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# The Survival of Pharaonic Ostraca: Coincidence or Meaningful Patterns?

The legacy of Pharaonic Egyptian written culture is dominated by the monumental record. Hieroglyphs are usually the first signs that spring to mind for Egyptologists and non-specialists alike, and with these signs come the images of the monuments and objects they are written on. Papyri make a good ‘secondary’ type of record, although they may come first in the opinion of specialists of cursive Pharaonic scripts: hieratic and Demotic. And it is only to the latter group of Egyptologists that textual ostraca represent an important additional source of information on Ancient Egyptian life and culture, and on the practice of writing itself.

For the relatively small group of people who mastered writing to any degree in Pharaonic times, the situation must have been the reverse entirely. Casual writing, as well as practical notations closely related to writing (such as marks and tallies), are usually found on pottery sherds and stone fragments, both called ‘ostraca’ by Egyptologists.<sup>1</sup> These types of writing and other notations,<sup>2</sup> as well as the material they were written on, were available to a wide group of people ranging from the professionally literate to the semi-literate and even the illiterate. Papyrus would mainly have been used for the production of administrative, literary and religious texts by professional scribes. Hieroglyphs, being a monumental script using archaic graphs and mostly expressing older, classical stages of the Egyptian language, were the products of specialized scribes and draftsmen.

## 1 Types and Purposes of the Ostraca

As will be shown further below, Ancient Egyptian ostraca display a wealth of written and pictorial information, the range of which by far exceeds that of papyri, and even that of monuments. It is necessary to emphasize from the start that Pharaonic ostraca are not merely a textual genre. The types of text and image on pottery and stone

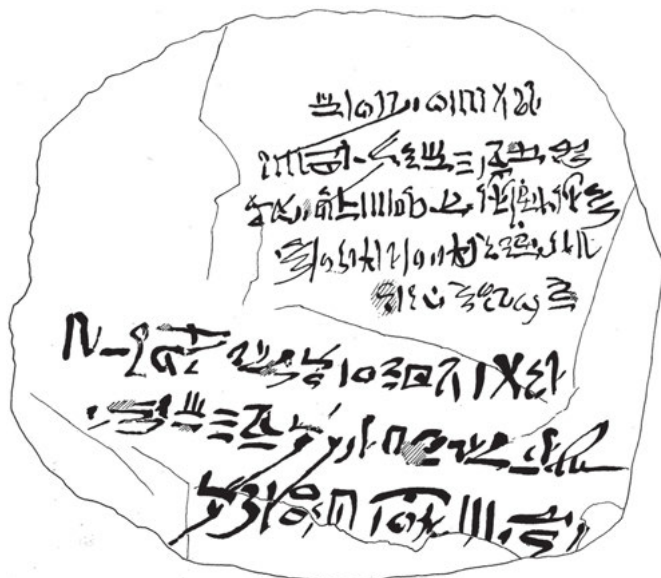
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1 The earliest use of the word ‘ostrakon’ in Egyptological publications was in the 1880s, for textual ostraca, and from the start these were specified as being either limestone or pottery; see Černý/Gardiner 1957, v, note 1.

2 ‘Writing’ is here understood in a strict linguistic sense, the visual and/or material notation of human language as different from other notation systems.

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I wish to thank Rob Demarée and Koen Donker van Heel for reading a draft of this paper and for supplying me with additional references. Helen Richardson-Hewitt has kindly corrected my English.



**Fig. 1:** Reverse of ostracon Ashmolean Museum 1933.810. Lines 1–5 were written in the regnal year 31 of Ramesses III, on the first month of *peret*, day 24; lines 6–8 four months later, on day 1 of the 2nd month of *shemu*, year 31. See also Allam 1968, 126–127.

fragments are many (especially in the case of New Kingdom ostraca from Thebes), and sometimes difficult to classify. Indeed, the range of textual and pictorial modes used on these fragments makes it difficult even to define the very notion of ‘ostrakon’. Dictionaries define ostraca as inscribed potsherds, sometimes mentioning their specific use in the ancient Greek voting procedure called ostracism. Such definitions imply that ostraca were always textual, and that the texts were of a casual nature or of short-term importance only. But in Ancient Egypt, pottery and limestone fragments were often inscribed or decorated for long-term use: well-documented examples include legal records with additional entries made months after their initial text was written (Fig. 1), excerpts from literary texts on large chunks of limestone deposited in tombs as burial gifts (Fig. 2), and miniature stelae, sometimes crudely made, and kept as votive monuments in houses and huts (Fig. 3). These very different objects are all commonly classified as ostraca by Egyptologists, and published together in catalogues,<sup>3</sup> although usually subdivided by genre: textual and pictorial ostraca tend to be in separate publications, and textual ostraca are further subdivided into hieroglyphic, hieratic and Demotic (and Aramaic, Greek, etc.).

The same catalogues may include inscriptions once made on intact pottery vessels and bowls, which were broken afterwards, leaving only inscribed or decorated fragments. On the one hand, there are jar inscriptions, such as hieratic texts mentioning the content of vessels, with date and provenance. On the other hand, execration texts, letters to the dead, and literary compositions were written on intact vessels of which

<sup>3</sup> The ‘ostraca’ depicted in Figures 2 and 3 have been given that name in their editions.

