HIEROGLYPHS 2 (2024), 69–95

Received September 11, 2024
Accepted December 2, 2024
Published online April 6, 2025

Emerging Gender Markers in Pre-Old Egyptian

The Umm el-Qa'ab Private Stelae reconsidered

Eva-Maria Engel, Ines Köhler

Humboldt University Berlin

Abstract. During the period between Dynasty "Zero" and the Fourth Dynasty, the Egyptian state was formed and developed numerous elements that remained fundamental for the later state and complex society. Early pictorial evidence indicates that both men and women are depicted, although the assignment of gender does not always appear to be unambiguous. Archaeological findings, artistic representations and linguistic evidence provide some insights about gender representation; in particular the First Dynasty stelae from the subsidiary burials of the royal tombs at Abydos are a unique corpus of Pre-Old Egyptian writing. The stelae are inscribed with titles and/or names, and one of mainly three different signs is often found at the end of such a title/name unit. These signs are categorised as [DOG], [DWARF] and variants of a seated persons, some of which are the hieroglyphic sign A1, others B1 and some are often interpreted as a woman—or not. The difference is not trivial because—of course—gender matters and is an analytical category for structuring societies. This raises an interesting point: how is the sex expressed in Pre-Old Egyptian writing that is presumed to match grammatical gender?

Keywords. Classifier, gender, early dynastic period, stela, system of writing.

1. Introduction

1.1. Identifying gender in Early Dynastic contexts

In recent years—probably in response to current debates in modern societies—a number of publications appeared that dealt with women, minorities or dependence structures in ancient Egyptian society. Depending on the topic, the material base is better or worse, but authors are generally able to identify the group(s) to be researched. After all, criteria are known that help to distinguish men from women: in arts, for example, these are differences in skin color, posture, dress and shape regarding the primary sexual characteristics; the writing system presents linguistic indicators like the grammatical gender that appears in nouns, adjectives, articles etc. agreeing with them in number and gender. In case of humans, for example, the sex actually corresponds to the grammatical

gender and is often classified with A1 [man], or B1 [woman]—this also goes for personal pronouns.

While these criteria are undisputed for the periods from the Third Dynasty onwards and are in turn used to answer further questions, their validity in the preceding period is questionable. The First and Second Dynasties are the decades in which these features and rules were developed and therefore experiments and deviations from the later schemes are to be expected. Shape, phonetic value and function (phonogram or logogram) of hieroglyphs were work in progress and so the identification of signs is not always fully established. In his recent article on "Lesefunde in frühägyptischen Inschriften," Martin Fitzenreiter questions (under the subheading "Zu viele Frauen in Abydos?") the identification of a sign that depicts a seated person, formerly read as [woman] on First Dynasty private stelae (Fitzenreiter 2022: 1). In another article in the same volume, however, other authors interpret a similar squatting person, originally read as a [man], now as an image of a [woman] (here: Fig. 4b; Sperveslage, Schneider & Bussmann 2022: 230 for sign A2). A similar basic assumption about "too many women" among Early Dynastic seal-bearers may already have prompted Egyptologists to interpret depictions of people with huge wigs/coiffures on Early Dynastic private seals as men by summarily declaring long-haired hairstyles to be a component of Early Dynastic male costume (von Bissing 1952: 9; Kaplony 1986: 711), albeit without providing any evidence for this, while similar representations in later Dynasties would be classified as women. People depicted on objects associated with royalty and power are also more likely to be interpreted as men—it was only recently proven that the person in front of Narmer is his queen and not some male official (Narmer Palette, upper panel of recto, Kammerzell 2021: 59–62). Obviously, the identification of men and women in these early samples is less clear than previously assumed and a fresh look is required at the differences that matter.

