

BENCHMARKS, TEAM MARKS AND POT MARKS FROM THE ASASIF (WESTERN-THEBES)

Julia Budka*

INTRODUCTION

Austrian excavations directed by Manfred Bietak were undertaken in the eastern part of the Asasif from 1969 to 1977.¹ Work focused primarily on tombs of the Late period², but the remains of a large temple of Ramesses' IV at the entrance to the Asasif and the causeways to the royal temples of Mentuhotep Nebhepetre and Thutmose III in Deir el-Bahari were studied as well (fig. 1).³ The examination of the temple foundation and the causeways yielded hieratic benchmarks, cursive inscriptions and symbols as well as masons' marks.⁴ In addition, several pot marks were documented on some of the numerous ceramic sherds recovered from the tombs of the area.

The present paper presents for the first time a collection of these unpublished markings in order to enlarge the general knowledge of the material and it provides parallels for future research. The corpus from the Asasif is in some respects exceptional: While the demolished (Thutmose III) or unfinished (Ramesses IV) states of the royal monuments in the area are lamentable, they offer unique opportunities to observe specific architectural features as well as evidence of the construction process – including very early work stages like the cutting of the foundations – that

* Humboldt-Universität zu Berlin.

¹ For the general results of these excavations see lately J. Budka, *Die Spätzeit in Theben-West: Das Asasif. Bestattungsbrauchtum und Friedhofsstruktur anhand der Ergebnisse der österreichischen Ausgrabungen in den Jahren 1969–1977*, 4 vols., unpublished PhD thesis, Vienna, 2006. I am grateful to Manfred Bietak for the opportunity to work on the then unpublished documentation, including the expedition records and drawings. I wish to thank Cornelia Kleinitz for improving my written English and for helpful comments on an earlier version of this paper. I would also like to thank Frank Kammerzell and Petra Andrassy for fruitful discussions on non-textual marking systems, their characteristics and functions.

² Cf. M. Bietak, *Theben-West (Luqsor). Vorbericht über die ersten vier Grabungskampagnen (1969–1971)* (SÖAW 278, 4; Vienna, 1972); idem, 'Ausgrabungen in Theben West – Asasif', *AfO* 24 (1973), 230-239; idem, 'Theben-West (Vorbericht für 1973 und 1974)', *Jahrbuch des Österreichischen Archäologischen Instituts* 51 (1976-1977), 46-53; idem, '2. Bauforschungsprojekt: Die großen Saitengräber in der thebanischen Nekropole', *AfO* 25 (1974-1977), 328-330; M. Bietak and E. Reiser-Haslauer, *Das Grab des Anch-Hor, Obersthofmeister der Gottesgemahlin Nitokris*, 2 Vols. (DÖAW 6 and 7; Vienna, 1978 and 1982); D. Eigner, *Die monumentalen Grabbauten der Spätzeit in der Thebanischen Nekropole* (DÖAW 8; Vienna, 1984); J. Budka, 'Tomb Nr. VII in the Asasif – Its Owners, Date and Implications', in J.-Cl. Goyon/Ch. Cardin (eds), *Proceedings of the Ninth International Congress of Egyptologists*, I (OLA 150; Leuven, 2007), 241-250.

³ Cf. H.E. Winlock, *Excavations at Deir el-Bahari 1911–1931* (New York, 1942), 7, fig. 1; Bietak, *Theben-West (Luqsor)*, fig. 1; Eigner, *Die monumentalen Grabbauten der Spätzeit*, map 1.

⁴ My knowledge of the material is mainly based on unpublished written records, sketches and photographs; most of the relevant inscriptions and non-textual marks of the excavations were recorded by Helmut Satzinger whom I would like to thank for his valuable observations, meticulous documentation as well as his helpful remarks.

are usually not visible in a completed monument.⁵ The numerous markings left by workmen, masons and supervisors originate from different stages of work on the monuments. Some of the marked stones were re-used in later times, resulting in a transformation of both the stones and marks from their original context and meaning to something else. Among the markings there are found textual evidence for personal names as well as symbols that can be assumed to be non-textual markers and property marks. These findings raise various questions regarding possible interrelations between different systems of encoding identity.

In total, the material from the Austrian excavations comprises the following⁶: 1) textual markings comprising hieratic benchmarks, control notes and related graffiti from the Ramesside temple; 2) team marks and other marks from blocks of the causeway of Thutmose III and in lesser numbers from the Ramesside temple; 3) pot marks on Late period and Ptolemaic pottery, which are in some respects similar to types in 2). I will focus in the following on group 2, masons' marks and other forms which may be summarized under the general term *non-textual identity marks*.

1. THE SETTING OF THE MARKS

1.1 The causeways to Deir el-Bahari in the Asasif valley Mentuhotep Nebhepetre and Thutmose III

The terrace temple of Mentuhotep Nebhepetre is situated at the base of the cliffs on the west bank of Thebes, in the valley now called Deir el-Bahari.⁷ The monument rises above the plain of the Asasif valley. Its monumental causeway with a minimal length of 960 m and a width of 46 m crossed through the Asasif and started as processional approach at the desert's edge close to the riverine area.⁸ Substantial remains of this broad avenue were unearthed during German excavations in the 1960s. The results enabled Dieter Arnold to establish the construction phases of the monument: the causeway of Mentuhotep was built in several distinct segments in three main building phases.⁹ The processional road which probably served specific cultic purposes opened at the foot of the terrace temple in an open court lined with trees.

Both foundations and boundary walls were dismantled during the late New Kingdom and in later periods, a process that was probably initiated by the large Ramesside temple which

⁵ In the case of freestanding completed monuments comparable *in situ*-finds are not possible; cf. the observations by F. Kampp-Seyfried and K.-J. Seyfried, 'Zwei Baugraffiti aus dem Vorhof des Grabes des Paser (TT 106)', in M. Schade-Busch (ed.), *Wege öffnen. Festschrift für Rolf Gundlach zum 65. Geburtstag* (ÄUAT 35; Wiesbaden, 1996), 117.

⁶ The terminology used here is based on F. Arnold, *The South Cemeteries of Lisht, II, The Control Notes and Team Marks* (MMA Egyptian Expedition 23; New York, 1990), 14. However, the New Kingdom material from the Asasif is more complex than the material from Lisht and it is extremely difficult to assign functional categories for all types of marks. Therefore, in some cases the term masons' marks is used implying Haeny's "Steinbruch-, Transport- und Versatzzeichen" (cf. note 74) and thus relating the marks to various stages of work from the quarry to the building site.

⁷ E. Naville, *The XIth Dynasty Temple at Deir el-Bahari*, 3 vols. (London, 1907, 1910 and 1913); D. Arnold (from the notes of Herbert Winlock), *The Temple of Mentuhotep at Deir el-Bahari* (MMA Egyptian Expedition 21; New York, 1979); D. Arnold, *Der Tempel des Königs Mentuhotep von Deir el-Bahari*, 3 vols. (AV 8, 11 and 23; Mainz 1974, 1974 and 1981).

⁸ Cf. Winlock, *Excavations at Deir el Bahri*, 4-6. For a summary of the work conducted on the causeway and the problems to locate its valley temple see Arnold, *The Temple of Mentuhotep*, 5-7.

⁹ D. Arnold and J. Settgast, *Die Architektur der 11. Dynastie. Das Grab des Jnj jtj.f* (AV 4; Mainz am Rhein, 1971), 32-35. For a complete picture of the construction work at the temple and causeway see Arnold, *Der Tempel des Königs Mentuhotep*, I, 62-67. According to Arnold, the temple itself was built in four building phases.

destroyed the lower part of the Middle Kingdom approach.¹⁰ Due to the large scale removal of stone, only scarce remains of the causeway are preserved in the Austrian concession. The mudbrick paving has survived in some sections and attests to the former course of the processional route.¹¹ Winlock recorded a minimum of eight brick marks in the causeway (pavement and brick wall).¹² Such features, which are very similar to team marks, were not observed during later excavations. Although some blocks were re-used in the Ramesside temple and were found in loose context, the Austrian excavations yielded neither benchmarks nor masons' marks that can be attributed to the Middle Kingdom.¹³

The temple complex of Mentuhotep Nebhepetre strongly influenced the buildings of the 18th Dynasty in Deir el-Bahari, especially the temple of Hatshepsut which was built a little to the north.¹⁴ This terrace temple and its causeway copy the orientation of the Middle Kingdom ones and run parallel to them, north of the Asasif valley. From now on, both the temple of Hatshepsut and its avenue were important landmarks in Western Thebes until Roman times and influenced the scenic setting of all future building activity, especially the distribution and location of tombs in the surrounding area.¹⁵ The major remodelling of the landscape of the Asasif proper happened during the reign of Thutmose III. The king erected his terrace temple between the ones of his predecessors Mentuhotep and Hatshepsut and provided it with a causeway as well.¹⁶ Space for his causeway was made right between the two older ones by removing parts of the so-called hill 104 and by cutting off older tombs.¹⁷ The causeway of Thutmose III measures 32.5 m in width and runs at the northern side of the one of Mentuhotep and therefore right through the Austrian concession (fig. 1).

Similar to the examples set by Mentuhotep and Hatshepsut, the royal causeway comprised an alley of trees of which some pits were found.¹⁸ According to Bietak, remains of roots attest that the trees died soon after the reign of the king, showing that the alley was not kept in use.¹⁹

¹⁰ Cf. Winlock, *Excavations at Deir el-Bahari*, 7 with fig. 1; Arnold and Settgest, *Das Grab des Nj jtf.*, 32 with n. 102 and Arnold, *Der Tempel des Königs Mentuhotep*, I, 69.

¹¹ Bietak, *Theben-West (Luqsor)*, 13.

¹² See Arnold, *The Temple of Mentuhotep*, 7 with reference to similar brick marks from the Middle Kingdom in note 33.

¹³ But note the findings of some benchmarks in the area of the temple itself; see Arnold, *The Temple of Mentuhotep*, 27-28.

¹⁴ See lately D. Arnold, 'The temple of Hatshepsut at Deir el-Bahri', in C.H. Roehrig (ed.), *Hatshepsut: From Queen to Pharaoh* (New York, 2005), 135-136.

