

# Hieratic Inscriptions from the Quarry at Qurna: an interim Report

*Shin-ichi Nishimoto, Sakuji Yoshimura, and Jiro Kondo*

A limestone quarry<sup>1</sup> at Qurna lies at the northeast end of the West Bank of Thebes, close to the beginning of the road leading to the Valley of the Kings (Fig. 1–2).<sup>2</sup> Recently, a comprehensive petrological study<sup>3</sup> at this site revealed that stone blocks from this quarry were used in the construction of the memorial temples for Hatshepsut and Amenhotep III.<sup>4</sup> Although some hieratic inscriptions with red lines are still preserved on the walls and ceilings of the galleries hewn into the quarry sides, as briefly reported by Petrie and Bickel,<sup>5</sup> unfortunately no facsimiles of these are available yet. All four of the following galleries are located in the area identified as the quarry site used for the construction of the memorial temple to Amenhotep III (Fig. 3–5), and the textual material to be found there may shed new light on the systems of work organization that were established to process stone blocks at the quarry during the New Kingdom.

## Gallery A, south wall, west side (Fig. 7):

A few parallel horizontal lines and a record of successive dates written in red ink are legible. The interval between the parallel red lines measures *c.* 2.0 cm.

Line 1: ‘Day 29’

Line 2: ‘[The last day]’

Line 3: ‘Day 1’

Line 4: ‘Day 2’

The inscription of Line 2 is faint; however, it is clear that the line should be read *ṛqy*, ‘the last day’ (day 30). These successive dates seem to be a daily progress record of work done at the site by the masons.<sup>6</sup>

<sup>1</sup> For recent studies on the ancient Egyptian quarry in general, see Harrell, *NARCE* 146 (1989), 1–7; id., *Archaeometry* 34 (1992), 195–212; Arnold, *Building in Egypt*, 27–40; Klemm and Klemm, *Steine und Steinbrüche im alten Ägypten*; Aston *et al.* in Nicholson and Shaw (eds), *Ancient Egyptian Materials and Technology*, 5–77; Shaw in Redford (ed.), *The Oxford Encyclopedia of Ancient Egypt* 3, 99–104.

<sup>2</sup> Kurz, *Graffiti de la montagne Thébaine* II, 6, plan 215, ‘Vallée des carrières’.

<sup>3</sup> Klemm and Klemm, *Steine und Steinbrüche im alten Ägypten*, 183–185; Bickel, *Tore und andere wiederverwendete Bauteile Amenophis’ III.*, 15–35; Tafeln 5–16.

<sup>4</sup> For other quarry inscriptions in the reign of Amenhotep III, see Johnson in O’Connor and Cline (eds), *Amenhotep III: Perspectives on His Reign*, 64; Inscriptions at the quarries in the New Kingdom, see Eyre, in Powell (ed.), *Labor in the Ancient Near East*, 180–183; Peden, *The Graffiti of Pharaonic Egypt*, 76–86; 108–112; 123–129.

<sup>5</sup> Respectively Petrie, *Qurneh*, 15–16 and Bickel, *op. cit.*, 20.

<sup>6</sup> Petrie, *Qurneh*, 15–16; Clarke and Engelbach, *Ancient Egyptian Masonry*, 21; Petrie, *Egyptian Architecture*, 26.

### Gallery A, south wall, east side (Fig. 8):

Cursive inscriptions comprising eight lines have been observed among red lines. The intervals on the red-and-white pole in figure are 20 cm.

- Line 1: 'Day 9'
- Line 2: 'Day 10'
- Line 3: 'Day 11 /////'
- Line 4: 'Day 12'
- Line 5: 'Day 13'
- Line 6: 'Day 14' (overwritten on 13)
- Line 7: 'Day 14'
- Line 8: 'Day 15'

The end of Line 3 is faint and illegible. In Line 6, '14' seems to be overwritten on '13'. The reason for the confusion of the record between Lines 5–7 is unknown.

### Gallery A, east wall (Fig. 6):

Some marks with a dog (Anubis?), painted in red ink. These marks seem to be similar to that described on the ostraca found around KV 22.<sup>7</sup>

### Gallery B, west side of a pillar (Fig. 9):

'Two hunting dogs'<sup>8</sup> and a small circle are drawn on the upper part of a pillar. A black scale in the figure is 10 cm long.