1.2. Archaeological classification

The classification of finds (and features) into categories, types, variants etc. is one of the most intrinsic archaeological methods. This way we are able to interpret the subdivision in subsequent steps on the basis of recognized patterns or to determine them with the help of analogies to (supposedly) better documented information. The assessment of a feature as belonging to a certain type, however, is usually subject to view, experience or knowledge of the respective researcher, methodological or theoretical approach, state of preservation of the respective object, or scope of the available or deliberately selected corpus and is likely to change with new findings. Previous classifications on the subject dealt with here often seem to be based on assumptions that the respective authors were not necessarily aware of—and this will be no different for the following study. A longstanding hypothesis is, for example, that women's burials could be identified by jewelry or the remains of

long hair,[1] while men could be identified by weapons or tools, or by over- or under-representing a certain group of people in the cemetery,[2] by assigning activities and functions to the deceased,[3] and the like.

To examine elements that mark gender, various aspects of material culture, iconography and written evidence must be considered. Key sources should include burials, human remains, and statuary. Clothing and hairstyles often provide gender-specific indications. Body postures and gestures in human representations can further differentiate male and female figures. Additionally, early inscriptions, names and titles associated with individuals should offer valuable clues about gender and identity. It should be noted that the criteria used to select burials (male/female/social hierarchy etc.) for certain cemeteries can vary considerably.

Signs on a specific group of stelae are the starting point for this discussion, namely those found at Umm el-Qa'ab. Based on this case study, human remains and linguistic as well as pictorial evidence are then discussed from a broader perspective.

2. The stelae from Umm el-Qa'ab

The stelae from Umm el-Qa'ab are assumed to belong to the altogether approximately 800 subsidiary burials around the royal tombs of the First Dynasty. The number of (surviving) stelae is much lower: 359 limestone stelae are listed by Martin 2011 (many of them fragmentary), with some of them originating from the contemporary enclosures and not the royal tombs.[4] About 60 additional stelae made of a green hard stone were observed during the re-excavation of Tomb U/Semerkhet (Dreyer, in: Dreyer et al. 2011: 83). While the stelae seem to have been found predominantly in some areas of the necropolis (Tombs O, Z/W, T as well as U and Q in the south), some areas provided hardly any at all (Cemetery B, Tombs Y, X).[5] Therefore, stelae are preserved only for approximately 50 % of the subsidiary tombs. Unfortunately, the situation for the osteological evidence is not any better, as many bodies—if not destroyed before the first excavations—were inadequately documented during that process.[6]

1 Kaplony 1963: 217; Amélineau 1899a: 57, 66; Amélineau 1905: 451–452.

2 The initial remark by Fitzenreiter 2022: 1.

3 Concubines: Troy 1986: 180; Morris 2007: 19; Trigger 1983: 52; Reisner 1936: 109; scribes: Morenz & Kuhn 2011: 8.

4 An additional object was found in Tomb Y (Köhler et al. 2023: 98, fig. 31).

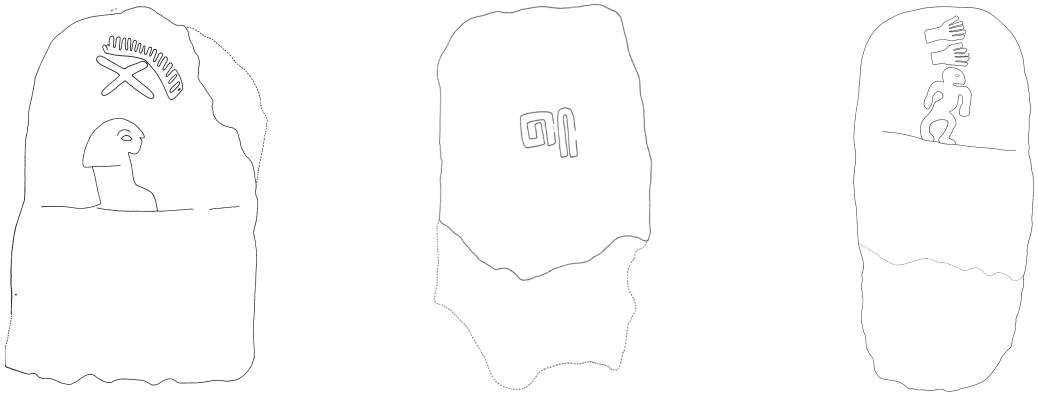
5 During the re-excavations of the German Archaeological Institute in Cairo at the site, a large number of fragments was collected that might have been stelae that are so badly weathered that nothing remained of the original surface. Apart from a few examples from Tombs T and U, none of them are published (see Martin 2011: 194–199, there often called "rough blank for a stela"). General assumptions taken from the remaining published stelae have, therefore, always to be taken with a grain of salt.