¹⁵ For basic observations on the important role of the Hatshepsut causeway as a processional route during the Beautiful Feast of the Valley see M. Bietak, in Bietak and Reiser-Haslauer, *Das Grab des Anch-Hor*, I, 30-37 and more recently Budka, *Die Spätzeit in Theben-West*, I, 42-44.

¹⁶ For the temple cf. J. Lipinska, *Deir el-Bahari*, II, *The temple of Tuthmosis III. Architecture* (Warsaw, 1977); J. Lipinska, 'The Temple of Thutmose III at Deir el-Bahri', in C. H. Roehrig (ed.), *Hatshepsut: From Queen to Pharaoh* (New York, 2005), 285-288.

¹⁷ Cf. Budka, *Die Spätzeit in Theben-West*, I, 44-45.

¹⁸ For the layout of the causeway of Hatshepsut see F. Arnold, 'Pharaonische Prozessionsstrassen. Mittel der Machtdarstellung unter Königin Hatshepsut', in E.-L. Schwandner and K. Rheidt (eds), *Macht der Architektur – Architektur der Macht, Bauforschungskolloquium in Berlin vom 30. Oktober bis 2. November 2002 veranstaltet vom Architektur-Referat des DAI (Mainz am Rhein, 2004)*, 21-23 with fig. 8.

¹⁹ Bietak, *Theben-West (Luqsor)*, 17.

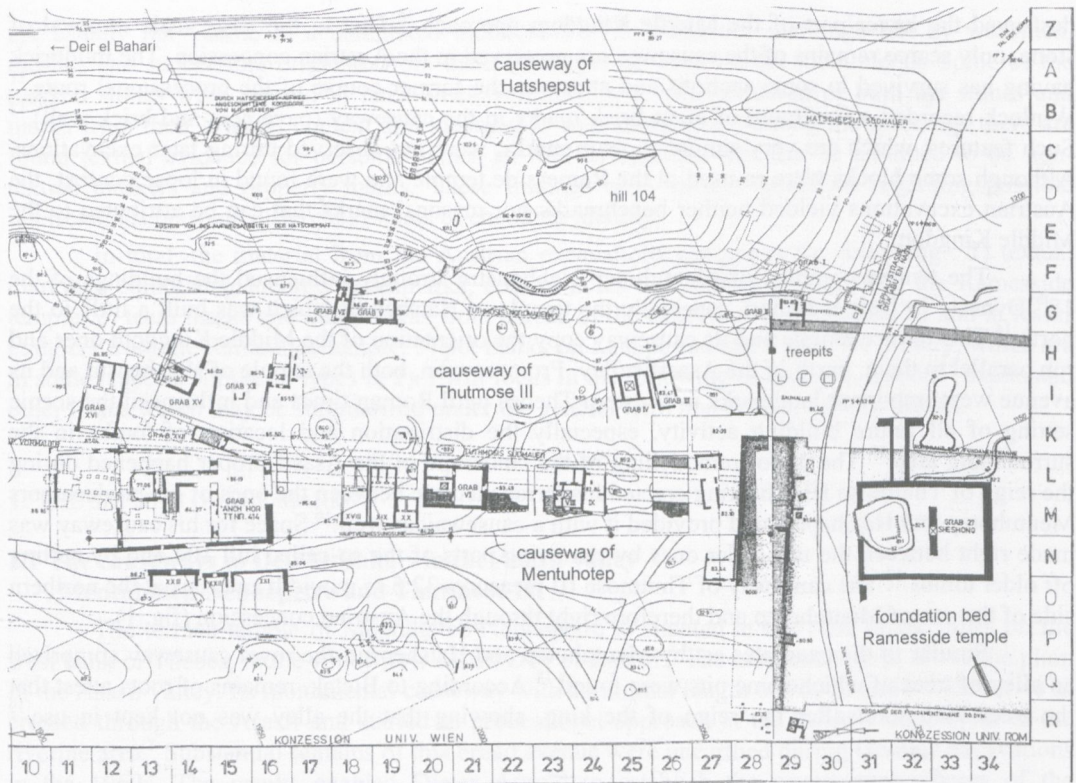


Fig. 1: The Austrian concession in the Asasif (featuring the location of the excavation squares). Adapted from Eigner, *Die monumentalen Grabbauten der Spätzeit*, Plan 2.

There is various dating evidence for the building of the causeway during the last years of Thutmose III.²⁰ First of all, Arnold found an ostrakon mentioning work on the causeway in the late years of the king. Secondly, since some of the tree pits were left unfinished, it is very likely that they were constructed in the final phase, most probably in the 54th, the last year of Thutmose III. Furthermore, the tree alley seems to be restricted to the eastern quarter of the causeway. In this section, the builders used some of the numerous shaft tombs dating from the Middle Kingdom as tree pits, probably for reasons of saving time and work capacity. One can conclude that the processional approach to the temple of Thutmose III was only partly finished. Sections of its northern boundary wall are well preserved within the Austrian concession, whereas its southern wall was pulled down and dismantled already during the New Kingdom. The situation as found in excavation square K/26 sets a typical example. In the uppermost layer, large amounts of causeway blocks were discovered. Their distribution seemed to indicate that the southern wall had been pulled down in this part. At the first glance the debris was interpreted as *in situ* collapse. While clearing the mass of stones, it became evident that this is not the case. 18th Dynasty blocks were mixed with 19th Dynasty ones, most likely coming from the foundations of the Ramesside temple. Responsible for this disorder

²⁰ See Budka, *Die Spätzeit in Theben-West*, I, 46.

are stone robbers and tomb builders of the Late period who used both the Thutmoside causeway and the 20th Dynasty temple as quarries and sources for building materials.

1.2 The Ramesside temple

The largest of three or rather four buildings of Ramesses IV in Western Thebes²¹ is situated at the entrance to the Asasif valley (fig. 1). This temple occupies the eastern part of the causeway of Mentuhotep Nebhepetre and to some extent the southern part of the causeway of Thutmose III. Blocks of both the casing and the filling of the boundary walls of these two older royal buildings were used within the foundation bed of the Ramesside monument.²²

Several foundation deposits identify Ramesses IV as the founder of the building.²³ Some decorative elements can be attributed to later kings (Ramesses V and VI), but the oversized temple remained unfinished and was used as a quarry soon after the 20th Dynasty. Especially in its western part the temple is badly preserved. Ideas about its internal structure are thus limited to comparisons, particularly to the temple of Ramesses III at Medinet Habu.²⁴ However, due to the unfinished state of the monument and its accessible foundation bed the hieratic benchmarks and control notes were visible and could be documented.

The Austrian excavations yielded numerous re-used 18th and 19th Dynasty relief blocks²⁵, and a single one of Ramesses VI came to light.²⁶ Many of the blocks were originally used within a building of Hatshepsut; some of these were remodelled after her death by Thutmose III, as it is well attested at various sites throughout the country.²⁷ The most likely candidate for the original context of these blocks is the House of Millions of Years *H'j-3h.t* of Hatshepsut, which was almost certainly situated between the Ramesside temple in the Asasif and the terrace temple *Hnk.t-nh* of

²¹ For the differing numbers of possible buildings see lately M. Ullmann, *König für die Ewigkeit – Die Häuser der Millionen von Jahren, Eine Untersuchung zu Königskult und Tempeltypologie in Ägypten* (ÄUAT 51; Wiesbaden, 2002), 529-530; the scarce remains of a building of Ramesses IV next to the Eje/Haremhab-temple are sometimes confused with a building north of the temple of Amenhotep, son of Hapu.

²² Cf. Bietak, *Theben-West (Luqsor)*, 24-25.

²³ Seven of these deposits were unearthed by Ambrose Lansing on behalf of the Metropolitan Museum of Art mission and a single one by the Austrian mission; see in detail J. M. Weinstein, *Foundation Deposits in Ancient Egypt* (Ann Arbor, 1973), 277-280 and J. Budka, 'The Ramesside Temple in the Asasif: Observations on its construction and function, based on the results of the Austrian Excavations', in R. Preys (ed.), *7. Ägyptologische Tempeltagung, Structuring Religion (Leuven, 28 Sept.-1 Okt. 2005)*, Königium, Staat und Gesellschaft früher Hochkulture 3,2, Wiesbaden 2008, fig. 2.

²⁴ See in detail Budka, in Preys (ed.), *7. Ägyptologische Tempeltagung*.

²⁵ That the temple foundations were mainly built with re-used blocks led C.A. Keller, 'Speculations concerning interconnections between the royal policy and reputation of Ramesses IV', in D.P. Silverman (ed.), *For His Ka. Essays offered in Memory of Klaus Baer* (SAOC 55; Chicago, 1994), 149 to believe that the location of the building project was partly based on practical reasons since "positioning his own mortuary temple at the northern end of the necropolis facilitated access to the stone available at several already-existing constructions of different types." In my opinion this might have been a secondary consideration at the best. Rather, the choice of the king was primarily focused on the vicinity to Deir el-Bahari and the buildings of Hatshepsut, see below.

²⁶ Bietak, in Bietak and Reiser-Haslauer, *Das Grab des Anch-Hor*, I, 28 and Ullmann, *König für die Ewigkeit*, 526. For the large amounts of blocks (more than 700 pieces) that were unearthed earlier by the Metropolitan Museum of Arts mission cf. Budka, *Die Spätzeit in Theben-West*, I, 47-48.

²⁷ The name of Hatshepsut was in most cases altered to that of Thutmose II; cf. Ullmann, *König für die Ewigkeit*, 26-36 and 53.