### Gallery C, ceiling (Fig. 10):

A number of parallel lines with seven successive red ink inscriptions.

- Line 1: '///// the second month of *Shemu*, day 29'
- Line 2: 'The last day'
- Line 3: 'The third month of *Shemu*, day 1'
- Line 4: 'Day 2'
- Line 5: 'Day 4 (overwritten on 3)'
- Line 6: 'Day 5'
- Line 7: 'Day 6'

The beginning of Line 1 is illegible, but the following month and day are clear. Judging from the

<sup>7</sup> Kondo, in Wilkinson (ed.), *Valley of the Sun God*, 32; id. in Hawass and Jones (eds), *Eighth International Congress of Egyptologists: Abstracts of Papers*, 101; Yoshimura and Kondo, *Egyptian Archaeology* 7 (1995), 18, colour plate. These signs seem to represent individual workmen's names; cf Haring, *GM* 178 (2000), 45–55.

<sup>8</sup> Petrie, *Qurneh*, 15.

traces of the inscription in Line 5, it is presumed that 'Day 3' was originally inscribed and then a '4' was written over it.

### Gallery D, ceiling (Fig. 11):

A great number of red lines and inscriptions of successive days from 9 to 29 are clearly visible, but no month seems to have been inscribed. The interval between the red lines is approximately 20 cm. The long parallel lines are divided at intervals by short lines varying from ca. 40 to 90 cm. The purpose of these dividing lines is uncertain. Judging from the record of day work preserved on the several papyri and ostraca found at the Valley of the Kings and its surrounding sites,<sup>9</sup> it is possible that such divisions were used to record the daily output quantity.<sup>10</sup>

### Comments

It is hoped that a further study will help to clarify the meaning of these inscriptions from the Qurna quarry. A final report on this quarry is planned for publication in the near future, after a supplementary investigation is conducted next year. To conclude this brief interim report, we note the following points:

- Large stone blocks appear to have been extracted from the aforementioned galleries of the quarry at Qurna during the reign of Amenhotep III for use at the northern part of his largest memorial temple in Western Thebes (Bickel, *op. cit.*), under a production system organized by the master stonemasons.
- The hieratic inscriptions among the red lines would have been used to calculate daily excavations. Concerning the short dividing lines observed along the parallel long lines, their purpose is not yet known with certainty. However, one possibility is that they serve as measures for estimating the volume of daily extraction work.
- The presence of the days 9–10, 19–20, and 29–30 is noteworthy as they are generally regarded as worker's holidays at Deir el-Medina during the Ramesside period.<sup>11</sup>

To our knowledge, these are the first records that quantify the successive daily work output of building activity during the reign of Amenhotep III, one of the most remarkable ruler/builders in Ancient Egypt. As Shaw points out, 'Pharaonic quarrying and mining sites were of prime importance to the prosperity and stability of Egypt's economy.' (I. Shaw, 'Quarries and Mines', in D. B. Redford ed., *The Oxford Encyclopedia of Ancient Egypt* 3 (Oxford, 2001), 99). Even during the Ancient Greek and Roman periods, such records directly indicating industrial activity at a quarry site are quite rare. The preserved records are simply inscribed on the rock faces in an abbreviated form and sometimes incorrectly written, but an architectural approach to studying the ancient quarry would open the way for a study of the origins of mankind's industrial construction techniques.

<sup>9</sup> Eyre in Powell (ed.), *Labor in the Ancient Near East*, 180–3.

<sup>10</sup> Petrie, *Qurneh*, 15–16.

<sup>11</sup> Helck, *LÄ* II, 145; However also see Ventura, *JEA* 74 (1988), 137–56, concluding only one holiday per month in the case of the Turin papyrus no. 1923.