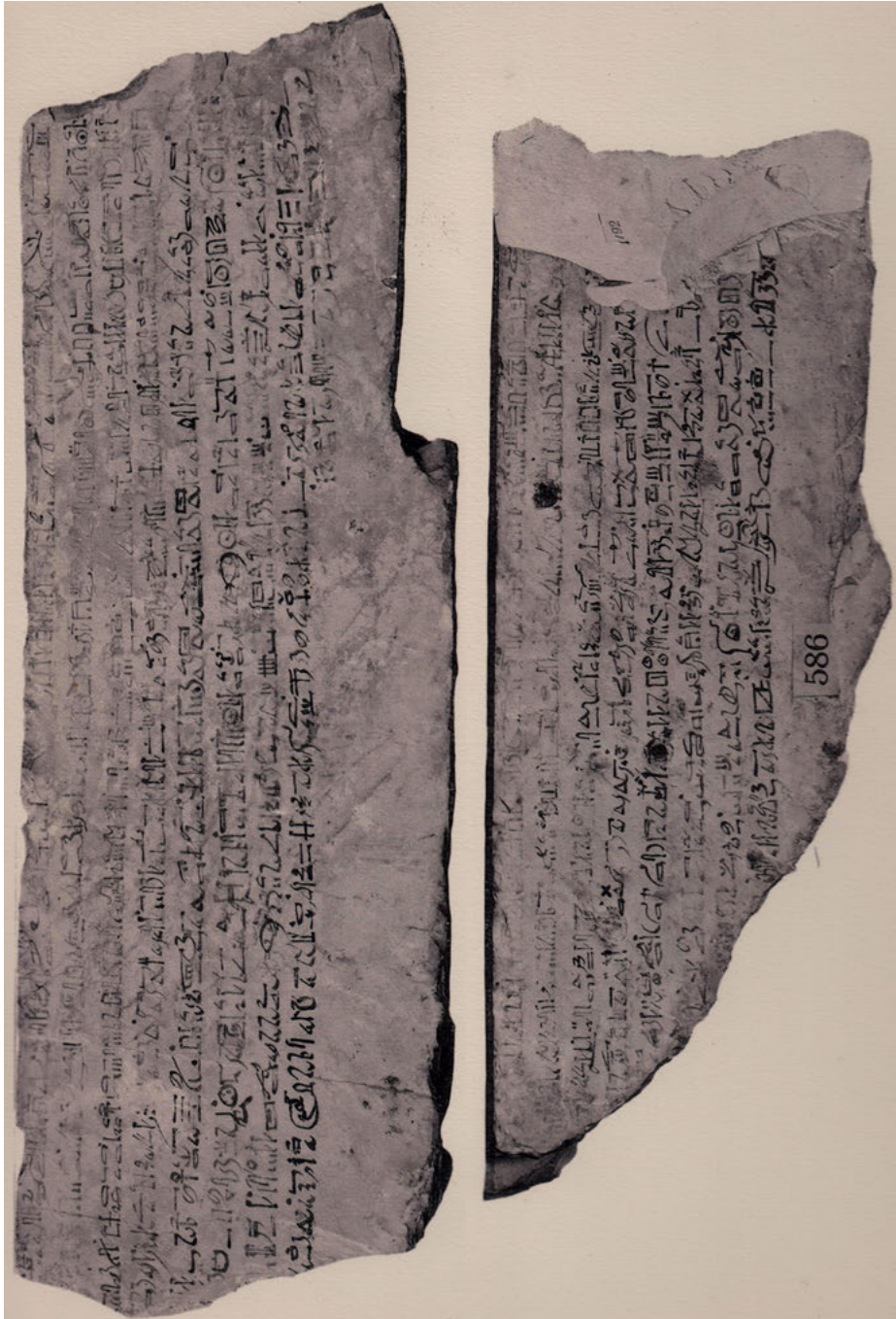
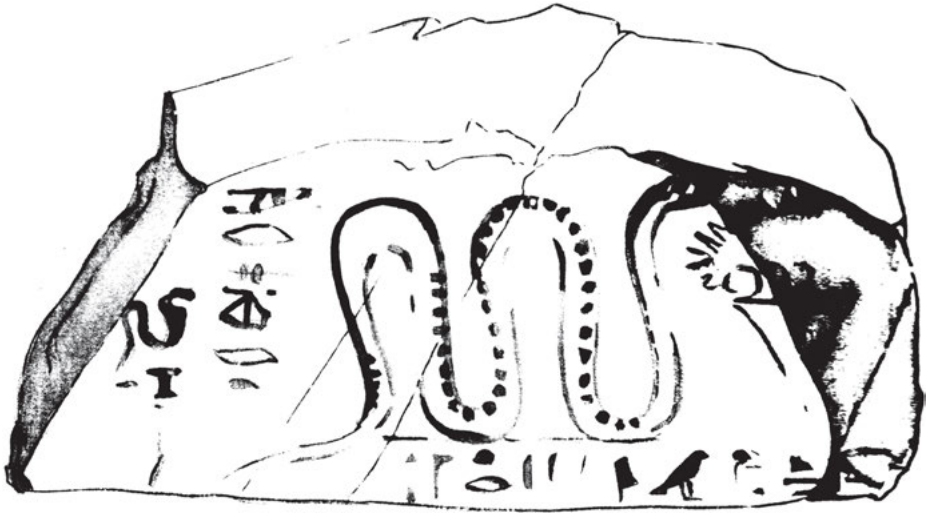


Fig. 2: Excerpt from the story of Sinuhe on limestone ostracum Cairo CG 25216, found among the tomb equipment of the workman Sennedjem at Deir el-Medina, early Nineteenth Dynasty. The ostracum consists of two joining fragments, together having a width of 106 cm.