Thutmose III just northwest of the Ramesseum.²⁸ Another possibility for the provenience of the blocks is the valley temple of the complex of Hatshepsut at Deir el-Bahari.²⁹ But since they were rebuilt in the 19th Dynasty in a subsidiary structure within the Ramesseum³⁰ before finally being transported to their present find spot, the eastern part of the Asasif, one would suspect rather convenient distances between the sites of origin and of the multiple re-use. In view of the close vicinity between *Hj-ḥ.t* and the temple of Ramesses II, I am inclined to favour the first variant. In some cases the name of the god *Jmn* was chiselled out on inscribed blocks, thus implying an original 18th Dynasty date and destruction of the relief during the Amarna period.³¹ Several blocks appear to point to the beginning of wall decoration in the Asasif-temple: re-used blocks were covered with plaster and hence prepared for new decoration.³²

The function of the Asasif-temple is not evident, but because of its position at the entrance of the holy valley of Deir el-Bahari it is closely connected with the Beautiful Feast of the Valley.³³ Although there are no specific written sources, it might have been a House of Millions of Years.³⁴ It forms part of the ritual landscape that Ramesses IV intended to create on the West bank, with new monuments as landmarks in Medinet Habu as well as at the causeways to Deir el-Bahari and in the Asasif.³⁵ It appears as if the king followed quite ambitiously the example of Hatshepsut who had once significantly changed the general layout of both the West and East bank of Thebes.³⁶ Her concept with Karnak, Luxor, Deir el-Bahari, the Asasif and Medinet Habu as the most prominent

²⁸ For the location and the scarce remains of this building see A. el-Ayun Barakat, 'The Temple of Kha'-Akhet in Western Thebes', *MDAIK* 37 (1981), 29-33. For another block which was found in the Asasif and probably belongs to *Hj-ḥ.t* see Ullmann, *König für die Ewigkeit*, 53-59.

²⁹ Bietak, *Theben-West (Luqsor)*, 24-25 and Bietak, in Bietak and Reiser-Haslauer, *Anch-Hor*, I, 28 prefers this site as source of the Asasif-blocks. For the ruined valley temple see The Earl of Carnarvon and H. Carter, *Five Years' Explorations at Thebes. A Record of Work Done 1907-1911* (London, 1912), 38-41, pls. 30; 24, 31, figs. 2-3 and Marquis of Northampton, W. Spiegelberg and P.E. Newberry, *Report on some excavations in the Theban necropolis during the Winter of 1898-9* (London, 1908), 37, pl. 33. For a summary of the buildings of Hatshepsut in Western Thebes see C. Leblanc and M. de Saintilan, 'Autres remplois de blocs décorés de la XVIII^{ème} dynastie, dans le secteur sud du Ramesseum', *Memnonia* 8 (1997), 57-58, n. 10.

³⁰ The blocks in question are of limestone; the main temple of Ramesses II was built in sandstone, but the temple magazine had doorways and other features in limestone; see Bietak, *Theben-West (Luqsor)*, 25 and Bietak, in Bietak and Reiser-Haslauer, *Das Grab des Anch-Hor*, I, 28. Large amounts of re-used 18th Dynasty limestone blocks, dating from the reigns of Hatshepsut and Thutmose III were recently recovered in the southern sector of the Ramesseum, see C. Leblanc, 'Les remplois de blocs décorés de la XVIII^{ème} dynastie, dans le secteur sud du Ramesseum', *Memnonia* 7 (1996), 83-109 and Leblanc and de Saintilan, *Memnonia* 8, 47-59.

³¹ This is so in the case of the recently discovered re-used blocks from the Ramesseum as well, see especially Leblanc and de Saintilan, *Memnonia* 8, pl. 12 and the single one from the Asasif mentioned by Ullmann, *König für die Ewigkeit*, 53. All together, the material from the Ramesseum (cf. note 30) is very similar to the blocks from the Austrian excavations, thus implying the same original context, most likely the *Hj-ḥ.t* which was in use until the Post-Amarna period (cf. Ullmann, *König für die Ewigkeit*, 59).

³² See Bietak, *Theben-West (Luqsor)*, 26 and Ullmann, *König für die Ewigkeit*, 526, n. 1736. It is also possible that the plaster was intended for attaching these blocks to each other within the foundation; see D. Arnold, *Building in Egypt. Pharaonic Stone Masonry* (New York/Oxford, 1991), 291.

³³ Cf. Keller, in Silverman (ed.), *For His Ka*, 150.

³⁴ For a detailed discussion see Ullmann, *König für die Ewigkeit*, 540-542 and lately Budka, *Die Spätzeit in Theben-West*, I, 69-74.

³⁵ See Budka, *Die Spätzeit in Theben-West*, I, 71 and Budka, in Preys (ed.), *7. Ägyptologische Tempeltagung*.

³⁶ See Arnold, in Schwandner and Rheidt (eds), *Macht der Architektur – Architektur der Macht*, 13-23; Arnold, in Roehrig (ed.), *Hatshepsut: From Queen to Pharaoh*, 135-140; for minor buildings of Hatshepsut in Western Thebes cf. note 29.

cult places within the religious landscape survived for many years and dominated the cultic activity of Thebes during the entire period of the New Kingdom and beyond. The attempt by Ramesses IV to put new emphasis on exactly these significant sites, on Deir el-Bahari, the Asasif and Medinet Habu, was started early in his reign by means of a monumental barque shrine in the form of the colonnade temple at the former Hatshepsut valley temple. The construction of the Asasif-temple belonged to a later phase of this project as becomes clear by analyzing the hieratic benchmarks within the foundation bed of this building.³⁷

2. HIERATIC BENCHMARKS AND RELATED GRAFFITI FROM THE RAMESSIDE TEMPLE

During the Austrian excavations, about 20 hieratic graffiti (dubbed by Kitchen as 'benchmarks')³⁸ were found written on the taffl-stone of the foundations. These inscriptions provide some information on the process and organisation of work on the royal monument.³⁹ They are control notes checking the output of the construction work as well as guiding data for measurements, particularly for levelling heights. In a full variant they include a date⁴⁰, followed by a measurement, the place of a certain activity and the name of the stonemason's gang.⁴¹ There are shorter versions attested within the benchmarks;⁴² both the location and the name of the stonemason's gangs may be omitted (e.g. the cutting of Usermaatrenakht means literally the cutting of Usermaatrenakht's *gang/stonemasons*).⁴³ Different arrangements of the elements are attested as well – e.g. benchmark 17 in which a date is followed by an activity, a responsible party, measurements and finally a location.⁴⁴ These inscriptions are important in relation to non-textual marking systems because they sometimes appear together with simple marks and more complex geometric forms (team marks, control marks, "Merkeichen"⁴⁵, e.g. Steinreg. 631).

Within the western part of the foundation bed of the Asasif-temple where benchmarks were found, the dates of these marks cover a period from day 4 of the first month of *ꜥḥ.t* up to the 5th epagomenal day. As becomes clear by the position and meaning of the graffiti, these dates do not fall into a single regnal year. Remarkable is that the 4th epagomenal day is mentioned both on the western and on the eastern side in an almost opposite position. This could mean that the workmen proceeded in two separate groups in the same direction along the western and eastern side. Other dates also suggest an organisation of the work with one group on each side. The benchmarks imply a division of the western part of the foundation into at least three different sections where work was

³⁷ For discussion in detail see Budka, in Preys (ed.), 7. *Ägyptologische Tempeltagung*.

³⁸ K.A. Kitchen, *Ramesse Inscriptions. Historical and Biographical*, VI (Oxford, 1983), 49.

³⁹ See in detail Budka, in Preys (ed.), 7. *Ägyptologische Tempeltagung*, with references to earlier literature.

⁴⁰ These dates strongly point to the function of these marks as control notes, cf. M. Verner, 'Zu den „Baugraffiti mit Datumsangaben“ aus dem Alten Reich', in P. Posener-Kriéger (ed.), *Mélanges Gamal Eddin Mokhtar* (Bibliothèque d'Étude 97/2; Cairo, 1985), 339.

⁴¹ Cf. similar control marks from contexts of the Old and Middle Kingdom; see Arnold, *Control Notes*, 19 (after W.C. Hayes).

⁴² See already Bietak, *Theben-West (Luqsor)*, 20-23.

⁴³ This is well attested in the case of quarry marks of the Old Kingdom (personal communication by Petra Andrassy).

⁴⁴ Budka, in Preys (ed.), 7. *Ägyptologische Tempeltagung*, fig. 5.

⁴⁵ Cf. H. Jensen, *Die Schrift in Vergangenheit und Gegenwart* (Berlin, 1969), 208.

conducted step by step, beginning in the centre and working towards the North or South.⁴⁶ This organization may have been motivated by the crew sizes and the available work space and is probably significant for that particular part of the building only.

All five epagomenal days are mentioned within the benchmarks. Since these days are usually attested as work-free time⁴⁷, one might wonder in the first place if these epigraphs were written on the foundation bed during a break of the working process, marking the achievements to that point. However, the specific texts of the benchmarks and their relations to each other leave no doubt that work did proceed during these days. Other sources like P. Turin 2020/154 and O. Petrie 24 attest to work on epagomenal days as well.⁴⁸ Therefore, the epigraphs from the Asasif are further evidence for an excessive working policy under Ramesses IV: He doubled the number of workmen in his second year⁴⁹, sent the largest expeditions in the entire period of the New Kingdom to the quarries of Wadi Hammamat⁵⁰ and, according to the benchmarks from the Asasif⁵¹, increased the workforce by restricting the workmen's free time.⁵²

Two personal names are attested among the benchmarks; they mention persons responsible for the work on the royal building. Benchmarks 2 and 7, situated close to each other, name Usermaatrenakht. No titles are given, but the reference "*the stonemasons of Usermaatrenakht*" suggests a leading position for the official. He is probably identical with a priest of the temple of Min, Horus, and Isis in Coptos of this name who led an expedition to Wadi Hammamat in year 1⁵³ and is attested as the son of the well-known high-priest Ramessesnakht.⁵⁴ The latter fulfilled, according to an inscription from Wadi Hammamat⁵⁵, the function of overseer of all works as well.⁵⁶

⁴⁶ Cf. in more detail Budka, in Preys (ed.), *7. Ägyptologische Tempeltagung*. Bietak, *Theben-West (Luqsor)*, 20, had previously suggested a linear movement from North to South.