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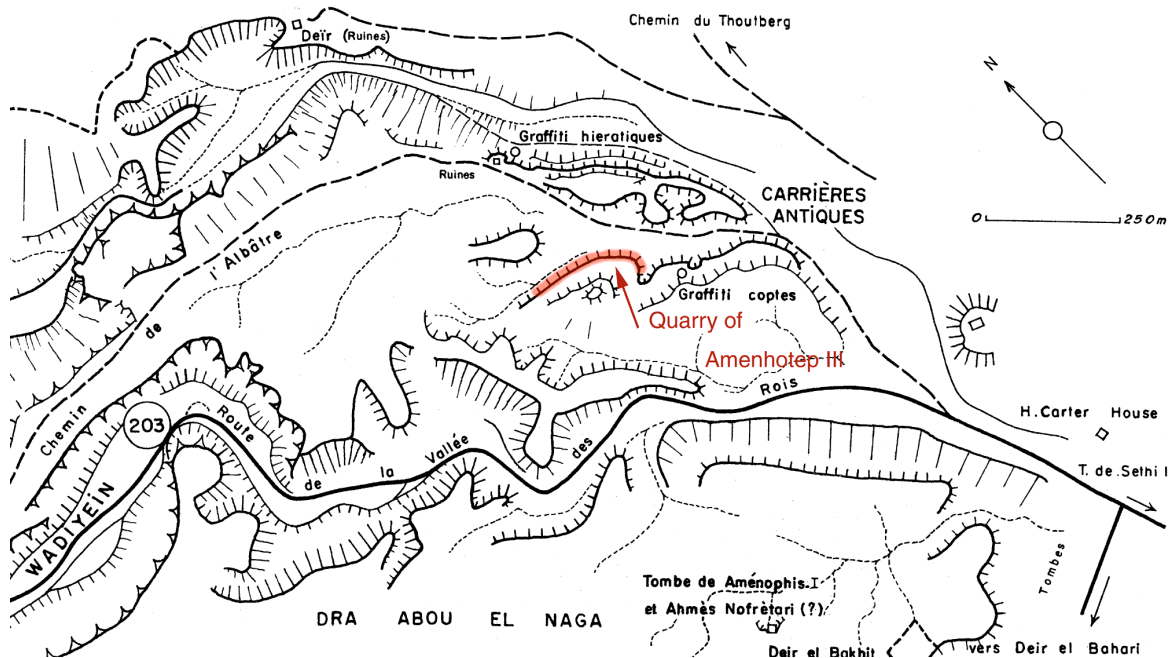


Fig. 1 Site plan (adopted from Kurz, *Graffiti de la montagne Thébaine II*, plan 215)

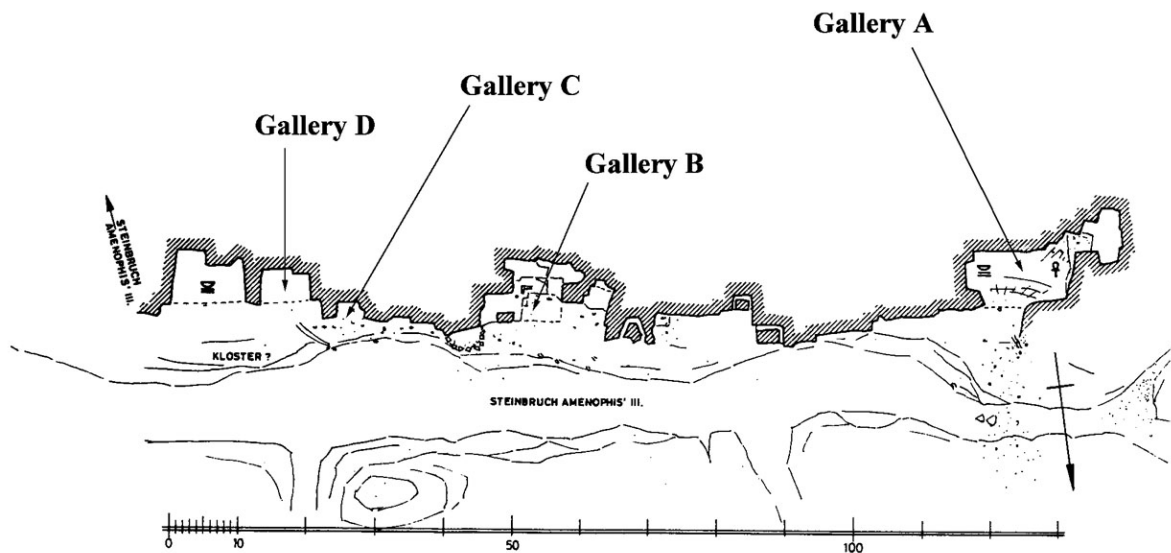


Fig. 2 Quarry of Amenhotep III (adapted from Bickel, *Tore und andere wiederverwendete Bauteile Amenophis' III*, 15, Abb. 1)