6 For a list of tombs and anthropological remains see Engel 2021a: 125. In all tombs the number of surviving skeletons is so small that it seems difficult to conclude a "ausgeglichene[n] Geschlechtermix" (Fitzenreiter 2022: 3, note 8): of

Since the tombs in Umm el-Qa'ab were excavated several times, beginning in the Middle Kingdom and ending with the recent re-excavations of the German Archaeological Institute, hardly any finds were preserved *in situ* but scattered over the whole area (see Engel 2015 for examples). As a consequence, the origin of objects has to be established using distribution charts to observe clusters in certain areas.

As the number of "green" stelae approximately equals the number of subsidiary chambers in Tomb U and were found only in this tomb and its surroundings, it seems that these stelae were exclusively made for this tomb. The "green" stelae, therefore, can be excluded from attempts to assign the remaining stelae to the tombs. Unlike most of the limestone stelae, the "green" stelae had an ink inscription that only left very few traces (Dreyer et al. 2017: 87, fig. 94).

The remaining limestone stelae do not form a uniform corpus but can be divided using several criteria indicating different workshops or developments within the same: one is the kind of limestone that varies between a rather porous and a denser variety (see the photographs in Martin 2011): inscriptions on stelae made of the porous variety are executed in raised relief and are clustered in and around Tomb O/Djer[7] giving the name (fig. 1b) or the name and the classifier in question on a baseline (fig. 1a, c). The same stone variety was used for two stelae of persons of short stature. Other stelae with a denser limestone can also be attributed to the same tomb if they show this particular feature (the baseline) (fig. 1c). The inscriptions are arranged vertically.



a) Stela 55 (Martin 2011: 51) *b*) Stela 108 (Martin 2011: 91) *c*) Stela 58 (Martin 2011: 53)

Fig. 1. Stelae coming from Tomb O/Djer (not to scale)

the about 20 skeletons in Tomb Q, for instance, several skeletons were removed by Petrie without giving any indication on gender determination or present location; less than 30 bones of approximately 4200 that should have been there were found during the re-excavation by the German Archaeological Institute, many of which were so fragmentary that they did not allow a determination of sex or other characteristics (Zink in Dreyer et al. 2003: 131–133). The same difference in numbers holds true for the remains of fifteen individuals published in Amélineau 1905: 730–736 (as quoted by Fitzenreiter) of originally 318 persons in the subsidiary chambers of Tomb O/Djer. Zink 2008: 693, however, describes the gender and age ratio in Cemetery U and cannot be taken to represent any of the royal tombs at Umm el-Qa'ab.

7 Some objects were moved to the environments of Tombs B (Aha) and P (Peribsen).

Inscriptions on stelae from the reign of "Serpent" are also arranged vertically, as can be seen in stelae from Tombs Z and W as well as from the contemporary enclosure. These stelae are made from a harder and denser limestone than the older stelae and are usually less than 20 cm wide, but have a lengthier appearance than the older ones from Tomb O. Many give only the name of the owner. These stelae are distributed over a wider area with single objects found in the area of Tomb T (e.g., Stela 278), Y, or U (Stela 301) (fig. 2a–b).

a) Stela 203 (Martin 2011: 145) *b*) Stela 14 (Martin 2011: 25)

Fig. 2. Stelae coming from Tomb Z and W/"Serpent" (not to scale)

The location of Tomb T in the middle of the cemetery makes it more difficult to single out typical stelae of this reign since it is surrounded by Tombs Z, Y, U, Q and even O, so that it is likely that finds in this area are mixed with objects from the adjoining tombs. Still, some statements seem possible: the stelae appear to be generally wider again (> 20 cm)[8]—and remain so until the end of the dynasty. The top of the stelae is usually rounder than in the examples from Tomb Z/W or nearly square. Many stelae now mention name, title and feature a larger range of classifiers: In addition to those used during the reign of Djer two generations earlier (the supposed B1 and a14) A1 and E14 are used.