⁴⁷ W. Helck, 'Feiertage und Arbeitstage in der Ramessidenzeit', *JESHO* 7 (1964), 159; cf. various ostraca (e.g. O.DeM 209, vs. 19-20); see R. van Walsem, 'Month Names and Feasts at Deir el Medina', in R.J. Demarée and J.J. Janssen (eds), *Gleanings from Deir el-Medina* (EU 1; Leiden, 1982), nr. 119 with n. 116 and H. Wikgren, 'The Festival Calendar at Deir el-Medina', in: K. Piquette and S. Love (eds), *Current Research in Egyptology 2003, Proceedings of the Fourth Annual Symposium which took place at the Institute of Archaeology, University College London, 18-19 January 2003* (Oxford, 2005), 197.

⁴⁸ See Wikgren, in Piquette and Love (eds), *Current Research in Egyptology 2003*, 179 and 197.

⁴⁹ The increase in the tomb workforce at Deir el-Medina in year 2 is confirmed in P. Turin Cat. 1891, Recto; see W. Helck, 'Ramses IV', in W. Helck and W. Westendorf (eds), *Lexikon der Ägyptologie*, V (Wiesbaden, 1984), 120 with n. 12; E. Hornung, *Zwei ramessidische Königsgräber: Ramses IV. und Ramses VII* (Theben 11; Mainz am Rhein, 1990), 23; A. J. Peden, *The reign of Ramesses IV* (Warminster, 1994), 92-93.

⁵⁰ Cf. lately T. Hikade, *Das Expeditionswesen im ägyptischen Neuen Reich, Ein Beitrag zu Rohstoffversorgung und Außenhandel* (SAGA 21; Heidelberg, 2001), 38-46. The main aims of these expeditions were the quarrying of hard stone for statues, chiefly designated for temples.

⁵¹ One might even tentatively add another date from the Asasif benchmarks as normally work-free like the epagomenal days: according to several sources of the 19th and 20th Dynasties, no work is conducted on the 4th and 5th days of the second akhet (Helck, *JESHO* 7, 156). However, day 5 of this month is attested in benchmark 14, see below.

⁵² This may somehow be related to the positive reputation (cf. Keller, in Silverman (ed.), *For His Ka*, 154-155) the king managed to achieve among the inhabitants of Deir el-Medine (because more wealth and prosperity resulted from the increase in work?).

⁵³ Bietak, *Theben-West (Luqsor)*, 24; see G. Goyon, *Nouvelles inscriptions rupestres du Wadi Hammamat* (Paris, 1957), 103-106, No. 89, pl. 29 and Kitchen, *Ramesside Inscriptions*, VI, 1.

⁵⁴ See Budka, in Preys (ed.), *7. Ägyptologische Tempeltagung*, with further references.

⁵⁵ Kitchen, *Ramesside Inscriptions*, VI, 13.14.

⁵⁶ For comments on the High-Priest of Amun being in charge of quarrying missions see A.J. Peden, *Egyptian Historical Inscriptions of the Twentieth Dynasty* (Documenta Mundi, Aegyptiaca 3; Jonsered, 1994), 100.

As such he supervised building work in royal temples. Usermaatrenakht might have inherited this office from his father as oldest son.⁵⁷ This must have taken place after year 3 according to the quarry inscription in Wadi Hammamat. Probably as the climax of his career, Usermaatrenakht was later appointed – like his father and grandfather before him – to a High Steward of the Temple of Ramesses III in Medinet Habu.⁵⁸

Just next to benchmark 2 in the Asasif, on its southern side, benchmark 3 was documented. A short note was written on the side slope of the rock. It can be interpreted as a personal name, again without any title: *Pth-ms*, Ptahmose.⁵⁹ Two more hieratic lines on the vertical side of the rock read as follows:

¹ *jbd 1 3h.t sw 4 ntj iwj.t wnmj smhj m 2 r3-ε b3kw*

¹ *Akhet 1, day 4, concerning the foundation bed: the right and the left side, in ² unfinished state*⁶⁰.

This epigraph is of significance since it is the only example within the Asasif-group mentioning the right and the left side.⁶¹ These terms are well known for the two gangs of workmen from Deir el-Medine⁶², but here a reference to the temple is more likely since the benchmark was written exactly on the step between the deeper western and the lower eastern foundations.⁶³ Therefore, it probably refers to the separation of the westernmost part of the foundation from the eastern side.

The function and position of Ptahmose remain unclear.⁶⁴ He might have been an official working under the supervision of Usermaatrenakht, maybe involved in the taking of measurements at the construction site and he could be the author of the epigraph as well. Should the latter be the case, it is possible that Ptahmose acted primarily as a writer of control notes, although it is more likely that this was only part of a job encompassing various responsibilities.⁶⁵

Within the hieratic benchmarks in the temple foundation in the Asasif, one can differentiate two types of epigraphs which imply various functions of these marks.⁶⁶ First, there are marks with prospective character like benchmark 11 – these were written on stone before the work, serving as instructions for the supervisors of work, probably during an inspection. When the activity they

⁵⁷ As proposed by D. Polz, 'The Ramsesnakht Dynasty and the Fall of the New Kingdom: A New Monument in Thebes', *SAK* 25 (1998), 281.

⁵⁸ As attested in pWilbour, cf. Polz, *SAK* 25, 281.

⁵⁹ This reading was proposed by G. Posener in 1972 (written correspondence with M. Bietak).

⁶⁰ See *Wb.* II, 395: *m r3-ε b3kw* „im unvollendeten Zustand“.

⁶¹ *wnmj Wb.* I, 322.5-11 „die rechte Seite, die Rechte“; *smhj Wb.* 4, 140.10-14 „die linke Seite, die Linke“.

⁶² Cf. M. Gutgesell, *Arbeiter und Pharaonen. Wirtschafts- und Sozialgeschichte im Alten Ägypten* (Hildesheim, 1989), 51.

⁶³ For this significant step within the foundation bed see Bietak, *Theben-West (Luqsor)*, 18 and Budka, in Preys (ed.), *7. Ägyptologische Tempeltagung*.

⁶⁴ For similar hieratic inscriptions mentioning a name without an activity or a gang's name see the ones from the valley temple of Hatshepsut naming The Second Priest of Amun, Pui-em-Ra; see Carnarvon and Carter, *Five Years' Explorations at Thebes*, 39, fig. 10.

⁶⁵ It is well attested that within the Ramesside period various persons acted as scribes, e.g. draughtsmen and chief workmen, cf. B.J.J. Haring, 'Scribes and Scribal Activity at Deir el-Medina', in A. Dorn and T. Hofmann (eds), *Living and Writing in Deir el-Medine. Socio-historical Embodiment of Deir el-Medine Texts* (AH 19; Basel, 2006), 107.

⁶⁶ This evaluation largely depends on unpublished observations by Manfred Bietak and Helmut Satzinger; for more details and the specific benchmarks see Budka, in Preys (ed.), *7. Ägyptologische Tempeltagung*.

mention was fulfilled, the marks were in most cases no longer visible. Second, there are benchmarks of a documentary character as e.g. epigraph 12 indicates – these were composed and written after the stage of work they are referring to was completed. These probably served as reference points for the surrounding area which had to be levelled to the same height.

Of special importance are graffiti on one block in the foundations of the Asasif-temple which give as date a regnal year. This block was used for a correction of the western extent of the foundations. The first graffito (benchmark 14) is dated to year 6: *rnp.t 6, jbd 2 3h.t sw 5 – year 6, second month of the Akhet period, day 5*. The second one (benchmark 15) just gives the month and day: *jbd 2 3h.t sw 15 – second month of the Akhet period, day 15*. The second graffito was therefore written 10 days later than the first with the year date and the stone was accordingly moved twice within this time period. It can be assumed that the dates on this block mark the end of the works on the foundations since the stone itself is part of the final construction phase on the foundations. According to the foundation deposits the date ‘year 6’ can only refer to the reign of Ramesses IV, thus setting a fixed date for the work on the temple foundation in the Asasif.⁶⁷

Benchmark 10, which was written on a large limestone block (Steinreg. 631, 87-91 x 45-57 x 42-48 cm), gives an example for a combination of textual and non-textual marks. The block, of which one side is well smoothed, shows remains of plaster and a narrow recess on one side (fig. 2). Both features are typical for stones from foundation beds.⁶⁸ Of several short hieratic notes on Steinreg. 631, only one is still legible on the butt joint side of the block.⁶⁹ It reads as follows:

¹ *jbd 4 šmw sw 25* ² *šsp 4 dbꜣ 2 r (?) iwjt (?)*

¹ *fourth month of šmw-period, day 25,* ² *four hands, two fingers, to excavate (?)*.

The measurement referred to in the note (33.7 cm) equals closely the distance of the recess of the stone which measures 33-36 cm. Whether it was written before the cutting was executed or after the final result was measured remains unclear. Remnants of three more hieratic epigraphs that are visible on the top of the block provide some information concerning this problem. Despite their fragmented state of preservation, they seem to refer to further measurements of the stone itself, since 1 cubit, 2 fingers (56.2 cm) is legible which can be equated with the maximum width of the block (57 cm). Therefore, one might relate the composition of the hieratic notes to measurements of the block in its final shape rather than to guidelines for the stone cutter. Of special interest is a mark painted in red on the opposite side of the dressed face of the block. This sign represents an *ḥh*-hieroglyph measuring 26 cm in height. It may be interpreted as team mark, linked to the transport and quarrying of the stone, whereas the hieratic control notes refer to the final destination of the block within the foundation bed and its modified dimensions.⁷⁰ Consequently, marking and notes on Steinreg. 631 differ in their information content, in date and authorship.

⁶⁷ Cf. in more detail Budka, in Preys (ed.), 7. *Ägyptologische Tempeltagung*, with table 1.

⁶⁸ Cf. note 32.

⁶⁹ The rough surface of this side was well smoothed at the spot where the epigraph was written.

⁷⁰ Whether the block was originally cut for the Ramesside temple or represents a re-used and re-modelled block from the 18th Dynasty remains to be clarified.