**Fig. 3:** Ramesside 'ostracon' (in fact, miniature stela) Louvre E 25320 dedicated to the cobra goddess Meresger.

we now only have fragments.<sup>4</sup> Whereas the former are more properly designated as 'dockets' by Egyptologists, and usually catalogued as such, the latter are sometimes called 'ostraca'. What all the above examples of ostraca do seem to have in common, then, is the secondary use of the support. Including secondary use of a medium in the definition of ostraca, we can exclude docketts (which are related to the initial use of a pottery vessel), but can include inscribed vessels when the texts are not connected with the vessels themselves or their contents. However, the notion of secondary use may be problematic in cases where sherds or stone fragments have been (re)shaped for the very purpose of being inscribed. Recent lithic analysis indicates that this was sometimes the case with Ramesside limestone ostraca.<sup>5</sup>

In addition to the problems of definition, the modern classifications of ostraca and their publication in separate catalogues tend to obscure the fact that different types of ostraca were once part of the same archaeological deposits, hence possibly (though not necessarily) came from the same context of original production and use.<sup>6</sup> Excavation reports and find publications from before the mid-twentieth century often

<sup>4</sup> For letters to the dead and execration texts see note 10 below.

<sup>5</sup> Pelegrin/Andreu-Lanoë/Pariselle 2015. Ceramic ostraca could also be reshaped into neat rectangular forms but as such they would still, of course, represent reuse of the material. See note 11 below for an example from the Predynastic Period. The same is the case with some types of ceramic ostraca from Hellenistic Egypt and fourth-century CE Carthage; see the contribution by Clementina Caputo to this volume.

<sup>6</sup> As Paola Davoli points out in her paper, the context of primary deposit is not the same as the context of primary use.

leave out information on archaeological context; sometimes it was not even recorded in the field. Recent excavations, however, present much better documentation. An excellent example for the purpose of the present paper is the work of the ‘Mission Sip-tah-Ramses X’ of the University of Basel in the Valley of the Kings. Among the remains of necropolis workmen’s huts of the mid-Twentieth Dynasty (ca. 1150–1130 BCE) were found 831 ostraca of various types, textual and pictorial, together with many pottery items and other objects. The catalogue of ostraca neatly distinguishes pictorial ostraca (arranged by subject matter, such as sketches of human beings, deities, animals, flowers, architectural and decorative elements) and textual ones (subdivided into hieroglyphic texts, tallies, identity marks, and hieratic ostraca arranged by subject matter).<sup>7</sup> At the same time, it is made clear which ostraca were found together, and the deposits in individual huts typically show a mixture of different types.<sup>8</sup> Inscribed objects even enable to identify the users of some of the huts, who in some cases were also the producers of the ostraca.<sup>9</sup>

## 2 Finds of Pre-Hellenistic Egyptian Ostraca

With the exception of New Kingdom Thebes, the numbers of surviving ostraca from pre-Hellenistic Egypt are modest, but the available material allows us to say that ostraca were used throughout Ancient Egyptian history and in many different places.<sup>10</sup> Pictorial ostraca even go back to Predynastic times, that is, to before ca. 3000 BCE. Excavations at the site of Nekhen/Hierakonpolis (nowadays Kom el-Ahmar, ‘The Red Mound’, the name of which is owed to the tons of pottery deposited there in antiquity) yielded several sherds with animal figures, which were engraved after the vessels they were once part of were broken. One of these sherds was even reshaped to a more or less rectangular form before receiving decoration.<sup>11</sup>

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<sup>7</sup> Dorn 2011, 223–484 and plates.

<sup>8</sup> *Ibid.*, 33–72: “Befundvorlage und -auswertung”.

<sup>9</sup> Individual huts typically appear to have been inhabited, during work in the valley, by a workman and his son(s). For instance, one of the ‘ostraca’ found in hut no. 31, actually a scribal palette made of limestone, bears a hieroglyphic text mentioning a workman called Wennefer and his sons Khaemwaset and Penamun: Dorn 2011, 52–54, 353–354, pl. 412–413. Being specialists in monumental tomb construction, many of the necropolis workmen were literate to some degree in hieroglyphic and/or hieratic; see Baines/Eyre 2007, 89–94.

<sup>10</sup> The following survey does not include inscriptions on unbaked clay (excretion figures and tablets, the hieratic clay tablets of the Old Kingdom found at Balat); nor does it include docketts, excretion texts and letters to the dead on ceramic bowls and vessels, which have survived in considerable numbers, and are sometimes called ‘ostraca’ (Helck 1982, 636, note 1; Andrassy 2012, 25–26). The references given concentrate on presentations of the material, not on subsequent discussions.

<sup>11</sup> Published in Friedman 1997. Other sherds with animal figures from the same site: Hendrickx/Friedman 2003; Pyke/Colman 2006.

The Old Kingdom (ca. 2600–2200 BCE) has left several limestone ostraca bearing hieratic text; some were found at Helwan, others are thought to be either from there or from Saqqara.<sup>12</sup> Eight Helwan ostraca were found in tombs, near the legs of the deceased or among fragments of pottery jars, and the same may be true for the others. All of the better preserved pieces seem to mention deceased persons with filiation, and in some cases with their titles and the names of their superiors, and may well have served as labels identifying the deceased, perhaps even as ‘burial licenses’.<sup>13</sup> The depiction of a curve with measurements on a limestone flake from Saqqara, Third Dynasty, was probably for architectural purposes.<sup>14</sup> Remarkably, ostraca surviving from this remote period are scarcer than the more fragile papyrus documents, quite substantial (though in fact chance) finds of which were made in Abusir, Gebelein and Wadi al-Jarf.

Finds of ostraca from the First Intermediate Period and Middle Kingdom (ca. 2100–1650 BCE) include a group of ceramic drinking bowls inscribed with ration lists in hieratic, which are possibly connected with the administration of an Upper-Egyptian province.<sup>15</sup> Another account of rations is preserved on a chunk of limestone from Deir el-Bahri.<sup>16</sup> A sherd with only a personal name is perhaps from Elephantine.<sup>17</sup> A group of over twenty ceramic ostraca inscribed in hieratic, chiefly accounts, was found at Wadi Gawasis at the Red Sea coast; it is to be connected with an expedition sent by Senusert III to faraway Punt.<sup>18</sup> Lahun, where an exceptionally large number of papyri from the same reign were excavated, has yielded only a few Middle Kingdom hieratic ostraca, both pottery and limestone.<sup>19</sup> Three textual ostraca from the Second Intermediate Period were found at Buhen (Nubia),<sup>20</sup> and “a large corpus of administrative ostraca” from the same period and the beginning of the New Kingdom are reported to have been excavated at Tell Edfu.<sup>21</sup>

Thousands of ostraca survive from the New Kingdom (ca. 1550–1070 BCE), but almost all of them come from the Theban necropolis and will be discussed in the

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**12** Saad 1947, 106–107, pl. XLII; Goedicke 1968, 1983.

