



Universiteit Leiden



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Symbolizing Identity

Identity marks and their relation to writing in New Kingdom Egypt

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Project description

a. Introduction

The background of the earliest writing systems in ancient societies has been explained as a process of organisation of material signs, indicating an ever greater degree of abstraction (e.g. Schmandt-Besserat 1992; Morenz 2004). Among the results of this process were the combinations of ideographic and phonetic writing in the Ancient Near East in the late Fourth Millennium BCE. Further developments there resulted in the creation of the alphabet, a highly efficient writing system still current in much of the modern world. The number of alphabetic characters approaches that of the distinctive sounds (phonemes) in a language; they can therefore be used as that language's visual encoding.

Yet writing did not supplant other systematic uses of graphic signs. The societies that used writing, to any degree of abstraction, have continued to systematically use graphic signs without direct phonetic implications. Examples of such signs are the seal emblems and pot marks of antiquity, and medieval European masons' marks, but also modern non-textual logos and trademarks, to name just a few practical applications.

Marking systems have always been tremendously important conveyors of information, especially so in societies with restricted literacy. In contrast to writing, however, these systems have rarely been studied systematically. As a consequence:

“(...) we are still very far from a representative (not to speak of a complete) phenomenological inventory of non-textual marking systems, that could give an idea about the entire scope of usages and functions.” (Andrássy et al. 2009: vii).

Identity marks are amply attested in Ancient Egypt (one of the earliest literate societies), but as little researched as anywhere else. Ownership and production marks on ceramic vessels (pot marks) were used throughout Ancient Egyptian history; in addition, we find team marks used in building projects of the Old and Middle Kingdoms (ca. 2650-

1650 BCE), masons' and quarry marks of all periods, and the marks of the royal tomb constructors of the New Kingdom (ca. 1550-1070 BCE), to name just several well-attested systems.

The latter example is a very special case. The workmen who constructed the royal tombs in the Valley of the Kings and the Valley of the Queens, and who lived with their families at a site now called Deir el-Medina (near Luxor, ancient Thebes), applied them as ownership- or house marks to their possessions (e.g. pottery, see Appendix: Figure 1), but also used them in the omnipresent graffiti they left in the Theban mountains, as well as on ostraca (inscribed pottery and stone fragments used in the daily administration of the necropolis workforce; see Figures 2 and 3).

The occurrence and the intensive use of marks in this particular community is remarkable, given the fact that we are dealing here with an exceptionally literate group of people. The proportion of literate or semi-literate people in the workmen's settlement is estimated by some to reach appr. 40% (Janssen 1992), whereas the average rate of literacy in pre-Hellenistic Egypt is thought never to have risen above 1% (Baines 2007: 89-94). At the same time, marks seem to have been more popular here than anywhere else in Egypt. Thus, instead of superseding more 'primitive' pictographic devices, writing may effectively have stimulated their use.

The use of marks on ostraca and in graffiti, in horizontal rows or vertical columns, is reminiscent of the use of writing, both monumental (hieroglyphs) and cursive (hieratic). The effect is that of pseudo-writing. Actual writing even influenced the appearance of many individual marks. Every sign of the marking system belongs to one of the following categories: (1) imitations of hieroglyphic or hieratic characters, (2) concrete signs, which are not based on characters of writing, but depict beings or objects observed by the creators of the signs, (3) abstract geometric signs, which depict nothing concrete (Haring 2009b).

Semiotic (or: semiological) analysis assumes that writing is the encoding of language (that is, in the traditional view inspired by F. de Saussure; see Harris 2000 for this and alternative approaches). Individual hieroglyphs or groups of them can be seen as graphic signifiers, the things signified being ideas or sounds (with the latter in their turn as signifiers of meaning: Goldwasser 1995—an essentially Saussurean approach). Thus, for instance, the hieroglyph  represents an apron of fox-skins (*mst* in Egyptian - hieroglyphs write no vowels), and may stand for precisely that object and word in a hieroglyphic text. By means of the rebus principle it is also (and far more frequently) employed to write *ms* in any word containing that pair of consonants, for instance the verb  *msj* "to give birth" (with the second sign, a folded piece of cloth, repeating the consonant *s*, and the third as a semantic classifier: a woman giving birth).