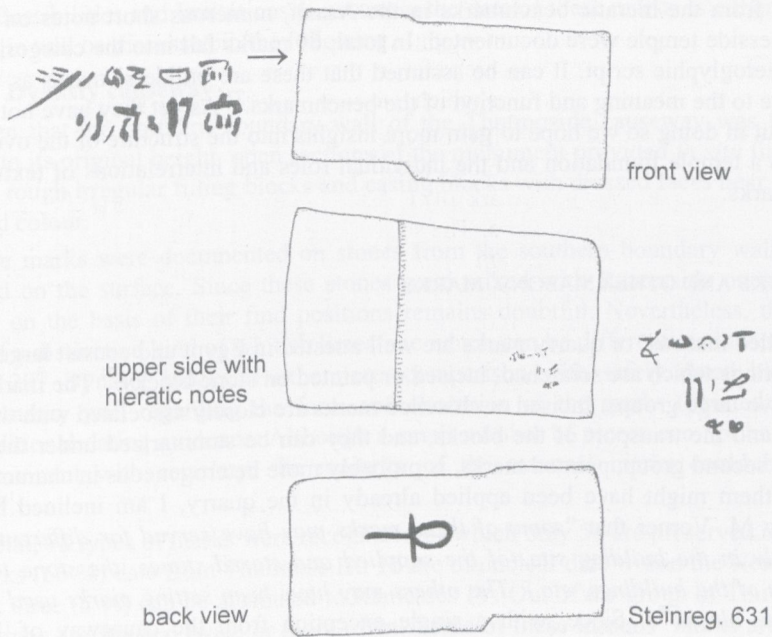


Fig. 2: Block from the Ramesside foundation bed with control notes and team mark (Steinreg. 631, scale 1:20). Sketch to scale, adapted from the notes by Manfred Bietak, 1971.

In summary, the benchmarks in the foundation bed of the Asasif-temple provide us with significant information. The notes give not only an idea about the process of work, the different phases of construction and their dating, but they tell us that Usermaatrenakht was the main officer in charge. Ptahmose, a person mentioned in benchmark 3, may have been a supervisor and/or the author of the epigraph, indicating his responsibility for a certain stage of work and documenting his participation on the royal building project. Due to very limited parallels⁷¹, the insights gained by the benchmarks are still quite fragmentary and the texts in some respects difficult to interpret. The most common term within the epigraphs is *iw(j).t* which might be connected with the chief activity the benchmarks imply – *excavating*. “That what is excavated” may eventually be interpreted as a term for the foundation bed respectively the basin of the construction site.⁷² Of further importance is the evidence of *wmmj smhj*, the right and the left side, which together with other sources underlines that the process of hollowing out a foundation basin was carried out step by step and in several sections.

⁷¹ Cf. the combinations of masons’ marks with short hieratic control notes from the valley temple of Hatshepsut (Carnarvon and Carter, *Five Years’ Explorations at Thebes*, 38-41) and from the Eje/Haremhab temple at Medinet Habu (R. Anthes, ‘Masons’ marks and inscriptions’, in U. Hölscher, *The Excavation of Medinet Habu*, II, *The Temples of the Eighteenth Dynasty* (OIP 41; Chicago, 1939), 99). These hieratic inscriptions give only names and titles; no activities are mentioned like in the Asasif.

⁷² For the common construction of terms for temple architecture by means of the substantive use of participles see K. Konrad, *Architektur und Theologie. Pharaonische Tempelterminologie unter Berücksichtigung königsideologischer Aspekte* (Königtum, Staat und Gesellschaft früher Hochkulturen 5; Wiesbaden, 2006), 219-248.

Aside from the hieratic benchmarks in the Asasif, numerous short notes on stone blocks from the Ramesside temple were documented. In total, 69 marks fall into the categories of hieratic and cursive hieroglyphic script. It can be assumed that these are builders' marks as well and that they contribute to the meaning and function of the benchmarks.⁷³ As yet they have not been studied completely, but in doing so we hope to gain more insights into the structure of the overall marking system within a temple foundation and the individual roles and interrelations of textual notes and non-textual marks.

3. TEAM MARKS AND OTHER MASONS' MARKS

So-called masons' or quarry marks are well attested in Egypt and consist largely of crudely executed markings which are scratched, incised or painted on stone blocks.⁷⁴ The markings may be divided into two large groups. Incised or chiselled marks are closely associated with the production in the quarry and the transport of the blocks, and they can be summarized under the label "*team marks*".⁷⁵ The second group, painted marks, is probably more heterogeneous in character. Although a number of them might have been applied already in the quarry, I am inclined to follow the assumption by M. Verner that "*some of these marks may have served for different sorts of the control directly in the building site (of the supplied and stored stones, the stone to be used in different parts of the buildings, etc.). The others may have been setting marks used for the exact location of the blocks*".⁷⁶ Since, with a single exception from the causeway of Thutmose III (Steinreg. 295), all of the markings presented here are painted and not incised, it is likely that the marks served a range of functions.

Although the two main buildings in the Asasif which formed the original context of these marks – the causeway of Thutmose III respectively the temple of the 20th Dynasty⁷⁷ – are safely dated, most of the marks were found on loose or re-used blocks and their original position remains unclear. The Ramesside temple which was primarily built with *spolia* (see above) was dismantled and used as a stone quarry soon after the end of the New Kingdom. The causeway of Thutmose III more or less survived the period of the New Kingdom, although the Ramesside temple covered part of it and its southern boundary wall was taken apart. The northern boundary wall remained largely intact. Sections of it were finally cut off by tombs of the late Third Intermediate period. Subsequently, blocks of both buildings, the Ramesside temple and the Thutmoside causeway, were frequently re-used in the construction of Late period tombs.⁷⁸ As a result, the Asasif-material illustrates some of the problems we encounter while working with identity marks from a multi-

⁷³ For control notes as provision to account keeping during stone transport see Arnold, *Control Notes*, 14.

⁷⁴ Cf. G. Haeny, 'Die Steinbruch- und Baumarken', in E. Edel et al., *Das Sonnenheiligtum des Königs Userkaf II. Die Funde* (BeiträgeBf 8; Wiesbaden, 1969), 23-47. For the character of incised marks see also G. Roeder, *Amarna-Reliefs aus Hermopolis. Ausgrabungen der Deutschen Hermopolis-Expedition in Hermopolis 1929-1939*, II (Pelizaeus-Museum zu Hildesheim, Wissenschaftliche Veröffentlichungen 6; Hildesheim 1969), 6-8 (New Kingdom); for early painted builders' marks see M. Verner, *The Pyramid Complex of Raneferef. The Archaeology* (Abusir 9; Prague, 2006), 187-204 (Old Kingdom).

⁷⁵ Arnold, *Control Notes*, 14-19 with references to earlier literature and the problems associated with a "correct terminology"; cf. Anthes, in Hölscher, *The Excavation of Medinet Habu*, II, 99.

⁷⁶ Verner, *The Pyramid Complex of Raneferef*, 200.

⁷⁷ Ramesses IV is surely the founder of the temple (see above). Decoration of later kings (Ramesses V and VI) is attested as well, but the oversized temple probably remained unfinished.

⁷⁸ Cf. Budka, *Die Spätzeit in Theben-West*, II, 517-523.

period site. Possibilities and limitations to ascertain the date of these marks as either of 18th or 20th Dynasty origin will be discussed in the following.

3.1 The 18th Dynasty causeway

Given that the northern boundary wall of the Thutmoside causeway was found partially standing up to its original height, open sections of the monument provided *in situ* finds of masons' marks. Both rough irregular filling blocks and casing blocks with dressed faces bear painted marks, mostly in red colour.⁷⁹

More marks were documented on stones from the southern boundary wall and on loose blocks found on the surface. Since these stones were mixed with Ramesside ones, the dating of these marks on the basis of their find positions remains doubtful. Nevertheless, the Thutmoside blocks are of a distinctive kind of whitish limestone which can be differentiated from the yellowish type of the 20th Dynasty blocks. Furthermore, comparison with safely dated blocks from the northern boundary wall regarding the form and execution of the marks (painted in red colour) provides additional dating evidence. Although a small number of pieces can not be attributed to a specific monument with certainty, the majority of the masons' marks could be assigned to Thutmose III.

In total, 78 types of marks were recognized of which only 56 are preserved in full size.⁸⁰ 37 of these marks (66 %) date from Thutmose III, 16 are of unclear date within the New Kingdom (29 %) and only three (5 %) can be attributed to Ramesses IV. Out of the group of Thutmoside marks, twelve markings are attested twice or more often. Some of these masons' marks are similar to so-called *funny signs*⁸¹ known from Deir el Medine, recently studied by McDowell⁸² and Haring.⁸³ At least three signs from these name rosters of workmen from Deir el-Medine are attested in the Asasif (*ms*, *hwt* and *mr*). Marks representing individual workmen's names were also observed on eleven ostraca found close to KV 22⁸⁴ and in a gallery of the limestone quarry at Qurna used for the construction of the House of Millions of Years of Amenhotep III.⁸⁵

Like some of the *funny signs*, team marks often resemble hieroglyphs and the major part of the Asasif material falls into this category. The most common signs within this corpus are, partly in

⁷⁹ Bietak, *Theben-West (Luqsor)*, 24-25.

⁸⁰ The appendix (sign list) of this paper includes only the 56 types on stone which are more or less fully preserved.

⁸¹ Cf. R.B. Parkinson, *Cracking Codes. The Rosetta Stone and Decipherment* (London, 1999), 93.














⁸² A.G. McDowell, *Hieratic Ostraca from the Hunterian Museum, Glasgow (The Colin Campbell ostraca)* (Oxford, 1993).







⁸³ B.J.J. Haring, 'Towards decoding the necropolis workmen's funny signs', *GM* 178 (2000), 45-58.

⁸⁴ Cf. J. Kondo, 'The Re-clearance of Tombs WV 22 and WV A in the Western Valley of the Kings', in: R.H. Wilkinson (ed.), *Valley of the Sun Kings: New Explorations in the Tombs of the Pharaohs, Papers from the University of Arizona International Conference on the Valley of the Kings* (Harvill, 1995), 32; S. Yoshimura and J. Kondo, 'Excavations at the Tomb of Amenophis III', *Egyptian Archaeology* 7 (1995), 18, colour plate; J. Kondo, 'So called "Enigmatic" ostraca from the Western Valley of the Kings', in: Z. Hawass and A.M. Jones (eds), *Eighth International Congress of Egyptologists: Abstracts of papers* (Cairo, 2000), 101; S. Yoshimura and J. Kondo, 'The Tomb of Amenophis III: Waseda University Excavations 1989-2000', *ASAE* 78 (2004), 207 and fig. 2.