**13** See Goedicke 1968, 29–30; 1983, 158–159. Note that two of these ostraca are actually stones split into halves; the uninscribed halves serving as covers of the inscriptions (*ibid.*, 23–24, 27). The Helwan ostraca come in pairs, each pair consisting of two inscribed ostraca of more or less identical shape (Saad, *loc. cit.*).

**14** Clarke/Engelbach 1930, 52–53.

**15** O. Berlin P 9983–10000 (lists written on complete bowls): Andrassy 2012, 25–46.

**16** James 1962, 85–87, pl. 23.

**17** Koenig 1997, 9: O. Strasbourg H 104.

**18** Mahfouz 2008 (including a number of sherds bearing pot marks only, which are therefore not ostraca, nor are they counted as such by Mahfouz).

**19** Some pottery and ostraca from Middle Kingdom Lahun can be found in Petrie/Brunton/Murray 1923, 13–14, pl. XLIX and LXX—I suspect that the ostrakon on pl. XLIX and no. 2 on LXX are one and the same.

**20** Smith 1976, 30, pl. X and LIIA.

**21** Moeller 2012, 124.

next section. Outside Thebes, the most substantial finds of New Kingdom ostraca, all limestone flakes, were made at Abydos. Four were discovered in the sloping passage of the Osireion; three of them are hieratic texts related to local construction work; the fourth has cursive hieroglyphs in columns.<sup>22</sup> A Ramesside hieratic ostrakon was found among the remains of a workmen's village of the early Eighteenth Dynasty.<sup>23</sup> Workmen of that early period already were accustomed to leave limestone flakes with rows of dots (presumably tallies) and some with hieratic notes.<sup>24</sup> The Pennsylvania-Yale excavations at the Osiris temple enclosure (Kom es-Sultan) yielded another twenty-three hieratic ostraca (literary texts and building accounts) and a pictorial one of satirical/erotic nature, with hieratic captions.<sup>25</sup> Literary ostraca include excerpts from famous compositions such as the Satire of the Trades and the Teaching of Amenemhet. Although these texts are of Middle Kingdom origin and known from Middle Kingdom papyri, excerpts on ostraca all seem to date from the New Kingdom— as do several copies on papyrus. The types and contents of Abydos ostraca are remarkably similar to Theban ones. A prime topic of documentary ostraca from both places is monumental construction work, which was carried out by very similar workforces divided in 'right' and 'left' sides. It comes as no surprise that, in the absence of reliable archaeological documentation, the two provenances are sometimes mixed up.<sup>26</sup>

Stray finds from other sites include documentary ostraca from El-Amarna,<sup>27</sup> excerpts from the Teaching of Amenemhet found at El-Lisht<sup>28</sup> and Amara West (Nubia),<sup>29</sup> a section of the didactic text known as *Kemit* from the tomb of Horemheb

**22** Frankfort/de Buck/Gunn 1933, 92–94, pl. XC and XCII.

**23** O. Cairo CG 25670: Černý 1935, 55, 75\*, pl. LXXII.

**24** So far unpublished; they were reported in a paper by Stephen Harvey at the conference “Non-Textual Marking Systems in Ancient Egypt”, University of Warsaw, Institute of Archaeology, December 16th–18th 2011.

**25** Simpson 1995, 13–24, 31.

**26** Three limestone ostraca are said to be from Abydos in Daressy 1901, 55 (no. 25227), 60 (no. 25237), 61 (no. 25241). The first may rather be connected with Theban necropolis workforce; the second (even more specifically said to be from Shunet es-Zebib!) is certainly from the Theban necropolis (see Jansen 1997, 147, note 1; Davies/Toivari 1997, 69); the third may well be from Abydos, since it is concerned with temple rather than tomb building; its formula (*mi.t.t n ts) rh.t bsk.w iry* “(copy of the) account of work done” appears to be characteristic of that place (see also Simpson 1995, 17–19, 22) and is rare in Thebes. The same formula occurs in O. UC 31931 (UCL 1); this and another UC ostrakon (31930/UCL 2) are connected with Deir el-Medina in Kitchen 1989, 181 and 187, but may well be from Abydos. For both pieces see Petrie Museum Catalogue <http://petriecat.museums.ucl.ac.uk/search.aspx> (last accessed: 17.1.2020). For all ostraca mentioned in this footnote, see The Deir el-Medina Database <http://dmd.wepwawet.nl> (last accessed: 17.1.2020).

**27** These ostraca were found together with numerous jar docketts, cf. Fairman 1933, 103–104, pl. LVII; Fairman 1951, 160–162, pl. LXXXIV–LXXXV. The ostraca include literary texts, cf. Köhler/Jancziak 2017.