Non-textual marks, by contrast, do not as a rule give linguistic information. Yet they show some affinity with the mechanisms of hieroglyphic writing, especially in the case of marks inspired by hieroglyphs. Among these is a mark resembling the hieroglyph  (see Appendix: Figure 2). It is attested in the Theban necropolis for a period of at least

three centuries, and must therefore have been used consecutively by many different people. We know, however, that at some point it was held by a workman named *Ms* (“Mose”). Another example is  (a jackal, also used as a hieroglyph), held at some point by a person whose nickname was *Pawenesh* “The Jackal” (Rzepka 2009). These particular signs contain phonetic and iconic references to the names of their owners (and are therefore indices and icons in semiotic terms),¹ but appear to be rare examples. For most of the marks (hieroglyphic, concrete, and especially the abstract ones), the nature of the reference is obscure; many may be purely arbitrary (symbols).

b. Research objectives

The central object of research is the corpus of Theban marks ostraca: several hundred pottery and stone fragments inscribed with marks representing the royal necropolis workmen of the New Kingdom. Its immediate purposes will be: (1) to explain the shapes and nature of the marks themselves, and their affinity with writing; (2) to assess precisely how the marks were used in the workmen’s community—in addition to writing. These questions ask for two entirely different approaches to the material, which will be outlined below (**PhD research projects 1 and 2**).

The two resulting case studies will make it possible for the applicant to develop a phenomenological description, a model, of a marking system and its functions in a society with restricted literacy. The ultimate aim and synthesis of the entire programme is precisely such a model. Serving as an interdisciplinary point of reference, it will open the way for interpreting marking systems in other periods, and at other places, in Ancient Egypt and elsewhere.

PhD research project 1: The nature of the workmen’s marks and their interaction with writing (K. van der Moesel)

1.a. What is the meaning of the individual signs, and how exactly do they convey that meaning?

The above quote from Andrásy et al. 2009 (see **a. Introduction**) implies that there is no conceptual framework (such as exist for the study of e.g. language and writing) for the analysis of marking systems. This project entails theoretical and comparative analysis of the Theban system, other marking systems, and writing. Which characteristics of the local marks system are in fact universal? To what extent is the phenomenon of marks comparable with that of writing, and how exactly can the differences be defined?

There are indications for phonetic or iconic references to the names of the owners of some marks (see above, **a**). However, marks of a non-scribal, i.e. either concrete or

¹ These terms come from the semiotic work of C.S. Peirce (see Chandler 2002). In terms of visual signs: an *icon* depicts the signified; an *index* refers to (or even partly depicts) it; a *symbol*’s relation to the signified is arbitrary.

abstract nature, are much tougher. Concrete marks depict objects, and in doing so present considerable graphic diversity (e.g. a pot with or without handles, and with or without liquid issuing from it, all possibly to be interpreted as the same mark: Haring 2009b). What is the actual mark, or signifier? The graphic sign, or the notion conveyed by it (e.g. 'pot')? To make things worse: many hieroglyphs also depict objects. Can we always be certain that a mark was inspired by a hieroglyph, instead of a concrete object? Abstract marks (strokes, circles and other geometric designs), at first sight, would appear to be fixed graphic devices, but on close consideration, they too show some degree of diversity. The marks thus appear to be signifiers of different kinds, with different degrees of iconicity, *yet they are all part of the same system*. Can they all be accommodated in one single explanatory model? To what extent are the available semiotic theories sufficient?

In addition to semiotic theory, comparative research of other marking systems (both within pharaonic culture and without) will help to establish the nature of the marks. A system strikingly similar to the Egyptian workmen's marks is that of medieval European masons' marks (e.g. De Vries 2009; Fuchs 2009; sign corpora e.g. Belle 1984; Janse & de Vries 1991). This relatively well-documented system will serve as the main, though by no means as the single source for phenomenological comparison. An advisory role is played here by Prof. dr Dirk de Vries (Universiteit Leiden), an art historian specialised in medieval architecture and marking systems.

1.b. How were the marks created or selected?

It is possible that the Deir el-Medina marks already had a (long) history before they first appeared on New Kingdom artefacts, but it is equally possible that the system, as well as the individual signs, were newly created. In order to investigate these options, study has to be made of other (especially older) Egyptian marking systems. Furthermore, the marks resembling hieroglyphs will be analysed palaeographically, along with their supposed hieroglyphic examples. This analysis will also help to establish to what extent hieroglyphic writing was indeed the source of inspiration. Palaeographic repertoires of hieroglyphs, which have become substantially available only in recent years, will provide an important help in this (for Deir el-Medina: Haring 2006, Moje 2006).