⁸⁵ S. Nishimoto, S. Yoshimura, J. Kondo, 'Hieratic Inscriptions from the Quarry at Qurna: an interim Report', *BMSAES* 1 (2002), 21 and fig. 6

(<http://www.thebritishmuseum.ac.uk/egyptian/bmsaes/issue1/nishimoto.html>).

combination with others,  *mr* (16 x),  *dd* (8 x),  *hwt* (7 x),  *mr* with a dot/circle⁸⁶ (5 x),  *ms* (5 x);  *nfr* (3 x)⁸⁷ and  *nb* (3 x). Of special interest is a group of signs, attested at least five times, which can be read as *pr Nfrw-R^c*, Neferura is written in a cartouche. This group is probably the name of a domain, denoting a royal estate.⁸⁸ Neferura was already identified by Bietak as the daughter of Hatshepsut.⁸⁹ A *pr*-sign with a stroke () , which was recorded twice, may indicate an estate in general or serve as an abbreviation for *pr Nfrw-R^c*. Two slightly differing marks resemble .⁹⁰ The classifier for *njw.t*, , is attested several times. It appears in combination with the *pr* sign (e.g. Steinreg. 445 ) and with a fragmentarily preserved symbol, most likely representing  (block without number from excavation square N/27). The latter finds very close and almost contemporary parallels in the valley temple of Hatshepsut, written in charcoal on stones of the northern boundary wall of the building.⁹¹  was interpreted by Carter as *sn̄* meaning ground plan.⁹²

 was used in combination as well, e.g. Steinreg. 404 .⁹³ This particular masons' mark has a very long tradition and finds many Ptolemaic parallels in the quarries.⁹⁴ As stated above, both rough filling blocks and dressed casing blocks were eventually marked. The common marks  and  appear on both types of stones, whereas  and  seem to be restricted to unhewn filling blocks.

A small group of marks does not resemble any hieroglyphic or hieratic characters and should be called invented geometric forms. A combination of hieroglyphic signs and these invented forms is attested as well and finds parallels in the corpus of team marks at Lisht⁹⁵ and Amarna.⁹⁶ A group of similar marks from the Thutmoside causeway (Steinreg. 319, 396, 406, 434 and 602)

⁸⁶ Cf. marks from Amarna, J.D.S. Pendlebury, *The City of Akhenaten*, III (EES Excavation Memoir 44; London, 1951), 93, fig. 17; Roeder, *Amarna-Reliefs aus Hermopolis*, pl. 219, nr. 43 (I owe these references to B. Haring). It remains doubtful if this group should be read as *mrj-R^c*.

⁸⁷ This mark is attested on rough filling blocks as well as on blocks with relief (e.g. Steinreg. 257). It is difficult to decide whether it was actually a team mark or if it referred to the "0 level" – both forms of usage are attested in the Old Kingdom, cf. Verner, *The Pyramid Complex of Raneferef*, 188.

⁸⁸ Cf. W.C. Hayes, 'Inscriptions from the Palace of Amenhotep III', *JNES* 10 (1951), 97 with references and C.A. Hope, 'The Jar Sealings', in: A. el-Khouly, R. Holthoer, C.A. Hope and O. Kaper, *Stone vessels, Pottery and Sealings from the Tomb of Tut'ankhamun* (Oxford, 1993), 97. For *pr* as temple estate cf. P. Spencer, *The Egyptian Temple. A Lexicographical Study* (London etc., 1984), 14-20.

⁸⁹ Bietak, *Theben-West (Luqsor)*, 16-17. He suggested a near-by building of the princess as origin of the blocks.

⁹⁰ This mark appears incised as masons' mark at the site of the temple of Eje and Haremhab (personal observation at the site, April 2007).

⁹¹ Carnarvon and Carter, *Five Years' Explorations at Thebes*, 40-41, fig. 11, especially nr. 2. Similar marks without the *njw.t*-sign are also attested from Amarna, see Roeder, *Amarna-Reliefs aus Hermopolis*, pl. 219, nr. 76 and Pendlebury, *The City of Akhenaten*, III, 93, fig. 17.

⁹² Cf. *Wb.* 4, 178.16-179.8 "Fundament; Grundriss; Bauplan"; the abbreviated form in the mark would correspond even better with *sn̄.t*, *Wb.* 4, 179.9-14 "Grundmauerwerk, Grundriss".

⁹³ Several marks from Amarna include the *nb* sign in combination with others, see Roeder, *Amarna-Reliefs aus Hermopolis*, pl. 219, nrs. 6-10 and 13-14.

⁹⁴ D. Klemm and R. Klemm, *Steine und Steinbrüche im alten Ägypten* (Berlin, 1993), figs. 305a-b.

⁹⁵ Arnold, *Control Notes*, 22.

⁹⁶ Roeder, *Amarna-Reliefs aus Hermopolis*, pl. 219, nrs. 3, 13, 17.

closely resembles marks from Amarna. The mark of Steinreg. 322, a loose block found in K/27, can be equated with a cross below a curve as attested from Amarna too.⁹⁷

3.2 The 20th Dynasty temple

Only three, possibly five, marks within the large corpus of masons' marks can be related to the construction of the Ramesside temple. Considering the frequency of textual markings in the temple foundation, this amount seems strikingly small. Future research will focus on the questions whether this is due to the poor preservation of the building, or whether different organizational methods employed diverse marking systems. At the moment, the latter is no more than a hypothesis, yet it comes to mind that Ramesses chiefly used blocks from older monuments for the construction of his temple – thus differing significantly from the causeway of Thutmose III. Furthermore, blocks from the Ramesside temple have survived from the lower layers of the foundation and the floor level. They bear no markings, although in earlier buildings the lateral sides of such blocks are precisely the places where masons' marks would be found.⁹⁸

Only one hieroglyphic team mark as it is attested for the Thutmoside causeway could be attributed to the 20th Dynasty (𓆎, Steinreg. 631, fig. 2). The other marks are mainly single characters with script-like appearance (e.g. Steinreg. 461 and Steinreg. 664 representing cursive hieroglyphic and hieratic signs respectively). If these actually served the same purpose as the team marks mentioned above, then their character and form contradict Arnold's directive concerning team marks that these are in general: "*signs [...] which the illiterate workmen could easily memorize and use to mark their stones*".⁹⁹

4. POT MARKS ON LATE PERIOD AND PTOLEMAIC POTTERY

Pottery vessels are another category of objects of interest for the present paper since they frequently show marks. A small percentage of complete vessels from the Austrian excavations in the Asasif bear incised marks (0.8 %, 5 vessels out of 600). Pot sherds with marks cover only 1 % of the diagnostics (16 out of 1566 pieces) and 0.1 % of both diagnostics and undiagnostic sherds (16 out of 14800 pieces).¹⁰⁰ The repertoire of these marks is strikingly small and some symbols are similar to the so-called *funny signs* and team marks. Most often attested (six pieces) is a sign recalling the hieroglyph *ms*. It is known in Thebes from the New Kingdom, Late Period and Ptolemaic times.¹⁰¹ This mark may be interpreted in this context as an abbreviation for a personal name, e.g. Ramose or Ptahmose (cf. Reg. 329). But it is interesting to note that this *ms*-mark is one of the most frequent symbols in the corpus of masons' marks in the Asasif (see above). Small differences in shape are due to the use of different materials and techniques (ink or paint vs.

⁹⁷ G. Roeder, *Amarna-Reliefs aus Hermopolis*, pl. 219, nr. 61.

⁹⁸ Cf. the blocks from Amarna Pendlebury, *The City of Akhenaten*, III, 93, fig. 17 (masons' marks on the foundation plaster at the entrance of the Hut-Aton) and Roeder, *Amarna-Reliefs aus Hermopolis*, 6-8 and pl. 219 and from the Eje/Haremhab temple in Western Thebes (personal observation at the site, April 2007).

⁹⁹ Arnold, *Control Notes*, 14.

¹⁰⁰ See Budka, *Die Spätzeit in Theben-West*, III, 710-714, fig. 221. That only a small percentage of vessels are marked (cf. B.G. Wood, *The Sociology of Pottery in Ancient Palestine, The Ceramic Industry and the Diffusion of Ceramic Style in the Bronze and Iron Ages* (JSOT/ASOR Monographs Series 4; Sheffield, 1990), 46) is similar to the use of marks on stones.

¹⁰¹ Cf. e.g. D.A. Aston, *Egyptian Pottery of the Late New Kingdom and Third Intermediate Period* (SAGA 13; Heidelberg, 1996), fig. 145 (temple of Seti I) and G. Nagel, *La céramique du Nouvel Empire à Deir el Médineh*, I (DFIFAO 10; Cairo, 1938), 47, fig. 30.

chiselled/incised mark, stone vs. pottery). It is highly unlikely that the *ms* on the Late period pot Reg. 329 has the same connotation as a *ms*-like mark on the filling blocks of the causeway of Thutmose III or the textual reference in hieratic to a *Pth-ms* in benchmark 3 of the Ramesside temple.

In general, one can differentiate marks on Egyptian pottery in those incised prior to firing and those made after the firing.¹⁰² Pot marks on vessels dating to the Late period were incised prior to firing in most cases (10 out of 12 since two pieces are unclear). Therefore, they could have served as property marks or short notes regarding the place of production, origin or destination. Finding an answer to these questions is difficult since in this period often so-called embalming pots are marked – large storage jars found in deposits filled with materials for embalming (e.g. *ms*-like sign on sausage jars Reg. 329 and two more sherds). These types of vessels are also known from domestic contexts, however, although we do not know their original function, it can be ruled out that they were produced for cultic and funerary purposes only. Therefore, it is unclear if the marks on these vessels relate to the types of their contents¹⁰³ or to the amount of these contents as it has been proposed, for example, for the Early Dynastic wine jars.¹⁰⁴ In some cases, a relation to the context in which the vessels were found by archaeologists is likely: A relation to the cemetery, graves and burials.