**28** Lansing 1933, 6 and 8.

**29** Parkinson/Spencer 2009. More literary and documentary ostraca, as yet unpublished, have been found there as well (communication by Rob Demarée).

at Saqqara,<sup>30</sup> two accounts from the Old Kingdom pyramid complex of Pepi II,<sup>31</sup> and a potsherd from the Fayum mentioning a “chief of the workshop Panakht” and the number 100.<sup>32</sup>

Finds of hieratic ostraca of the Third Intermediate Period (ca. 1070–664 BCE)<sup>33</sup> include one in uncial hieratic from a Saqqara tomb<sup>34</sup> and one from Dra Abu el-Naga.<sup>35</sup> Uncial hieratic came to be reserved for religious and literary texts in this and later periods (an excerpt from the *Satire of the Trades* is found on an ostrakon of the Saite Period);<sup>36</sup> its cursive counterpart in the Third Intermediate Period is known as cursive or abnormal hieratic. This script, which was replaced by Demotic in the subsequent Late Period, is mostly preserved on papyri, but also on several complete jars and dishes, as well as on fragments of pottery and (lime)stone.<sup>37</sup>

The Late Period (i. e. Saite and Persian periods and the Thirtieth Dynasty) has left groups of Demotic documentary ostraca (pottery and limestone), but at the majority of sites they are vastly outnumbered by Demotic and Greek ostraca from the Greco-Roman Period.<sup>38</sup> Apart from considerable groups of ostraca from the Kharga and Dakhla Oases,<sup>39</sup> published finds are rather modest, including two from the Valley of the Kings at Thebes<sup>40</sup> and one from Karnak.<sup>41</sup> Several ostraca from the Thirtieth Dynasty were found at Tanis together with charred papyri among the remains of a building that must have housed an archive.<sup>42</sup>

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**30** Martin 1976, 12.

**31** Dated to Eighteenth Dynasty by Jéquier 1940, 44 and 46.

**32** Černý/Gardiner 1957, 6 and pl. XVIII, no. 4.

**33** I do not include here Theban ostraca from the very beginning of the Twenty-First Dynasty that are still related to the royal necropolis workforce; see the following section.

**34** Sherif Ali 2015, 160–163.

**35** If the dating of O. Strasbourg H 69 in Koenig 1997, 6, is correct.

**36** Altenmüller/El Bialy 2009.

**37** For notable finds in the Dakhla Oasis, see e. g. Vittmann 2012, 20–21; Vittmann 2015, 404, 407–408; for finds at other sites, see Vittmann 2015, 400–401 (Qurna); Jasnow/Pouls Wegner 2006/2007, 40 (Abydos); Donker van Heel 2016 (Assasif, tomb TT 279 of Pabasa); those with unknown provenance include Bouvier 2001; Bouvier/Demarée/Donker van Heel 2001 (possibly Thebes).

**38** See Depauw 1997, 77–78. The Trismegistos database of Demotic and Abnormal Hieratic Texts (DAHT), <https://www.trismegistos.org/daht/> (last accessed: 17.1.2020), currently lists for the Late Period 576 ceramic ostraca inscribed with Demotic (most of which are from Manawir—see the next footnote), and 232 limestone.

**39** Ayn Manawir/Douch (Kharga), see Chauveau 2003 and 2004. DAHT (see the previous footnote) currently lists 507 ceramic ostraca for this site; further seven early Demotic ostraca from the Kharga Oasis are published in Kaplony-Heckel 2000. For over 500 ostraca from Mut al-Kharab (Dakhla), some abnormal hieratic but mostly Demotic, cf. Vittmann 2012, 21–30. Late Period ostraca continue to be found in the oases west of the Nile Valley; according to Vittmann (2015, 404) the fact that most Egyptian ostraca of the period are from there is historically significant.

**40** Cruz-Uribe/Vinson 2005–2006.

**41** Devauchelle 1987, 138–139, no. 6, pl. II (there no. 7; see Depauw 1997, 77).

**42** Bovot/Ledain/Roussel 2000, 248 and 273.

For Late Period pictorial ostraca we have to turn to Thebes. The Saite tomb of Nespakashuty at Deir el-Bahri (TT 312) is the findspot of groups of limestone pictorial ostraca, the dates of which range from the Ramesside through the Ptolemaic periods. One group, which is probably connected with the construction of the tomb itself, includes drawings of a calf, a harpist, and architectural sketches of liliiform capitals possibly envisaged for the (now destroyed) tomb.<sup>43</sup>

The above survey is certainly not exhaustive. It concentrates on published corpora with known provenance and aims merely to give an impression of the quantity and variety of preserved material. Yet, one is struck by the modest numbers of ostraca found at most sites, from any period, even when taking into account that relatively few of the texts produced in antiquity were preserved, many fewer have been found, and fewer still have been published or mentioned by Egyptologists. Moreover, contrary to what one might expect, ostraca seem to be less numerous than the papyri preserved from the same periods—with the single exception of New Kingdom Thebes. A considerable number of Old Kingdom papyri comes from Abusir, but no ostraca of that period are known from there, and Old Kingdom ostraca from any site are rare. Only a few Middle Kingdom ostraca are reported from Lahun, where substantial finds of papyri were made. And abnormal hieratic papyri from the Third Intermediate Period seem to have survived in greater numbers than ostraca.

### 3 New Kingdom Ostraca from the Theban Necropolis

The exceptional character of textual output of the Theban necropolis during the New Kingdom has already been mentioned and is well known as such among Egyptologists. Pessimistically speaking, this means that observations made on the basis of New Kingdom Theban material are not necessarily valid for other Egyptian places and periods. On a more optimistic note, one might suggest that the wealth of written material from Thebes provides a better basis for quantitative assessments of the production of texts in antiquity than the material found elsewhere in Egypt. The major corpus of this material is comprised of the vast number of ostraca and papyri produced by the scribes and draftsmen involved in royal tomb construction, who were based at the site now called Deir el-Medina. The number of known Ramesside documentary ostraca with this particular background exceeds 11,000, and the number of literary ostraca (the Egyptological designation literary also comprises religious and magical texts) is equally substantial. In addition, several hundred papyri have been preserved.<sup>44</sup>

<sup>43</sup> Pischikova 2002, 197.