8 The width of the objects is, however, an unreliable criterium since many of the measurements given in Martin 2011 do not state whether the original surfaces are preserved or not.

a) Stela 125 (Martin 2011: 99)

b) Stela (Amélineau 1899b: pl. XLII)

c) Stela 34 (Tomb U) (Martin 2011: 37)

d) Stela 18 (Tomb Y) (Martin 2011: 29)

e) Stela 35 (Tomb U) (Martin 2011: 37)

f) Stela 37 (Tomb U) (Martin 2011: 37)

g) Stela 281 (Martin 2011: 187)

h) Stela 212 (Martin 2011: 151)

Fig. 3. Stelae from the reign of Den/Tomb T and surroundings (not to scale)

A couple of stelae mention women from the king's circle with the titles *mꜣꜣ ḥr.w wr ḥts rmn/ʿ.w stḥ* or show other exceptional representations (fig. 3a–c). All in all, for the (non-royal) stelae found in and around Tomb T two different patterns of inscriptions are observable: one has the signs arranged in a column (fig. 3d, f, h), while the other has the title and the name or a second title in a horizontal line above the classifier. Three rather uniform stelae mention *pr.w-bš* perhaps referring to people responsible for grain magazines (fig. 3h).

Tombs Q/Qa'a and U/Semerkhet yielded a variety of stelae many of which probably originated from Tomb T. Only two stelae can be assigned to Tomb Q: Stela 286 (fig. 4e) since it was found in the royal burial chamber in an area that was neither touched by Amélineau nor by Petrie and therefore was less far removed from its original location than other stelae, and Stela 48 which belongs to Sabef, a person of small stature (fig. 6c) which was found by Petrie in a chamber probably not excavated previously by Amélineau. Both stelae do not deliver enough information to determine characteristics regarding shape or layout of the other stelae from Tomb Q.

a) Stela 44 (Martin 2011: 41) | *b*) Stela 39 (Martin 2011: 39) | *c*) Stela 41 (Martin 2011: 39) | *d*) Stela 42 (Martin 2011: 41) | *e*) Stela 286 (Martin 2011: 189)

Fig. 4. Stelae from the southern part of the necropolis (Tombs U and Q) (not to scale)

Keeping in mind the starting point of stelae from Umm el-Qa'ab, the following points will shed light on more general questions such as: if and how is gender marked in burials, in language or in art?

3. Human remains

Despite a large number of excavated Early Dynastic sites, osteological studies are only available for comparatively few cemeteries—and in the cemeteries that were already in use during the Predynastic period, only a minority of the burials can be attributed to the First and Second Dynasties. Examples for this paper are taken from Tarkhan in Upper Egypt and Minshat Abu Omar in Lower Egypt, since publications of both offer an osteological determination of the human remains as well as evidence of the grave goods found in the respective tombs.[9]

No differences in costume can be determined from these two sites. This is partly due to the state of preservation, as no remains of clothing or hair were preserved. Moreover, there are also no clear differences in the surviving grave goods or costume components: both men and women were buried with jewelry (beads, bracelets),[10] and grave goods such as flint or copper tools;[11] a simple equation of jewelry = women, tools = men can therefore not be maintained, although a certain prevalence for jewelry in female and tools in male graves is obvious. Any findings from Umm el-Qa'ab were destroyed during Amélineau's excavations who described large quantities of fabrics,

9 Petrie, Wainwright, Gardiner 1913; Petrie 1914; Kroeper & Wildung 1994, 2000.

10 Men: Minshat Abu Omar 170 (109), 173 (126), Tarkhan 4, 61, 170, 538, 949; women: Minshat Abu Omar 14 (673), 80 (758), 111 (340), 137 (866), 142 (322), 152 (400), 167 (329), 172 (404), Tarkhan 80, 269, 415, 763, 797, 874, 1430, 1438, 1528, 1795, 1907, 1919 (Kroeper & Wildung 1994: 13–15, 105–108, 153–154; Kroeper & Wildung 2000: 34–41, 47–55, 69–72, 91–95, 102–105, 109–113, 114–119; Petrie 1914: pls. LXIV, LXVI; Petrie, Wainwright & Gardiner 1913: pls. XLII, XLIII).