Fig. 3 The quarry at Qurna: aerial photograph of the quarry of Amenhotep III (indicated by white arrow)



Fig. 4 The quarry at Qurna: aerial photograph of the quarry of Amenhotep III from the east





Fig. 5 The quarry at Qurna: Gallery D (right) and its adjacent larger gallery (left)



Fig. 6 Facsimile of the drawings of Gallery A, east wall

A



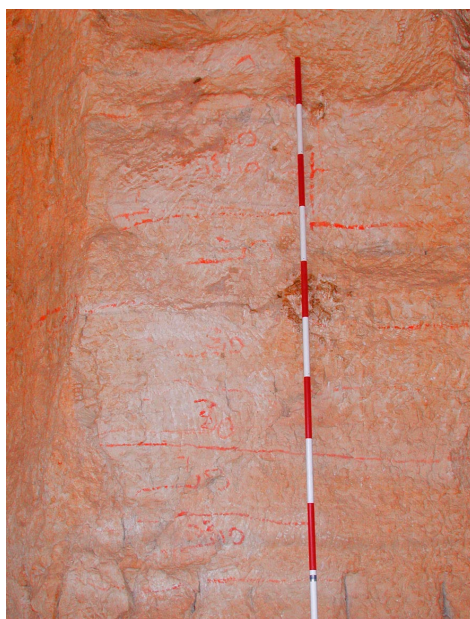
B



Fig. 7 Inscriptions of Gallery A, south wall, west side. A Photograph. B Facsimile



A



B

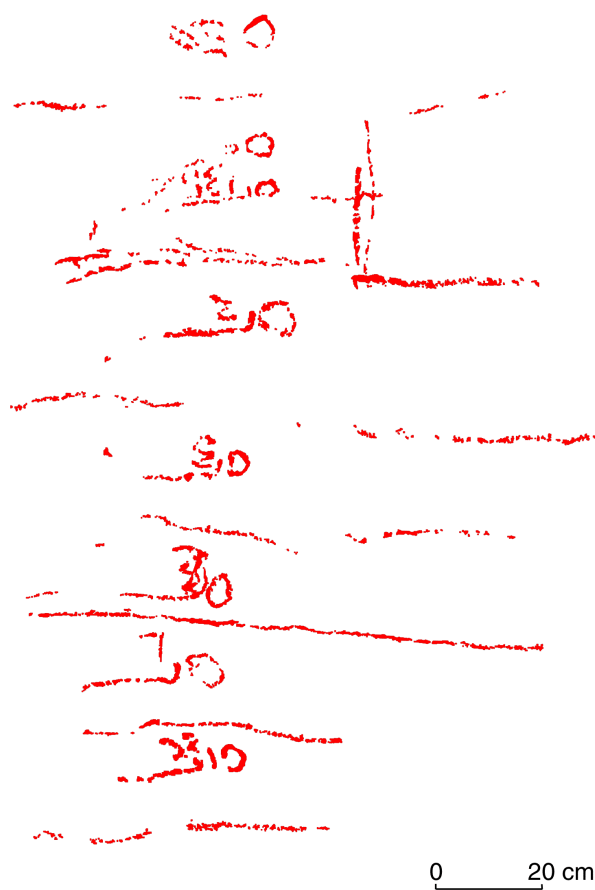


Fig. 8 Inscriptions of Gallery A, south wall, east side. A Photograph. B Facsimile