Even apart from the historical process, the creation and selection of marks can be investigated along lines similar to cognitive approaches of writing. In Egyptology these focus on categorization, hence on classifiers in hieroglyphic writing (e.g. Goldwasser 2002—using prototype theory as developed in cognitive linguistics; Kammerzell 2008). The combination of hieroglyphic, concrete and abstract marks, as well as the frequent appearance of new signs and the disappearance of others, suggest that 'anything goes'. Is this true, or do the marks represent a rule-constrained system with fixed categories and prototypes, more or less like hieroglyphs? Relative frequency and graphic variety of marks should enable to check this. An advisory role will be played here by dr Alex de Voogt (Assistant Curator of African Ethnology, American Museum of Natural History, New York), a linguist and psychologist whose comparative research focuses on the borders between rule constraints and variation in writing (see De Voogt & Finkel 2010).

The development and use of a marking system partly inspired by real writing presents striking parallels with current theories on the formation of the alphabet (and more generally, on how one writing system inspires the development of others). Many of the world's earliest documented alphabetic characters were inspired by Egyptian hieroglyphs (Sass 1988; Kammerzell 2001; Goldwasser 2006: 131-135). However, some of them rather seem to be concrete signs (Goldwasser 2006: 135-155).

Summarising: the methods employed by PhD 1 include palaeographic research on the one hand, and comparative, semiotic and cognitive analysis on the other.

PhD research project 2 (D. Soliman): The workmen's marks in their historical and functional context

2.a. Who precisely, in the community of workmen, were the users of the marking system? Was their knowledge of writing, or a lack of it, influential in this?

These questions have a twofold purpose since they involve (1) the identity of the individual owners of the marks, and (2) the degrees of authority and literacy of those who produced the records containing marks.

Ad (1): identifying the workmen represented by the marks is possible by means of the rich data obtained from hieratic and hieroglyphic sources, but only if the marks on ostraca can be dated more or less precisely, i.e. pinpointed to a specific generation. Some small clusters of ostraca have so far been dated by their archaeological context, or by close relations with hieratic records. Dating the whole corpus must be attempted by establishing their relative sequence on the basis of the different sets of marks shown by them. A special database application will make it possible to do this.

Ad (2): the records composed with marks on ostraca show notable differences in style, some betraying hands little or not familiar with actual writing, especially so in early New Kingdom records, whereas many later pieces clearly show the hands of accomplished scribes. The latter seem to have been produced by literates, i.e. by persons with high positions in the local hierarchy. Did they adopt a marking system formerly used by non-literates only? The purpose of this may conceivably have been to communicate with semi- or non-literate colleagues or subordinates. Less scribal hands, meanwhile, may still be those of local authorities with less or non-existing writing skills, such as chief workmen and their assistants, or even assistant/apprentice scribes.

This problem requires more detailed research of local literacy as made apparent by the written records (see Janssen 1992; Haring 2003; Baines 2007). General (i.e. anthropological and historical) views on the social aspects of literacy must be taken into account, especially those concerning the spread and the impact of writing (the latter topic being especially controversial; see Olson 1994). The question is not just how many of the locals were literate, but also what was the *degree* of their reading and writing ability. As stated recently (specifically with respect to Deir el-Medina):

“(…) the extension of inquiry across the social spectrum, and to those indirectly affected by writing, remains an important lead to follow in achieving more nuanced accounts of literacy.” (Piquette 2009: 297).

2.b. What is the purpose of the records composed with marks on ostraca, and exactly what role do the marks play in these records?

New Kingdom ostraca inscribed with necropolis workmen’s marks are of many different types (columns, rows, with or without information added by further symbols, dots, strokes, or in hieratic, etc.). What exactly do they say? In some cases it is clear that marks ostraca conveyed information similar to what is found in hieratic (i.e. written) records. Just how big is the overlap, and why was the same information recorded in these two ways? Were there administrators with different degrees of literacy (see above, 2.a)?

2.c. How did the system develop through the generations and centuries, and adapt itself to changing users and circumstances?