<sup>44</sup> The most important collection of Deir el-Medina ostraca is kept in the Institut Français d'Archéologie Orientale (IFAO) in Cairo; see the institute's online catalogue, <http://www.ifao.egnet.net/bases/archives/ostaca> (last accessed: 17.1.2020). It includes over 8,000 documentary and over 7,000 literary

Much smaller numbers of ostraca are associated with the New Kingdom temples constructed on the desert edge (the so-called mortuary, funerary, or memorial temples). Most substantial of these is the corpus produced by the scribes of the Eighteenth-Dynasty building projects at Deir el-Bahri (the temples of Hatshepsut and Thutmose III and the nearby tomb of Senmut).<sup>45</sup> Smaller numbers come from other temples, such as that of Ramesses II (the Ramesseum). The ostraca found there notably include literary pieces from a location now thought to have been a temple school.<sup>46</sup> The site of this temple is also the provenance of numerous jar docketets.<sup>47</sup> Ostraca and docketets have been found, and continue to be found, even if in smaller amounts, at other temple sites. Considerable numbers of docketets also come from Deir el-Medina,<sup>48</sup> and from the site of the palace of Amenhotep III (Malkata).<sup>49</sup> Theban private tombs are also among the recorded findspots of many different types of ostraca, which range from copies or drafts of tomb inscriptions and decorations<sup>50</sup> to literary texts, the latter including the world's earliest known alphabetic word list.<sup>51</sup>

The following paragraphs concentrate on the ostraca produced in the context of royal tomb construction. On several occasions I have argued that the numbers of documentary texts preserved, and especially the changes in these numbers throughout the New Kingdom, have important implications.<sup>52</sup> The following trends are particularly striking. (1) Textual ostraca connected with royal tomb construction are known only for the Ramesside period, not for the Eighteenth Dynasty, whereas hundreds of hieratic ostraca can be connected to West-Theban temple building of that earlier period. (2) The number of documentary ostraca produced by the royal necropolis administration appears first to rise gradually and then explosively, in the course of the

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ostraca. The classifications into documentary and literary are not always quite precise, however, and include some diverse material. Most Deir el-Medina papyri are in the Museo Egizio, Turin, and are currently being processed for online publication under the supervision of Susanne Töpfer. Data on a significant part of the documentary texts can be found in The Deir el-Medina Database <http://dmd.wepwawet.nl> (last accessed: 17.1.2020). Sections C–F in the Systematic Bibliography of that database include titles on documentary practice and on individual ostraca and papyri, both documentary and literary. Section X is on pictorial ostraca.

<sup>45</sup> Much of which, again, is unpublished. Principal editions: Hayes 1942, 1960. Current work on the unpublished ostraca by Malte Römer; see most recently Römer 2017.

<sup>46</sup> Barbotin 2013.

<sup>47</sup> Ostraca and docketets together amount to some 3,000 items, by far the most of which are docketets. The majority of these are now in the Institute of Egyptology of the University of Strasbourg, and have been edited by Guillaume Bouvier; see the synthesis in Bouvier 2003. Many other docketets, as well as ostraca, have already been published by Spiegelberg 1898.

<sup>48</sup> For which see, in general, Tallet 2003.

<sup>49</sup> Hayes 1951.

<sup>50</sup> See Haring 2015a for the problems of interpreting ostraca as drafts or copies, and Lüscher 2015 for the spectacular case of a complete *Vortage* of a tomb inscription on ostraca.

<sup>51</sup> Haring 2015b.

<sup>52</sup> Haring 2003, 2006, 2018b.

late Nineteenth and early Twentieth Dynasties. (3) The production of hieratic ostraca apparently declined after the early Twentieth Dynasty, while the production of documentary papyri seems to have been rising.

The words ‘appear’ and ‘seem’ are in order because observation of these trends largely depends on the material preserved, nevertheless the corpus of documents available shows meaningful patterns. Thus, the contrast between the absence of hieratic documentary ostraca associated with royal tomb construction of the Eighteenth Dynasty, on the one hand, and the considerable production of such ostraca in connection with temple building at Deir el-Bahri in the same period, as well as the massive production of ostraca related to royal tomb building in the Nineteenth and Twentieth Dynasties, on the other, can probably be accounted for by differences in administrative practices in these periods and contexts.<sup>53</sup> The beginning of the production of hieratic ostraca and the gradual increase in their output in the community of royal necropolis workmen in the Nineteenth Dynasty could be explained by the permanent presence of scribes in the workmen’s settlement (the present site of Deir el-Medina) and in their work spots (the Valley of the Kings and the Valley of the Queens).<sup>54</sup> Scribes may not have been permanently based there during the Eighteenth Dynasty or at least their hieratic documents were not kept or discarded locally.

What we find instead is a considerable number of ostraca inscribed, not in hieratic, but with a series of identity marks representing individual workmen, sometimes with the addition of strokes or dots, perhaps representing days of presence or absence (Fig. 4). The same marks appear in graffiti and as ownership marks on pottery and other objects.<sup>55</sup> Ostraca inscribed with marks appear to be administrative records in a semi-literate mode, probably lists of workmen present or absent, and accounts of tools or supplies. The style of many of these pieces betrays hands unfamiliar with hieratic writing, so that their producers may very well have been the workmen themselves or their semi-literate superiors, rather than scribes. This type of ostrakon, of which more than a thousand survive, continued to be produced during the entire Ramesside Period, together with the written ostraca and papyri of that period.<sup>56</sup> The growth in the production of hieratic documentary ostraca in the late Nineteenth, and especially in the early Twentieth Dynasty, is paralleled by the growing numbers of ostraca inscribed with marks. Many of such ostraca show combinations of marks, hieratic numbers, and pictograms referring to supplies. Together, these notations make up a pseudo-script that gives information similar to administrative hieratic records. Indeed, many examples can be given of matches between hieratic texts and pseudo-script ostraca, both referring to the same deliveries on the same days.<sup>57</sup>

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<sup>53</sup> Haring 2006, 107–108.