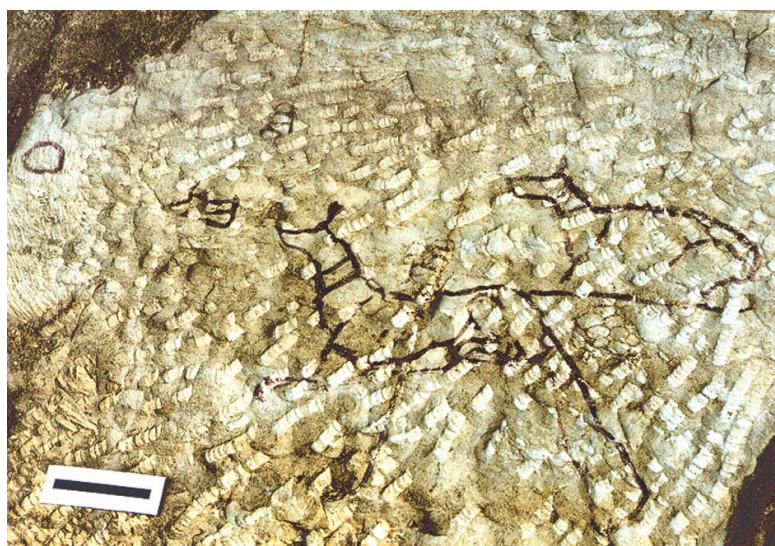
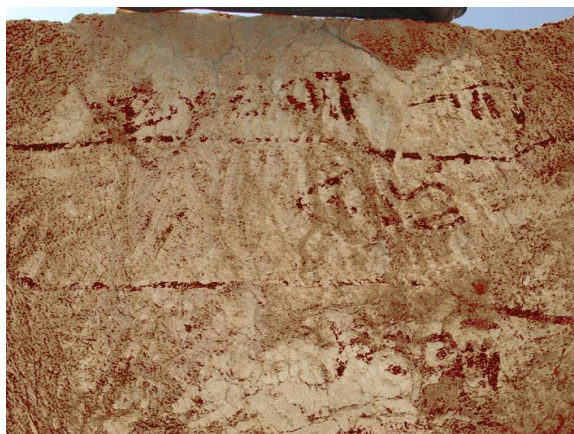