11 Men: Minshat Abu Omar 173 (126), 189 (853), Tarkhan 122, 170, 176; women: Minshat Abu Omar 167 (329) (Kroeper & Wildung 2000: 91–95, 114–119, 141–142; Petrie 1914: pls. LXIV, LXVI).

skeletons, hair and different grave goods from the Tomb of Djer, but without giving proper documentation and sexing of the bones.[12]

The impression gained from the Early Dynastic osteological findings is confirmed by various depictions in contemporary three- and two-dimensional images, in which men and women are shown wearing jewelry, for example, necklaces and bracelets.[13]

However, Stephan Seidlmayer was able to establish for burials of the Old Kingdom on Elephantine some generations later that: "women […] had clothes, jewelry, cosmetics, men headrests, staffs, weapons" in their graves, whereas children had no grave goods or only "a small chain with a few pearls" (Seidlmayer 2003: 67).

So social, regional or temporal differences/developments are possible.

Attempts are repeatedly made to draw conclusions about the social position of the buried persons in this world on the basis of grave goods: certain people are referred to as "artisans" because their burials, among other things, include most notably copper tools such as knives, adzes, chisels, needles and even axes (Bestock 2009: 49; O'Connor 2009: 173).

In the same way, Bestock 2009: 50 interprets ivory game pieces due to their materials and "their indication of leisure activity" as a reference of high social status, but as we have no external evidence to identify the individuals' professions/social status this has to remain a circular reasoning.

In rare cases, remains of hair are found, as was the case in the eastern row of chambers of Tomb O (temp. Djer)[14] or in some eastern chambers of Tomb T (temp. Den).[15] Amélineau describes his finds as being braided with great skill, the hair being of different colors: black, brown and white, suggesting that persons of different ages were buried in the tombs. He first took it for granted that the hair belonged to women buried in the subsidiary chambers[16] but changed his mind afterwards and interpreted them as votive offerings instead.[17] Since no anthropological examination of the remaining bones was undertaken, the attribution to women remains questionable, but Amélineau's description of the hair as "*nattes des cheveux*" with delicately braided hair points indeed more to female hairstyles or wigs (see below) than to longer male hair[18].

12 Amélineau 1904.

13 Nesa (Louvre N39/LP 1702/A38 <https://collections.louvre.fr/en/ark: /53355/cl010009482> [accessed: 2.12.2024]); Netjerikhet (Ne/He/4 = Turin Omv-Sppl. 2671 = Kahl, Kloth, Zimmermann 1995: 116–117); […]-*sjsj* (EM99–32 [= D3/Hl/3 = Kahl, Kloth, Zimmermann 1995: 178–179)] (Third Dynasty). Costume and hair style identify the owner of the stela as Nubian who obviously climbed up in Egyptian society: Raue 2018: 120).

14 Amélineau 1899a: 57, 1905: 450–460.

15 Dreyer, in: Dreyer, Hartung, Pumpenmeier 1993: 59.

16 Amélineau 1899a: 57; see also Kaplony 1963: 217; Fitzenreiter 2022: 5 [13].

17 Amélineau 1905: 451.

18 See also Tassie 2008 for an exhausting catalogue of hair.

Archaeological evidence, therefore, seems to be of little help in determining elements that mark gender in written or pictorial records.

