. Cleaning the tiles was necessary to reveal the glazed decoration and the features of the manufacturing process. However, finding an appropriate method to clean these surfaces proved challenging, due to the severe deterioration of the glaze. Using solvents or mechanical methods that would put any pressure on the fragile fabric was not acceptable. Therefore, laser cleaning was considered to be the best approach, as it does not require any contact with the surface. Preliminary laser tests were performed at three different wavelengths: 532 nm and 1,064 nm with a Q-Switched Neodymium YAG (QS-Nd:YAG) and 2,940 nm with an Erbium YAG (Er:YAG) laser (see Appendix 1 for conditions). The Er:YAG laser yielded a gradual removal of the crust, but it was too time-consuming, and the Nd:YAG laser emitting at 532 nm achieved the desired level of cleaning very quickly without causing any damage to the glaze. Therefore, the latter was selected as the most efficient tool for the conservation of the tiles. The blackish-grey dirt layer was successfully removed and the surface decorations became more apparent on some of the tiles (compare fig. 3a-3d). This aided macroscopic and microscopic examination, as it was possible to see the glaze colours and materials more clearly. It also supported the reconstruction of the individual fragments and the interpretation of the scenes.

After the conservation treatment, the materials and the manufacturing technique of the glazed tile fragments could be further investigated. Although no tile is preserved complete, we can be fairly certain that, unlike plain square bricks or tiles of this time of c. 35 cm²,²⁹ the original format was rectangular. Parallels for glazed tiles from the 9th century are known from Assur, dating to the reign of Tukulti-Ninurta II (BM 115705, with the measurements of 66.5 × 46.5 × 6.5 cm) and from the reign of Ashurnasirpal II at Nimrud (BM 90859, measuring 30.6 × 20.0 × 7.6 cm). These are also rectangular in shape. There are two tiles that we have been able to reconstruct to a substantial extent: the largest example is fragment N2069e with a size of > 40.8 × 32.6 cm, while the second near complete example, fragment N1036+N2069a, has a size of > 28.2 × 32.8 cm. Nunn lists rectangular tiles only of a size of 66 × 46-50 cm. She estimates a reconstruction of the tiles described here to a measurement of 35-40 × 30 cm without giving any further reason for this size.³⁰ A second format used for this series is, for example, that of tile fragment ME 92183, which is of a smaller rectangular format than the other tiles, with a measurement of > 23.4 × 14.0 cm, and was probably intended to fill a specific space, for example close to a window or door. Regarding the thickness of the tiles, all fragments are between 9 and 10 cm thick. The original outer edges of the tiles partly show traces of cutting or trimming of the wet clay (fig. 2c). The preserved fragments show that the tiles are not always produced with great accuracy, as some of them are slightly askew, without a straight right angle. This can also be found in other tiles, as for example with

²⁹ Mallowan 1966, 407.

³⁰ Nunn 1988, 183.

BM 90859 from the reign of Ashurnasirpal II. This suggests that in some places there would have been gaps between the tiles that were probably filled with mud plaster.

Regarding the materials of the tile body, the colour of the fired coarse clay is brownish to light pink. The matrix of the clay (fig. 2a-b) was mixed with pebbles and a great amount of vegetable matter to prevent shrinkage and cracking during the firing process. This temper (pieces of chaff of up to 3.5 cm long) was burnt away during the firing process, leaving large voids in the surface of the tiles. The glaze often overflowed and accidentally filled these rectangular voids, distorting and confusing the original design of the glazed motif, especially in poorly preserved areas. Studies on the glazed compositions from some of the Neo-Assyrian sites showed that the firing temperature was 850-900°C. Some of the clay bodies were also rich in calcite (CaCO_3), which would make the tiles quite stable at high temperatures up to 1,050°C.³¹

Within the sequence of manufacturing Neo-Assyrian glazed brickwork, the fired clay tiles seemed to be prepared as units in a first firing process, to burn out the temper. Then in a second stage, the main design was painted onto the tiles; this possibly included smoothing the surface of the tiles, drawing the design with a black, easily fusible material (Reade mentions that black lines have survived in some cases where the glaze disappeared.³²), and applying the decoration in glazes of different colours. The tiles would then have been – either individually or in sections – removed for a second firing process.

In contrast to Neo-Babylonian tiles, which were glazed at the lateral edges, here the complete upper face of the tile was glazed. Some of the preserved edges of the tiles show that the depths increased slightly towards the outer edges; this was probably done to keep the wet glaze from running over the edge of the tile. This means that these tiles must have been attached vertically to the face of the wall, probably bordered by other tiles or bricks set in mud plaster. Possible remains of such plaster are still visible on the rear of fragment N2069e (fig. 2l).

In general, the glazed decoration of the tiles is now severely deteriorated, which might be due to the excavation, preservation and storage conditions in the field,³³ and perhaps to the poor quality of the glaze itself (fig. 2d-e).³⁴ The surface investigation under ultraviolet light (UV) enhanced the glazed areas (fig. 4a-b) and showed no evidence of previous conservation treatments, such as organic coatings. As some of the better-preserved parts of the glaze on fragment N2067 show (fig. 2d-e), most likely the glaze was originally very smooth at the surface. However, in most areas this smooth top layer is now lost, and the remaining glaze shows many cavities of up to 5 mm in diameter (fig. 2f), where the glaze had formed bubbles during the firing process. This probably indicates a too-high temperature of firing or the use of a glaze that was not ideally suitable. The remaining layer of glaze is very thin

³¹ Freestone 1991, 55.

³² Moorey 1994, 320.

³³ “The incautious application of consolidants such as polyvinyl acetate, which was widely used at Nimrud, may make matters worse rather than better.” Reade 1987, 32.

³⁴ “The glaze layer on Assyrian tiles is bubbly and friable, and tends to flake away before or after excavation, leaving little more than a matt powdery residue of colour; this is one reason why old publications sometimes refer to ‘painted tiles’ rather than glazed ones.” Reade 1987, 32.

(approximately 1 mm) and friable, and there are large areas of loss, although faint traces of glaze are still visible on the surface.

It is known that the main colours used on Neo-Assyrian glazed tiles were black, brown, red, green, blue, yellow and white. However, different shades of these colours, as well as lilac, purple and orange, have also been reported.³⁵ Our examination of the glazed surfaces showed that, even though most of the glaze has deteriorated, there is still clear evidence of colour on most tiles. White was used for the outlines as well as for the fill of the tower houses. Yellow appears in slightly different nuances in the tower-house fills as well, and also for the skin colour of the people (prisoners and Assyrians alike), some backgrounds and many details of the figures. Green is also used for the backgrounds, the doors of the tower houses and some garments of the figures. The tile N2069h shows remains of what looks now like a purple colour, only found on this example. In addition, stereo-microscopical study under magnification revealed orange particles in the stripes of the soldier's hose (fig. 3e) and possible evidence of a black material in the soldier's head (fig. 3f). It is quite surprising that almost the entire range of figures was drawn using only green and yellow, though this is possibly reminiscent of the restricted palette used in wall paintings of Assyrian palaces, as for example at T'il Barsib, which uses mainly three colours as well: red and blue for the filling, while the outlines are drawn in black. Yellow and green have likewise been used as main colours on glazed bricks at Khorsabad.³⁶ The apparent absence of black is also remarkable, especially for the missing hair of the archer on ME 92183 and the Libyan prisoners on N1036+N2069a. This fact makes it seem likely that any black glaze was applied as a second layer and so was especially susceptible to loss. The description of the colours used by Layard for the fragments is somewhat misleading though, as he uses the terms "*blue*" and "*green*". Cooper distinguishes sometimes between the background in a darker olive green and the horses and clothing in a lighter green. This cannot be attested from the tiles as they are now: generally there is only one tone of green and no blue at all.³⁷ However, there is evidence that some green glazes have degraded at the surface. This thin degraded top layer is either now lost or has discoloured to a lighter greenish-blue hue, which could explain the apparent misleading colour description by other authors in the past. Another possibility is that there were blue glazes once that have now decayed to green. An example for a glazed tile with a blue background is known from Nineveh, proving that such colour was used for the background.³⁸

A series of ten micro-samples (< 1 mm) of glaze were taken in order to investigate their composition and try to determine the type of glaze and the elements that give the different colours (see Table 3 in Appendix 1). The samples were observed under magnification with an optical microscope and analysed by SEM-EDX and Raman spectroscopy (see Appendix 1 for experimental details). Lead antimonate (a yellow pigment that also acts as an opacifier for the glass) was identified in the orange sample from the stripes in the soldier's leg in N2066 (G1), along with some iron, which would give the glaze a warmer orange hue (fig. 5a-d). The orange area is severely deteriorated and practically no glaze is left; only the powdery orange

³⁵ Botta 1849, pl. 155, fig.3; Moorey 1994, 321.

³⁶ Botta 1849, pl. 155. It has also been noted on painted reliefs at Khorsabad by Layard, see Reade 1979a, 18.

³⁷ Compare Layard's descriptions and Cooper's drawings with the new photos and drawings in this article. The description of colours was copied from Layard and Cooper in all relevant articles, see Nadali 2006, 116.

³⁸ Russell 1999a, pl. 1–5.

material remains. Iron is predominant in the yellow glaze (G7) and lead antimonate is just a trace here. The so-called “purple” glaze (G9) in N2069h looked reddish under the microscope and has a similar iron-rich composition to sample G7. The green glazes from N2066 (G2, G3) and N2069i (G5, G6) are copper-based, with the addition of some lead antimonate yellow in some samples. The degradation of the surface of the green glazes and subsequent loss of a thin layer of material has revealed the bubbles due to the firing at high temperature in a deeper region of the glaze layer, which are clearly visible under high magnification (fig. 6a-c). The sample from the opaque white area in N2069c had a high content of calcium and magnesium, perhaps suggesting the use a dolomite-rich slip. The sample of black material does not seem to correspond with a colourant, but with residues of the dark gypsum crust in crevasses of the surface, although further investigation would be advisable. Unfortunately, the glaze is too degraded to determine the glass type based on the ratio of chemical elements (i.e. silicon, sodium, potassium, calcium, lead and barium. Quantitative data not shown.), as alteration has led to a relative enrichment in silicon. However, according to the date and geographical origin of the tiles, it is most likely plant-ash based glass.³⁹

For all the surviving tiles, the outlines of the figures are executed in narrow lines of thin white paste, enclosing the small coloured fields. The glaze used for the outlines is better preserved than the areas of colour fill. The width of the white outlines is generally between 0.9 and 2.2 mm. Many of the outlines are incredibly fine and show a high degree of craftsmanship that stands in stark contrast to the apparently coarse material and manufacture of the tiles. In some figures, one can clearly see the areas where the paste was squeezed out, gradually thinning along the line until once again more paste was applied, sometimes overlapping with the previous line. The microscopic observation of areas where the white outline is lost, revealed the presence of coloured glaze underneath (fig. 3e), indicating that coloured glaze was applied first and then the outline was applied on top, in order to define the figures, add details and provide a certain three-dimensionality. A sample of the white outline (O1) was analysed by SEM-EDX and Raman spectroscopy. Its composition is mostly silicon (> 90%), with traces of calcium (Ca), sodium (Na) and potassium (K). No traces of any typical white opacifier (i.e. antimony or tin) were found. The Raman analysis detected the presence of α -quartz, with a characteristic band at 465 cm⁻¹. The results suggest that this white material is a frit made of coarsely ground quartz, which was molten and applied as a paste along the outlines of the already coloured figures.

Detailed description of the tiles and their depictions

In this section, all 13 fragments shall be described in detail. For a better understanding and comparison of these damaged and incomplete scenes, first the description of Layard is given, when available, followed by our more detailed description of the original fragment. In addition, for each tile, both photos and a new drawing are given, along with the original sketches in colour as drawn by Cooper (Or. Dr. II, pl. XXXV, XXXVI).

³⁹ “This plant ash forms the basis of most Bronze Age glass in the Middle East, Iron Age, Roman-period and late Antique glass east of the Euphrates (in particular Sasanian glass [...]) and most of the Islamic glass from Central Asia to Portugal.” Rehren and Freestone 2015, 234. “The other major source of alkali was plant ash. [...]. We know that the Assyrians in the seventh century BC were using this substance for glassmaking. Their recipes and processes are recorded on clay tablets from the Royal Library of Assur-bani-pal.” Frank 1982, 74–75.

1) ME 92183 = N2066 (Layard no. 9), fig. 7a-c

Layard's description: "*The lower part of an Assyrian warrior, his armour and greaves blue, yellow, and white. The naked hand is of a pale brown color. Ground olive green.*"⁴⁰

Fragment ME 92183 is the only fragment of a clearly smaller size of tile, measuring $> 23.4 \times 14.0 \times 9.7$ cm (H \times B \times T). Three original outer edges are preserved at the lower edge as well as at the left and right side. This smaller format was probably necessary to fill in an irregular space between adjacent tiles and a window or door or similar feature.

The lower part of the tile shows a 2.5 cm high yellow band as the scene's ground line. Above this the legs and part of the torso of an armoured Assyrian soldier in a standing posture can be seen, facing towards the right. He is wearing high laced boots, short hose with green and yellow-orange stripes and a green wrap-around kilt. In the right hand he is holding a pair of arrows depicted horizontally in a yellow colour. The artist here got confused with the number of arrows and the details of the figure's clothing and therefore missed out a second white outline in the area in front of the figure. The yellow filling of the arrow is nevertheless clearly preserved (fig. 7a and 7c). The depiction of soldier holding arrows finds a good parallel in other stone reliefs, for example the Assyrian soldiers in provincial style from Tell Taynat of the 8th century BC (fig. 22a).⁴¹

In addition to Cooper's drawing, the authors were able to locate a previously unknown fragment that joins this tile. It shows the lower part of the head and helmet of this archer as well as parts of the quiver hanging over the shoulder. The quiver is shown with several subdivisions filled in a darker yellow colour, representing arrow shafts and flights as well as details of the quiver top. The helmet, preserving little more than the rim, clearly shows small subdivided areas in a darker yellow glazing representing the usual decorative inlays or repoussé work of Assyrian conical helmets (in this case probably of bronze).

The area of the soldier's hair is glazed in a lighter yellow colour that seems likely to have been a prior coating underlying black to represent the hair. In this area, possible evidence of black material was detected under stereomicroscopy (fig. 3f), although this could not be confirmed as colour by the analyses. Further investigation might be required. It is noticeable that there are no visible remains of black glaze present on any of the surviving fragments, and in this context, the unusual absence of hair on the prisoners on fragment N1036+N2069a (below) is particularly noteworthy.

This new additional piece provided the first evidence for the full height of a standing figure in the composition. The surviving height measures some 19.6 cm, plus probably c. 2.5 cm for the remaining part of the head and the conical helmet, resulting in c. 22.5 cm for the full figure (see Table 2, p. 28). Joins made subsequently to fragment N1036+N2069a and N2069e resulted in a second and third full-height figure, these having comparable measurements of 23.3 cm and 22.9 cm.

The tile's background colour is green, and in the lower right corner, a thick yellow colour seems to have been applied over the top of it, which might be a later addition. This yellow colour might have been applied in the 19th century to consolidate the surface at the same time as the gallery number was applied and it went on display (see p. 6 above).

⁴⁰ Layard 1853a, 167.

⁴¹ McEwan 1937, fig. 10.

2) N1036+N2069a (Layard no. 1 + 2), fig. 8a-c

Layard's description:

No. 1: *"Four captives tied together by their necks, the end of the rope being held by the foremost prisoner, whose hands are free, whilst the others have their arms bound behind. They probably formed part of a line of captives led by an Assyrian warrior. They are beardless, and have bald heads, to which is attached a single feather. Two of them have white cloths round their loins, the others long white shirts open in front, like the shirt of the modern Arab. The figures on this fragment are yellow on a blue ground."*

No. 2: *"Similar captives followed by an Assyrian soldier. The armour of the warrior is that of the later period, the scales and greaves are painted blue and yellow, the tunic blue. The ground blue."*⁴²

It was found that fragment N1036 (Layard no. 1) could be joined with N2069a (Layard no. 2), measuring together 28.0 × 32.2 × 9.2 cm. Even though these two fragments were named as no. 1 and no. 2 by Layard, neither he nor Cooper realized that the fragments actually join. Reade speculated on the possibility of a join here based on his study of Cooper's drawings, which are actually quite distorted and therefore do not join convincingly.⁴³ The joined fragments consist of the full width of the tile and represent approximately the lower half of it.

The tile is thicker at the edge, measuring 9.2 cm and thins out towards the middle at 8.8 cm. Both fragments show several cracks at the surface. Fragment N1036 (Layard no. 1) is now divided by cracks into three subparts, as was Layard fragment no. 2. This is visible on Cooper's drawing (fig. 8b). While the two lower subparts of fragment N2069a are still present in the stores of the Department of the Middle East, the upper third piece could not be located and Cooper's drawing is the only remaining source (compare fig. 8a and 8b).

The main piece, Layard no. 1, has been conserved several times in the past. It was treated for display in Gallery 55 in 2014, and cleaning is recorded at least one other time before this, in 1995, and it is possible that there was also intervention in the 1960s or before, judging from the photograph in Nunn 1988.⁴⁴ There is no record of its previous appearance other than this after Cooper's sketch. Unfortunately, a lot of the detail observed by Cooper is now lost, as much of the glazing is very poorly preserved.

The joined fragments of the tile show parts of two registers. The upper register is only extant in the upper-right section where a left foot is visible, walking towards the left – probably an Assyrian wearing a sandal.⁴⁵ No division line is shown between the upper and lower registers.

The lower register is framed by a 1.5 cm thin yellow band as a ground line. Altogether six figures are partly visible, walking to the left, and this composition is best interpreted as a group of four prisoners positioned between escorting Assyrian soldiers.

⁴² Layard 1853a, 166.

⁴³ Reade 1979b, 95, fn. 87.

⁴⁴ Nunn 1988, pl. 148.

⁴⁵ In the 7th century, sandals are more commonly shown worn by non-Assyrian troops, such as lighter-equipped Aramaean archers and spearmen, which one would expect to be represented in battle at this time, but which are not preserved on the surviving tiles. Otherwise, auxiliary archers and spearman can be shown barefoot as well (e.g. Barnett 1998, pl. 293, No. 382b).

The first figure to the left is only shown by a raised arm at the left side of the tile; the main part must have been largely represented on the adjoining tile further left. This raised lower arm is holding a spear, the shaft of which is shown in a yellow colour. The figure is striding towards the left.

Further to the right, a group of four figures is depicted, some of them preserved to a greater degree than others and two of them retaining their complete height of 23.3 cm. The figures are shown in what is preserved as a yellow-white skin colour, walking towards the left. They are all tied together with one rope running from neck to neck and partly bound at their wrists or elbows as well. For some of them, the legs are still visible, showing the figures barefoot in a striding or hurrying pose on tip-toes, with a yellow skin colour.

All four prisoners wear a feather attached to their heads that is standing upright and carefully divided into several small segments representing the barbs. The feathers have up to eight rows of segments each, while each row is again subdivided vertically into a left and a right part, resulting in this small space being divided into 13-15 separate glazing compartments. This carefully detailed composition easily demonstrates the skill and attention to detail brought to the decoration of the tiles despite the perhaps surprisingly coarse composition of the fabric.

All four figures of this group are shown as bald except for a now quite indistinct tassel that runs sideways from the feather down towards the shoulders (and therefore cannot be head bands), still visible for three of the four prisoners. The slight remains of such a tassel on the first individual shows that they were sometimes plaited.⁴⁶ The glaze infill of these tassels is represented in a green colour.

Most of the prisoners are wearing bracelets or armlets. For the second and third person, these bracelets could actually be shackles or bonds instead of jewellery. All of them wear a short kilt, highly decorated with a complex pattern. The better-preserved example worn by the third person has a prominent green glazed circle. The fourth person's only clothing visible is part of an apron or kilt shown in white, rolled almost to the waist.

The third and fourth figure of the prisoner group are also tied with another rope that runs down vertically from the horizontal neck rope towards the waist or wrists. Crucially, this rope was mistaken by Cooper as the opening of a jacket of some sort and this understandable error, given the preservation of the tiles, has until now severely hindered the interpretation of this key scene.⁴⁷

It seems far more likely that the individuals are not wearing further clothing in addition to the kilts, although the skin colour at the torso has a slightly whitish tint as shown on Cooper's sketches. This colouration might be remains of the application of separate layers of glaze to achieve the yellow skin colour.

Also unrecognised by Cooper, it seems that the first two figures are actually looking backwards (to the right while walking towards the left), which is confirmed by the direction of their feathers, which usually lean backwards, as well as by the tassels. The third person looks forward while the fourth again looks to the rear. The bodies of the first three figures are shown in profile, whereas the fourth is shown frontally.

⁴⁶ Cooper mistook this tassel as a beard, described by Nadali as a "*characteristically Egyptian, oblong beard*", see Nadali 2006, 112, following Reade 1964, 10.

⁴⁷ Also Nunn 1988, 183.

Remarkably, the initial misinterpretation of detail in Cooper's sketch has obscured what can now be recognised as a clear and striking influence of Egyptian artistic convention, both in the exact manner of tying the prisoners together by their necks and wrists as well as the subtle details of composition and pose. For example, the complex overlapping of limbs, the fact that the figures are striding on their tip-toes, the use of a group of four prisoners and the threatening of the rearmost prisoners by their guard. Additionally, the mixture of the figures shown mainly in profile with a few in a frontal view, as well as the variation in looking forwards and backwards, can be found frequently in Egyptian reliefs (for further discussion see below p. 35–38).

Usually, these prisoners have been interpreted as Egyptians,⁴⁸ but in Egyptian art only Nubians and Libyans wear feathers on their heads. Nubians are in general shown with a dark skin colour, while Libyans are depicted with a yellow skin, but the latter have long hair with a side lock or tassel, as seen, for example, in scenes at Medinet Habu (fig. 27f-h). A bald head with a tassel is very unusual and it is possible that the figures originally had long black hair and the glaze is not preserved. That this is likely to be the case is suggested by the Assyrian soldier in fragment ME 92183, which also lacks any black glazing for the hair, although the edging for it is preserved (see above fragment ME 92183). What speaks against this is the clear outline of the skull without any space left empty of background colour for any hair. In addition, as shown in earlier reliefs, Libyans usually wear penis-sheaths, while these prisoners wear kilts. Maybe the much later dating of the depictions on the glazed tile plays a role in this regard.

The sixth and last figure in this scene on the right of the prisoners clearly wears Assyrian laced boots with striped short hose, while the decorative multi-coloured fringe of the lappet of his short kilt or tunic is shown hanging down between the soldier's legs. Strangely, Cooper originally recognised and sketched the soldier's rearmost leg, but then partly erased it and changed it to a leg sharply bent at the knee, with the lower leg and foot on the hypothetical adjacent tile. Faint traces of the original leg position are still recognisable in Cooper's drawing (fig. 8b). It is difficult to understand why he made these changes, as this second standing leg can actually be seen quite clearly.

The now missing third part of this fragment, visible in Cooper's drawing, shows the torso of the soldier wearing what appears to be a scale or lamellar corselet, with the armour scales, or armour plates and lacing, represented by green and yellow rectangles. As the Assyrian soldier is represented only partly on this tile, his left arm must have been drawn on the adjacent tile to the right. The same posture can be seen for the first figure on the left of this tile, showing only an upright forearm holding a spear, most of which must have been drawn on the adjacent tile to the left. This figure's pose can be matched almost exactly with other Assyrian depictions of soldiers threatening prisoners (see for example Til Barsib, fig. 26e).

3) N2025, fig. 9a-c

This fragment was not mentioned by Layard, but it is included in the drawings of Cooper, although the drawing of the tile shows a slightly different shape to that of the actual object. It has a size of 10.1 × 14.2 × 9.2 cm and a crack runs roughly through the middle of it.

⁴⁸ Nadali 2006, 112.

The decoration is not easily comprehensible and the orientation is therefore not entirely clear. One possible interpretation is a standing soldier,⁴⁹ facing towards the left, holding a small oval shield.

However, there are several lines running to the left of this that could also suggest some sort of chariot fitting, a harness and some sort of horse decoration or a similar feature. Therefore, another possibility could be that this fragment is part of a horse and chariot scene, perhaps with a rider holding a shield (in which case it is unlikely to be an Assyrian horseman).