Pot marks are well attested in the Ašasif on vessels of the so-called Egyptian Hadra ware of the Ptolemaic period (covering 2 % of the sherds, five of 230 pieces, and 9 % of the vessels, three of 32 pieces). In all nine cases (one of the three vessel bears two marks), these marks were incised after burning and set right on top of the painted decoration, therefore destroying some of it.¹⁰⁵ For such pot marks, a function as property marks of the workshop or single potter can be ruled out. It seems more likely, that they were notes on contents, owners or distributors.¹⁰⁶ Since a vessel can show two different post-firing marks on the same pot, both interpretations may be valid. There is, however, evidence for different marks on a single set of vessels from a closed context.¹⁰⁷ An interpretation as property marks seems rather improbable in these cases.¹⁰⁸

¹⁰² Cf. the contributions by D.A. Aston and C. Gallorini in this volume.

¹⁰³ Some of these embalming vessels are inscribed with personal names – these names could either refer to the individual embalmer or to the dead person, whose remains filled the pot, cf. J. Budka, 'Deponierungen von Balsamierungsmaterial im spätzeitlichen Theben (Ägypten). Befund, Kontext und Versuch einer Deutung', in J. Mylonopoulos and H. Roeder (eds), *Archäologie und Ritual. Auf der Suche nach der rituellen Handlung in den antiken Kulturen Ägyptens und Griechenlands* (Vienna 2006), 91, note 62.

¹⁰⁴ Cf. W. Helck, 'Topfaufrschriften', in: W. Helck and W. Westendorf (eds), *Lexikon der Ägyptologie*, VI (Wiesbaden, 1986), 635. For an overview of proposed interpretations and recent publications see E.-M. Engel, 'Zu den Ritzmarken der 1. Dynastie', *LingAeg* 5 (1997), 13-27.

¹⁰⁵ See G. Schreiber, *Late Dynastic and Ptolemaic Painted Pottery from Thebes (4th-2nd c. BC)* (Dissertationes Pannonicae Ser. III, Vol. 6; Budapest, 2003), 33.

¹⁰⁶ For the different functional use of post- and pre-firing marks see N. Hirschfeld, 'Incised Marks (Post-Firing) on Aegean Wares', in C. Zerner, P. Zerner and J. Winder (eds), *Wace and Blegen, Pottery as Evidence for Trade in the Aegean Bronze Age 1939-1989, Proceedings of an International Conference held at the American School of Classical Studies at Athens, Athens, December 2-3, 1989* (Amsterdam, 1993), 311.

¹⁰⁷ Cf. E. Graefe, *Das Grab des Ibi, Obervermögenverwalters der Gottesgemahlin des Amun (Thebanisches Grab Nr. 36)* (Publication du Comité des Fouilles Belges en Egypte; Bruxelles, 1990), fig. 67 (nos. 129 and 131).

¹⁰⁸ Cf. Schreiber, *Late Dynastic and Ptolemaic Painted Pottery*, 33. Various identity marks and name labels are also attested in intact tomb groups of the New Kingdom in Thebes – we have to assume that various people contributed to the grave goods, see D.A. Aston in this volume.

Marking pots with incisions after burning might have been connected with the context or destination of the vessels, that is their use within the cemetery. Similar pot marks like in the Asasif were documented in other Egyptian cemeteries¹⁰⁹ and in Nuri¹¹⁰ and Kerma¹¹¹ as well. Bonnet has interpreted a sign on a decorated Meroitic vessel as a simplified drawing of the intended burial place (pyramid and chapel).¹¹² Schreiber extended this interpretation for vessels found both in the Sudan and in Egypt. According to him, „such pot marks were associated with the funerary use of the vessels.“¹¹³ The marking of the pot would therefore have taken place when it was decided to use the pot within the necropolis. The fact that no such pot marks were as yet found in domestic contexts on Hadra ware may support this hypothesis.¹¹⁴

Similar as the Meroitic sign from Kerma, the pot mark from vessel Reg. 172d from the Asasif can possibly be regarded as an architectural sketch.¹¹⁵ The sign is rectangular with some kind of annex on two sides, formed by two simple lines. It might resemble a corridor or shaft of a grave with its access.¹¹⁶ Two similar signs are only partially preserved on sherds (K02/25 und K02/25a). At the moment, it seems to be the case that pot marks on Ptolemaic vessels served different functions than those in earlier times and are closely related to signs on contemporary and later Meroitic vessels.¹¹⁷ Here it is interesting to note that other possible parallels for Ptolemaic pot marks are masons' marks of the same period. "Offering tables"¹¹⁸, for example, can be compared with the "chapel-type"-pot mark which also occur on Meroitic pottery.¹¹⁹

In sum, the material from the Asasif illustrates that identical pot marks were used on different vessels in diverse contexts (graves, deposits etc.), but also that they were found on the same types of vessels in similar contexts (cf. sausage jars in deposits and similar bottles from TT 414, Reg. 446g, Reg. 446n and Reg. 446s). This can most likely be explained by proposing a multi-functional use of these marks.¹²⁰

¹⁰⁹ Schreiber, *Late Dynastic and Ptolemaic Painted Pottery*, 33; e.g. Aston, *Egyptian Pottery of the Late New Kingdom*, fig. 58 (Heliopolis); D.A. Aston, *Elephantine, XIX, Pottery from the Late New Kingdom to the Early Ptolemaic Period* (AV 95; Mainz am Rhein 1999), pl. 71, nr. 2035.

¹¹⁰ D. Dunham, *The Royal Cemeteries of Kush*, II, Nuri (Boston, 1955), figs. 5; 95, Nu. 28, 17-4-1223; 138, Nu. 29, 18-3-157 and 158, Nu. 16, 18-3-390.

¹¹¹ C. Bonnet, 'Les fouilles archéologiques de Kerma (Soudan)', *Genava* 28 (1980), 59, figs. 28-29; L. Török, in C. Bonnet (ed.), *Kerma, royaume de Nubie. L'antiquité africaine au temps des pharaons. Exposition organisée au Musée d'art et d'histoire, Genève, 14 juin - 25 novembre 1990* (Genève, 1990), 240, cat. 361.

¹¹² Bonnet, *Genava* 28, 59, figs. 28 und 29.

¹¹³ Schreiber, *Late Dynastic and Ptolemaic Painted Pottery*, 33.

¹¹⁴ Cf. Aston, *Elephantine*, XIX, passim.

¹¹⁵ For close parallels see Graefe, *Das Grab des Ibi*, fig. 67, nos. 130 and 132.

¹¹⁶ It might be worth mentioning that the vessel was found within the long corridor of the reused saff-grave "Grab I" – a location that might well be sketched like the mark in question.

¹¹⁷ For Meroitic pot marks see D. Dunham, 'A Collection of 'Pot-Marks' from Kush', *Kush* 13 (1965), 131-147 and L. Török, 'A special group of Meroitic property marks from the 1st and 2nd centuries A.D.', *Meroitic Newsletter* 10 (1972), 35-44 (I thank Cornelia Kleinitz for these references).

¹¹⁸ Cf. Klemm and Klemm, *Steine und Steinbrüche*, figs. 306a-b.

¹¹⁹ Cf. Dunham, *Kush* 13, 138, group IV.1a and b; 141, group VI.4; 142, group VII.1, 3, 4, 7b and 7e.

¹²⁰ As proposed for the Early Dynastic pot marks, cf. Engel, *LingAeg* 5, 25: "unterschiedliche Systeme von Ritzmarken mit unterschiedlichen Funktionen zu vermuten". Cf. also Wood, *The Sociology of Pottery*, 45-47 with further references.

5. FIRST RESULTS AND PROSPECTS OF FUTURE WORK


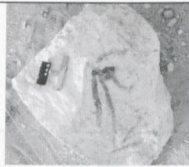







The Asasif-corpus comprises textual control notes, epigraphs and benchmarks as well as non-textual control marks, team marks and stonemasons' marks of New Kingdom-date and a small number of pot marks from the Late period and Ptolemaic time. Most of the textual notes are related to the Ramesside temple, whereas the majority of the non-textual marks on stone date to the 18th Dynasty. The bulk of these marks closely resemble hieroglyphs or groups of hieroglyphs, but invented geometric forms occur as well. The best example for groups of hieroglyphs is the mark *pr* (*Nfrw-R^c*) which might be interpreted as an identity mark for a royal estate. This particular example illustrates some problematic aspects we encounter while trying to reconstruct functions and meanings of non-textual marks. Readable groups like *pr* (*Nfrw-R^c*) that indicate the ownership of the marked objects using script appear in the same context and side by side with hieroglyphic and invented signs that transmit their specific information in a non-textual way.¹²¹ In addition, next to these may occur hieratic inscriptions which mention personal names, denoting information other than ownership since the scribes either use landscape features or royal monuments as support for their marks.¹²² An expression of identity almost certainly forms the connection between these various sets of markings – but we should be aware that identity is embodied in numerous ways. Furthermore, the Asasif material illustrates that we encounter different types of marks in similar contexts and similar marks in different contexts. Work on the pot marks suggests the possibility of a multi-functional use of these marking systems and underlines the importance of contextual studies. Indeed, any attempt to find a mono-causal explanation for the function and use of non-textual identity marks may quickly lead to a dead end.



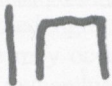
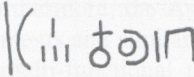





The specific prospects of working on the Asasif-material are insights into the control system at Thebes and especially into the organization of work on the royal monuments of the area. Marking systems of the early New Kingdom will be compared in a future study with ones from the late New Kingdom, raising various questions concerning administrative and socio-economic aspects. To accomplish these aims, a detailed analysis of the hieratic control notes and their interrelations with non-textual marks will be conducted. Last but not least, a joint mission of the Austrian Archaeological Institute and the Humboldt University Berlin will resume work in the Austrian concession in the Asasif in fall 2007. It would come as no surprise if additional material and new evidence for the practical use of non-textual identity marks in Thebes was discovered.






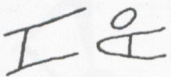
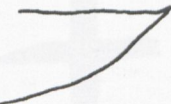


¹²¹ Cf. the similar situation with pottery vessels that show both pot marks and (textual) jar labels.