Fig. 9 Gallery B, west side of a pillar. A General view. B Detail

A



B

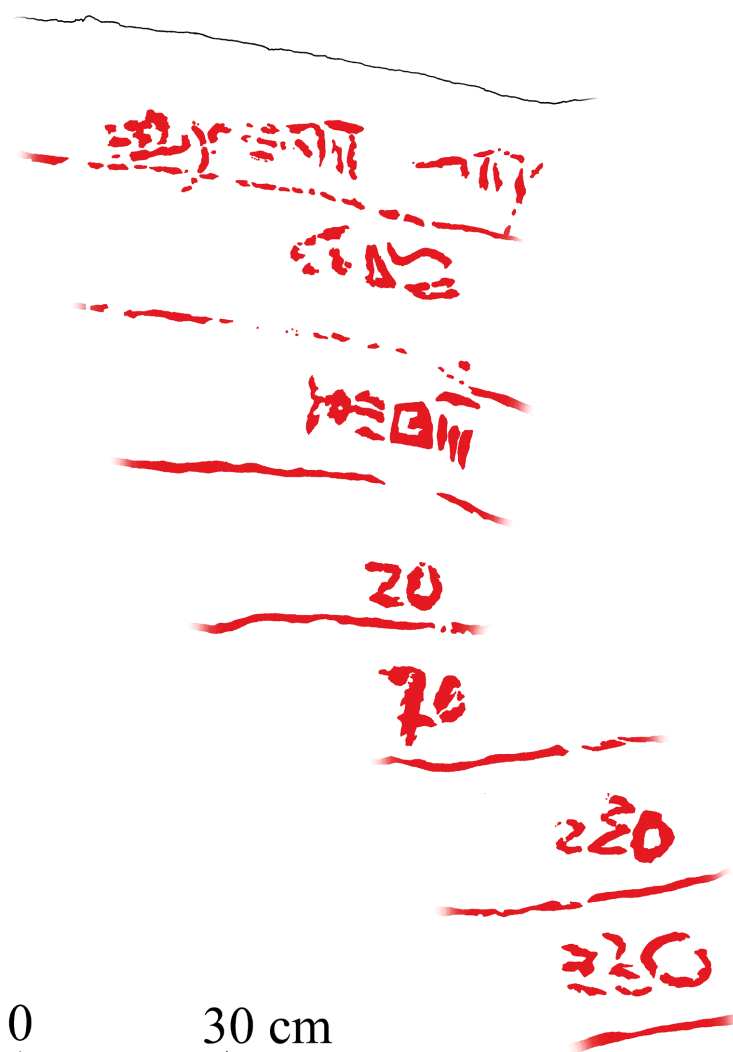


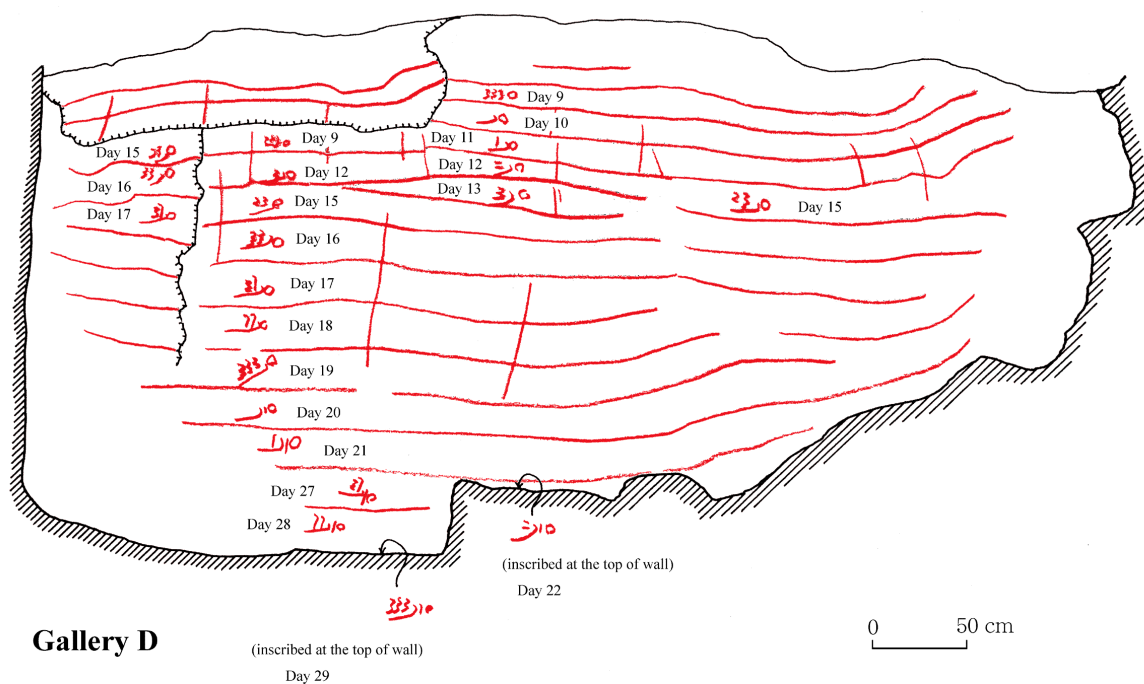
Fig. 10 Inscriptions of Gallery C, ceiling. A Photograph showing Lines 1–3. B Facsimile



A



B



C

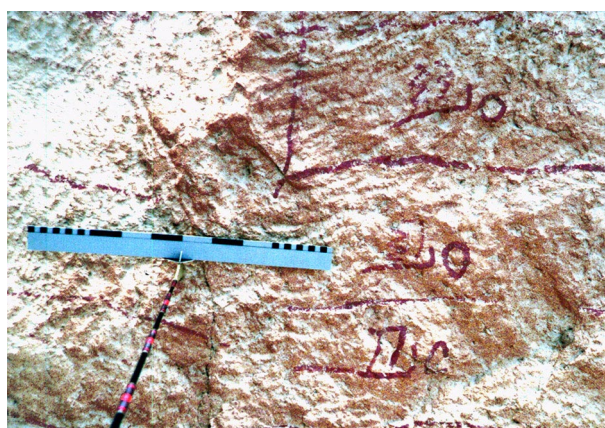


Fig. 11 Inscriptions of Gallery D, ceiling. A Photograph. B Sketch plan. C Photograph showing the dates from 16 to 18. A scale in the figure is 50 cm long