The background is green while the narrow white lines are filled in with yellow. The shield is shown in a yellowish-white colour.

4) N2027, fig. 10a-b

N2027 is a small fragment of tile with measurements of $14.3 \times 10.1 \times 8.7$ cm. It shows a bright yellow background with a prominent ground line and the lower legs of two small figures walking or running down a hill towards the right. The figures are Assyrian soldiers, as can be recognised by their typical boots and hose, the latter in this case striped yellow and green.

The scale of these figures is considerably smaller than all the other figures preserved on the tile fragments. The quality of the glazing, however, as well as the tile matrix, confirms that it clearly belongs to the Egyptian campaign group.

Due to the smaller scale, these figures are most probably to be located in a background scene and are likely to be similar to the surviving initial scenes of the Til Tuba battle relief, where fleeing Elamites and pursuing Assyrian soldiers are running down a hill in the background (fig. 22b).⁵⁰ That the surviving tile surface glaze is yellow, rather than green, also suggests the figures are on a landscape feature such as a hill.

5) N2067 (Layard no. 10), fig. 11a-c

Layard's description: *"A castle, with angular battlements; white, with yellow bands on a blue ground. A square door is painted blue."*⁵¹

Tile fragment N2067 measures $22.3 \times 18.0 \times 9.4$ cm and represents the lower-right corner of the tile. It is therefore substantially larger in comparison to the other fragments than is suggested by Cooper's drawings.

This fragment is also currently on display in Gallery 55 at the British Museum and was therefore most likely cleaned sometime earlier by conservation along with N1036+N2069a.

It shows a 2.3 cm high yellow band as the ground line of a building, which is shown in a white colour. The building depicts a so-called tower house, a type of architecture that evolved in Egypt at the end of the Third Intermediate Period (c. around 670 BC) and is well known from house models as well as from archaeology (see p. 30–31). Only relatively recent research has revealed the fact that such houses were quite widespread in Egypt from that time onwards. Such buildings were typically built on a square or rectangular ground plan and could

⁴⁹ So for example Nunn 1988, 183, pl. 150 and Nadali 2006, 112, fig. 2b.

⁵⁰ Kaelin 1999, 15, scene 7, pl. 1; Til Tuba relief BM 124801, a-c.

⁵¹ Layard 1853a, 167.

be up to five stories high. The example on the tile shows four floors, including the ground floor. Each floor is indicated by a prominent horizontal band coloured in a yellow glaze. This is likely to represent wooden beams that supported the floors. In Egyptian depictions, a row of separate beam heads is often shown instead of a single band; compare, for example, the tower house model EA2462 from the British Museum (fig. 25c).

The door is shown on ground-level in a simple and undecorated way. There is not much glazing preserved in the area of the door but remains of green glaze are visible in deeper voids of chaff temper.

The highest floor shows the lower parts of two square-shaped windows that are not completely preserved, but which can, due to parallels, probably be reconstructed as square with smaller subdivision lines, which might represent some sort of wooden construction in the same way as modern Arab *mashrabiyya*. Usually, such houses have a flat roof and can have a small kiosk on top. The ground floor mainly does not contain windows at all, or only small windows high up the wall directly under the ceiling, while the other floors generally have two or three windows.

In this example, the tower house is abutted by a somewhat lower wall that shows triangular crenellations on top and combines the tower house with another building or structure. The colour of this other building is reddish and could therefore have been meant to represent a large gate of some sort. A quite similar depiction is known from the Ptolemaic Nile Mosaic of Palestrina, which shows a temple enclosure wall incorporating several tower houses (fig. 25d). A detailed discussion of tower houses in Egypt can be found on p. 30–31.

In the area to the left of the house are the remains of palm fronds, formed by lines and open triangle shapes in white glaze, below which is a date cluster and a line delineating the trunk of the palm tree. It is worth noting here the size of the palm tree in relation to the house. In the depiction of N2067, the house is about the same size as the palm tree. In other Assyrian scenes where domestic houses can be seen in the landscape, the palm trees are usually considerable larger than the houses (compare, for example, Elamite domestic houses shown in and around the town of Madaktu, see fig. 25b). This emphasises the enormous height of the tower house in comparison to normal house sizes. An average house from Madaktu in the Til Tuba relief has a height of 6 cm, while the tower house has a height of 17.3 cm, almost three times as high. The human figures show that the scenes on the Til Tuba relief were larger in size than the figures on the tiles, emphasising even more the height of the tower house in comparison to other houses.

6) N2069b, fig. 12a-b

Fragment N2069b was neither described by Layard nor drawn by Cooper. It is preserved to the size of 15.2 × 17.3 × 9.2 cm and the lower edge is original while all other edges are breaks. The tile shows a depiction of another tower house that is less well preserved than the one on N2067 but is still clearly recognisable.

Again, a yellow band at the bottom of the tile marks the ground line of the scene, with a height of 2 cm. A simple rectangular door without further decoration is found at ground level and shows again a fill of green glaze. It has a height of 3.9 cm. At the upper end of the door, a horizontal yellow band, marking a beam or the ends of beams in the masonry, is shown with a height of 0.8 cm. After another 4.3 cm a second yellow band of 0.8–0.9 cm height divides

this level from the next floor. Above this, the tile is broken off so that the original height of the house is no longer visible.

The distances between the yellow bands marking the floor levels is clearly different to the house shown on fragment N2067. While the door is depicted slightly larger on fragment N2069b, the height to the first yellow band is substantially lower and the positioning of the band directly above the door suggests that on N2069b the first band might not necessarily indicate another floor but might be part of the masonry instead. It is therefore not clear how many floors the house on this fragment actually had.

The façade of the two preserved compartments above the door are filled in with white glaze, while the basement shows a light-yellow colour, clearly distinguishable from the yellow horizontal bands dividing the storeys. It is difficult to say whether this lighter yellow was due to the process by which the white glaze was produced, as parts of it are visible in the upper façade as well, or whether this colour distinction was actually made on purpose, as in reality different colours of plaster are known to be used in modern tower houses.⁵² The remaining width of the house covers 14.8 cm.

7) N2069c, fig. 13a-b

This fragment was again neither mentioned by Layard nor drawn by Cooper. N2069c measures $22.6 \times 12.4 \times 8.9$ cm and two original edges of the tile are extant. The fragment is itself broken into two joining parts. One of these parts still shows coloured glazing, while the other is more eroded and only a few traces of green background colour are preserved.

The glazing shows several parallel thin yellow bands that were most probably part of a chariot, and they match very closely the linear decoration often shown on Assyrian draught poles. However, the orientation is not entirely certain.

One possible interpretation would be the lower corner of the box or cab of an Assyrian chariot at the point where it meets the draught pole. Below this, a slightly curved and domed object is recognisable that seems to be the beginning of a large chariot wheel with large domed nail heads protruding in a small curve from the surface of the wheel (compare with fig. 22d). In this case, the preserved tile corner would originate from the lower-left corner of the tile. If this interpretation is correct, then this chariot faced to the right and the vehicle would be the king's chariot, as only Neo-Assyrian royal chariots had studded wheels.⁵³ Similarly, if this is part of a royal chariot, then it must be of a considerable size, much larger than any other preserved figures. This would, in fact, be entirely expected for the representation of a royal figure at this time and in such a composition. Therefore, it is possible that this would be a surviving fragment of the culmination of a presentation scene of booty and prisoners brought before Esarhaddon in his chariot. It remains the case, though, that this interpretation results in a chariot of far greater size than might be expected, even allowing for it being a royal vehicle. An alternative possibility is that, when rotated by 180 degrees, the parallel lines are not decoration but are the multiple reins of a smaller chariot facing left, in scale with the

⁵² For example, tower houses in Shibam, in the Yemen, still show a white lime plaster and a brown mud plaster, see Lehmann 2013b, 10–12. Similar differences have been found in tower houses of the Ptolemaic time in Tell el-Dab'a, where remains of a cream-beige plaster has been found, as well as a white lime plaster, see Lehmann 2012, fig. 7 and Lehmann 2013a, 83.

⁵³ Thureau-Dangin and Dunand 1936, Pl. XXVII.

majority of the figures represented (compare fig. 23b). The domed object is then the loop of the driver's whip, the complex arrangement of lines are the remains of his hands and arms, and the front of the chariot's cab or box is the vertical line at the extreme right of the tile.⁵⁴ This seems a far more likely interpretation of this scene, although again it is an Assyrian four-horse chariot, though whether royal or not, or whether moving or at rest, is not clear.

8) N2069d (Layard no. 7), fig. 14a-c

Layard's description: *"Part of a walled tower, or fort, with square battlements; white, on a blue ground."*⁵⁵

This fragment is relatively large, with the measurements of $27.8 \times 25.9 \times 8.8$ cm, so the size of the drawing is quite misleading, as this fragment is somewhat larger than N2067 with the tower house. The upper-left corner of the tile is preserved, some cracks are visible on the surface, and the glaze survives only in a relatively poor state of preservation.

The tile shows a straight wall running upwards and then forming a right-angled corner, before continuing horizontally towards the right, where the tile is broken off. The wall has five high rectangular towers extant, shown at regular intervals. Wall and towers alike are topped with crenellations in a triangular shape. Only the first merlon of the first tower is square; all the other ones are triangular in shape. But Cooper took the square merlon as his pattern in drawing all crenellations along the whole wall and all the towers. As indicated by him faintly on the drawing, the wall and towers contain several rectangular subdivision lines, which now contain only a weak yellowish tint. The parts of the crenellations that are shaped by downward-oriented triangles are filled in with a dark-yellow glaze. The rest of the wall is coloured white.

The area partly enclosed by the two preserved walls only shows green background colour and no further details are visible, while the same can be said for the area outside of the walls on the left side.

Directly at the lower-right corner of the wall, another area is delineated, divided from the background by white lines forming a rectangular field. Inside this, the upper part of a standing figure is visible. This person is facing towards the right and is wearing a conical helmet with a slightly rounded point at the top. Also, parts of a quiver are preserved, worn over the shoulder, with parts of the quiver coloured in yellow, probably once representing the arrow shafts. The remaining figure now has no colour preserved, though Cooper's drawing shows a greenish-bluish colour for the helmet, which possibly indicates an iron original. This helmet is noticeably different to the helmet worn by the Assyrian soldier on fragment ME 92183, resembling more the style of Assyrian helmets worn in the 8th century BC. The quiver is also different to that on ME 92183, but the depiction on this fragment seems to be somewhat smaller and therefore has to be less detailed. Unfortunately, the rest of the fragment is broken off.

Walled architecture of this kind might represent an Assyrian camp, for which parallels can be found in Assyrian sources, but camps at this date are generally shown with an oval ground

⁵⁴ For 7th century Neo-Assyrian chariots, see for example Littauer and Crouwel 1979, fig. 56 and Kaelin 1999, pl. 2, no. 60 (king's chariot).

⁵⁵ Layard 1853a, 167.

plan.⁵⁶ In these parallels, the king is shown sitting sometimes inside but mostly outside of the camp,⁵⁷ and it is often shown at the end of the narrative where the king reviews captured enemies and booty.⁵⁸ Older depictions of Assyrian camps on the 9th century bronze gate decorations of Shalmaneser III from Balawat show more rectangular camps than rounded ones, but there is debate as to whether these rectangular examples are, in fact, towns rather than camps.⁵⁹

Alternatively, given the peculiarities of this representation, the details of the substantial composite wall construction and the rectangular shape, it is possible that this is meant to be an Egyptian structure. One possibility might be an enclosure wall of a city or temple, and this would then be part of a scene of Egyptian surrender.

The closest parallels are indeed city walls, such as, for example, representations of the outskirts of Nineveh on reliefs of Ashurbanipal.⁶⁰ In this image, the inner enclosure wall is very similar to the one seen on the tile.

9) N2069e (Layard no. 8 + 3), fig. 15a-c

Layard's description:

No. 8: "*Fragment of a very spirited design representing a chariot and horses passing over a naked figure, pierced through the neck by an arrow. Under this group are the heads, and parts of the shields, of two Assyrian warriors. The wounded man wears a fillet round his head, to which is attached a feather. The horses are blue, and their trappings white; the wheels of the chariot, yellow. The shields of the warriors are blue, edged by a band of alternate squares of blue and yellow; their helmets are yellow, but the faces appear to be merely outlined in white on the olive green ground.*"⁶¹

No. 3: "*Parts of two horses, of a man holding a dagger, and of an Assyrian warrior. The horses are blue. The man appears to have been wounded or slain in battle, and is naked, with the exception of a twisted blue cloth round the loins. Ground an olive green.*"⁶²

The first fragment described above is today in a very poor state of preservation. Little glaze is present and Layard did not recognise or remember that the two larger fragments (Layard no. 3 and no. 8) were joined by a third smaller piece (unrecorded). The identification of this piece by the authors has changed his and Cooper's record of two large but unrelated pieces into an almost complete tile consisting of five joining parts (compare fig. 15a and 15b). The orientation of Layard no. 8 as illustrated by Cooper needs to be rotated slightly clockwise (already done in fig. 15b), so that the edge at the right side constitutes the original outer edge of the tile, as he took the Assyrians' spears as the ground line. The uppermost area was better preserved when Cooper was drawing it and parts of the top showing the horse's back seem now to be lost.

⁵⁶ Nadali 2006, 115; Micale and Nadali 2004, 167.

⁵⁷ Nadali 2006, 115; Micale and Nadali 2004, 171.

⁵⁸ Nadali 2006, 168–169.

⁵⁹ Nadali 2006, 170.

⁶⁰ Barnett 1998, pl. 226, no. 309a.

⁶¹ Layard 1853a, 167.

⁶² Layard 1853a, 166.

Layard's no. 8 (upper part of this tile) was illustrated as a single piece with a single break, but this fragment is broken now into three smaller parts. The whole assemblage has the measurements of $40.6 \times 32.6 \times 9.4$ cm and constitutes the largest preserved fragment of the battle-scene composition.

Parts of three different scenes can be found on this tile and shall be described from top to bottom-right to bottom-left.

The uppermost part drawn by Cooper, shows the lower-right part of a chariot wheel (preserving two spokes) in a yellow colour. Further to the right, two hind legs of a horse are visible, with the horse facing towards the right. Between the legs and the wheel, a further vertical but slightly curved line is visible that might be part of the horse's tail. The body of the horse was still visible when drawn by Cooper, but not much of it is preserved today. The outline of the horse's belly is still visible and a line forming a corner can be identified as a saddlecloth or more likely a harness. The form of harness is unusual and reflects more the harness of Late Bronze Age or earlier Iron Age forms than a contemporary Assyrian harness. It looks much more like an earlier Egyptian chariot. The decoration, showing a yoke saddle or yoke at the neck of the horse, is no longer preserved, and the same is true for the line Cooper shows above the horse. This was either a knotted strap to the draught pole end, or the driver's arm and hand holding the reins.

The figure lying under the horse is now only clearly visible in the area of its head. A tassel and a feather attached to it are still clearly visible, as is the arrow running through the figure's neck and his yellow skin colour.

There is no ground line used for this register, which represents the breaking up and interlocking of different related scenes and registers.

Underneath, another register is recognisable, showing two Assyrian soldiers standing partly behind each other, facing towards the right and representing a battle line.⁶³ They are each holding a shield with rounded tops (and possibly once-straight lower ends) held up high in front of their faces. The shields show a decoration of rectangular fields along the edge in alternating colours of green and yellow, with a yellow band running parallel to the squares, forming the inner end of this decoration. This most likely represents the metal edging strip of the shields, which on reliefs are usually shown secured with nails in the form of rosettes. The exact shape of the shield is significant as this type of long body-shield or tower-shield possibly shown here does not appear in Assyrian reliefs before the reign of Ashurbanipal, and so this representation is therefore the earliest known. Given the similar traditional form of Egyptian shields, it is possible that this new type of shield was adopted by the Assyrian army following Esarhaddon's first attempt to conquer Egypt in 674/673 BC.

The conical helmets are still well preserved and show several subdivision lines representing the detailed decoration of the helmets. These are of a classic late Neo-Assyrian form, coloured yellow on the tile to imitate bronze and with lines to represent embossed decoration of parallel lines, together with an arch or snakes curving over the brow. The helmets would

⁶³ As suggested by the remnants of a caption above the head of an Assyrian soldier from the fragments of slabs prior to slab 1 of Til Tuba, see Russell 1999b, 168 (Text A, no. 31: "*The line of battle of Ashurbanipal, king of Assyria which accomplished the defeat of Elam*").

probably have had rounded earflaps but these cannot now be distinguished amongst the breaks.⁶⁴

The lines behind their heads that Cooper had mistaken for a baseline of the figures above are, in fact, two spears being held by the soldiers; one of the hands holding a spear is still clearly identifiable. Remarkably, the spears very clearly terminate in globular spear-butts or ferrules, coloured yellow. Short javelins with decorated globular butts, carried in chariots, are shown very rarely on Assyrian reliefs,⁶⁵ and conical spear-butts are known from excavation,⁶⁶ but there is no other clear representation from Assyria for globular spear-butts, certainly not for infantry, other than uncertain examples from Khorsabad.⁶⁷ This is, however, a feature well known in textual and archaeological sources for later Achaemenid infantry, particularly the “*Immortals*” or royal guards.⁶⁸ The new fragment that we were able to join to this scene shows the legs and hose of one of the soldiers with detailed decoration. A waist-belt is shown on the foremost soldier, with the scabbards of two swords (one for each soldier) visible behind his body. Below the belt, a row of downward-hanging triangles is visible, representing the decorative fringe usually shown below Assyrian scale or lamellar corselets. Below this, the kilt is visible with several bands, forming the typical hanging fringe of Assyrian kilts, running in parallel curves towards the outer parts of the legs. The preserved glazing of this costume is mainly yellow. Only the hindmost feet of each of the two advancing soldiers, standing ready to strike with their spears, are preserved, recognisable by their high boots with green and yellow laces. This is the second tile on which the full height of a figure is preserved, measuring about 22.9 cm, so this figure is approximately the same size as the soldier from tile ME 92183, which stands at about 22.5 cm.

Further to the left, the legs of several human figures are shown, although it is difficult to determine which legs belong to which figure. In the middle of the tile, a person standing on tip-toe is recognisable, this time facing towards the left, forming a change in the direction of movement. It is preserved to a height of 17 cm and is shown as leaning forward at a steep angle. The legs are almost at the same height as those of the Assyrian soldiers, but they do not reach the ground line. This person seems to hold a dagger in the left hand. A small round object, possibly a small shield, is indicated at the height of the waist of the figure. The left hand seen and drawn by Cooper is no longer preserved. Contrary to Layard’s description, the figure seems to wear some sort of leggings or apron around the waist. Between the legs of this figure, what appears to be the tail of a horse is visible, ending in three larger fringes just below the foot of the human figure.

In the area to the left of this figure, a confused mixture of legs and other features is visible. One possibility would be that this might represent different stages of manufacture, with some alterations of the composition of the scene. However, it seems far more likely that this is a deliberate attempt to represent the confusion and chaos of battle. The hind legs of a horse are identifiable, facing towards the left, while the tail is recognisable between the

⁶⁴ See for example Barnett 1998, pl. 74, no. 89.

⁶⁵ Tallis 2010, 314, fn. 15.

⁶⁶ Curtis 2012, 38, pl. X, no. 129–131.

⁶⁷ Albenda 1986, pl. 143.

⁶⁸ Curtis and Tallis 2005, 87–88; see also Henkelman 2002.

legs of the human figure mentioned above. At least two further horse's legs are visible, which seem to belong to another animal, but one (or even two) of them are facing towards the right, instead of the left. Above this, another shield and another dagger seem to be identifiable. This possibly represents two figures with daggers and shields fighting with each other and combat between horsemen in the background. But again, a more likely possibility is that the horses are part of the team of a crashing Egyptian chariot⁶⁹ (compare fig. 22j), and the figures are either part of its tumbled crew or Egyptian infantry from a shattered battle line, for which the closest parallel can be found in the battle of Til Tuba with the crashing light cart of the enemy king, Teumman.

The two different directions of movement, with the horses and the one figure with shield facing towards the left, while the Assyrian soldiers advance towards the right, would again suggest that the latter is the most plausible interpretation, and one which can easily be paralleled from Til Tuba and other Assyrian representations of battle. It is particularly noticeable that all the figures are of slim proportions and long limbed.

The yellow band that forms the ground line is no longer clearly recognisable, but the gap between the feet of the figures and the border of the tile indicates that it once existed, as does Cooper's drawing. The distance between the legs and the edge of the tile suggests an original height of c. 1.8 cm. The background is again green.

10) N2069f (Layard no. 6), fig. 16a-c

Layard's description: *"A man, with a white cloth round his loins, pierced by two arrows. A fish, blue, with the scales marked in white; and part of a horse's head, yellow. Ground yellow."*⁷⁰

This fragment measures 21.5 × 18.9 × 8.8 cm and was drawn by Cooper. The fragment today is in a relatively poor state of preservation, with a large surface crack, and part of one edge, originally showing a second fish, also drawn by Cooper, is now missing. The glaze is again not very well preserved.

Two original tile edges at the top and right side are present, while the remaining part is broken off. The orientation of the fragment can be determined with certainty, as part of the head of an Assyrian chariot horse with a distinct crest is preserved at the lower edge. The remains can be seen of a figure with a yellow skin colour who, according to Cooper, is wearing a white apron and has a bald head without a feather. The figure is pierced by two arrows, suggesting that this person is already dead. Very few remains of the figure are still visible on the actual tile today, but the rough outlines are still recognisable: one of the hands, as well as hints of the apron, a part of the upper legs and one of the arrows are still just discernible.

Underneath the figure, a fish is still visible, indicating that this is a river scene, although the background, presumably water, is shown in a light yellow colour instead of the usual green, which is present on all the other fragments except N2027. There are several small filling elements, of which the large fish is the most obvious one, oriented towards the left. The scales are shown in a pattern of triangles. To the left of the floating figure, Cooper records a second fish, though this area has no glaze at all preserved now. It seems from the proportions

⁶⁹ See Teumman's chariot in Barnett 1998, pl. 293, no. 382b.

⁷⁰ Layard 1853a, 166.

of Cooper's drawings that the remaining fragment is shorter than the one drawn by Cooper and that there has been some loss of fabric on the left side. Nevertheless the proportions of Cooper's drawing do not quite match the original fragment in height.

In addition, another object seems to be drawn above the fish at the outer right end of the tile, most probably the butt-end of a spear, or, perhaps less likely, the hoof of a horse floating in the water. However, a definite identification is difficult due to the bad state of preservation. Cooper drew faint lines in this area as well, showing that he realised there was another element here that he could not make out.

Underneath the fish is the frontal part of what we can identify as the nose of an Assyrian chariot horse, as the upper part of two distinctive crests are clearly visible. Although Cooper fully finished only one, there are faint traces of both crests in the preliminary drawing. This type of tall crest is unusual at this date and is reserved for royal chariot horses. Therefore, this raises the intriguing possibility that this tile showed Esarhaddon actually fighting in battle, the only such representation of an Assyrian king since the time of Sargon II.⁷¹

In support of this, the horse's mouth seems to be shown open with the head thrown back, a combination that usually implies rapid movement. To the right of the horse's head is another arrow, aimed to the right, both details suggesting that there is a battle scene located below the fish, floating corpse and river.

What is slightly surprising is the yellow background representing water, as well as the absence of any indication of waves on the river. Such waves are typical on contemporary Assyrian reliefs, as seen, for example, in the Til Tuba battle (fig. 21k) or in the relief showing a river underneath an Egyptian town.⁷²

11) N2069g (Layard no. 4?)

This and the following piece are the two fragments that, even though they were described by Layard and drawn by Cooper, are no longer identifiable among the remaining tile fragments with any certainty.

There are two larger tile fragments preserved that can be allocated to Layard's no. 4 and 5, but the remaining visible features on the tiles do not fit the drawings of Cooper. The shape of the fragments Layard no. 4 and 5 seem to be both lower-right corners of a tile. This fits somewhat with the shape of N2069g, less for N2069h, and the remaining shape of the majority of current breaks does not fit with what we can see on the two remaining pieces, which suggests further breakage of the fragments after the drawing was made.