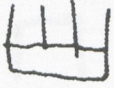
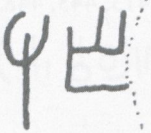
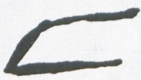
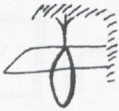

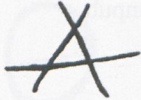

¹²² Cf. the situation in quarries where both types often occur side by side, inscriptions and marks or “funny signs”, see e.g. the quarry at Qurna, note 85.








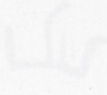










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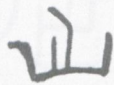






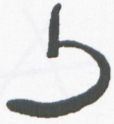



	<p>a. Steinreg. 461; R/29, in layer of limestone flakes; unpub. b. 20th Dynasty c. singular d. ink (brush) on limestone</p>
	<p>a. Steinreg. 664; N/27, foundation bed of Ramesside temple; on relief block; unpub. b. 20th Dynasty c. singular d. ink (brush) on limestone</p>
	<p>a. Steinreg. 379; L/22; unpub. b. Thutmose III? c. singular d. ink (brush) on limestone</p>
	<p>a. Steinreg. 296; K/27, pl. 0-1, causeway; unpub. b. Thutmose III c. singular d. ink (brush) on limestone</p>
	<p>a. Steinreg. 301, 310, 395, 450, 458; K/27, L/26, R/29; unpub. b. Thutmose III c. five times d. ink (brush) on limestone</p>
	<p>a. Steinreg. 257, 323, 330; K/27, pl. 0-1, causeway; unpub. b. Thutmose III c. three times d. ink (brush) on limestone</p>
	<p>a. Steinreg. 440; L/26, pl. 0-1; unpub. b. New Kingdom c. singular d. ink (brush) on limestone</p>
	<p>a. Steinreg. 431; L/26, pl. 0-1; unpub. b. New Kingdom (Thutmose III?) c. singular d. ink (brush) on limestone</p>
	<p>a. Steinreg. 272; K/27, pl. 1; unpub. b. Thutmose III c. singular d. ink (brush) on limestone</p>


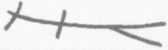



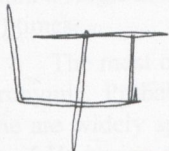
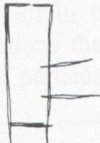
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	<p>a. Steinreg. 334; K/27, pl. 0-1; unpub. b. Thutmose III c. singular d. ink (brush) on limestone</p>
	<p>a. Steinreg. 485, 499; K/27, L/26; unpub. b. Thutmose III c. two times d. ink (brush) on limestone</p>
	<p>a. Steinreg. 297, 326, 327, 392, 402, 421, 438, 479, 486; K/26, 27, 29, L/26, 27; unpub. b. Thutmose III c. nine times d. ink (brush) on limestone</p>
	<p>a. Steinreg. 380, 401, 472, 473, 477, 630; filling blocks from Thutmose III-causeway; unpub. b. Thutmose III c. seven times d. ink (brush) on limestone</p>
	<p>a. Steinreg. 645; L/26-27, filling block from causeway; unpub. b. Thutmose III c. singular d. ink (brush) on limestone</p>
	<p>a. Steinreg. 445; L/26, pl. 0-1; unpub. b. Thutmose III (?) c. singular d. ink (brush) on limestone</p>
	<p>a. no number; northern boundary wall of causeway; unpub. b. Thutmose III c. several d. ink (brush) on limestone</p>
	<p>a. no number; northern boundary wall of causeway; unpub. b. Thutmose III c. singular d. ink (brush) on limestone</p>

	<p>a. Steinreg. 394, 449; K/26, L/26; unpub. b. Thutmose III c. two times d. ink (brush) on limestone</p>
	<p>a. Steinreg. 270, 352, 405, 414, 502, 627-629; K/26, 27, 28, 29; unpub. b. Thutmose III c. eight times d. ink (brush) on limestone</p>
	<p>a. Steinreg. 631; M/27-28, foundation bed; unpub. b. 20th Dynasty c. singular d. ink (brush) on limestone</p>
	<p>a. Steinreg. 286, 299, 331, 332, 359, 361, 384, 400, 409, 413, 415, 443, 448, 452, 498, 605; K/26, 27, L/26, R/29; unpub. b. Thutmose III c. sixteen times d. ink (brush) on limestone</p>
	<p>a. Steinreg. 309, 316, 399, 482; K/26, 27; unpub. b. Thutmose III c. four times d. ink (brush) on limestone</p>
	<p>a. Steinreg. 300; K/27, pl. 0-1; unpub. b. Thutmose III c. singular d. ink (brush) on limestone</p>
	<p>a. Steinreg. 351; K/28; unpub. b. Thutmose III? c. singular d. ink (brush) on limestone</p>
	<p>a. Steinreg. 333, 580; K/27, pl. 0-1, filling block causeway; unpub. b. Thutmose III? c. two times d. ink (brush) on limestone</p>
	<p>a. Steinreg. 404; N/26, surface; unpub. b. New Kingdom? c. singular d. ink (brush) on limestone</p>

	<p>a. Steinreg. 317; K/27, pl. 0-1; unpub. b. Thutmose III? c. singular d. ink (brush) on limestone</p>
	<p>a. Steinreg. 439; L/26, pl. 0-1; unpub. b. Thutmose III? c. singular d. ink (brush) on limestone</p>
	<p>a. Steinreg. 644; L/26-27, filling block of causeway; unpub. b. Thutmose III c. singular d. ink (brush) on limestone</p>
	<p>a. Steinreg. 386; K/26, pl. 1; unpub. b. Thutmose III? c. singular d. ink (brush) on limestone</p>
	<p>a. Steinreg. 295; K/27, pl. 1, causeway; unpub. b. Thutmose III c. singular d. incised on limestone</p>
	<p>a. Steinreg. 446; K/26, pl. 1; unpub. b. Thutmose III? c. singular d. ink (brush) on limestone</p>
	<p>a. Steinreg. 518; K/27, pl. 0-1; unpub. b. Thutmose III? c. singular d. ink (brush) on limestone</p>
	<p>a. Steinreg. 307; K/27, pl. 0-1; unpub. b. New Kingdom c. singular d. ink (brush) on limestone</p>
	<p>a. Steinreg. 307; K/27, pl. 0-1; unpub. b. New Kingdom c. singular d. ink (brush) on limestone</p>

	<p>a. Steinreg. 319, 396, 406; K/27, pl. 0-1, L/26, causeway; unpub. b. Thutmose III c. three times d. ink (brush) on limestone</p>	
	<p>a. Steinreg. 434; L/26, pl. 0-1; unpub. b. Thutmose III? c. singular d. ink (brush) on limestone</p>	
	<p>a. Steinreg. 602; K/L/26; filling block causeway; unpub. b. Thutmose III c. singular d. ink (brush) on limestone</p>	
	<p>a. Steinreg. 501; L/26, pl. 0-1; unpub. b. New Kingdom c. singular d. ink (brush) on limestone</p>	
	<p>a. Steinreg. 393; causeway; unpub. b. Thutmose III c. singular d. ink (brush) on limestone</p>	
	<p>a. Steinreg. 274; K/27, pl. 1, causeway; unpub. b. Thutmose III c. singular d. ink (brush) on limestone</p>	
	<p>a. Steinreg. 321, 350; K/27, pl. 1, K/28; unpub. b. Thutmose III? c. two times d. ink (brush) on limestone</p>	
	<p>a. Steinreg. 322; K/27, pl. 0-1; unpub. b. Thutmose III? c. singular d. ink (brush) on limestone</p>	
	<p>a. Steinreg. 465; R/29, pl. 2; unpub. b. New Kingdom c. singular d. ink (brush) on limestone</p>	

	<p>a. Steinreg. 408; K/26, surface; unpub. b. New Kingdom c. singular d. ink (brush) on limestone</p>	
	<p>a. Steinreg. 308; K/27, pl. 0-1; unpub. b. New Kingdom c. singular d. ink (brush) on limestone</p>	
	<p>a. Steinreg. 410; L/27, surface; unpub. b. New Kingdom c. singular d. ink (brush) on limestone</p>	
	<p>a. Steinreg. 441; R/29, pl. 2; unpub. b. New Kingdom? c. singular d. ink (brush) on limestone</p>	
	<p>a. Steinreg. 447; L/26, pl. 0-1; unpub. b. New Kingdom c. singular d. ink (brush) on limestone</p>	
	<p>a. Steinreg. 471; R/29, pl. 2; unpub. b. New Kingdom c. singular d. ink (brush) on limestone</p>	
	<p>a. Steinreg. 330; K/27, pl. 0-1, causeway; unpub. b. Thutmose III c. singular d. ink (brush) on limestone</p>	
	<p>a. Steinreg. 329; K/27, pl. 0-1; unpub. b. Thutmose III? c. singular d. ink (brush) on limestone</p>	
	<p>a. Steinreg. 325; K/27, pl. 0-1; unpub. b. Thutmose III? c. singular d. ink (brush) on limestone</p>	

	<p>a. Steinreg. 311; K/27, pl. 0-1; unpub. b. New Kingdom c. singular d. ink (brush) on limestone</p>
	<p>a. Steinreg. 312; K/27, pl. 0-1; unpub. b. New Kingdom c. singular d. ink (brush) on limestone</p>
	<p>a. Reg. 329; Budka, Die Spätzeit in Theben-West, fig. 221 b. 25-26th Dynasty c. singular d. incised on pottery</p>
	<p>a. Reg. 446n; Budka, Die Spätzeit in Theben-West, fig. 221 b. Ptolemaic c. two times d. incised on pottery</p>
	<p>a. K13A, K48 and Reg. 291a; Budka, Die Spätzeit in Theben-West, fig. 221 b. Late Period and Ptolemaic c. three times d. incised on pottery</p>
	<p>a. Reg. 446n; Budka, Die Spätzeit in Theben-West, fig. 221 b. Ptolemaic c. singular d. incised on pottery</p>
	<p>a. Reg. 172d, K02/25, K02/25a; Budka, Die Spätzeit in Theben-West, fig. 221 b. Ptolemaic c. three times d. incised on pottery</p>