The local system of identity marks was arguably used for a period of three centuries (ca. 1450-1150), and probably longer. Some individual marks remained in use throughout this period, but most of them were used (much) shorter. The use of the same marks by successive workmen may be due to their being either (1) reassigned (by necropolis authorities?), or (2) hereditary. There are some indications for the latter practice, but the workings of the system as a whole are far from clear.

The research proceeds from the corpus of marks ostraca, and compares the marks in question with those on other objects than ostraca (graffiti, pottery and other objects, and the archaeological contexts of these: settlement, tombs); guidance in the analysis of pottery and graffiti will benefit from the work and advice by dr David Aston (Vienna) and dr Slawomir Rzepka (Warsaw). Comparison must also be made with the wealth of documentary hieratic texts, efficient consultation of which is possible by means of *The Deir el-Medina Database* compiled at Leiden (see above: **c. Previous research**), which is still being extended and kept updated. Expertise on documentary practice at Deir el-Medina is further available in the persons of dr Robert Demarée and the applicant.

Summarising: this PhD’s methods include archaeological, historical and philological research of the hieratic, hieroglyphic and marks records, electronic sequencing, as well as historical and social theory on literacy.

c. Programmatic setting; previous and current research; future perspectives.

The study of the thousands of documentary ostraca and papyri from Deir el-Medina and related sites have been an important part of the Egyptological research programme at Leiden University for the past 40 years. Between 1997 and 2004, Leiden staff has been compiling *The Deir el-Medina Database*, an online search tool for non-literary hieratic ostraca and papyri, now profitably used by Egyptologists worldwide

(www.leidenuniv.nl/nino/dmd/dmd.html). During the same period, research was conducted on documentary practices of the necropolis scribes (see e.g. Donker van Heel & Haring 2003; Haring 2003). These research activities were funded by Leiden University and NWO (projects nos. 250-36-226 and 375-62-004). Leiden is currently regarded worldwide as *the* centre of expertise on Deir el-Medina and related subjects.

The workmen's marks represent a new topic of interest in the context of Leiden-based research. The applicant has been collecting relevant material and has conducted preliminary research since 2000. Recently, Ancient Egyptian marking systems have become a subject of interest in Egyptological departments at the universities of Basel, Berlin (Humboldt), Vienna and Warsaw. In close cooperation, two international conferences on the subject were organised by the departments of Leiden University and Humboldt University (the acts of which have meanwhile appeared: Haring & Kaper 2009, Andr assy et al. 2009). These conferences have shed much light on marking systems in Ancient Egypt and in other cultures as a universal phenomenon.

Marking systems are also part of the archaeological research programme of Dr J. Eidem, Director of the Netherlands Institute of the Near East (NINO, Leiden) since mid-2009. A conference on tokens and marks the Middle East hosted by the NINO is scheduled to take place in November 2010.

If funds be granted, the project proposed here may be formally linked and continued together with similar projects conducted in Leiden, Berlin, Warsaw and elsewhere, for instance within the EU 7th Framework, or within the cooperation between NWO and the Deutsche Forschungsgemeinschaft.²

The PhD researchers and the programme supervisor will participate in the ongoing Deir el-Medina seminar of the Department of Egyptology (sessions during every autumn term). They, as well as advisors and other department and/or LIAS staff interested participate in regular meetings in order to discuss different aspects of the research. These meetings involves the occasional presence of advisors from abroad (Aston, Rzepka, De Voogt).

d. Source material.

The applicant has been collecting images of, and notes on relevant ostraca since 2000. This has resulted in a catalogue of over 300 relevant ostraca, as well as a card index of ca. 280 individual marks. This, together with some preliminary studies (Haring 2000, 2009a & b), has already brought the research beyond the purely descriptive stage. Images of remaining ostraca must be collected; the largest groups of relevant unpublished pieces are kept in the Egyptian Museum and in the French Archaeological Institute (IFAO), both in Cairo, in the Petrie Museum, London, and in the Ashmolean Museum, Oxford. The

² The possibilities offered by these programs have been discussed with the LURIS office of Leiden University, as well as with NWO; from both sides the applicant has been advised to start with a Dutch research programme, and later extend it on an international level.

keepers of several smaller collections will be approached with requests for images during the project.

Although the ostraca are central to research projects 1 and 2, use shall have to be made of other objects and inscriptions showing the same marks, especially pottery and graffiti. This brings the number of source items from several hundred to well over a thousand. Pottery and graffiti will be studied in cooperation with experts currently working on that material (see above, **PhD 2, c**).

e. Importance and results of the research programme.