In the absence of a definite identification of these pieces, N2069g shall be described first with its remaining decoration, followed by Layard no. 4, and afterwards the drawing of N2069h and Layard no. 5.

N2069g, fig. 17a-b

Fragment N2069g consists of five joining pieces with a size of $24.7 \times 24.6 \times 8.9$ cm. It shows a lower-left corner of a tile, but the orientation is again uncertain.

Several areas of green and yellow glazing are preserved, but only a few coherent shapes are still identifiable. Roughly in the centre, a somewhat circular feature in yellow is recognisable,

⁷¹ Albenda 1986, pl. 116, pl. 121.

⁷² BM 124928, see for example Orthmann 1975, 324, no. 238.

below which is the only clearly visible feature: a twisted cord or decorative border of some element of harness or similar, shown in white outline and yellow colour. One possible interpretation might be another chariot, as the circular feature resembles a wheel. The rest of the decoration remains elusive.

This description shows that the visible remains do not conform with Cooper's sketches of the two remaining pieces. Although the decoration is no longer recognisable, in the upper-right area is a patch of green glaze in an irregular but distinct shape, which closely resembles this area in Cooper's drawing (Layard no. 4). However, none of the other remaining traces of decoration can be made to match with what Cooper shows.

Layard no. 4, fig. 17c

Layard's description: *"Fragment, with Assyrian warriors on horse. Horses yellow, with blue trappings. Ground olive green."*⁷³

The sketch of Cooper shows a lower right edge of a tile with a wide yellow band as ground line. Visible are the hind legs of a horse, which was mainly represented on another tile. Another horse is partly visible behind this in a standing position, facing towards the right. The rider is an Assyrian soldier, recognisable by the typical boots. A saddle cloth with a broad edge stripe is shown as well, as known from Assyrian horses with protective trappings of the time of Ashurbanipal,⁷⁴ but the remaining part of the horse and rider are not preserved.

12) N2069h (Layard no. 5?)

N2069h, fig. 18a-b

Fragment N2059h has the measurements $23.7 \times 17.8 \times 8.9$ cm and consists of two joining parts. No original edge of the tile is preserved and little of the decorated surface. The orientation of this fragment is again not determinable with certainty. There seems to be a part of a chariot wheel and the rump of the chariot horse, mainly glazed in a colour that appears now greyish-purple. There is indistinct decoration in the same colour above this.

Layard no. 5, fig. 18c

Layard's description: *"Part of a chariot and horse, yellow on a blue ground."*⁷⁵

The sketch of Cooper shows again a lower-right corner of a tile with a wide yellow band as ground line. On the right, the hind legs of a horse can be seen, facing towards the right. Behind the horse, a chariot wheel is visible, and between them is a draught pole (and what might be supporting shafts, ties or reins) forming a triangular shape. Alternatively, or more likely in addition to the above, this could show a long bow-case, exactly in the position usually shown on Ramesside chariots (fig. 271) or on the Third Intermediate Period depiction in the

⁷³ Layard 1853a, 166.

⁷⁴ See, for example, Littauer and Crouwel 1979, fig. 78.

⁷⁵ Layard 1853a, 166.

temple of Sanam (fig. 26m).⁷⁶ Overlapping the wheel of the chariot are the hoofs of the two further front legs of yet another horse, perhaps of an Egyptian cavalryman, galloping behind. As Cooper's drawing, including the shape of the fragment, is so different to the remaining fragment N2069h, the latter may equally be another undocumented fragment from the series, while the tile that matched Layard's no. 5 might be lost.

13) N2069i, fig. 19a-b

The smallest preserved fragment N2069i is part of the lower-left corner of a tile, with a measurement of $7.3 \times 9.4 \times >7.4$ cm. It only shows a yellow band marking the ground line, with a height of 2.5 cm.

Above this band, only a small area with a green background colour is visible and no further decoration is preserved. It is possible that this fragment was part of one of the other fragments described above, but no direct join has so far been found.

General remarks about the scenes on the tiles

Fig. 19 shows all of the surviving fragments drawn to scale for the first time, arranging them together to demonstrate their relative sizes.

The surviving fragments of these tiles are clearly from a complex narrative composition depicting a battle scene with soldiers, horsemen, chariots, prisoners, a river with dead bodies, and a royal chariot in battle, along with an Egyptian landscape with at least two tower houses in the background. The only parallel in Assyrian art for this mixture of elements showing a chaotic field battle is the representation of the battle of Til Tuba of 653 BC from the South-West Palace at Nineveh, dating to the reign of Ashurbanipal. This highly involved composition, which incorporates different themes, times and places, also uses multiple registers with floating ground lines and figures to different scales with different directions of movement. Within the surviving corpus of Assyrian glazed tile representations, there is nothing to match this in terms of the complex arrangement of scenes.

The tiles are earlier than the Til Tuba reliefs and can be attributed to Esarhaddon. Kaelin suggested that the Til Tuba scenes were too complex to be easily understood by their audience, and that this development of Assyrian narrative art was a dead-end.⁷⁷ However, the tiles show that this style was not unique and had a forerunner in the arts of Esarhaddon, which clearly was reproduced at least once more.

Many of the scenes attested on the tiles can be paralleled with scenes on the Til Tuba reliefs. The following scene numbers used are taken from Kaelin.⁷⁸

For tile ME 92183, the soldier holding arrows, no direct parallel is found, but one could suggest that he could be part of scene 61, a long row of soldiers holding weapons. A good parallel is known from a somewhat earlier relief from Tell Taynat (fig. 22a).

Fragment N1036+N2069a with the Libyan prisoners cannot be directly equalled with Til Tuba as well, perhaps unsurprisingly given the unique circumstances of its adaptation, but prisoners are found in scenes 49, 51, and 56 to 60 either being punished, killed or presented

⁷⁶ Griffith 1922, 99, pl. XXIV, blocks no. 2 and 4, pl. XXXII, block no. 1.

⁷⁷ Kaelin 1999, 75.

⁷⁸ Kaelin 1999, for an overview see pl. 1+2.

to the king. The identification of N2025 is not certain; it could be either a standing soldier or part of a chariot in the battle. Fragment N2027 is very close to scene 7 and 8, where soldiers in a smaller scale are running down a hill (fig. 22b). The tower houses on fragment N2067 and N2069b would have been part of a background landscape or part of an Egyptian town area, like scene 66 showing the city of Madaktu. The same can be said for the town enclosure wall shown on fragment N2069d, forming a left corner of the city enclosure (fig. 22c). N2069c is probably part of the king's chariot, scene 60, facing to the left in a review of prisoners, similar to fig. 22d).

The tile N2069e shows three scenes from within the battle. The chariot with a defeated enemy underneath finds a good parallel in scenes 11, 13 and probably 16, showing that this topos was frequently used within the battle (fig. 22e-h). The same can be said for the two advancing soldiers with spears and shields, shown on the lower-right part of the tile. They find the best parallel in scene 19 (fig. 22i) and in the battle fragments. Similar are single soldiers in 26, 27, 28, 32 (with round shield), 33, 36, 39 and 41, but the key aspect here is the representation of armoured Assyrian infantry in a battle line, only found in scene 19 and on this fragment N2069e. The scene on the lower-left of the tile might represent a crashing chariot, which would find a parallel, particularly in regard to the horses, in scene 17 (with the defeated enemy king, see fig. 22j), with a similar spatial relationship to an Assyrian battle line to the right in both scenes. The figure with a dagger or short sword is not shown in this same scene on the Til Tuba relief, but figures with a dagger can be found occasionally within the chaos of the battle, as for example in scenes 21 and 24. Fragment 2069f shows a dead Egyptian floating in the river, like in scene 12 (fig. 22k). The horse with a crest finds a close parallel in scene 44, even though the crest suggests this must be a royal chariot horse in the case of the tiles. Similar crests can be seen in fig. 22d and 22l-m.

The picture shown on the tile Layard no. 5, with chariot and horse in front and another horse immediately behind, can be seen in a similar way on Til Tuba scene 11. N2069g shows a horse with chariot and N2069h is too badly preserved to identify any scenes. Layard no. 4 shows two horses behind each other, at least one with a rider, which again finds close parallels in scene 43 and 44.

All these scenes or vignettes are very similar to, in part even identical to, the ones shown on the Til Tuba relief, some of which are rare or otherwise unique to it, emphasising the close parallelism of the two narrative compositions.

The composition of the tiles appears to be equally complex, or at least in many areas very similar to the Til Tuba scenes, with the additional complication of Egyptians stylistic elements (tower houses, Libyan prisoners) that have no preserved parallels anywhere else.

The closest match for the crashing chariot on fragment N2069e is the crashing light cart of King Teumman at Til Tuba, and it is quite possible that the tile showed the Egyptian king Taharqa, whom Esarhaddon claimed to have wounded in battle, in a similar situation:

*"Moreover, (with regard to) he himself, by means of arrows, I inflicted him five times with wounds from which there is no recovery; and (as for) the city of Memphis, his royal city, within half a day (and) by means of mines, breaches, (and) ladders, I besieged (it), conquered (it), demolished (it), destroyed (it), (and) burned (it) with fire."*⁷⁹

⁷⁹ Zincirli stelae, see Leichty 2011, text 98, 185.

Even though there are no captions preserved on the surviving tile fragments, it is highly likely that originally these complicated scenes were also explained by epigraphic inscriptions. This is one of the main features of the Til Tuba battle. Some cuneiform tablets with variant epigraphs for the Til Tuba reliefs are preserved and show that the scenes had been planned by different parties.⁸⁰

To emphasise the equality between the scenes of the tiles and the Til Tuba relief, the 13 fragments of the tiles were placed, where possible, on top of the extant Til Tuba reliefs at the relevant places that show similar scenes (fig 23a-b). The tower houses and prisoners do not have any parallels in the Til Tuba battle scene as the latter show Elamite architecture and no prisoners are shown in the battle itself, as this seems to be a more typical feature of Egyptian art. The houses are placed in the respective general areas. Because of the three different scenes on tile N2069e, this tile was placed two times in the scene for each scene represented.

A complete height is preserved for human figures in three instances: the Assyrian soldier on ME 92183, the Libyan prisoners on N1036+N2069a and the two soldiers with spears on N2069e (table 2). For the latter, a direct comparison with the same topos of figures on the Til Tuba relief (Kaelin scene no. 19) shows that the figures on the reliefs have a height of 37 cm, and are therefore somewhat larger than the figures on the tile, with a height of 22.9 cm.

Altogether, three fragments can be accounted for with a direction of movement towards the left, five fragments towards the right and one that shows both on a single tile.

Studying the fragments shows that there are slightly different heights of the yellow band that marks the ground line. On examination, there are two groups: a larger size of band, with a height between 2.0 and 2.5cm; and a somewhat narrower band, with a height between 1.5 and 1.8 cm. This most probably indicates different areas and different rows of tiles within the composition, as one would not expect two or more adjacent tiles to show a marked step in the ground line. This also perhaps suggests that during manufacture the plain tiles were laid out next to each other and the composition was then drawn onto them as discrete units, or perhaps even as a whole, and not onto each tile individually as one might at first expect. Otherwise, it would be extremely difficult in a complex composition, such as this evidently was, to render figures split across two or more tiles, as can be seen often on the surviving fragments. In such circumstances, one might expect the usage of fitters' marks or other aids for assembling the completed scene. These marks would have been drawn onto the top, bottom or lateral edges of the bricks or tiles so that their relationship to each other, as well as to the main structure, would be clear upon glazing and gentle firing. Fitters' marks are known from other (earlier) examples in the same complex of buildings.⁸¹

No such marks can be identified on the tiles with certainty, but on three lateral edges there are traces of what appears to be trickled glaze that are highly suggestive of fitters' marks (fig. 2i-k). N2069e shows two yellow vertical lines next to each other, while the background is coloured green, and N2069f shows a whitish glaze that might have been two parallel lines as well, with the background here a light yellow. Also on the lower edge of N2069, two greenish areas can be found; while the one on the left looks like a vertical line, the sign on the right resembles a bent outline.

⁸⁰ Kaelin 1999, 40.

⁸¹ Reade 1963, 39; Curtis, Collon and Green 1993, 20–26.

Fragment	Height of figures		Direction of movement	Height of yellow band	Background colour
ME 92183	complete (estimated)	22.5 cm	right	2.5 cm	green
N1036+N2069a	complete	23.3 cm	left	1.5 cm	green
N2025	-	-	left (?)	-	green
N2027	-	-	right	-	yellow
N2067	-	-	-	2.3 cm	green
N2069b	-	-	-	2.0 cm	green
N2069c	-	-	left (?)	-	green
N2069d	-	-	right	-	green
N2069e	complete	22.9 cm	right left	1.8 cm	green
N2069f	head to hip	9–10 cm	-	-	yellow
N2069g	-	-	right	-	green
N2069h	-	-	right	-	green
N2069i	-	-	-	2.5 cm	green

Table 2: Comparison of compositional details on tile fragments.

The background colour is yellow for the hill with the small-scale soldiers, as well as for the river, while eleven fragments show an olive-green background.

Table 2 above provides an overview of the compositional details of the fragments, including the heights of figures, the direction of movement of the figures, the heights of the yellow band for each fragment and the extant background colours.

It may be significant that the shallow yellow band seems to be found more often with figures facing towards the left on the surviving fragments, but unfortunately there are three instances of the higher band on tiles for which there is no indication of direction of movement.

Nadali mentions that glazed tiles were much more likely to have been used in outside areas of the palace as they would have been more resistant to the elements (presumably than painted stone reliefs and wall paintings).⁸² This might have been true for the preservation of the colour itself, as the paint on the reliefs might have faded quickly in outdoor positions. Nevertheless, the presence of reliefs in outside areas, as for example, the façade of Ashurnasirpal II's throne room in the North-West Palace or later the Apadana at Persepolis in the Achaemenid Period, show that this was not likely to be a primary reason. Therefore, tiles may have been used instead of stone reliefs for other reasons. It seems that the production of tiles would have been much quicker than quarrying, transporting, carving and painting stone slabs. This might have been important, especially in this case, where the tiles were celebrating the victory of the Egyptian campaign in 671 BC, meaning that the work had to be finished quickly. Given that Esarhaddon died in 669 BC, and assuming the scenes were at least substantially complete before the time of his death, then clearly they had been created only a very short time after the actual events.

⁸² Nadali 2006, 109–110.

In addition, the use of tiles instead of stone reliefs might have been much more convenient for any renovation or refurbishment of older buildings, as was the case at Fort Shalmaneser. It is difficult to determine whether the cost of the production of tiles was significantly different from that of wall reliefs, because both techniques would have required roughly the same amount of work from skilled craftsmen. The main differences would have been the drawing, carving and painting of the reliefs, versus the drawing, glazing and firing of the tiles. Setting aside the costs of arranging the raw materials of stone and clay, the firing of the tiles would have required a large amount of fuel.

Considering the preserved sizes of the Assyrian glazed tiles (see p. 8) and their decoration, as discussed above, it seems reasonable to propose a reconstructed height of about 53 cm with the known width of 32 cm. The preserved fragments suggest that there was room for two complete registers on each tile and that the entire scene covered a greater height than a single row of tiles. In contrast to other known Assyrian tiles, which are simple friezes with a single row of figures, these tiles show a complex narrative for which a single row would be inadequate. In addition, fragment N2069f, with its depiction in a lower register of the royal chariot, most probably engaged in combat or some other heroic endeavour, is unlikely to have been hidden away at floor height.

If the size of the figures from the tiles is scaled to those from the Til Tuba reliefs,⁸³ the area of a single stone relief slab would be equalled by nine tiles in an arrangement of three by three.

At least six slabs from the Til Tuba reliefs are substantially preserved, in addition to smaller fragments from at least one more slab. A total of 63 tiles would be needed to cover seven relief slabs. This would cover an area with a height of 1.53 m and a total length of 6.72 m for a decorated area equalling seven stone slabs (fig. 24).

In contrast to the stone reliefs, it is to be expected that the decorated tiles would not be set directly into the ground but on some sort of footing. If this footing is estimated to have a height of roughly 30 cm, then the tiles would have been set roughly to eye level and would have reached a maximum height of 1.83 m.

The figures identified on the 13 fragments are as follows:

ME 92183	1 Assyrian
N1036+N2069a	2 Assyrians, 4 Libyans
N2027	2 Assyrians small scale
N2069c	chariot with a hand of one Assyrian (?)
N2069d	1 Assyrian
N2069e	1 dead Libyan under chariot, 2 Assyrians, 1 Egyptian(?), only legs preserved
N2069f	1 dead Egyptian

Therefore, there are 16 people preserved in total, including nine Assyrians, five Libyans and two Egyptians, along with eight horses and two fish, as well as two houses and a town enclosure. In total, this is 26 characters on 13 fragments. This number does not take into

⁸³ The figures of the Til Tuba relief are somewhat larger, as a direct comparison shows.

consideration the figures that can be additionally reconstructed, such as the crews of the chariots, etc. This demonstrates that the scenes have an extremely high density of figures and match up very well with the density of the Til Tuba reliefs.

The composition probably would have required the drawing of hundreds of figures, even if it had only a single register, disregarding the involved mixture of broken up registers and differential scaling actually attested.

Tower houses in Egypt

The buildings depicted on N2067 and N2069b have previously been interpreted variously as a castle, as part of an Egyptian city, or as a fortification.⁸⁴

Recent research within Egyptology makes it possible to identify these buildings as tower houses.⁸⁵ This type of building evolved in Egypt at the end of the Third Intermediate Period and the oldest examples excavated thus far are located in Ashmunein.⁸⁶ This type of building became widespread across Egypt at the beginning of the 26th Dynasty and was still in use in late Roman and even medieval times.⁸⁷

Typical for tower houses are casemate foundations and slightly sloping outer walls, the division of floors by beam-heads shown in the masonry and flat roofs. Different types of entrances have been identified: while it seems to have been more common in earlier times to have a door at street level, it became typical in later times (from the Ptolemaic period onwards) to situate the door one floor higher (at the first-floor level), accessible via an external staircase. In such cases, the basement was raised above street level, with the thick casement foundations often rising several metres in height. Usually, the basement in a tower house is windowless, featuring only small openings under the ceiling.

The non-archaeological sources for tower houses are plentiful but few can be dated with certainty, and sources for the earlier period from the Third Intermediate Period and Late Period are especially scarce.

Many models of tower houses like the one in fig. 25c have been found, often carved in stone and later executed in terracotta, but they are mostly from the art market and are therefore without context and not easily datable.⁸⁸ Depictions from within Egypt are only known from much later times,⁸⁹ and other depictions are known from Roman houses in Rome, Herculaneum and Pompeii in mosaics or drawings in living rooms showing Nilotic scenes.⁹⁰

⁸⁴ Layard 1853a, 167; Albenda 1982, 12; Nadali 2006, 114, he later adds: “[...] *the city is only part of the Egyptian landscape where the fight took place.*” p. 115.

⁸⁵ An overview can be found by Marchi 2014 with Lehmann 2014; see also Marouard 2010 and Arnold 2003.

⁸⁶ Spencer 1993, 16.

⁸⁷ Arnold 2003, 170–171.

⁸⁸ A compilation of all known models of tower houses has been undertaken by G. Marouard, see Marouard 2010, and at the same time by the author, see Lehmann 2015.

⁸⁹ Two *dipinti* of tower houses are known from Athribis (Sohag), see Lehmann in print.

⁹⁰ Meyboom 1995, Versluys 2002.

Other information about tower houses can be found in papyri of Ptolemaic and Roman times, which occasionally mention buildings with five or even seven storeys.⁹¹

The main sources for tower houses can be found in archaeology, especially in the Delta and the Fayoum, where many excavations have unearthed such buildings. Due to the reduction of archaeological tells and the use of the soil as fertilizer, it is rare to find any levels above the foundations of the tower houses preserved. In the Delta, tower houses were excavated at Tell Iswid,⁹² Tell el-Dab'a,⁹³ Tell Balamun,⁹⁴ Nebesheh,⁹⁵ Defenneh,⁹⁶ Buto,⁹⁷ Kom el-Gir⁹⁸ and many more locations. A better state of preservation can be found in the Fayoum, with Ptolemaic and Roman examples in Tebtynis,⁹⁹ Philadelphia¹⁰⁰ or Karanis.¹⁰¹

Therefore, the depiction of tower houses on the glazed tile fragments is of special value for Egyptology, as from the time of the Assyrian conquest no other depictions are known from Egypt itself. In fact, these are the earliest datable depictions of tower houses as such.

In addition to highlighting differences in landscape and flora and fauna, the Assyrians show the different house types of the countries they invaded in background scenes in their reliefs, for example as part of campaign scenes from the Levant to Elam and Egypt (fig. 25 a-b).

The tower houses visible on the tiles are shown with typical features such as sloping walls, white plaster outside, no windows in the basement and a door at the walking level.

As tower houses are not known before the end of the Third Intermediate Period, around 664 BC, just before the time of the Assyrian conquest of Egypt in 671 BC, the depiction of such a house is a good dating criterion for the tiles.

The two fragments depict different heights for the buildings' storeys. N2067 is especially interesting for its abutment of a crenellated wall and possibly another tower or structure. The way this is illustrated resembles very much a depiction on the Nile Mosaic of Palestrina, which can be dated to the Ptolemaic Period (fig. 25d).¹⁰² There a similar topic can be seen: a temple enclosure wall incorporates several tower houses, something that is known from a later period with the temple of Medinet Habu.¹⁰³

⁹¹ See for example Diodorus I, 45 or Pap. Oxy. XXXIV 2719, for translation see Bowman 1986, 146, mentioning a seven-storey-high building.

⁹² Midant-Reynes and Buchez 2014.

⁹³ Lehmann 2015.

⁹⁴ Spencer 1996, Spencer 1999, Spencer 2004.

⁹⁵ Petrie 1888.

⁹⁶ Petrie 1888; Leclère and Spencer 2014.

⁹⁷ Hartung et al. 2003, Hartung et al. 2007, Hartung et al. 2009, Hartung et al. 2011.

⁹⁸ Schiestl and Herbich 2013; Schiestl 2013.

⁹⁹ Gallazi and Hadji-Minaglou 2000; Rondot 2004; Hadji-Minaglou 2007.

¹⁰⁰ Viereck 1928, 1–13; Nowicka 1969.

¹⁰¹ Boak and Peterson 1931.

¹⁰² More precisely, to around 110–120 BC, see Meyboom 1995, 19.

¹⁰³ This can still be seen in aerial photos of Medinet Habu, especially along the northern wall and in the northern corner of the enclosure. These structures can be dated to what the excavator calls the later Coptic Period, see Hölscher 1934, pl. 32.

The knowledge of the visual characteristics of a house type that had just evolved in Egypt, along with its faithful depiction, is one aspect of the glazed tiles showing the Egyptian battle scenes of Esarhaddon that is quite remarkable.

Comparison with Til Tuba and a reconstruction of the battle scene

The novelty of the scenes shown on the tile fragments within Assyrian art, and the quality of their execution, has always been noted,¹⁰⁴ and, of course, it was the reason why these unpromising fragments were selected for retention by Layard. The skilful depictions of chaotic and violent warfare found on the tile fragments find their closest parallels in the famous battle scenes of Til Tuba from reliefs of Ashurbanipal decorating the South-West Palace at Nineveh. Ashurbanipal's later North Palace also had reliefs showing the battle of Til Tuba, but these are poorly preserved by comparison and, interestingly, they are not so accomplished.¹⁰⁵ These later reliefs depict a battle between the Assyrian army of Ashurbanipal and the army of Teumman, king of Elam in 653 BC.

The Til-Tuba reliefs from the South-West Palace are carved on slabs of fossiliferous limestone, rather than the usual gypsum, and it is possible that Sennacherib had left these blank intentionally. However, there are also indications that these slabs were actually re-carved, and it is quite possible that Ashurbanipal erased earlier scenes from the time of Sennacherib. Six slabs of the composition are substantially complete, now in the British Museum (fig. 21a-b), and show in the lower part the conclusion of the battle at Til Tuba against the Elamites, while the upper parts of each slab show later scenes in Assyria, at Arbela, which conclude the narrative introduced by the battle. The composition is remarkable for the extensive use of explanatory epigraphs linking the different scenes, some of which are preserved on the surviving objects and some from clay tablets which record the captions. The opening phases of the narrative are missing, as only fragments of the slabs showing the opening of the battle are extant.