4. Linguistic evidence

Since the uncovering of Cemetery U in Umm el-Qa'ab/Abydos and, above all, the discovery of U-j, a great deal of predynastic inscribed material is known; in Tomb U-j alone there are 175 labels and 145 vessels inscribed with one to three signs that can be clearly identified as hieroglyphs (Dreyer 1998; Regulski 2015). Other Predynastic and Early Dynastic objects like the labels are inscribed with hieroglyphs and hieroglyph-like signs belonging to different *Modes of Graphic Information Processing* (Kammerzell 2021: 1–3). It is often difficult to distinguish between a pictorial and a linguistic mode for the signs and sign sequences that are displayed on the text carrier because:

> (…) there is no fundamental difference between the shape of an individual pictorial element and the shape of a hieroglyph. Both are figurative, there are almost identical conventions for sign shaping, and the respective inventories of basics elements are also very similar: either constitutes an open class controlled by more or less the same set of rules. In addition, a hieroglyph may be even used as an ambimodal sign (…) with one and the same instance belonging simultaneously to the pictorial as well as the linguistic mode.[19]

Kammerzell 2021 has shown that there is a way to decipher these texts with reference to the medium they are applied to.

The reading of Early Dynastic inscriptions often takes place with the aid of and recourse to established knowledge about the structure of the language, such as Edel's *Altägyptische Grammatik* (Edel 1955). Variants in the phoneme system, sound change and function of the corresponding phonogram or diachronic changes in the inventory of signs, i.e. differences in vocabulary and grammar,[20] must also be taken into account. Two phases are evident here: the first phase involved the creation, expansion and standardization of the corpus of signs from a wide range of possibilities as well as the introduction of morphological and lexical elements, syntactic structures and the phonetic characteristics typical of later hieroglyphic writing. Kammerzell therefore calls this very early status of the language "Pre-Egyptian"[21] from which Pre-Old Egyptian was formed.[22] From the second half of the First Dynasty onwards, standardization intensified: with increasing phonetisation, the corpus of signs was reduced, the vocabulary changed, and more complex grammatical constructions could be reproduced.

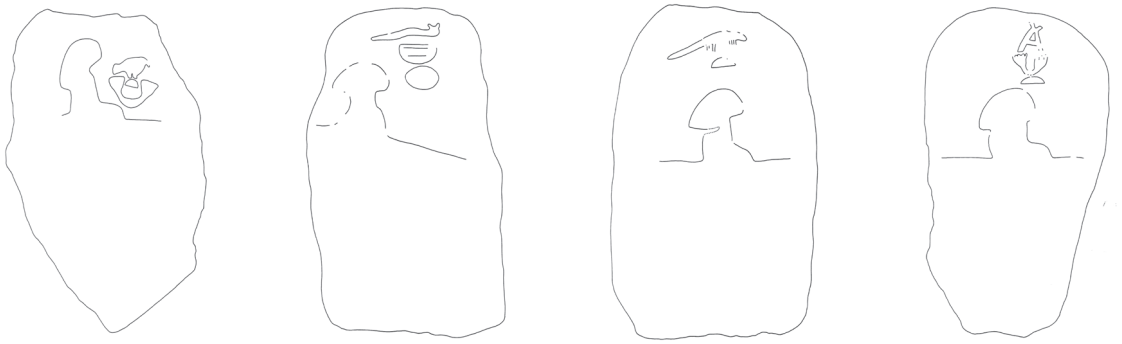
19 Kammerzell 2015: 2; for ambimodal signs see Lapčič 2014.

20 e.g. the use of *nb* as a noun versus the later use only as a modifier (Kahl 2000).

21 Kammerzell 2021: 7 sees Pre-Egyptian "not in the sense of a reconstructed proto-language but as a historically attested state of language which still lacks some of the typical traits of Egyptian."

22 Kammerzell 2005; Regulski 2015: 13–14.

The paleographical development shows that graphical modification can be observed at the beginning of the First Dynasty and is marked by three phases: 1: new versions/outlines for signs that already existed; 2. changes in preference for modified versions; and 3. the omission of sign shapes.[23]



wr.t-k³
a) Stela 77
(Martin 2011: 67)

nb.t=f or *nb.t-jt(j)*
b) Stela 82
(Martin 2011: 71)

ḥḏr.t or *mzḥ.t*
c) Stela 64
(Martin 2011: 59)

mrj.t-k³
d) Stela 61
(Martin 2011: 55)

Fig. 5. Stelae with feminine marker *.t* (not to scale)

4.1. Genera

Classification of nouns to which a grammatical gender is assigned is one of the assumed features of Pre-Old Egyptian. Edel 1955: 91 states that Old Egyptian recognizes two genera: a masculine without its own ending and a feminine with the ending *.t*. The grammatical gender corresponds to the natural gender when it comes to people, i.e. women or men. For the Fourth Dynasty, Schweitzer found that:

> *zwei Genera zu unterscheiden [sind]. Substantive sind entweder maskulin* (…) *oder feminin* (…). *Dabei muß nicht notwendigerweise die Femininendung in der Schrift erscheinen* (Schweitzer 2005: 104–105, § 205).