Presenting two well-documented case studies of a marking system is in itself a novelty in Egyptology. The innovative character of the programme is yet further enhanced by its synthesis, which will stimulate analysis and discussion of similar marking systems in Ancient Egypt as well as in other cultures, and challenge established ideas on writing. Due to its recent entry in the research agenda of Egyptology and Middle Eastern Studies (see **c. Programmatic setting**), current research on marking systems there is still very much in the stage of surveys and descriptive work. The programme here proposed aims at pushing the research a significant step ahead.

While all this sufficiently indicates the importance of the project itself, the references made in this proposal to related research, and quotes from very recent literature, make it clear that now is the time to do it.

Preliminary results of the two PhD projects will be presented at the XIth International Congress of Egyptologists in Cairo, September 2012. An international conference on marking systems in December 2013, organised as a part of the research proposed here, and hosted by the Leiden Department of Egyptology and LIAS, will present the progress made after the previous conferences in Leiden (2006) and Berlin (2007).

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Figures

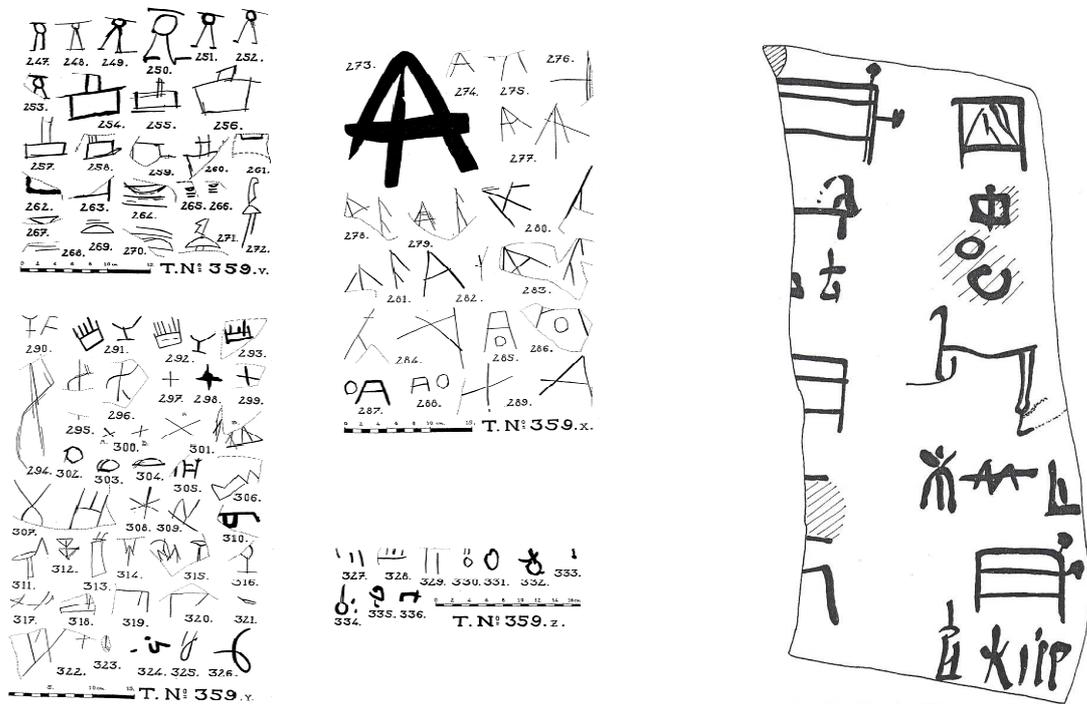


Figure 1: marks on pottery from Deir el-Medina tomb 359, late New Kingdom. From: G. Nagel, *La céramique du Nouvel Empire à Deir El Médineh I*, Cairo 1938, pp. 46-50.

Figure 2: pottery ostracon Turin CG 57523, late New Kingdom. From J. López, *Ostraca ieratici N. 57450 - 57568*, Milan 1984, pl. 171a, with  in third line from bottom.



Figure 3: limestone ostracon Cairo CG 24105 from the Valley of the Kings, early New Kingdom. From G. Daressy, *Fouilles de la Vallée des Rois*, Cairo 1901, pl. XVIII.