The complex fragmentary battle scene shown on the tiles is thus slightly earlier, as it must have been composed after 671 BC, when Esarhaddon finally conquered Egypt, and before 669 BC, when he died on the way to suppress a revolt there. This is roughly 17 years before the events of Til Tuba, and slightly longer before the creation of the reliefs.

Narrative scenes of field battle are extremely rare, even in the many scenes of warfare portrayed on Neo-Assyrian reliefs.¹⁰⁶ Compositions usually show somewhat formulaic siege assaults and stylised scenes of combat between small numbers of only representative combatants. Indeed, there are few surviving representations of narrative sieges in Assyrian art; Sennacherib's relief sequence from the South-West Palace showing the assault on Lachish is the prime example. But for complex field battles, in fact, there are only two: Til Tuba and the tiles discussed in this article.

Significantly for the Til Tuba composition, an Egyptian influence has been suggested by other scholars many times.¹⁰⁷ Assyrian and Ramesside Egyptian battle scenes commonly

¹⁰⁴ "The outlines are spirited, in character and treatment resembling the sculptures.", Layard 1853a, 167.

¹⁰⁵ So already Nadali 2006, 111, fn. 12.

¹⁰⁶ Nadali 2010.

¹⁰⁷ Finkel and Reade 1996, 246; Kaelin 1999; Feldman 2004, 144–145, 148; Thomason 2004, 160; Watanabe 2004, 107; Nadali 2006, 115.

share many features and topoi, such as arrangement in several registers with a clear direction of movement (one or more), moving towards an end point of royal figures or deities. The king is usually represented as distinctly larger than other human participants, with a hierarchy of importance. This characteristic becomes only evident in Assyrian art towards the end of the 7th century BC.¹⁰⁸ Battle compositions can show sequences of the preparation for battle, or march to battle, the battle itself (often highly unrealistic, with only, for example, elite participants represented) and with a stylised chaos almost invariably showing dead or defeated enemies tumbled beneath the chariot horses of the victors. There are presentation and review scenes with prisoners, booty and counts of the enemy dead. The background features establish the location, with typical buildings, flora and fauna. Equally, certain features are not shown: for example, arming for battle (although this is sometimes a distinct feature of textual accounts), the treatment of wounded, or indeed any casualties on one's own side. The enemy is rarely shown fully armed or strongly resisting and the practical mechanics of battle are completely ignored. Ultimately, these depictions are highly stylised. Figures are rarely shown other than in profile or in a few standard poses.

Similarly, there are differences between Assyrian and Egyptian battle scenes. The focus of the action in Assyrian battle scenes leads to a scene with the king (as representative of the gods), with the presentation of prisoners and booty. In Egyptian battle scenes, this place is taken by a god, usually Amun. Mesopotamian and Egyptian representations diverge, with Egyptian troops almost never shown realistically in armour, but largely only dressed in aprons, etc., whereas Assyrian art increasingly emphasises technological superiority in more realistic depictions of arms and armour, and indeed general war gear. In contrast with Assyrian art, Egyptian art from an early date devotes more attention to an elaborately stylised representation of prisoners, bound together with neck ropes in groups of about three to five individuals.¹⁰⁹ Escorted by Egyptians, the king himself is sometimes holding the ropes. The ends of the ropes usually terminate in papyrus or lotus-flower decoration. Assyrian representations generally show a line of prisoners, who are not always bound, and only very rarely are neck ropes used (fig. 26a-c).

Women and children, as groups of captive deportees, are very common elements in the conclusions of Assyrian battle and campaign scenes, but they hardly ever feature in Egyptian art (fig. 27k).¹¹⁰

The marked Egyptian influence on both the tiles and the Tîl Tuba reliefs is therefore evident in two main ways: in the overall composition and in the actual style of the figures. In the grand composition, we have a vision of the total chaos of battle, but within it there are distinct narrative, vignette-like scenes with captions that give additional information interpreting the events shown. A multi-register design is used, with multiple rather than continuous ground lines that can be interrupted as the intended narrative demands (for example N1036+N2069a). All these methods are used in order to explain in depth a complex and multi-layered sequence of events to a greater level of detail than usual and probably for a varied audience.

¹⁰⁸ In the time from Esarhaddon onwards. Reade 1979c, 331.

¹⁰⁹ See Heinz 2001, 168. The different variations of body postures of prisoners are listed here, see p. 166–168.

¹¹⁰ The only exception is found in Medinet Habu, see Oriental Institute 1930, pl. 34.

Further, there are notable similarities with Egyptian reliefs in the style of figures shown on the tiles. They are distinctly gracile and there is a virtuosic delight in the skill with which multiple long limbs of humans and horses are shown entwined or parallel and partly overlaid in complex yet completely believable ways. The only other Assyrian exemplar of a battle scene with these distinctive features is Til Tuba. Even so, it is not a direct copy of Egyptian art – there is some mediation and merging with Assyrian sensibility – the Egyptian scenes are even more chaotic, more complex, varied and frequent.

So, for example, the groups of prisoners show a higher variation in the positions of arms, and often some of them are fighting back, giving the whole scene an even more lively and vivid expression.

For several centuries, starting in the Late Bronze Age, Assyrian art was generally influenced by the so-called international style,¹¹¹ but in the 7th century we have something new and specific, as exemplified by these tiles. It is possible, indeed likely, that this additional influence came from observation of – and direct contact with – monumental art in Egypt itself.

It has often been suggested that Assyrian artists accompanied the army on campaign and took notes and sketches that formed the basis for later compositions in metropolitan Assyria.¹¹² The monuments of Egypt were often interpreted by visitors in later times; interestingly, the bound captives still made an impression on Diodorus.¹¹³

A second possibility for direct influence is the deportation of Egyptian artists and specialists to Assyria, as recorded in inscriptions of Esarhaddon and Ashurbanipal.

Esarhaddon claims to have deported the Egyptian family of Taharqa to Assyria, along with people of various professions: “... *physicians, diviners, [...] [...] [...] carpenters*], *gold-smiths, metal-workers, [...]*.”¹¹⁴

The same is found in a second, longer inscription from Esarhaddon:

“[...] *his wives, his sons and [his] daughters [whose ...] skin, like his, was as black as pitch, [...] the plunder* of his palace”¹¹⁵

“*I carried off to Assyria his wife, his court ladies, Ušanahuru, his crown prince, and the rest of his sons (and) his daughters, his goods, his possessions, his horses, his oxen (and) his sheep and goats, without numbers. I tore out the roots of Kush from Egypt.*”¹¹⁶

In addition to Egyptian artists, it is well known from Assyrian inscriptions that other Egyptian specialists were employed at the Assyrian court.¹¹⁷

¹¹¹ Feldman 2006.

¹¹² Madhlom 1970, 122; Reade 1979a, 25, 31; Kaelin 1999, 89.

¹¹³ Diodor. I, 48–49 reports about an Egyptian priest explaining the temple reliefs to the Greek visitors, including the bound captives. Similarly, Tacitus, *Annals II*, 60 in Roman times. We would like to thank Lutz Popko for this remark.

¹¹⁴ Inscription from the Nahr el-Kelb, 22nd of Duuzu (4th month) 671 BC, see Leichty 2011, text 103, 191.

¹¹⁵ Leichty 2011, text 1019, 304–305.

¹¹⁶ Leichty 2011, text 98, 185–186.

¹¹⁷ Radner 2009, 223–224.

It's notable also that the Assyrians seem to have had a distinct passion for Egyptian objects. Several statues of kings from the 25th Dynasty were excavated in Nineveh along with many other objects from Egypt.¹¹⁸

In the case of the tiles, given the probable date of manufacture, the strong implication is that this Egyptian influence derived directly from a greater immediate knowledge of Egyptian artworks, either through observation or through Egyptian artists themselves. The most obvious example is the use of the group of roped prisoners described above, which is a classic Egyptian motif.

However, this poses many other questions. For example, we have no evidence of this particular motif after the end of the Ramesside period. Therefore, it seems the Assyrians purposely chose artwork in Egypt that was itself already 500-600 years old.

In terms of the source of this imagery, we have to return to the idea that the most obvious inspiration was probably one or more of the overwhelmingly impressive monumental artworks showing early Ramesside military campaigns, such as the Qadesh reliefs in Egyptian temples – more likely in Memphis or the Delta than in Upper Egypt.

Egyptian influences in the art of Assyrian battle scenes

Certain elements of Egyptian influence in the artistic execution of the tiles have already been mentioned above (p. 33–34). This includes the long limbs, the criss-crossing of extremities of several figures, humans and horses alike, as well as a delight in a certain element of chaos. But the most obvious element of Egyptian influence in this exceptional depiction of an Assyrian military campaign is found on fragment N1036+N2069a (fig. 8a-c), showing four bound captives. Each is tied individually with a rope around the neck, some might be tied in addition around the elbows or wrists, while a second rope running from neck to neck of each person ties them all together as a group. This highly distinctive way of tying prisoners can be identified as specifically Egyptian.

In the 7th century, the Assyrians usually depict their prisoners in times either unbound or shackled in a quite different way: the captives only show ropes or metal handcuffs around their wrists, while the arms are held either behind (fig. 26a) or in front of the body (fig. 26b). Or else, when two people are tied together, they are bound together by one wrist (fig. 26c).

There are also some sporadic examples from Mesopotamia for several prisoners bound with a neck rope and pinioned arms. However, these are either substantially earlier (Middle-Assyrian) or later (Achaemenid Persian) than our tile. The earliest example is from the third millennium BC, found on a fragment of the Akkadian victory stela from Nasiriyah.¹¹⁹ It shows six naked prisoners walking in a row with bound elbows, fastened at the neck in what is probably a wooden neck-stock. Another example can be found at the base of an altar from the middle Assyrian period, dating to the reign of Tukulti-Ninurta I (fig. 26f). Here two lines of prisoners are led into the presence of the king. On the right-hand side, a group of four individuals are linked by a neck rope, although their hands are not tied together. On the left-

¹¹⁸ Feldman 2004, 148; Thomason 2004, 157–159.

¹¹⁹ Orthmann 1975, 196, pl. 103.

hand side, there is a similar group of five prisoners. The right-hand group is led by a high Assyrian official and the left-hand group is held by the Assyrian king.¹²⁰

The later examples are from the Achaemenid period. The most famous example is found in Darius' rock sculpture of Bisitun, where a row of nine rebels is shown, standing before the king with tied wrists. In addition, they are all bound together with a single neck rope running from person to person (fig. 26g-h). This image is far more common in the contemporary minor arts, with several examples known from cylinder seals. One seal from the reign of Artaxerxes III shows three prisoners in a row, tied together by a neckrope. Interestingly, the king here is leading the row of prisoners and is facing away from them.¹²¹ A second example on a seal shows one prisoner with a neck rope; he is standing behind the king, who is spearing another rebel, probably Nectanebo II, who kneels in front of him.¹²²

However, these are somewhat distant parallels, and the fact remains that groups of bound prisoners are found nowhere else in Assyrian depictions of battle, and certainly not in Til Tuba.

The way the captives are bound on tile N1036+N2069a is quite clearly a deliberate and direct copy of the common way of showing bound prisoners in Egyptian art. Here a rope is often tied around the elbows with the arms held against the back. In addition, many prisoners tied like this are bound together, with a single rope running from neck to neck, usually in small groups of three to five individuals, proceeded by an Egyptian soldier leading them, sometimes by the neck rope. Often, a soldier is bringing up the rear, usually striking the last prisoner, who turns to face him, or struggles in resistance, similar to a scene in Til Barsip (fig. 26e). The entire group of prisoners is often shown anxiously hurrying on tip-toes.¹²³ The elbow bindings are distinctive and highlighted by the futile struggling of the prisoners, adding movement and variety in the composition.

The best parallels from within Egypt can be found in several Ramesside military campaigns depicted in temple-relief scenes. These usually show different captives taken during the campaigns depicted roped and shackled. At the end of the campaign, the prisoners are presented to the gods, mostly Amun of Karnak. Due to the placement in such an official presentation, the ropes, and especially the ends thereof, are often elaborately executed in wide loops and can be decorated with lotus or papyrus flowers.¹²⁴

Since the temples of the Delta from the capitals of Pi-Ramesse and Memphis are no longer preserved, the best examples can be found nowadays in Upper Egyptian temples such as the reliefs in Thebes (Karnak, Luxor, Ramesseum) made by Sethos I, Ramses II, or by Merneptah, as well as in Abydos and Abu Simbel, and under Ramses III in Medinet Habu.¹²⁵ Kaelin has already suggested the depiction of the battle of Qadesh,¹²⁶ between Ramses II

¹²⁰ Ornan 2007, 63–64; Pittman 1996, 350.

¹²¹ Ebeling 1932, pl. 19c; Root 1979, p. 122, pl. 34b.

¹²² Merrillees 2005, no. 65.

¹²³ The same pose can be found on the depictions of prisoners shown on glazed tiles by Ramses III, see Friedman 1998, 196–197.

¹²⁴ A good example of alternating papyrus and lotus flowers can be found in the tomb of Anen, see Robins 1997, 137, fig. 155.

¹²⁵ Shaw 1996, 260–261 with further literature; Kaelin 1999, 79–80.

¹²⁶ This battle is preserved in ten inscriptions known from Karnak, Luxor, Ramesseum, Abydos and Abu Simbel.

and the Hittite king Muwatalli II around 1274 BC, as the best parallel for the battle of Til Tuba, due to the similarity of the historic details, as well as the river into which the enemies are driven.¹²⁷ He proposed the example in the Ramesseum as the best parallel and possible forerunner, but since the temples in the Delta are not known, this remains speculative.

Later temple reliefs from Egypt usually depict offerings in front of the gods; almost no later military campaigns have survived. One badly preserved scene is known from the Amun temple at Gebel Barkal, probably dating to the 25th Dynasty in the Third Intermediate Period, to the reign of Piye (747 – 722 BC).¹²⁸ The preserved scenes from Gebel Barkal show a rider, chariots, an archer and infantry fighting (fig. 26k). Interestingly, the method of wielding the spears in this relief finds close parallels in later Achaemenid art, as for example on a cylinder seal from the Oxus Treasure (fig. 26l).

Further scenes showing chariots, carts and horses are known from the temples of Taharqa (692/691 – 664 BC) in Sanam and Kawa (fig. 26m).¹²⁹ Although generally only a small part of these military scenes are preserved, they are quite different to the older Ramesside scenes in that they lack the complex multi-register scenes crowded with detail and evoking the chaos of battle. The scenes from the 25th Dynasty only show a few fighting soldiers on rigid register lines, with an otherwise empty background. No landscape is indicated. These latter scenes are in character much more like the earlier New Kingdom scenes before the Ramesside period. It is unknown if the Kushite Dynasty would have added further scenes in temples in the Delta or Memphis that are not preserved, as no temple reliefs have survived from there.

Therefore, from what is preserved, it seems that the inspiration for the scenes on the tiles and the latter Til Tuba reliefs must have originated from the roughly 500–600 years older Ramesside reliefs.

In general, the Egyptian Ramesside military campaigns usually show an even higher degree of chaos in the battle than in the Assyrian battle of Til Tuba.

The motif of individual captives bound by the elbows is very commonly found in Egypt, starting as early as pre-dynastic times. Examples can be found already on the Narmer Palette or the Battlefield Palette, as well as on ivory plaques from Abydos.¹³⁰ This topos of the bound foreign captive remains the same stylized figure until the Roman period.¹³¹ This motif cannot only be found in the tomb¹³² and temple iconography, but also among other artwork as decoration, for example, on shoes, furniture, statue bases and other objects, and also in statues of captives, showing the typical binding of the elbows behind the back,¹³³ as well as in minor arts like on scarabs.¹³⁴

Kaelin 1999, 79–80 and Shaw 1996, 260–261.

¹²⁷ Kaelin 1999, 80–87.

¹²⁸ These scenes can be found in temple B 500, second pylon and inner courtyard, see Spalinger 1981, 46–49 and Lepsius 1913, pl. LVII–LVIII.

¹²⁹ Spalinger 1981, 52; Griffith 1922, 99–100, pl. XXXII–XXXIV.

¹³⁰ See for example EA35514 in Roveri and Tiradritte 1998, p. 208, no. 166.

¹³¹ Partridge 2002, 6, and fig. 7.

¹³² Robins 1997, 137, fig. 155.

¹³³ For example, Partridge 2002, fig. 373; Arnold and Ziegler 1999, 440–441.

¹³⁴ For example, Petrie 1917, pl. XXVII, 47 50; pl. XIX, 139.

In contrast to a single bound captive, the motif of a group of prisoners being tied together by one rope, running from neck to neck, is mainly found in New Kingdom temple iconography.

Fragment N1036+N2069a shows a group of four prisoners whose arm and head positions vary. All of them are shown in profile, with three looking backwards and only the third looking forwards. While the middle two have their arms behind their backs, the first is holding the rope of the group, with the last holding his own individual rope, to which his hands may be tied. Also, the third individual has a separate rope around his neck, hanging in front of his body. It is only on the last two figures that the legs are preserved, and they are shown on tip-toes, their posture showing them hurrying forwards.

The variety in posture for each prisoner is typical for scenes of bound captives, but quite often in Egyptian reliefs the degree of variation is even higher, especially for the position of the arms of bound prisoners. The best parallels can be found in the military campaigns dating from Sethos I to Ramses III. In the campaign of Sethos I against Hatti and Libya, shown in Karnak (fig. 27a-b), larger groups of ten individuals are shown in a dense row, leaving no gaps between the bodies of the prisoners. All of them are looking forwards and the arms show a high degree of variety. Some are bound with their arms over their heads, the arms rising up from either side, or else bending over the head from behind. Others have the arms tied in front of the body, either with some sort of handcuffs or without. All of these prisoners are depicted standing normally, using the whole foot, except for the last one, who is shown half on tip-toes.

For prisoners under Ramses II, for example from the battle of Qadesh (fig. 27c-d), often much smaller groups with three prisoners are shown, with Egyptian guards accompanying each group both front and behind. There is a lot more space shown between the bodies. The captives are depicted occasionally in a frontal position, while there is again much variation in the arms and none of the prisoners is shown on tip-toes.

For the time of Ramses III, the number of prisoners in a group can vary as well, mostly between four and five, although up to seven people can be found in Medinet Habu (fig. 27e-g). Here some space is shown between the bodies of the individuals. The direction of the heads, as well as the position of the arms, varies as before, but prisoners are much more often shown on tip-toes and the individual ropes and the neck ropes are emphasised much more. Even the king himself is depicted, binding captives and holding them in groups by the rope, presenting them to the god (fig. 27h-i).

Frequently in the New Kingdom, personified place names can be shown in the form of bound captives. These figures have their arms bound at the elbows behind the backs, with a rope binding the whole group by the neck and a loose end of rope hanging down from the neck of each individual (fig. 27j).

Such loose ends of rope hanging down in front of the body can be also found on glazed tiles of Ramses III, found in Qantir, Tell el-Yahudiya and Medinet Habu.¹³⁵ These mostly show one rope loosely tied around the neck with one end of the rope hanging down in front of the body and the shorter second end usually turning upwards in front of the face. Both ends are decorated with a lotus or papyrus flower, as is known already from temple scenes.

¹³⁵ Porter and Moss 1972, 524–525. The tiles were decorating the niches at the base of walls, among other locations, see Friedman 1998, 196–197; Anthes 1951, 42–44; Hayes 1937 and Petrie 1906, 17, pl. XVIIA.

The glazed tiles even show a striped decoration of the rope, sometimes in blue and black or white and red colour. The loose end for each person might have been used after the group itself was untied to hold each individual separately on a rope, as seen, for example, on the Persian cylinder seal ME 132505 (fig. 26i).¹³⁶ The captives on the tiles are usually shown in tip-toes as well.

The motif of the Libyans and Egyptians fighting against the Assyrians shown on the tile N1036+N2069a is not surprising at the time of the Third Intermediate Period. Since the New Kingdom, Libyans and other foreigners can be found employed as mercenaries in the Egyptian army. Even though not much is known about the character of the Egyptian army in the Third Intermediate Period,¹³⁷ it seems very likely that the period of Libyan rule (the 23rd Dynasty) resulted in further Libyan groups being integrated into the army. In the Kushite Period, certainly, greater numbers of Kushite soldiers will have been employed in the army, as shown in the Assyrian relief BM 124928.¹³⁸ The group of Libyan prisoners captured while fighting with the Egyptian army against the Assyrians is proof that Libyan soldiers (perhaps mercenaries) were still present, and probably in abundance, at the end of the 25th Dynasty. The few preserved tiles on which the Egyptian army is represented show a proportion of eight Assyrian soldiers to five Libyans (four bound and one dead) and one dead Egyptian, with possibly one other Egyptian fighting. Although this might be due to the state of preservation, a large number of Libyan individuals can be attested for the Egyptian army of this time period. Considering that Libyan (and other foreign) mercenaries had always been present in the Egyptian army, and given that a high number of Libyans will have been included in the 22nd – 24th Dynasties, it is not very surprising to see the Libyans represented here as such a large component of the army.

No other known representation of the Libyans seems to show them shaven headed with a tassel. In general, all Libyan tribes depicted in reliefs have longer hair, one or two feathers and a tassel at one side. The latest known depictions can be dated to Ramses III, and after that time no further representations in art are known. This leaves us with a gap of 500 years in which Libyan iconography is effectively a blank in the archaeological record.

Summary

In conclusion, the re-examination and study of Esarhaddon's tiles from Fort Shalmaneser has brought to light many significant new details and has enabled a thorough reassessment of this material. Instead of a small group of disparate fragments that had been only partly published as a curiosity, we are now able to assemble two substantially complete tiles, enabling us to estimate their original sizes and the likely size of the complete composition. Also, a far greater appreciation of the novel composition from which they come is now possible.

In addition, a complete review of the surviving documentary record of the tiles has been made, making it possible to follow the circumstances of discovery in much greater detail. Although we were not able to locate precisely the findspot of the tiles, we are now in a much better position to define this as being at the foot of Tell el-Athar and beyond "*the enclosure*".

¹³⁶ Curtis and Tallis 2005, 228, no. 415.

¹³⁷ Spalinger 1981, Sagrillo 2012, 438–439.

¹³⁸ Orthmann 1975, 324, no. 238.

One of the perennial questions in the study of Assyrian art has been the degree of influence from the art of Ancient Egypt. The realisation that one of these tiles directly quotes a well-known Egyptian topos from Ramesside art, a conclusion resulting from a close study of the original material, reopens this question and for the first time provides significant evidence.

Another important result arising from the close study of the objects has been a reassessment of the structure that had wrongly been interpreted as a fortress but which is, in fact, a tower house, a well-known type of Egyptian architecture from the Third Intermediate Period onwards. Not only is this the sole contemporary representation of a tower house, but also the earliest known depiction of any Egyptian tower house.

Putting all the evidence together reveals for the first time that this composition was clearly a major battle scene, comparable to the much-discussed and famous reliefs of Til Tuba, and we can now see that these tiles were actually a forerunner of those reliefs.

In addition, the tiles have been cleaned, conserved and the composition of the glaze analysed, giving new insights into Assyrian manufacturing technology and the use of colour.

And finally, it is now clear that these tiles are the best comparative evidence available for the colouring of 7th century Neo-Assyrian stone palace reliefs and give new insights into the colouring of military scenes.

Appendix: Experimental

Laser systems

Laser tests were done with an Erbium YAG Fidelis XS (Fotona), which emits infrared radiation at 2,940 nm. The pulse width was set to 100 μ s, the working distance was c. 4 cm, the laser spot size was 3 mm in diameter. The energy range used for the preliminary tests was 40–400 mJ, yielding fluences between 0.6 and 5.7 J/cm². Both dry and wet (deionised water and mixture 1:1 water with ethanol) conditions were tested. Tests with a Q-Switched Neodymium YAG Phoenix Athena (Lynton) were also done at 1,064 and 532 nm under dry conditions. The latter wavelength was the most efficient at removing the crust and yielded the desired level of cleaning. Therefore, the following conditions were set for the conservation treatment of the tiles using 532 nm radiation: pulse width 5–10 ns, working distance c. 5–15 cm, spot diameter 3–5 mm, energy level c. 700 mJ, fluence range 3.6–9.9 J/cm², frequency 2.5 Hz.