This statement is probably also true for the Early Dynastic Period. In view of Schweitzer's relatively frequent grammatical-morphematic defective spelling of *.t*,[24] the question of the grammatical gender of certain words also arises in early spellings. The word *wḏ³/wḏ³.t* may serve as an example for the Early Dynastic Period: it appears in various seal inscriptions in the title *ḫr(.j)-wḏ³* or *-wḏ³.t*, whereby the feminine form only appears in the reign of Khasekhemwy[25]. *FrühWb* and *TLA* list both words with identical translations, but there is comparatively little evidence for the feminine

23 See Regulski's 2010 extensive study of the paleography of early writing. See Loprieno 2020: 492–494 for the standardization of writing.

24 Schweitzer 2005: § 185; see also Kahl 1994: 959–1020.

25 We are indebted to Anke Ilona Blöbaum for discussions and comments on this word.

form.[26] The absence of the *.t* is conspicuous during the reign of Netjerikhet, for example, in a spelling for the king's daughter *s³.t-nzw*, while the accompanying title or personal name indicates that it actually refers to a female member of the family.[27] The same applies to an epithet of Queen Nimaathapi (*ḏd(.t) jr(.t) n=s*)[28] whose designation as *mw.t-nzw* leaves no doubt as to her gender. Despite all obstacles in recognizing female endings, some stelae do mention a *.t* in the writing of the personal name (fig. 5) that point to women as the interred.

4.2. Classifiers

One of the characteristics of the hieroglyphic writing system is the so-called classifier[29], an extra sign added at the end of the word. Classifiers emerged in the course of the invention of writing from Naqada IIIA–B onwards (Kahl 1994: 22, 52; Kahl 2001: 118–119; Kahl 2003: 129–131; Regulski 2015). They usually have a non-phonetic value, are related to the word they classify or serve as a homophonic repeater and are therefore only important for the written word. Classifiers are meaningful signs, iconic and thus not arbitrary linguistic signs but rather pictorial signs. Given the pictorial character of hieroglyphs, one of the features of a classifier is that they can be used as a picture or part of a picture of the written word to narrow down the meaning and indicate the general idea of the word. Goldwasser describes their general function and relation to the preceding word as follows:

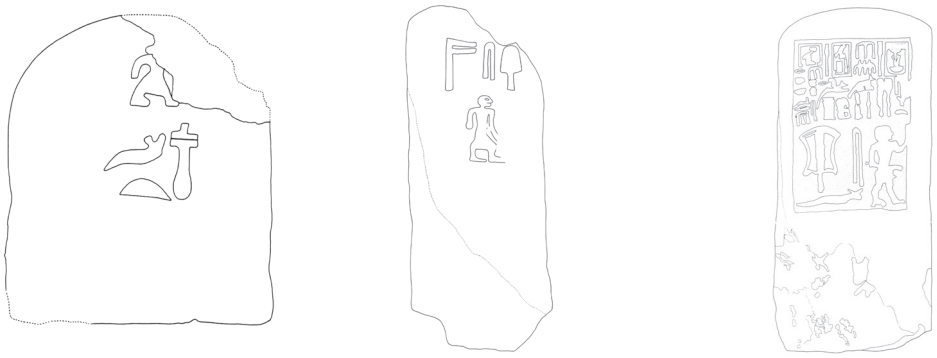
> Determinatives are related to the word preceding them in two main ways: metaphoric and metonymic, i.e. categorical or schematic. Together they form part of a domain. Sometimes the word carries two determinatives representing both axes. Any arbitrary look at the determinative in the dictionary will reveal the kind of movement we are already familiar with—from the iconic to metaphoric relations. The determinative must have an iconic relationship with the preceding word or may relate to it in metaphoric or metonymic ways (Goldwasser 1995: 84).