<sup>54</sup> Haring 2006, 108–110.

<sup>55</sup> For which see now Haring 2018a, 158–168.

<sup>56</sup> Haring 2018a, 169–206.

<sup>57</sup> Haring/Soliman 2014.



**Fig. 4:** Limestone ostracum Cairo CG 24105 bearing workmen's identity marks, strokes and dots, Eighteenth Dynasty.

There seems to have been an increasing tendency to have things written down, both in connection with royal tomb construction and with the personal and community life of the workmen and their families.<sup>58</sup> Exactly who or what stimulated this development is difficult to say. Literacy appears to increase in the community in the early Twentieth Dynasty.<sup>59</sup> Furthermore, this period saw the appearance, for the first time, of a local dynasty of scribes: Amennakht son of Ipuy and his descendants, who would be the senior administrators of the royal necropolis workforce until the end of the New Kingdom, and even some time beyond it.<sup>60</sup> These 'inside' administrators appear to have had, or to have aspired to have, a firm grip on the local community.

The quite sudden decrease in the production of documentary ostraca after the reign of Ramesses IV remains somewhat of a mystery. The fact that a considerable number of documentary papyri survive from the following period, especially from the late Twentieth Dynasty, has been seen as related to the decrease in ostraca. The hypothetical emerging preference for papyri over ostraca has been explained in different ways, mainly by the (equally hypothetical) resettlement of the workmen from Deir el-Medina to the temple precinct of Medinet Habu, where papyri would be more readily available than ostraca,<sup>61</sup> and also by the increasing need for authenticated legal documents, that is, sealed papyri.<sup>62</sup> In a recent assessment, I argue that the sudden increase of documentary papyri in the late Twentieth Dynasty is in fact illusory, an impression created by the loss and reuse of earlier papyrus documents.<sup>63</sup> Notwithstanding loss and reuse, almost every individual regnal year of the Twentieth Dynasty is attested in one or more documentary papyri. And while the number of documentary

<sup>58</sup> Haring 2003.

<sup>59</sup> Haring 2003, 250, 259–264.

<sup>60</sup> Haring 2018a, 141–145. For Amennakht himself, see Dorn/Polis 2016. Before Amennakht, the local senior scribes for whom we have sufficient background information were not fathers and sons and some of them were appointed from outside.

<sup>61</sup> Eyre 2013, 249.

<sup>62</sup> Haring 2003, 264–266.

<sup>63</sup> Haring 2018b.

hieratic ostraca declined after Ramesses IV, their production did not cease altogether: some were still produced at the very end of the Twentieth Dynasty, and even beyond. Two important groups of ostraca have been identified as products of the late Twentieth and early Twenty-first Dynasty. One group of approximately a hundred ostraca is related to the Deir el-Medina workforce, and does not seem to be about the construction of royal tombs, but rather about emptying them and reburial of the royal mummies.<sup>64</sup> The other is a group of over seventy ostraca mentioning an entirely different group of workmen, who constructed the tomb of the Theban high priest Amenhotep in the late Twentieth Dynasty.<sup>65</sup> The same late years have left us several ostraca inscribed with marks and discarded at Deir el-Medina, the site of the workmen's settlement.<sup>66</sup>

Although a chronological pattern of increase and subsequent decrease in the production of Ramesside documentary ostraca seems clear, the explanations offered for this pattern remain hypothetical. It would help if the pattern, so far clear only for documentary hieratic ostraca and for those bearing pseudo-script, would also be detectable in other types of ostraca. Apart from documentary ostraca, the most substantial corpora are those of literary hieratic and of pictorial ostraca. If the growth of documentary ostraca in the late Nineteenth and early Twentieth Dynasty were the result of increasing literacy in the workmen's community, one would expect the same pattern to emerge in the corpus of literary ostraca. Dating literary ostraca more precisely than to the Ramesside Period, however, is extremely difficult. Whereas documentary texts often mention regnal years, calendar dates and (most importantly) real-world persons, literary texts do so very rarely. Literary excerpts on ostraca seldom have colophons mentioning dates and/or scribes.<sup>67</sup> Unless other historical data are provided,<sup>68</sup> nothing but paleography remains to help date an ostrakon.<sup>69</sup> Specialists of hieratic are commonly of the opinion that paleographic dating to specific reigns or generations is extremely tricky. For this reason, editions of literary ostraca rarely give precise dates.<sup>70</sup> The available research of individual scribal hands in Deir el-Medina ostraca

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**64** Demarée 2003.

**65** Burkard 2018, 44–84. These ostraca, most of which mention only single names, were actually part of the fill of the pyramidion crowning the high priest's tomb (K93.12 at Dra Abu el-Naga). Burkard 2018 also includes other ostraca from the tomb and its surroundings, with datings from the Second to Third Intermediate Period.

**66** Haring 2018a, 202–203.

**67** O.DeM 1721 (Gasse 1990) mentions a chief workman Nekhemmut and a scribe Wennefer, and can therefore be assigned to the reign of Ramesses III (Fischer-Elfert 1993, 128). O.DeM 1782 mentions the chief workman Qaha and is therefore dated to Ramesses II in Gasse 2005, 19.

**68** 'Literary' O.DeM 1725 (Gasse 1990) bears no text except the names of three kings, the latest of which is Seti II, whose reign must then be the *terminus a quo*. O.DeM 1787 (Gasse 2005, 25) also has royal names; the name of the latest king (Ramesses IV) provides the earliest possible dating.

**69** Three ostraca are dated by their paleography in terms of (early or late) Dynasty XIX or XX, and one to the reign of Ramesses II, in Gasse 2005, 17, 20, 23, 43 (O.DeM 1781, 1783, 1785, 1796).