Sampling

One sample of the dark crust, one micro-sample of the white outline and nine micro-samples of the coloured glaze were taken carefully with a scalpel. Details of each sample are shown in the table 3 below.

Sample ID	Sample description	Tile fragment	Analytical techniques	Materials identified
C1	Dark crust	N2069e	SEM-EDX	Gypsum, carbon particles, silicates (likely from clay underneath)
O1	White outline	N2066		Quartz-rich slip
G1	Orange glaze (hose)			Lead antimonate, iron-based
G2	Light green glaze (hose)			Copper-based?, trace of lead antimonite
G3	Dark green glaze (background)			Copper-based
G4	Beige glaze, with black particles? (hair)			Gypsum, likely remnants of black crust
G5	Light green glaze, top layer (background)	N2069i	OM, SEM-EDX, Raman	Copper-based, traces of lead antimonate?
G6	Dark green glaze, bottom layer (background)			Copper-based, traces of lead antimonate?
G7	Yellow glaze (ground)			Iron-based, traces of lead antimonate
G8	Opaque white area (slip?), (tower house)	N2069c		Magnesium and calcium-based (Dolomite-rich slip?), traces of lead antimonite
G9	Purple? glaze (background)	N2069h		Iron-based

Table 3: List of samples from crust, outline and glaze analysis.

Multispectral imaging (MSI)

Images of the glazed tiles were taken using a modified Nikon D7000 camera body. The modification consists of the removal of the inbuilt UV-IR blocking filter, in order to exploit the full sensitivity of the CMOS sensor (c.300–1,000 nm). The lens used was a Canon EF 50mm f/1.8II. A reference grey scale, comprising a set of Lambertian black, grey and white tiles, was placed in the same plane as the object under investigation. For visible-reflected imaging (VIS), the tiles were illuminated by two photographic Classic Elinchrom 500 Xenon flashlights, each equipped with a softbox and symmetrically positioned at approximately 45° with respect to the focal axis of the camera and at about the same height. An interference UV-IR blocking X-Nite CC1 filter (centre wavelength 483nm, 50% transmission at 325 nm, 645 nm) was placed in front of the camera lens. For infrared-reflected imaging (IRR), the tiles were illuminated as above and a Schott RG830 cut-on filter (50% transmittance at c.830 nm) was placed in front of the camera lens in order to block off the visible component and investigate the range between 800 and 1,000 nm. For ultraviolet-induced visible luminescence imaging (UVL) the excitation was provided by two Wood's radiation sources (365 nm) filtered

with a Schott DUG11 interference band-pass filter (280–400 nm). The radiation sources were symmetrically positioned at approximately 45° with respect to the focal axis of the camera. A Schott KV418 cut-on filter (50% transmission at c.418 nm) and a UV-IR blocking filter X-Nite CC1 were placed in front of the camera lens to investigate the visible range. Images were acquired as RAW files and transformed into $3,888 \times 2,592$ pixel resolution images in 16-bit TIF format, by applying a set of recommended pre-sets that turn off all enhancements using Adobe Photoshop. Post-processing procedures for the standardisation and calibration of the VIS, IRR, UVL, UVR and VIL images are then carried out using “BM_workspace”, a plug-in for Nip2, the open-source graphical user interface of VIPS software.

Optical and digital microscopy (OM, DM)

The surface of the glazed tiles was observed and photographed using a Keyence digital microscope VHX-5000, with a VH-Z 20R lens, a range of magnification between 20 and 200x, an automated stage VHX-S 550E and LED reflected illumination. The glaze samples were studied with a Leica MS APO microscope with reflected light and magnification between 5x and 50x.

Variable pressure scanning electron microscopy with energy dispersive X-ray spectrometry (VP-SEM-EDX)

The samples were investigated with a VP-SEM-EDX. A Hitachi S3700 system was used in low-vacuum mode (40 Pa), operating at 20 kV. The samples were laid on a carbon sticky pad. The EDX spectra were collected using an Oxford Instruments INCA EDX spectrometer with a 0–10 KeV spectral range and 150 seconds live time. Quantitative analysis was calibrated using cobalt standards and Oxford instruments INCA software.

Raman spectroscopy

The glaze samples were analysed by Raman spectroscopy with a Jobin Yvon LabRam Infinity spectrometer using a green laser (532 nm) with maximum power of 2.4 mW at the surface, a liquid-nitrogen cooled CCD detector and an Olympus microscope system. The resultant spectra were identified by comparison with a British Museum in-house database.



Fig. 2a: Matrix of tile N1036 (Layard no. 1) with excavation soil before cleaning. © Trustees of the British Museum.



Fig. 2b: Matrix of tile N2069a, (Layard no. 2) showing temper. © Trustees of the British Museum.



Fig. 2c: Right lateral edge of tile N2067 with marks of cutting. © Trustees of the British Museum.



Fig. 2d: Detail of glaze with original surface preserved on N2067. © Trustees of the British Museum.



Fig. 2e: Detail of lower layer of glaze preserved only on N2067. © Trustees of the British Museum.



Fig. 2f: Detail of glaze on N2027. © Trustees of the British Museum.

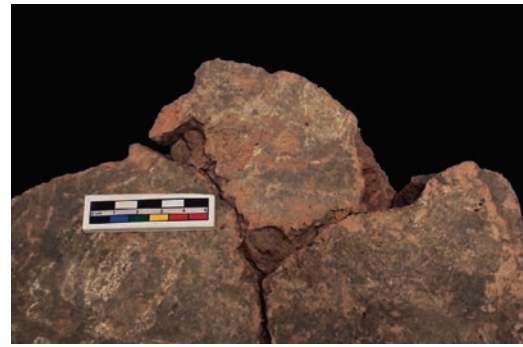


Fig. 2g: N2069e, detail of marks of pick-axe, top part. © Trustees of the British Museum.



Fig. 2h: N2069e, detail of marks of pick-axe, right side. © Trustees of the British Museum.



Fig. 2i: N2069e, detail of left lateral edge with traces of glaze or fitters' mark in yellow. © Trustees of the British Museum.



Fig. 2j: N2069f, detail of right lateral edge with traces of glaze or fitters' mark in white. © Trustees of the British Museum.



Fig. 2k: N2069e, detail of lower lateral edge with traces of glaze or fitters' mark. © Trustees of the British Museum.



Fig. 2l: N2069e with possible remains of mud plaster on rear of lower part. © Trustees of the British Museum.



Fig. 3a: ME 92183 before conservation. © Trustees of the British Museum.



Fig. 3b: ME 92183 after conservation. © Trustees of the British Museum.



Fig. 3c: N2069a before conservation. © Trustees of the British Museum.

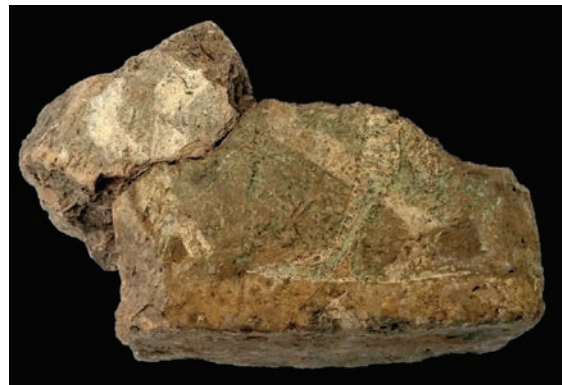


Fig. 3d: N2069a after conservation. © Trustees of the British Museum.

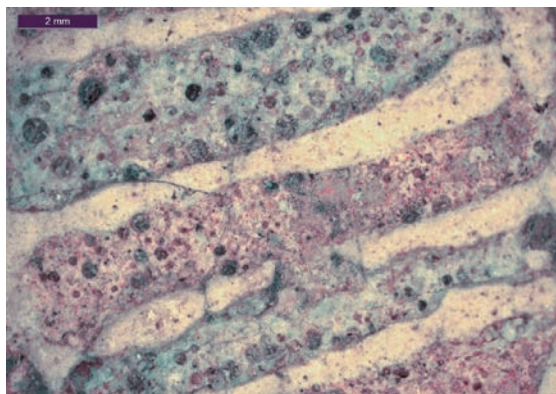


Fig. 3e: ME 92183, detail of left leg of soldier with green glaze, a powdery orange material and a white outline applied on top. © Trustees of the British Museum.

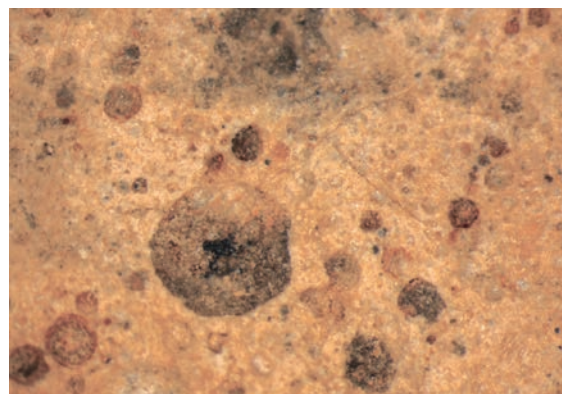


Fig. 3f: ME 92183, detail of the hair of the soldier with beige glaze and black particles in the voids. © Trustees of the British Museum.

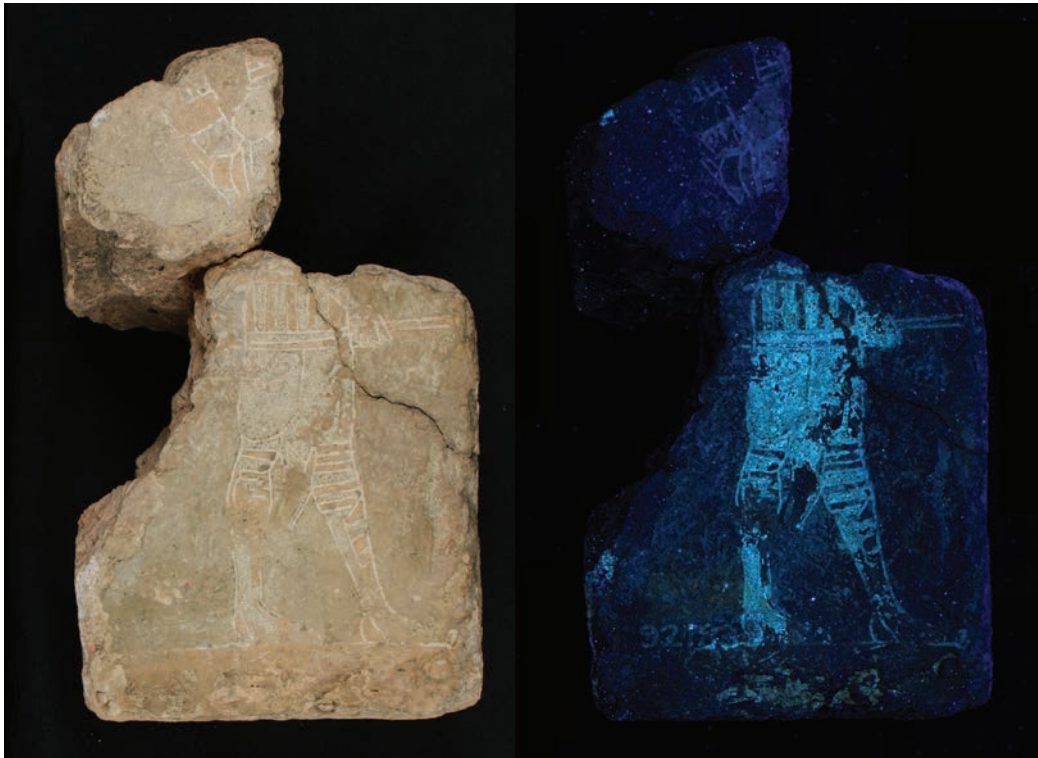


Fig. 4a: ME 92183, visible reflected (VIS) image on the left, ultraviolet luminescence (UVL) image on the right. © Trustees of the British Museum.

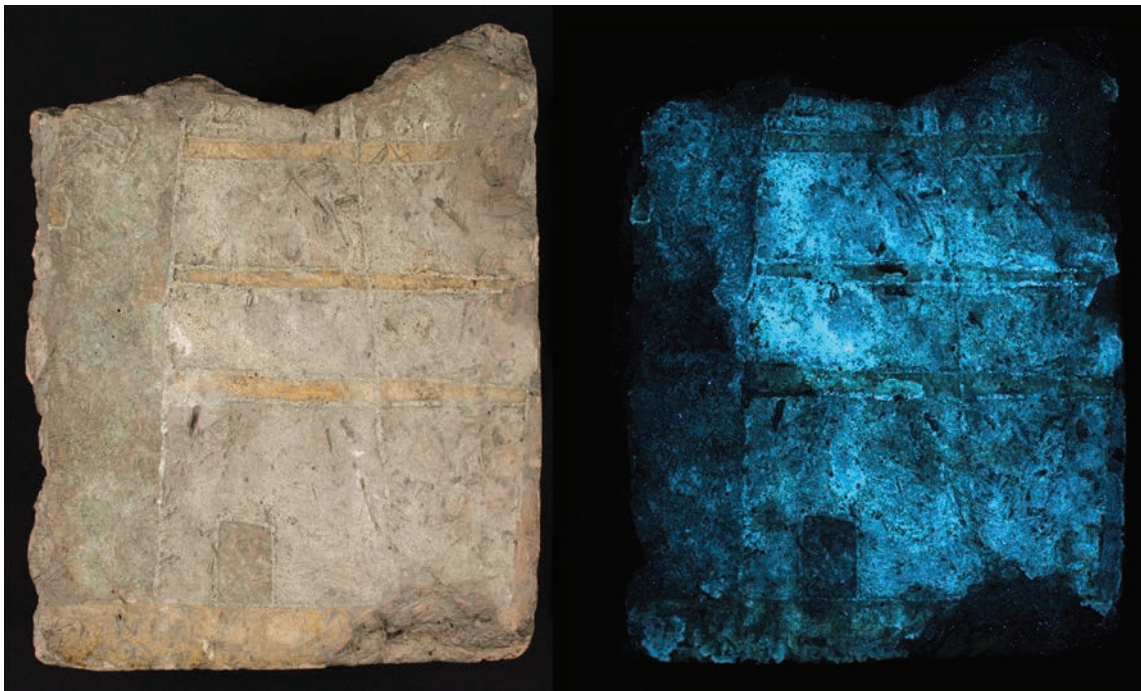


Fig. 4b: N2067, visible reflected (VIS) image on the left, ultraviolet luminescence (UVL) image on the right. © Trustees of the British Museum.

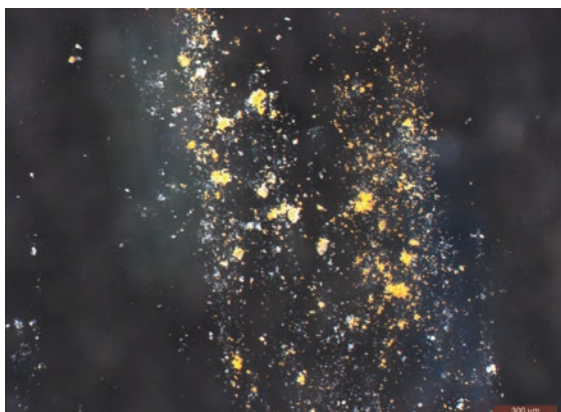


Fig. 5a: Sample G1, orange glaze from N2066, Micro-photograph showing opaque yellow and orange particles.

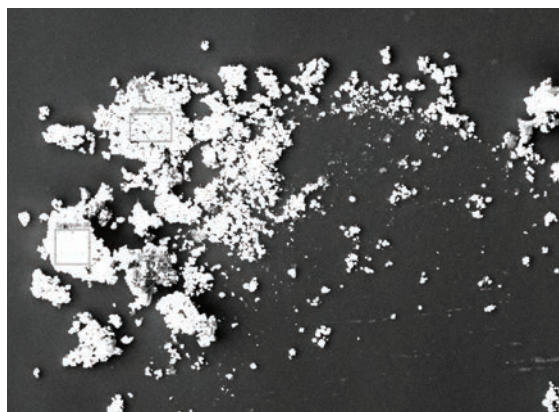


Fig. 5b: SEM image of G1 showing orange powdery material, and no proper glaze fragments preserved.

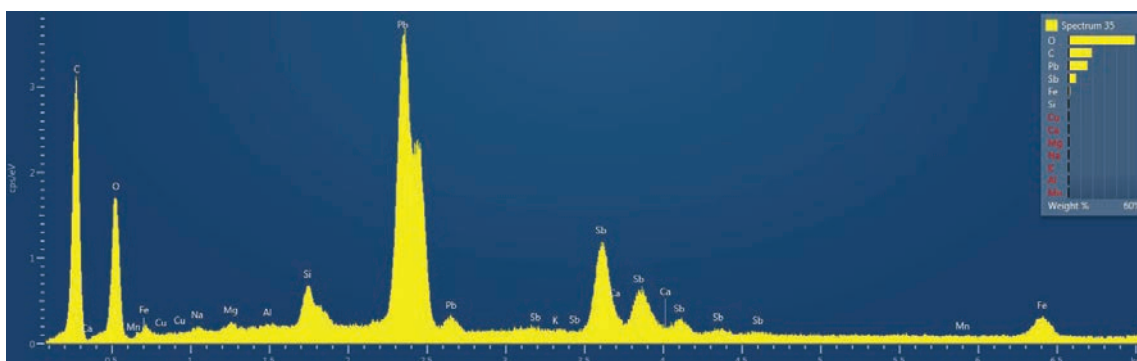


Fig. 5c: EDX spectrum of an area on G1 showing a high content in lead (Pb) and antimony (Sb) due to the yellow pigment, some iron (Fe) likely added to modify the hue of the glaze, and little silicon (Si), indicating the severe deterioration of the glass.

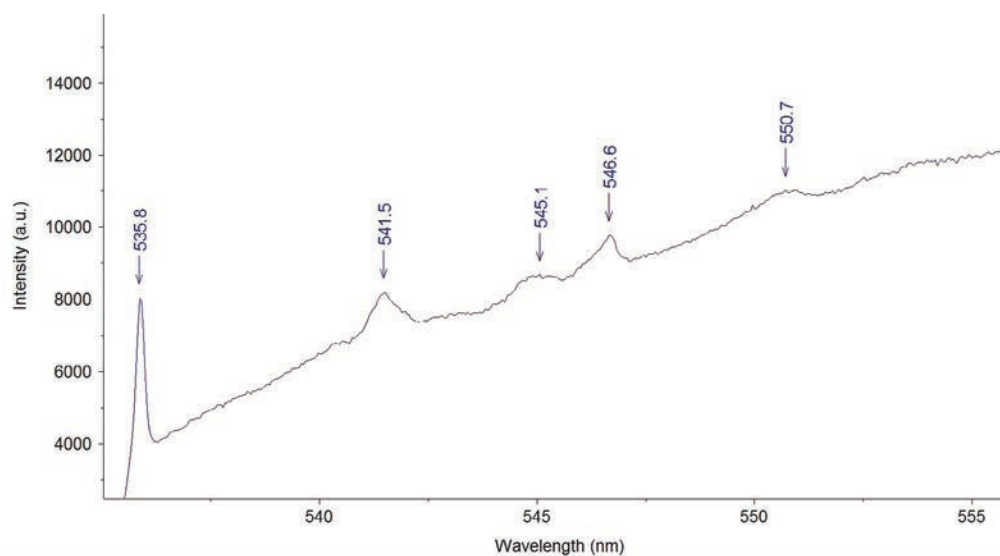


Fig.5d: Raman spectrum of G1 showing the characteristic bands of lead antimonate yellow.

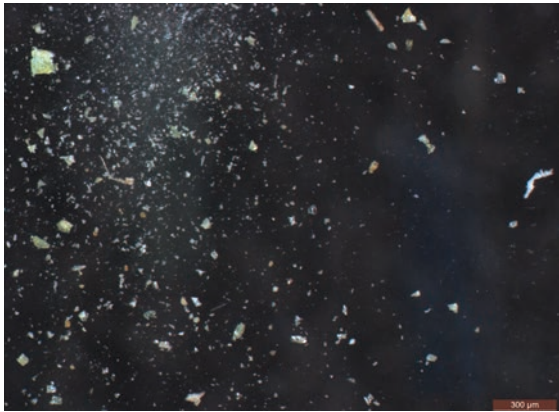


Fig. 6a: Sample G6, the orange glaze from N2069i, Micro-photograph showing translucent fragments of green glaze.

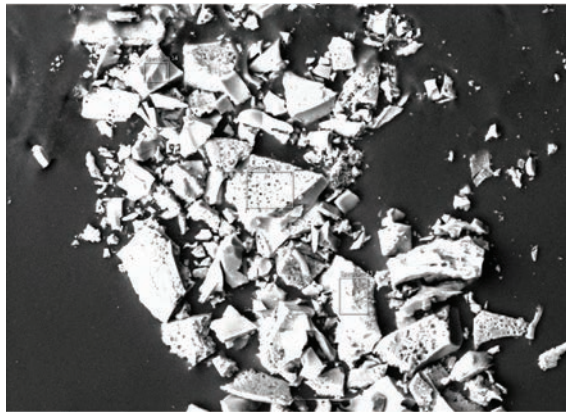


Fig. 6b: SEM image of G6 showing bubbles in the glaze fragments due to the firing at high temperature.



Fig. 6c: EDX spectrum of an area on G6 showing a high content in silicon (Si) and calcium (Ca) from the glass and copper (Cu) which gives the green colour.



Fig. 7a: ME 92183, Photo. © Trustees of the British Museum.



Fig. 7b: ME 92183, Cooper's Drawing (Layard 1853b, pl. XXXVI).

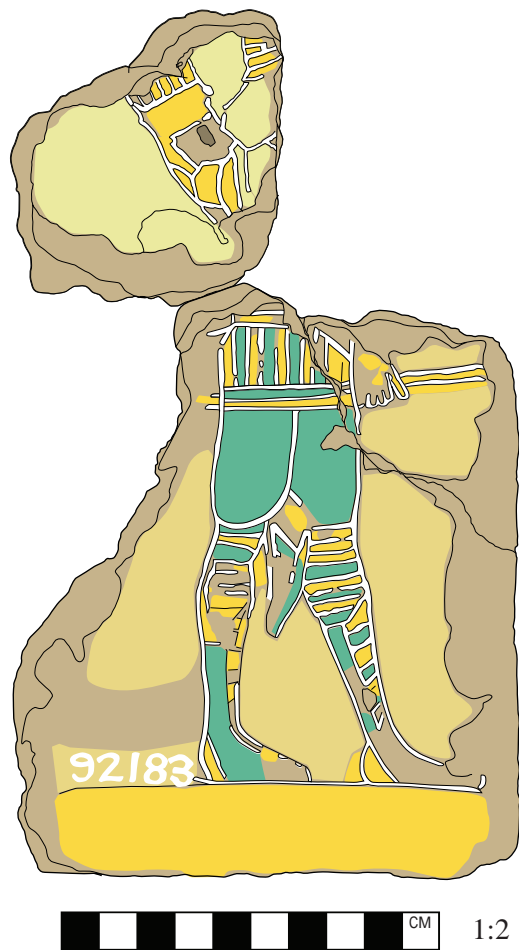


Fig. 7c: ME 92183, Drawing to scale.



Fig. 8a: N1036 + N2069a, Photo. © Trustees of the British Museum.

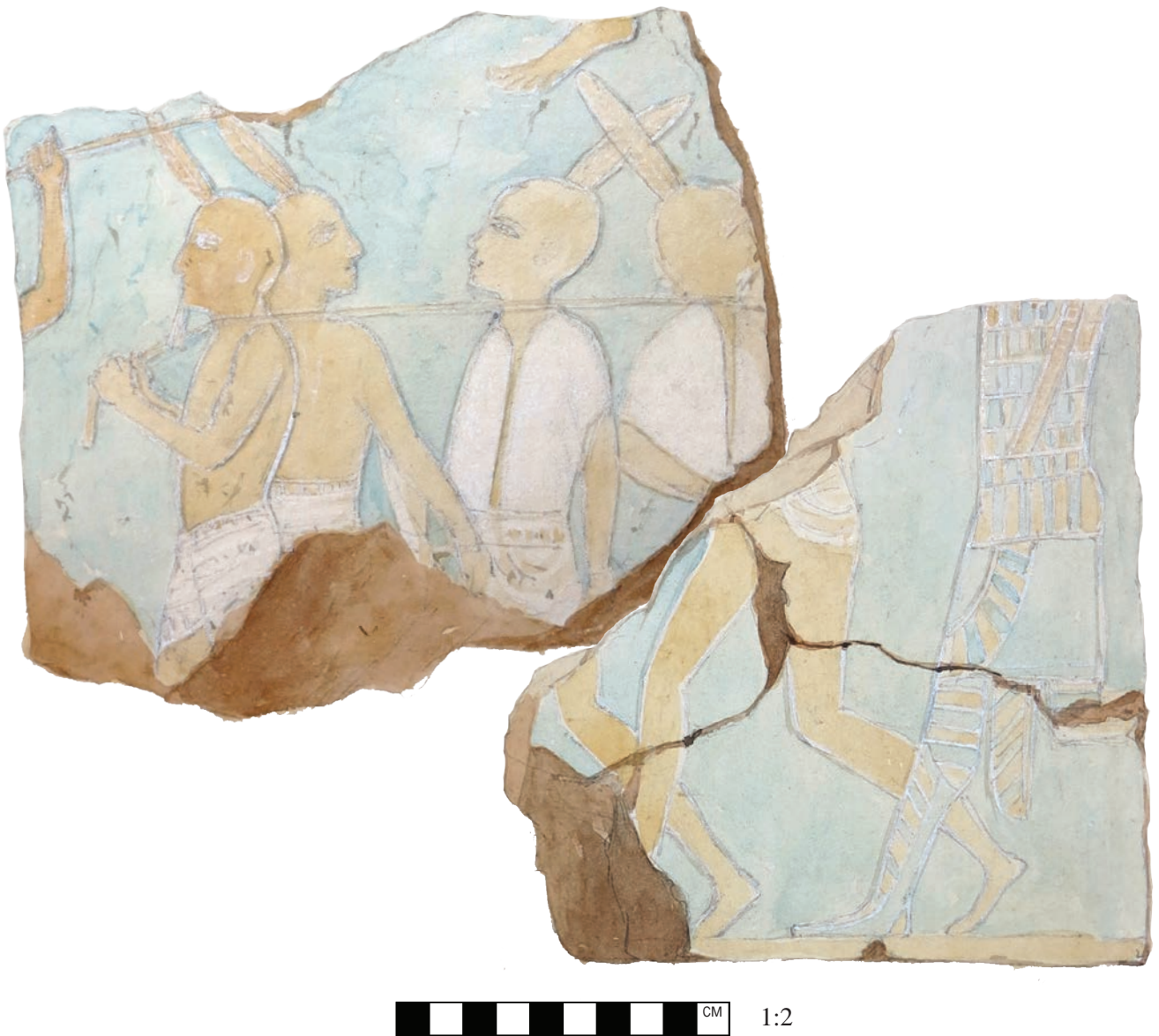


Fig. 8b: N1036+N2069a, Cooper's Drawing, top: Layard no. 1, bottom: Layard no. 2 (Layard 1853b, pl. XXXV).



Fig. 8c: N1036 + N2069a, Drawing to scale.



Fig. 9a: N2025, Photo. © Trustees of the British Museum.



Fig. 9b: N2025, Cooper's Drawing (Layard 1853b, pl. XXXVI).

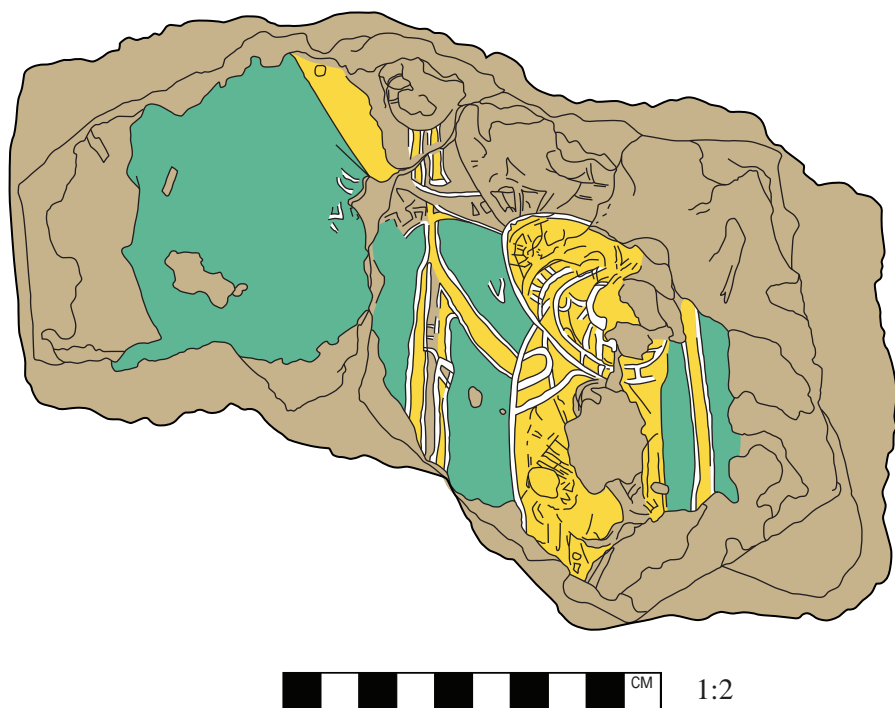
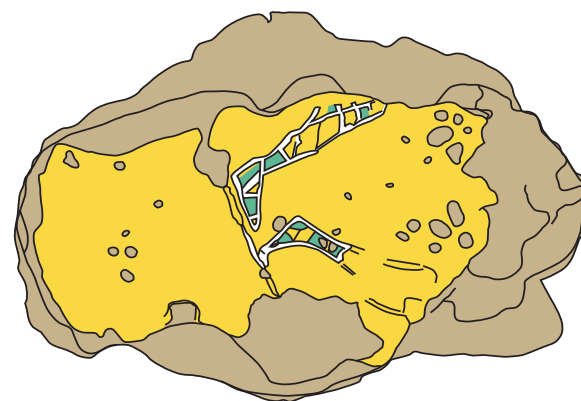


Fig. 9c: N2025, Drawing to scale.



1:2

Fig. 10a: N2027, Photo. © Trustees of the British Museum.



1:2

Fig. 10b: N2027, Drawing to scale.



1:2

Fig. 11a: N2067, Photo. © Trustees of the British Museum.



Fig. 11b: N2067, Cooper's Drawing (Layard 1853b, pl. XXXVI).

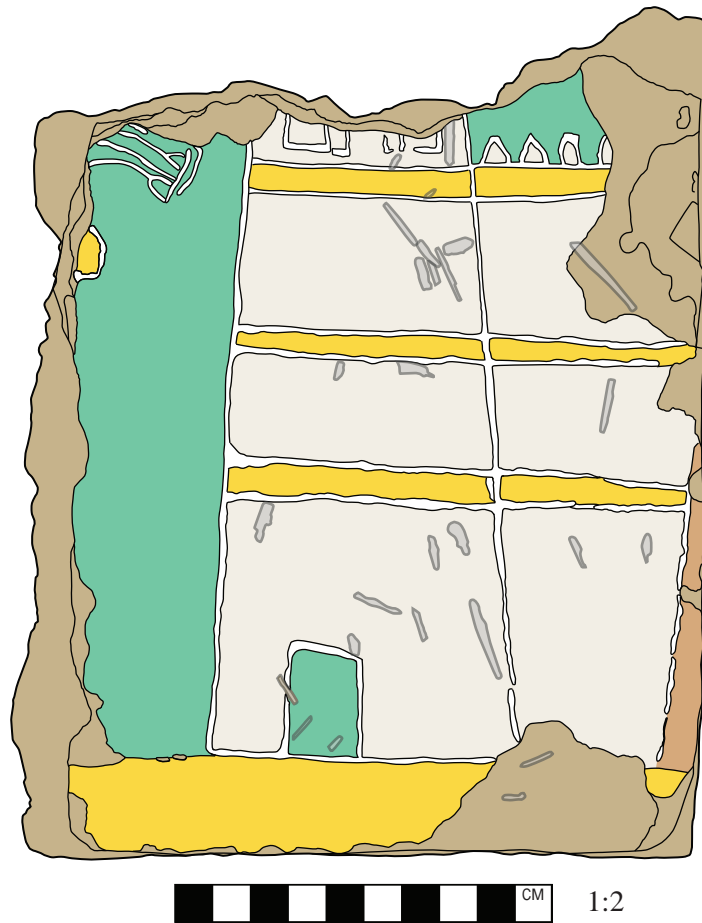


Fig. 11c: N2067, Drawing to scale.



Fig. 12a: N2069b, Photo. © Trustees of the British Museum.

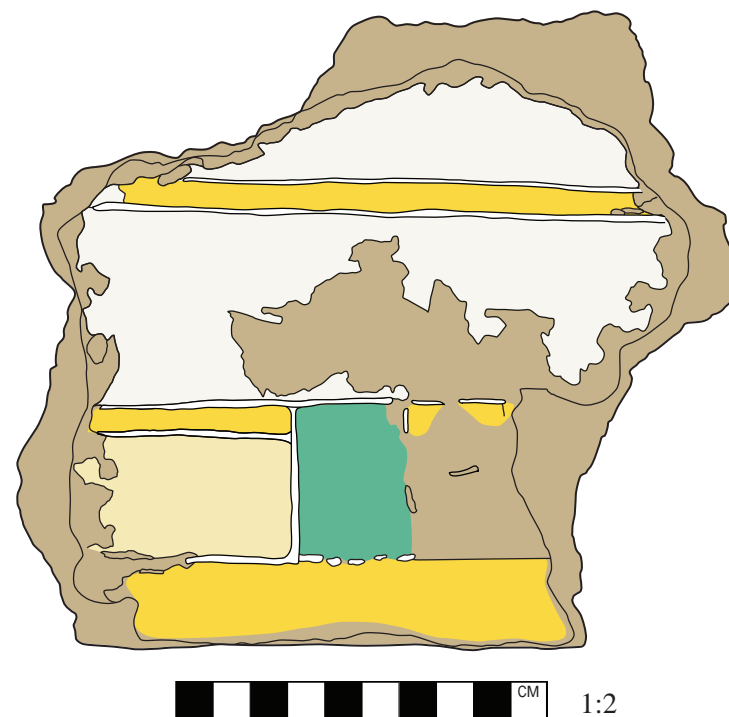


Fig. 12b: N2069b, Drawing to scale.



Fig. 13a: N2069c, Photo. © Trustees of the British Museum.

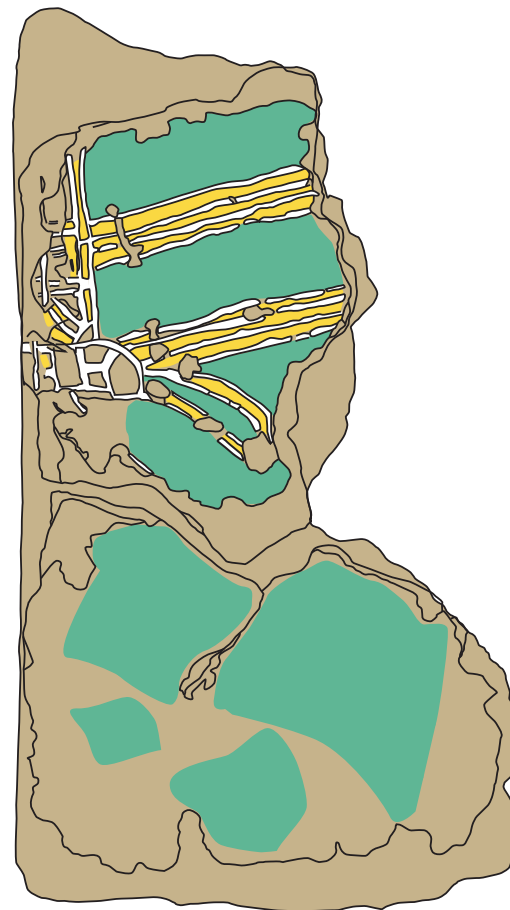


Fig. 13b: N2069c, Drawing to scale.



Fig. 14a: N2069d, Photo. © Trustees of the British Museum.



Fig. 14b: N2069d, Cooper's Drawing (Layard 1853b, pl. XXXVI).

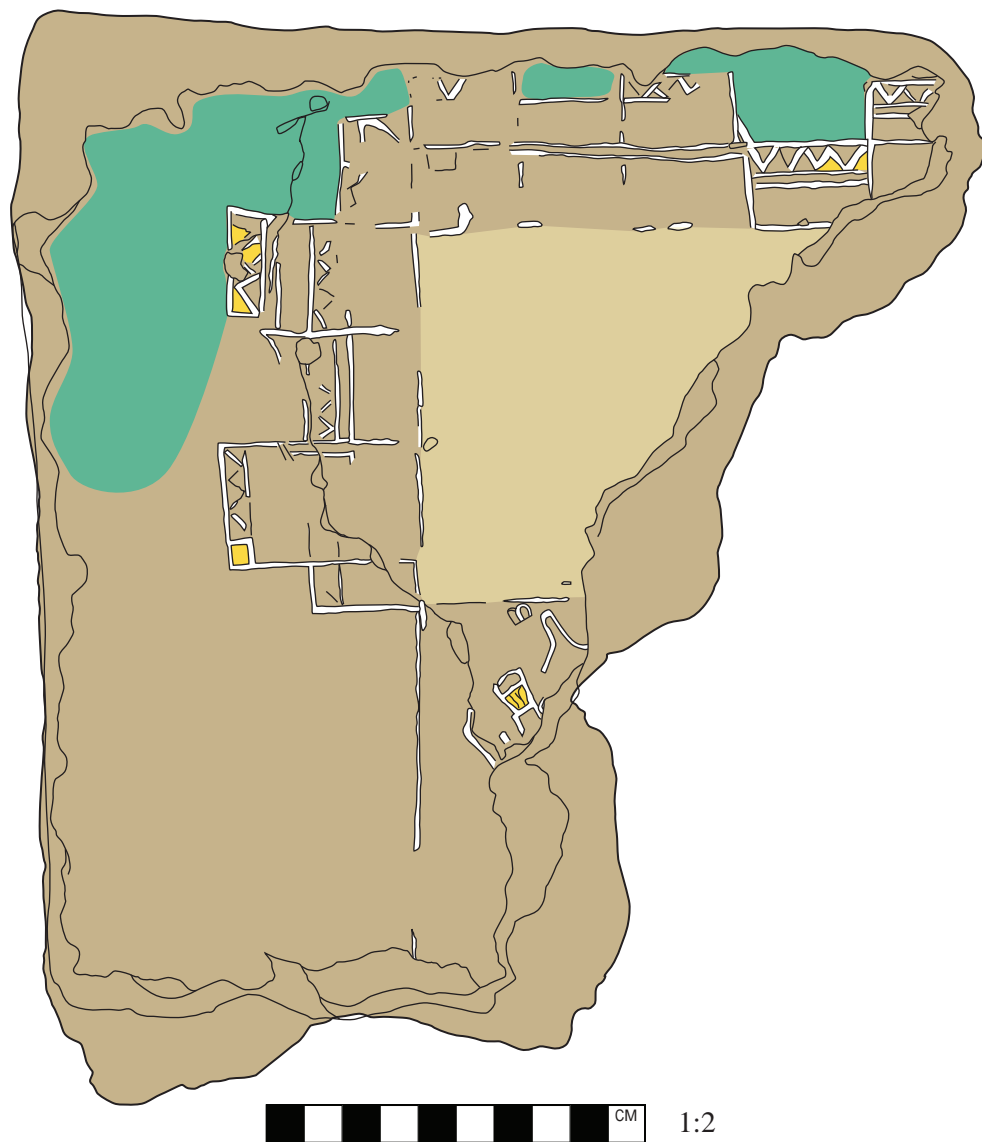


Fig. 14c: N2069d, Drawing to scale.



Fig. 15a: N2069e, Photo. © Trustees of the British Museum.



Fig. 15b: N2069e, Cooper's Drawing, top: Layard no. 8, bottom: Layard no. 3 (Layard 1853b, pl. XXXV, XXXVI).

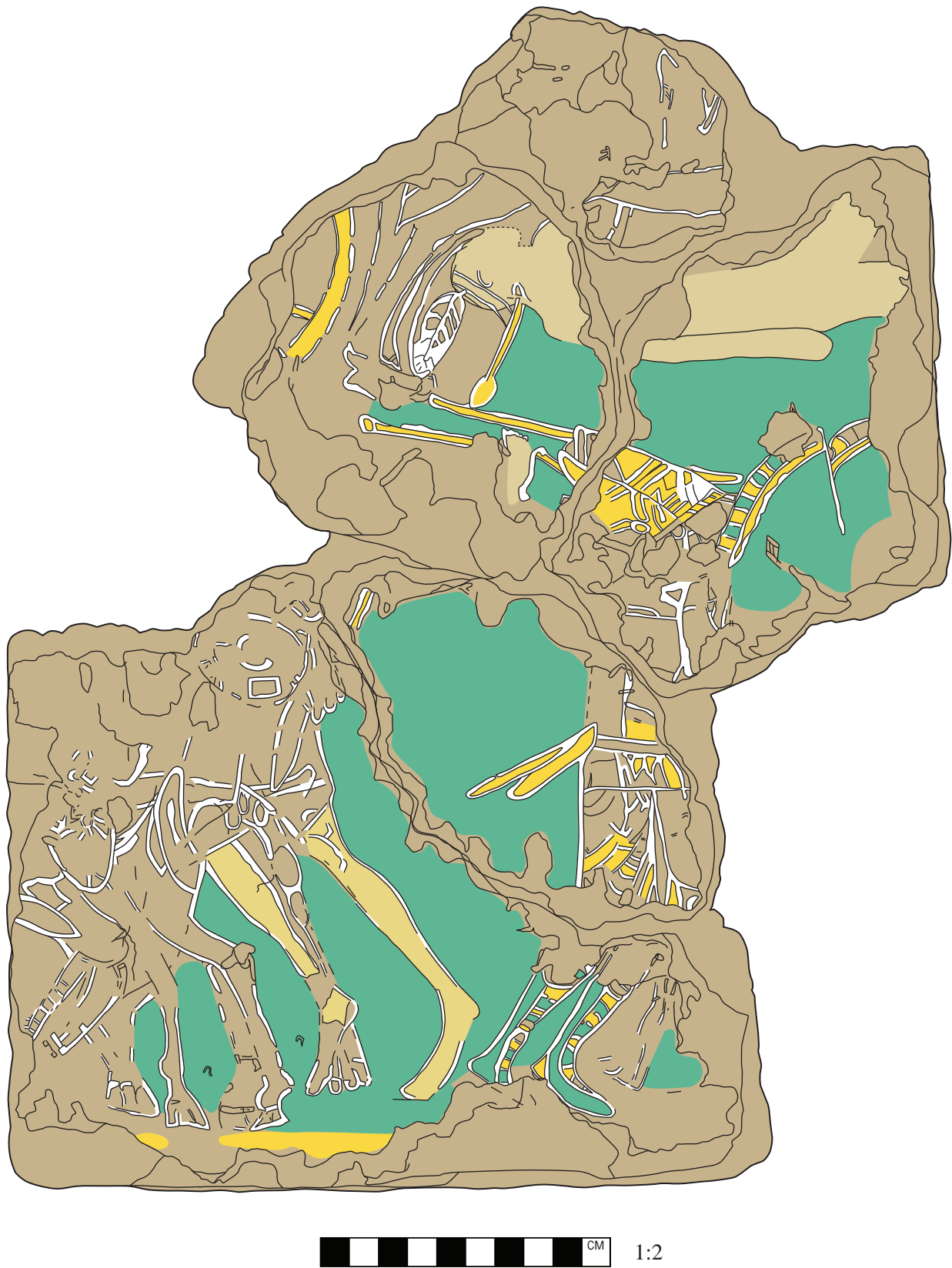


Fig. 15c: N2069e, Drawing to scale.



1:2

Fig. 16a: N2069f, Photo. © Trustees of the British Museum.



Fig. 16b: N2069f, Cooper's Drawing (Layard 1853b, pl. XXXVI).

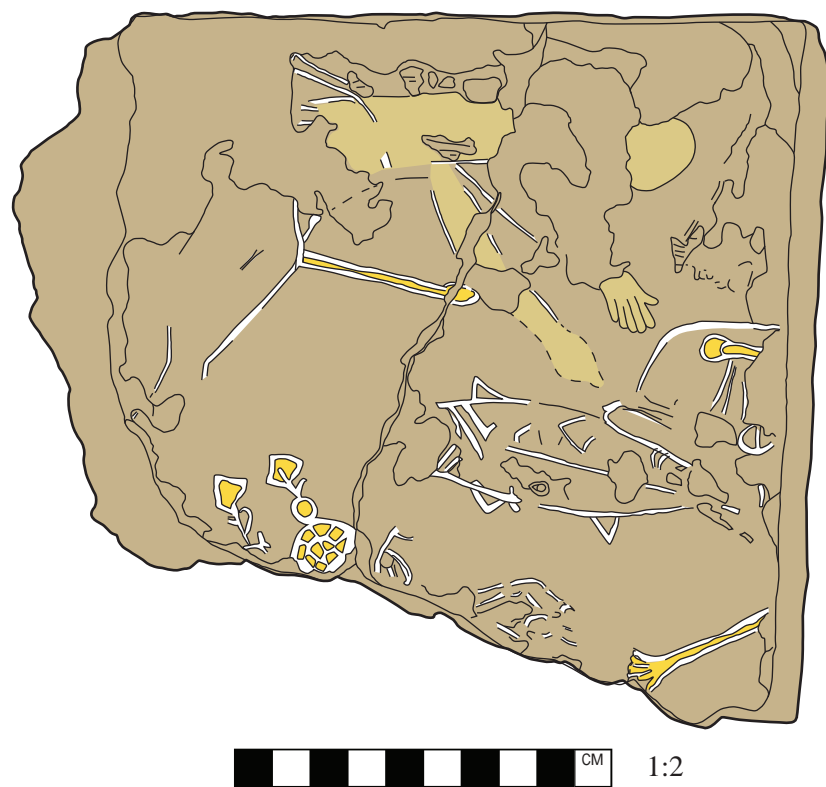


Fig. 16c: N2069f, Drawing to scale.



1:2

Fig. 17a: N2069g, Photo. © Trustees of the British Museum.



1:2

Fig. 17b: N2069g, Drawing to scale.