**70** No dates are offered in Posener 1938, 1972, 1980; Fischer-Elfert 1997. This survey is limited to the main catalogues; for the publication of smaller groups and individual ostraca see the Systematic Bib-

and papyri is still limited; the best case study as far as literary ostraca are concerned is that of the senior necropolis scribe Amennakht of the Twentieth Dynasty.<sup>71</sup>

With pictorial ostraca (also called figured ostraca by Egyptologists), the situation is no better. When the principal catalogues of pictorial ostraca from the Theban necropolis assign any dates at all,<sup>72</sup> these are often no more precise than New Kingdom or Ramesside. Slightly more precise datings to either Nineteenth or Twentieth Dynasty may sound more promising, but must be regarded with caution if not distrust. Editions assigning such dates suggest that there is (slightly) more material from the Nineteenth than from the Twentieth Dynasty.<sup>73</sup> Although some of the ostraca in these groups bear hieratic or hieroglyphic texts that help to date them even more precisely (such as the names of kings or other known individuals), most of the datings are based on style and on the subject matter represented. That basis, in turn, depends on comparison with similar imagery on monuments (tomb and temple walls). The fact that actual monumental imagery is better represented for the Nineteenth than for the Twentieth Dynasty may very well account for some of the attributions to the former. While there can be no doubt that the production of pictorial ostraca in the Twentieth Dynasty was considerable,<sup>74</sup> the true chronological distribution of most Ramesside pictorial ostraca from the Theban necropolis still escapes Egyptologists. It may, of course, be entirely different from the distribution of hieratic ostraca, since pictorial ostraca are not necessarily dependent on the extent and historical development of local literacy.

Moreover, the corpus we call pictorial (or figured) ostraca is typologically speaking a mixed lot that includes pieces with very different functions and backgrounds, ranging from finely decorated miniature stelae to very rough sketches, and some catalogues even add ostraca bearing identity marks and tallies of strokes or dots. This means that our perceived genre of pictorial ostraca, if a genre at all, should be broken down in typological and functional subtypes, whose production and use had different reasons (although in the end they were often deposited together with other types of ostraca) and whose chronological distribution might therefore theoretically be different as well.

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liography of The Deir el-Medina Database, <http://dmd.wepwawet.nl>, sections D and E (last accessed: 17.1.2020).

71 See most recently Dorn/Polis 2016.

72 No dates are given in Vandier d'Abbadie 1936, 1937, 1946, 1959; Peterson 1973; Gasse 1986. For the publication of smaller groups and individual ostraca see the Systematic Bibliography of The Deir el-Medina Database, <http://dmd.wepwawet.nl>, section X (last accessed: 17.1.2020).

73 Brunner-Traut 1956: 39 from Dynasty XIX and 34 from Dynasty XX; Brunner-Traut 1979: 7 from Dynasty XIX and 1 from Dynasty XX; Page 1983: 5 from Dynasty XIX and 5 from Dynasty XX. Brunner-Traut's suggestion (1956, 12–13) that most material is from the reigns of Ramesses III and IV is not supported by the catalogue in the same publication. Larger groups in the catalogues here referred to are dated more broadly, to the New Kingdom or the Ramesside Period.

74 A well-presented case is that of the draftsman Amenhotep, son of the senior scribe Amennakht; see Keller 2003.

## 4 Conclusion

The previous sections have provided a rough outline of the different types of ostraca preserved and their chronological distribution, from pre-Hellenistic Egypt in general and from New Kingdom Thebes in particular. Finds of ostraca from Egypt's long Pharaonic history are surprisingly modest. Notwithstanding their supposedly more durable support, fewer hieratic texts on ostraca than on papyrus survive from the Old and Middle Kingdoms, Third Intermediate and Late Periods. The mass of New Kingdom ostraca from the Theban necropolis dwarfs the finds made at other sites from the same period as well as those of other periods at any other site. This state of affairs allows little more by way of conclusion than that "(Western) Thebes was exceptional". It remains to be investigated, therefore, why Thebes was so exceptional. The enormous tomb and temple construction activity in the Theban mountains and the ensuing production of limestone flakes must be among the important factors; local literacy in the Ramesside Period may well have been another. Within the Ramesside Period itself, a chronological development of increasing and decreasing production can be discerned, at least as far as the documentary ostraca bearing hieratic text and identity marks are concerned. It remains to be seen if and to what extent the production of other types of ostraca can be linked with this development.

## Postscript

After submitting the manuscript of this contribution, my attention was drawn, by Matthias Müller, to a largely unpublished group of ostraca from Deir el-Ballas, Upper Egypt. In a paper presented at the conference 'Ägyptische Binsen-Weisheiten IV' (Mainz, 9–12 December 2019), Müller identified approximately 110 ostraca (all pottery) from the late Second Intermediate Period and/or early New Kingdom in several European and American collections, including Berlin, Strasbourg, Boston, and New York. Many were acquired on the art market, but the whole lot probably came to light during or after excavations by W. M. F. Petrie and/or G. A. Reisner at Deir el-Ballas.<sup>75</sup> The entire group is currently being prepared for publication by Niv Allon, Matthias Müller, and Stephen Quirke. Rob Demarée informs me that the Deir el-Ballas ostraca are very similar to those found at Tell Edfu (see section 2 above).

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<sup>75</sup> Brief references to these ostraca, including an excerpt of Sinuhe, can be found in Quirke 1996, 392; Parkinson 2009, 174–175 (with photo fig. 7.1).

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Fig. 1: Černý/Gardiner 1957, pl. LXXIa.

Fig. 2: Daressy 1901, pl. XLI.

Fig. 3: Vandier d'Abbadie 1959, pl. CLII.

Fig. 4: Daressy 1902, pl. XVIII.