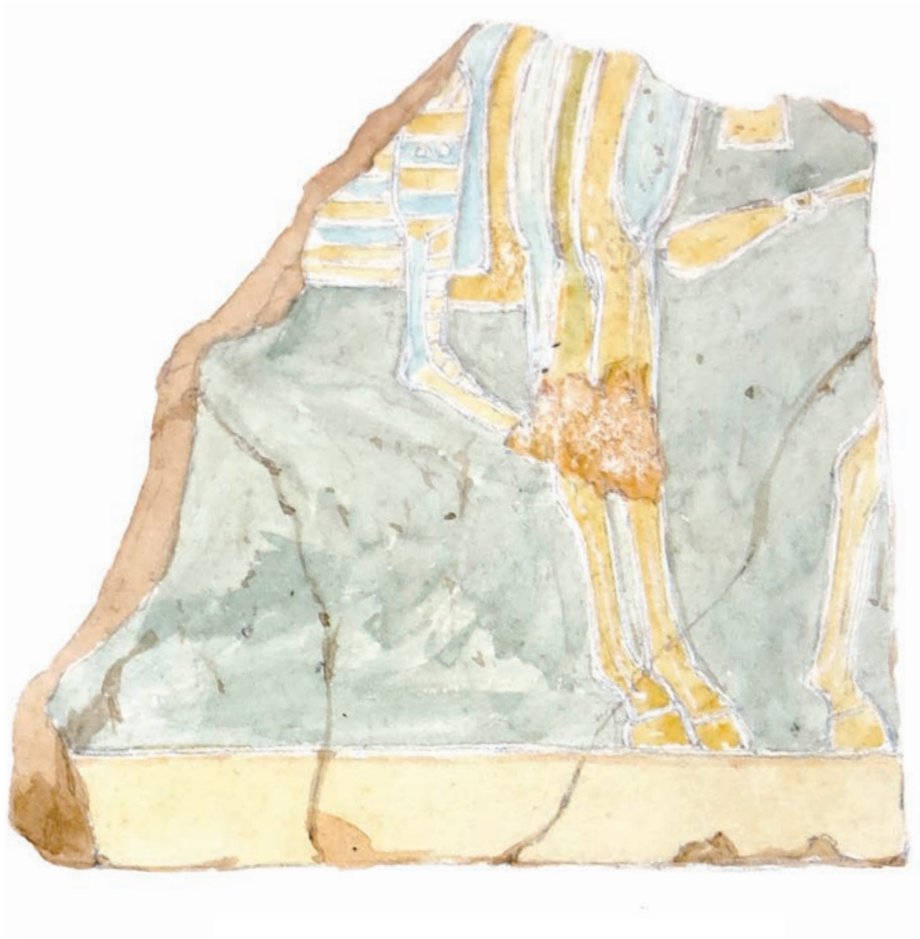
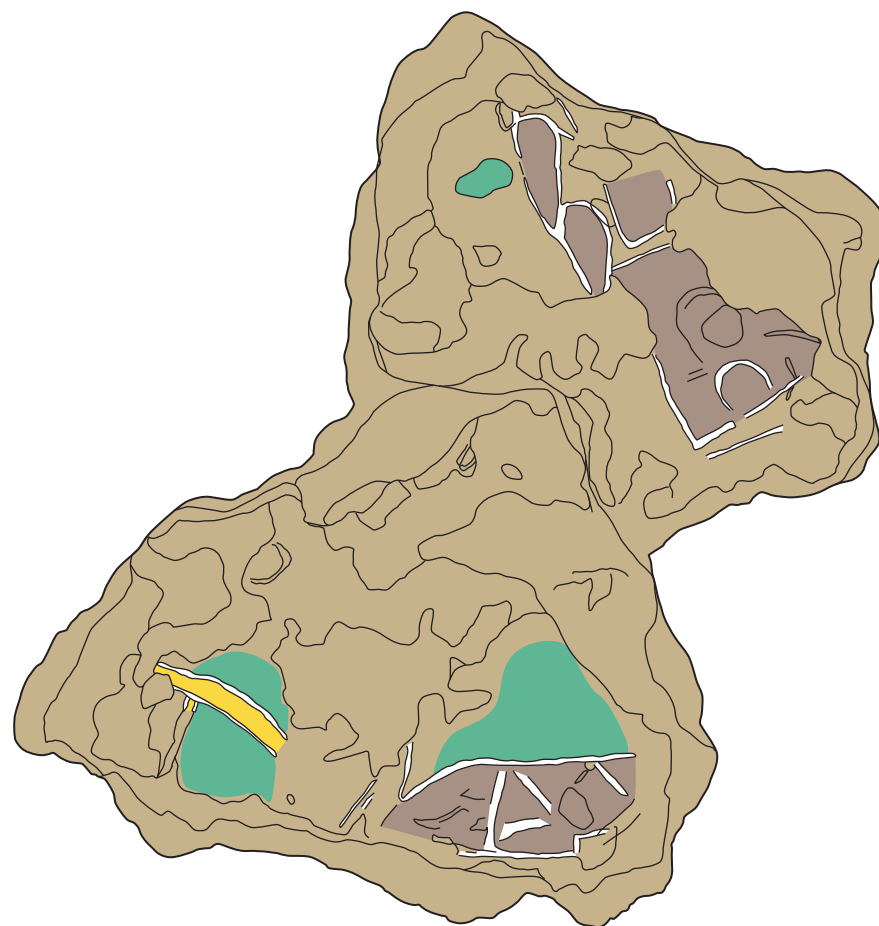


Fig. 17c: Layard no. 4, Cooper's Drawing (Layard 1853b, pl. XXXV).



1:2

Fig. 18a: N2069h, Photo. © Trustees of the British Museum.



1:2

Fig. 18b: N2069h, Drawing to scale

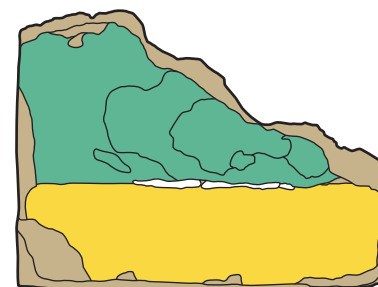


Fig. 18c: Layard no. 5, Cooper's Drawing (Layard 1853b, pl. XXXVI).



1:2

Fig. 19a: N2069i, Photo. © Trustees of the British Museum.



1:2

Fig. 19b: N2069i, Drawing to scale.

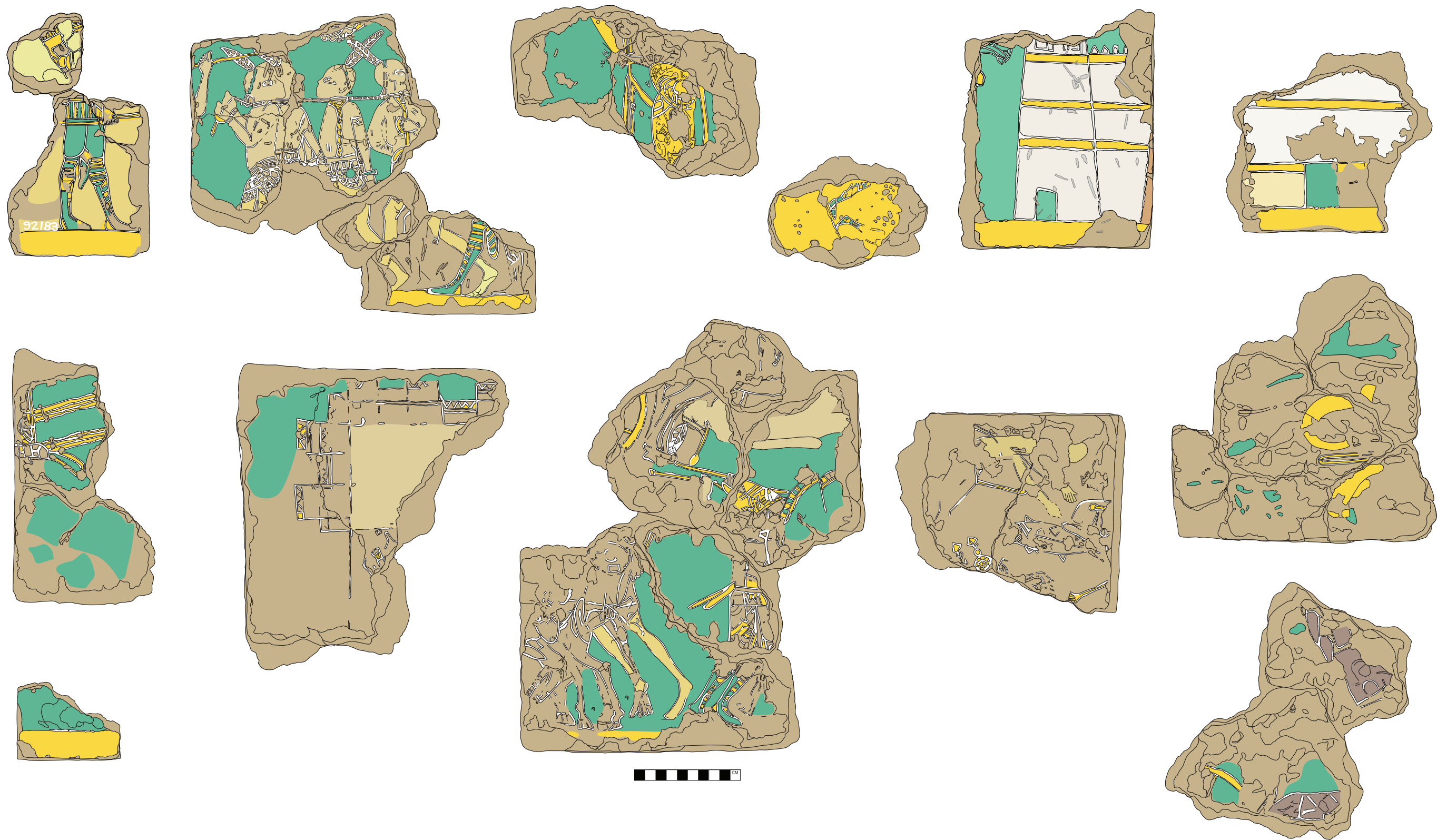


Fig. 20: All drawings of the fragments arranged together at the same scale.

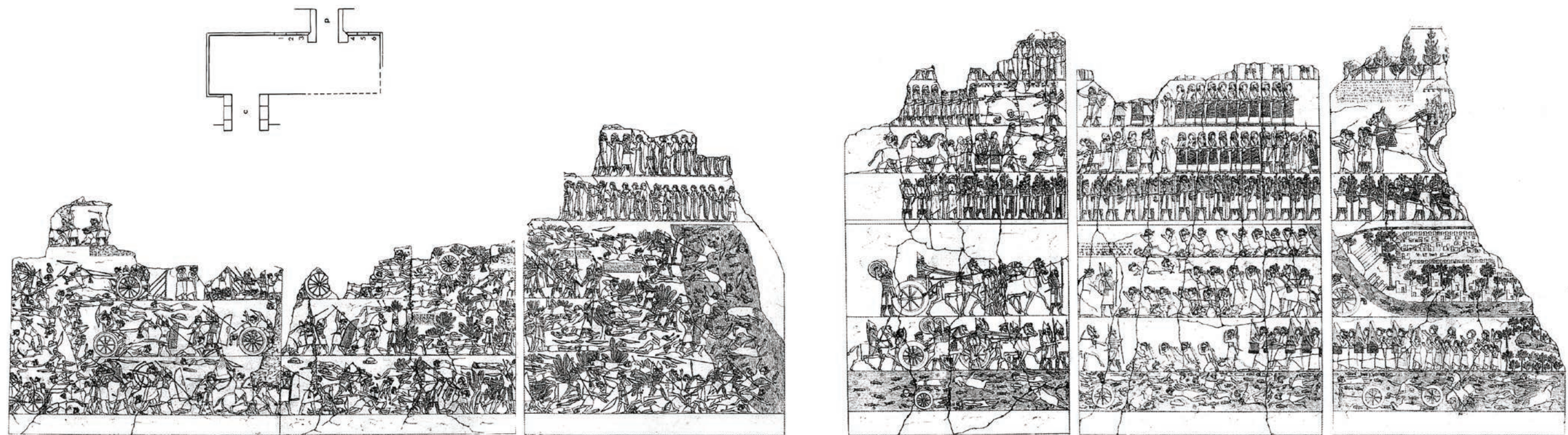


Fig. 21a: Line drawing of the surviving relief slabs showing the battle of Til Tuba and its aftermath from the South-West Palace at Nineveh, after Barnett 1998, pl. 286.



Fig. 21b: Photo of the surviving relief slabs showing the battle of Til Tuba and its aftermath from the South-West Palace at Nineveh, BM 124801, © Trustees of the British Museum.



Fig. 22a: Parallel for ME 92183 with standing Assyrian archer from Tell Tayinat, after McEwan 1937, fig. 10.



Fig. 22b: Parallel for N2027, detail from Til Tuba, BM 124801, © Trustees of the British Museum.



Fig. 22c: Parallel for N2069d, detail from Til Tuba, BM 124801, © Trustees of the British Museum.



Fig. 22d: Possible position of fragment N2069c within a scene, BM 124801, © Trustees of the British Museum.



Fig. 22e: Parallel for N2069e, detail from Til Tuba, BM 124801, © Trustees of the British Museum.



Fig. 22f: Parallel for N2069e, detail from Til Tuba, BM 124801, © Trustees of the British Museum.



Fig. 22g: Parallel for N2069e, detail from Til Tuba, BM 124801, © Trustees of the British Museum.



Fig. 22h: Parallel for N2069e, detail from Til Tuba, BM 124801, © Trustees of the British Museum.



Fig. 22i: Parallel for N2069e, detail from Til Tuba, BM 124801, © Trustees of the British Museum.



Fig. 22j: Parallel for N2069e, detail from Til Tuba, BM 124801, © Trustees of the British Museum.



Fig. 22k: Parallel for N2069f, detail from Til Tuba, BM 124801, © Trustees of the British Museum.



Fig. 22l: Parallel for horses' crests on N2069f, detail from Til Tuba, BM 124801, © Trustees of the British Museum.



Fig. 22m: Parallel for horses' crests on N2069f, detail from Til Tuba, BM 124801, © Trustees of the British Museum.

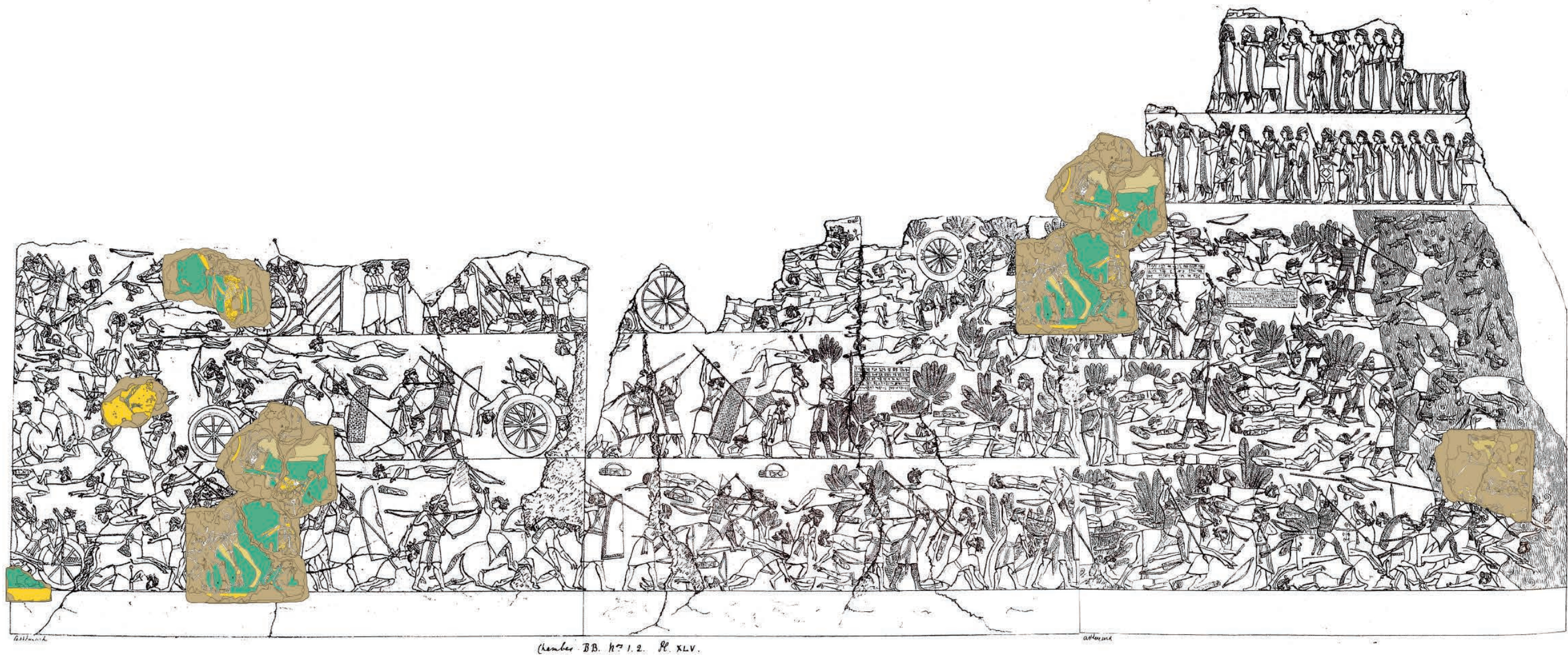


Fig. 23a: Positioning between Til Tuba relief scenes and tile fragments, part 1, after Barnett 1998, pl. 286.

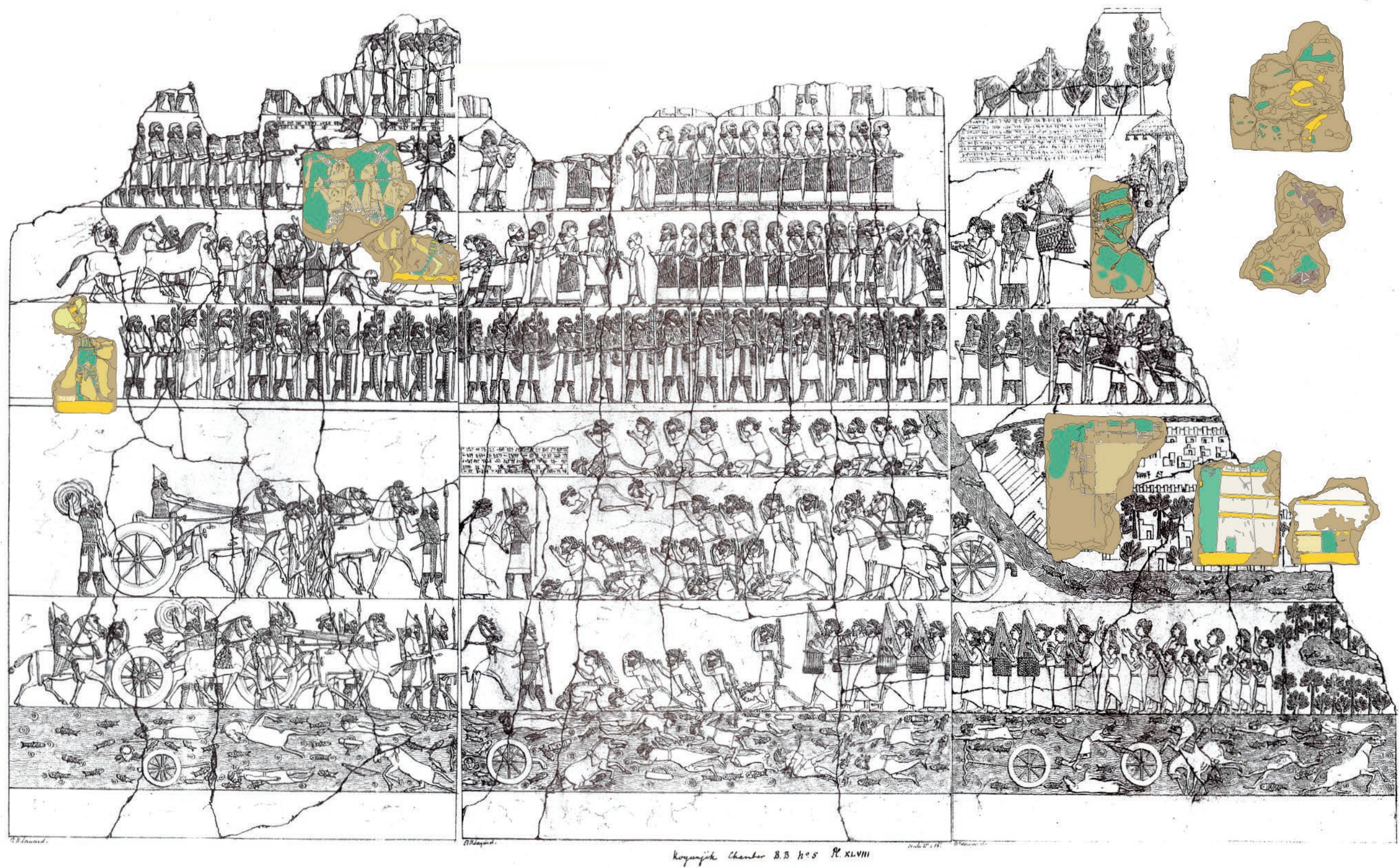


Fig. 23b: Positioning between Til Tuba relief scenes and tile fragments, part 2, after Barnett 1998, pl. 286.

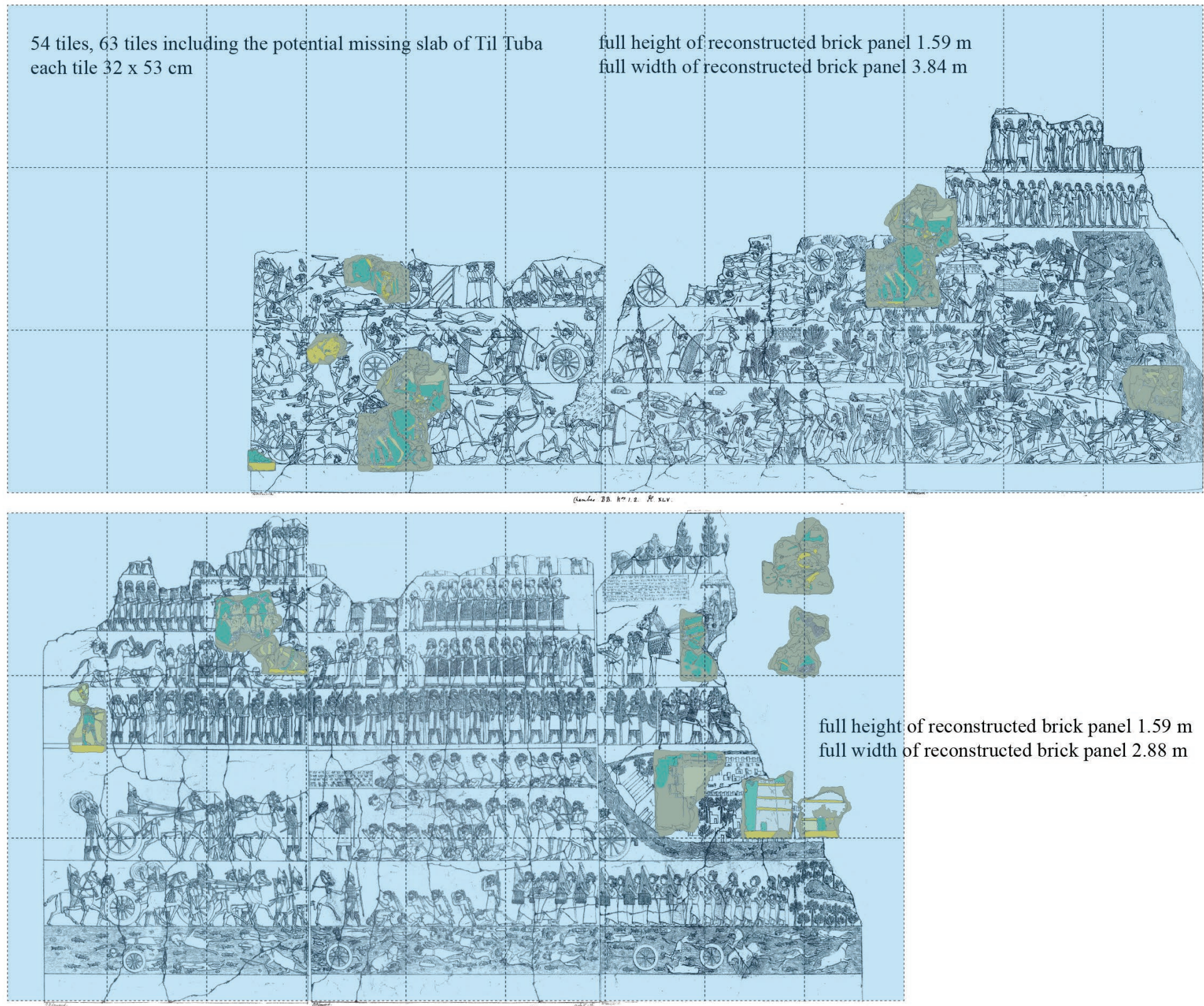


Fig. 24: Indication of preserved percentage of the battle scene with estimated tile sizes matched with the Til Tuba relief, after Barnett 1998, pl. 286.

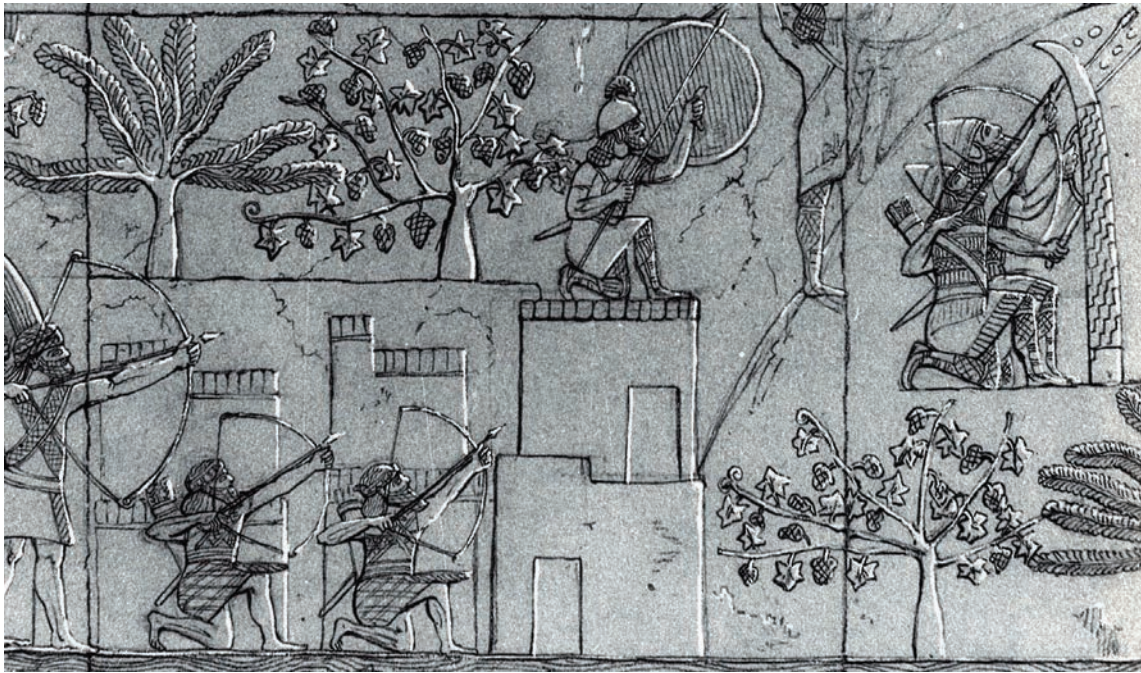


Fig. 25a: Houses in highlands east or north of Assyria, from the reliefs of Til Tuba, detail after Barnett 1998, pl. 166.

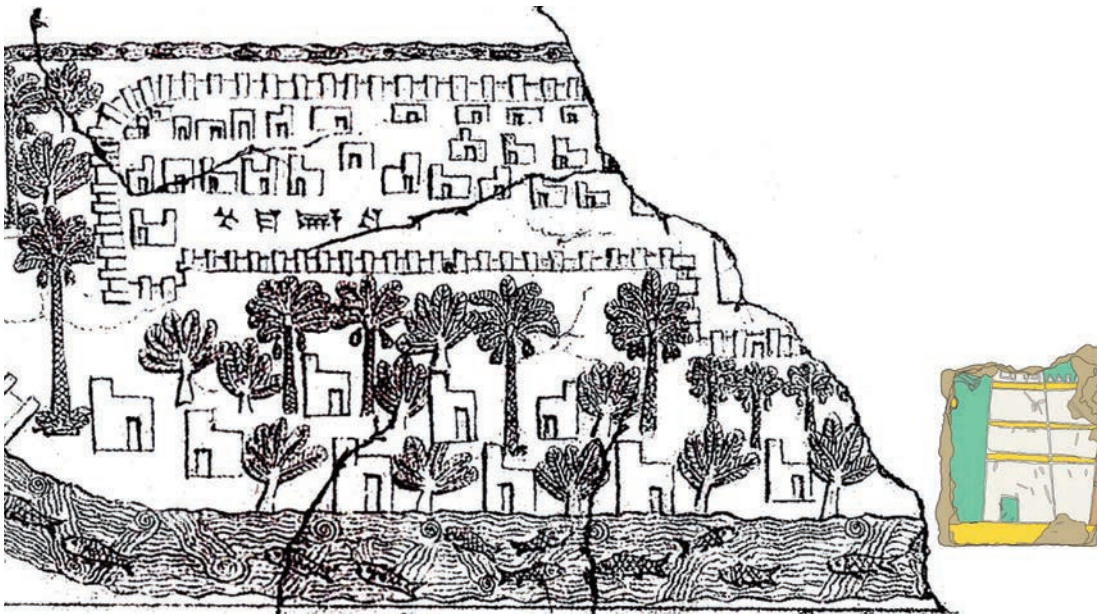


Fig. 25b: Houses in Madaktu (Elam) with palm trees from the reliefs of Til Tuba (after Barnett 1998, pl. 308.) with a comparison of the scaled tile N2067.



Fig. 25c: Tower house model EA2462,
© Trustees of the British Museum.

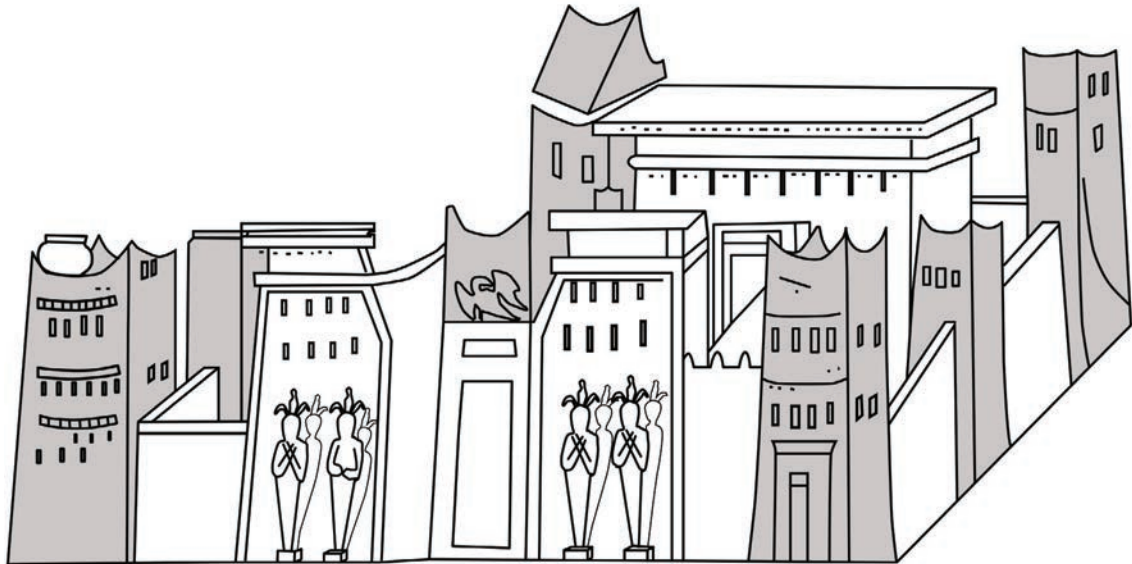


Fig. 25d: Drawing of a detail of the Nilemosaic of Palestrina showing a temple building with tower houses (in grey).



Fig 26a-c: Representation of bound prisoners in Assyrian reliefs of Senacherib (details after Barnett 1998, pl. 256, 341b, upper register; pl. 277, 369c, upper register and pl. 256, 341b, lower register).

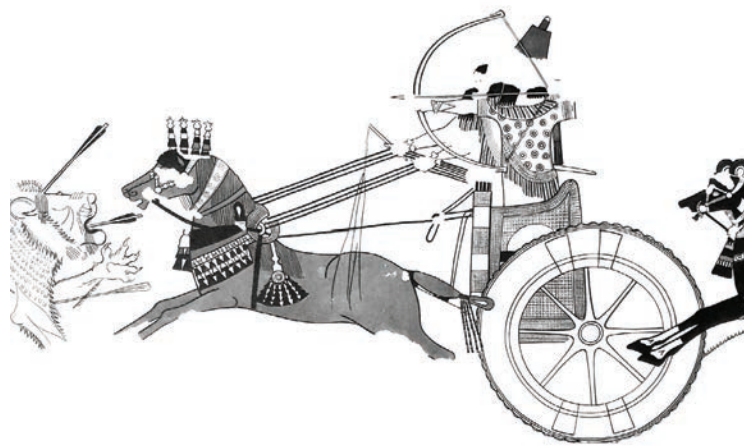


Fig. 26d: Detail of Royal chariot in the wall paintings of Til Barsib (after Thureau-Dangin and Dunand 1936, pl. XXVII).



Fig. 26e: Detail of Assyrian soldier with prisoner in the wall paintings of Til Barsib (after Thureau-Dangin and Dunand 1936, Pl. XXIV).

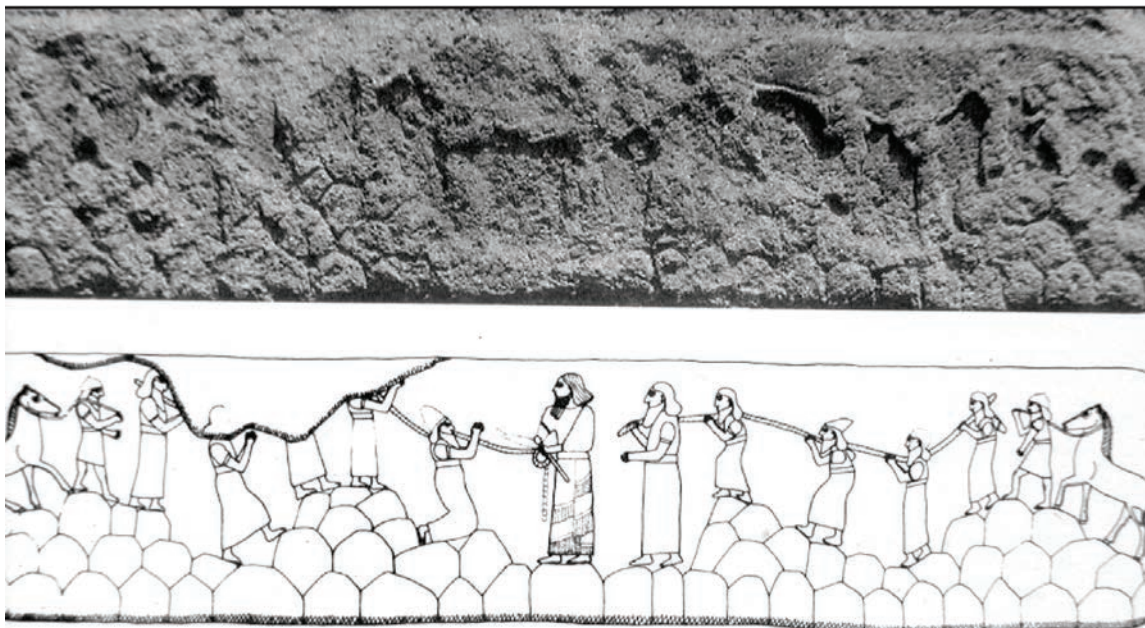


Fig. 26f: Photo and line drawing of the altar of Tukulti-Ninurta I with detail of the base with bound prisoners (after Moortgat-Correns 1988, 113, fig. 2).



Fig. 26g: Photograph of the rock carving of Bisitun, Photo by the authors.

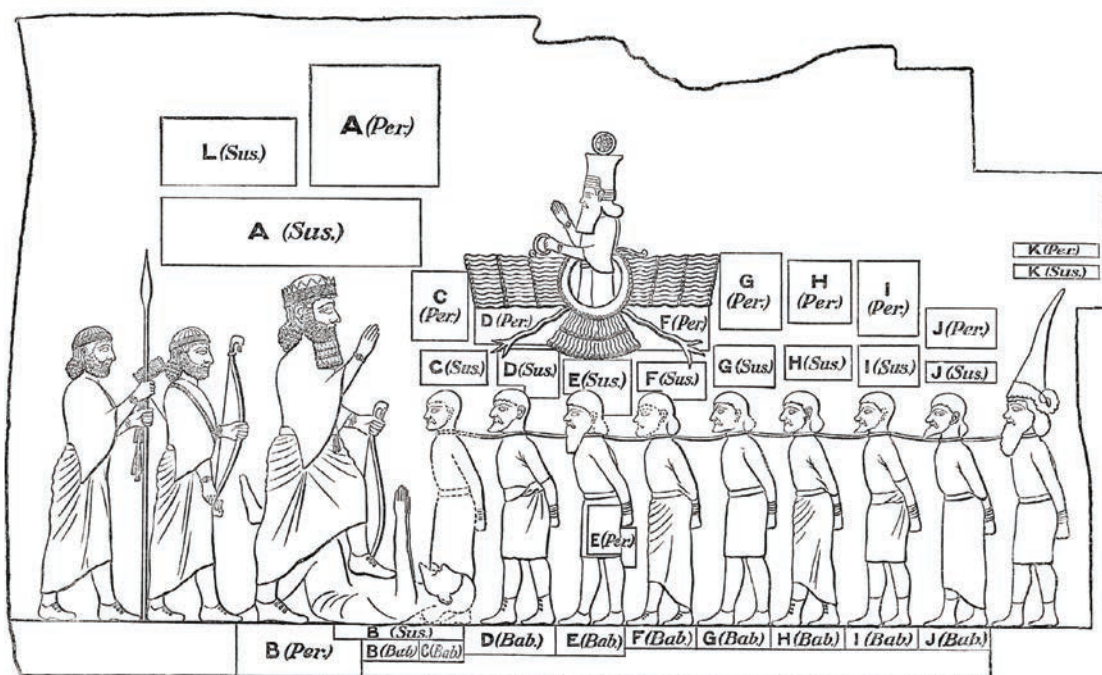


Fig. 26h: Line drawing of the rock carving of Bisitun (Curtis and Tallis 2005, 22, fig. 6).

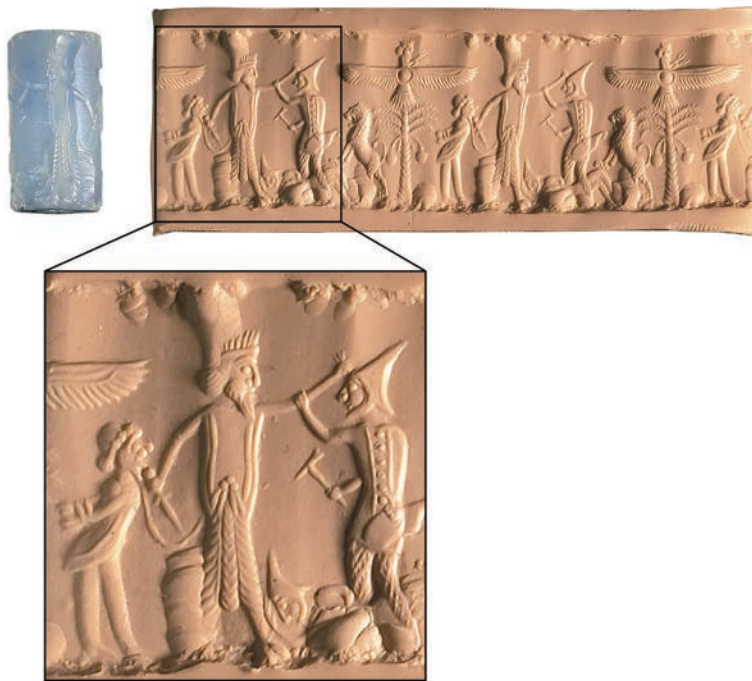


Fig. 26i: Depiction on Persian seal ME 132505, showing a royal hero or king, holding a bound prisoner by rope (Curtis and Tallis 2005, fig. 229, no. 415).



Fig. 26j: Line drawing of a seal of Artaxerxes III, showing a group of bound prisoners with neck rope (after Ebeling 1932, pl. 19).

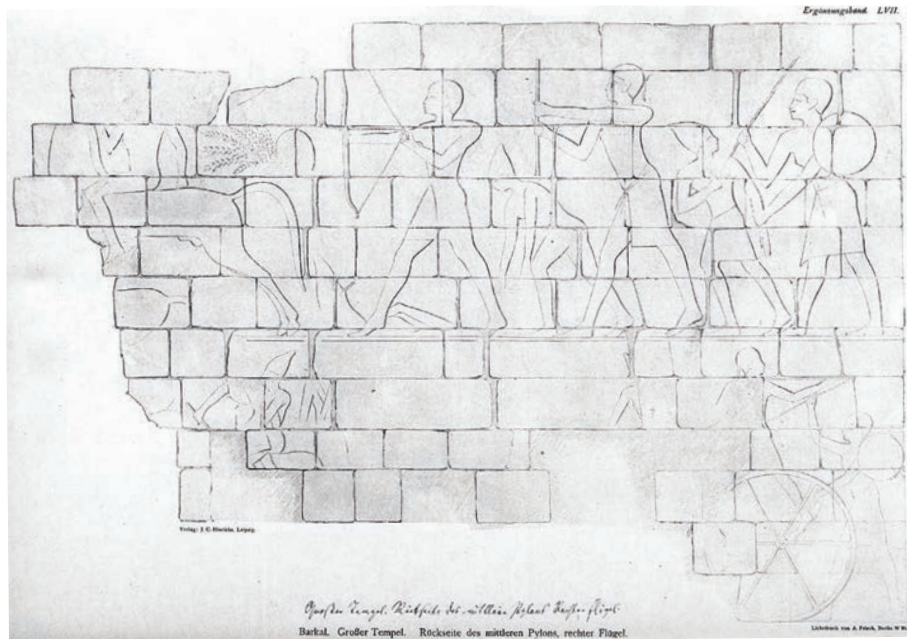


Fig. 26k: Depiction of military campaign from the 25th Dynasty in Gebel Barkal (after Lepsius 1913, Pl. LVII).



Fig. 26l: Depiction on Persian seal ME 124015, showing the king spearing an enemy (Curtis and Tallis 2005, fig. 229, no. 413).

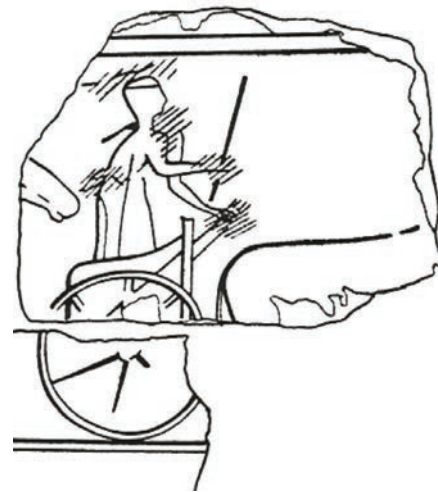


Fig. 26m: Line drawing showing a chariot of the 25th Dynasty from a military scene in Sanam (after Griffith 1922, pl. XXXII).



Fig. 27a: Line drawing showing bound prisoners in a campaign of Sethos I against Hatti (Wreszinski 1935, pl. 47).

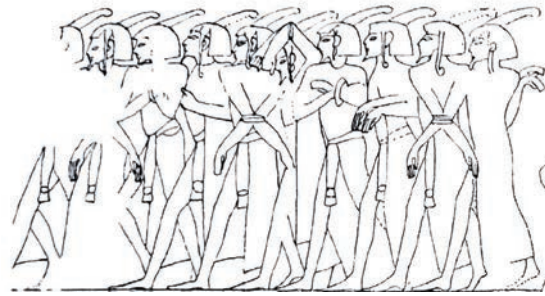


Fig. 27b: Line drawing showing bound prisoners in a campaign of Sethos I against Libya (Wreszinski 1935, pl. 51).



Fig. 27c: Line drawing showing bound prisoners in a campaign of Ramses II against Hatti (Wreszinski 1935, pl. 90).



Fig. 27d: Line drawing showing bound prisoners in a campaign of Ramses II against Hatti (Wreszinski 1935, pl. 25).



Fig. 27e: Line drawing showing bound prisoners in a campaign of Ramses III against the Sea People (Oriental Institute 1930, pl 41).



Fig. 27g: Line drawing showing bound prisoners in a campaign of Ramses III against Libya (Oriental Institute 1932, pl. 77).



Fig. 27f: Line drawing showing bound prisoners in a campaign of Ramses III against Libya (Oriental Institute 1930, pl. 43).

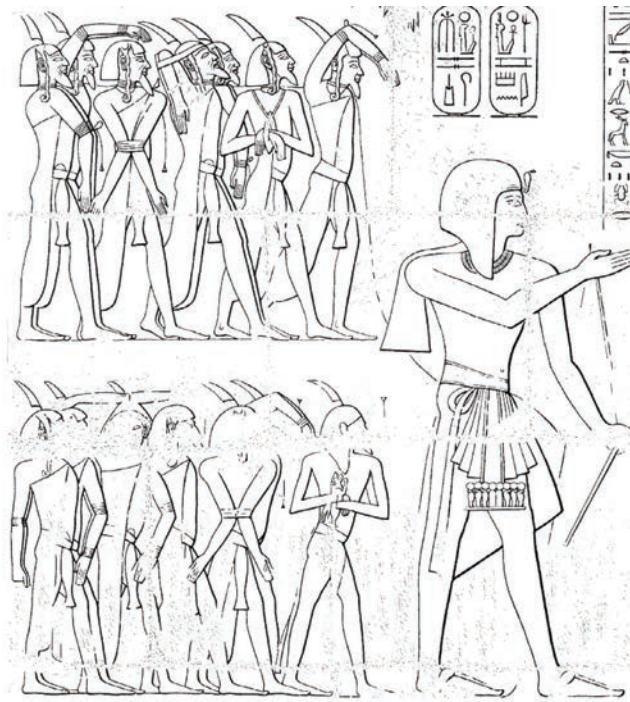


Fig. 27h: Line drawing showing bound prisoners in a campaign of Ramses III against Libya (Oriental Institute 1932, pl. 78).



Fig. 27i: Line drawing showing Ramses III himself binding Libyan prisoners with a rope (Oriental Institute 1932, pl. 68).



Fig. 27j: Line drawing showing personifications of bound foreigners (Oriental Institute 1930, pl. 43).



Fig. 27k: Line drawing showing women and children in a campaign of Ramses III against the Sea People (Oriental Institute 1930, pl. 34).

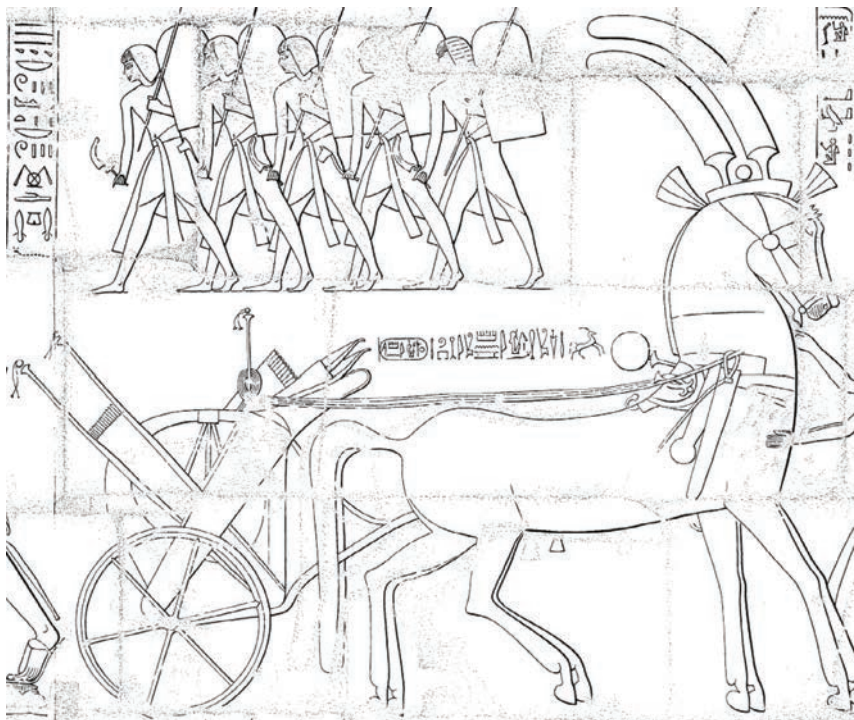


Fig. 27l: Line drawing showing a chariot of Ramses III with pairs of quivers and bow-cases (Oriental Institute 1932, pl. 68).

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