26 FrühWb. 129; TLA: https://thesaurus-linguae-aegyptiae.de/lemma/52110 (accessed 2.12.2024) and https://thesaurus-linguae-aegyptiae.de/lemma/885329 (accessed 2.12.2024).

27 Ne/Sa/51 = Kahl, Kloth, Zimmermann 1995: 72–73.

28 Ne/Be/17 = Kahl, Kloth, Zimmermann 1995: 22–23.

29 We follow Goldwasser 1995, 2006, Goldwasser & Grinevald 2012 and Grinevald 2015 and use the term Classifier instead of Determinative. The conceptual world created in this way is therefore subordinate to reality (Köhler 2016: 76–77).



a) Stela 36 (Martin 2011: 37) *b*) Stela 205 (Martin 2011: 145) *c*) Stela 48 (Martin 2011: 45)

Fig. 6. Stelae with [DWARF] (not to scale)

The corpus of First Dynasty stelae from Abydos shows combinations that can be read phonetically as a personal name or sometimes a personal name with title. The name ist often followed by a sign, usually a seated person, a dog, a dwarf or a soldier.[30] The seated person varies in shape depending on their date:  (Djer),  (Den),  (Den) (see below).[31] Regardless of their shape the signs all follow the above-mentioned scheme and therefore the preceding phonetic hieroglyphic combination. They show the aforementioned "iconic relationship" due to their location behind or below the other sign units and their orientation. The signs also represent the written word: the name belongs to a human (male? /female?, dwarf, soldier) or a dog. Their size often corresponds roughly to that of the other groups of signs,[32] so that it becomes clear that they are not to be interpreted as images, as is the case, for example, in the somewhat younger offering table scenes from Helwan (Köhler & Jones 2009).

While these signs are usually written at the end of the sign unit, there are two stelae that stand out: Stelae 36 and 37 (fig. 3f, 6a) show a person with shortened long bones standing in front of the

30 e.g., Lincke (2011: 94). Fitzenreiter (2022: 1), on the other hand, doubts that these signs are linguistic signs and thus classifiers: "*Stelen aus dem Bereich der Königsgräber der 1. Dynastie in Umm el-Qaab zeigen neben einer Namens- und ab Den auch regelmäßig einer Titelinschrift oft eine Darstellung, die zwischen Personenabbildung und Determinativ oszilliert.* […] *Dazu kommen einige seltener auftretende Bildzeichen, bei denen es nicht immer möglich ist zu entscheiden, ob es sich um einen Teil der Titel und Namensinschrift handelt, oder um eine Abbildung/Determina.*"

31 The most prototypical examples of each were taken for this purpose. There are rare samples that vary e.g. in the length of hair, but these varieties never interfere with the prototypical outline.

32 Stela 48 of Sabef (Martin 2011: 44–45; here: fig. 6c) could be seen as an exception to this as Sabef is depicted as large as the two lines above his head that mention his titles; however, his image is as tall as the signs forming his name behind him. As this stela was found in the last of the Umm el-Qa'ab tombs with subsidiary burials (Tomb Q/Qa'a) and is contemporary to the stela of Merka from S3505 in Saqqara (Emery 1958: pl. 23, 39), both stelae might mark a transition to a different importance of images on these stelae, as is emphasized by the Helwan offering plates (Köhler & Jones 2009).

sign unit, which obviously is to be read as the name  . The person with the shortened long bones is similar to the sign on other stelae and can clearly be interpreted as a so-called dwarf (fig. 1c, 6b–c). From the arrangement of the signs on Stelae 36 and 37 it can be concluded that the dwarf is not an image, but a sign with the linguistic meaning [DWARF]. It is possible that the prefixing means that [DWARF] also served as a title—it is also possible that the classifier was placed in front for other reasons.

Therefore, the sign [DWARF] classifies the aforementioned name as well as the signs  [DOG],[33] [SOLDIER] (fig. 4e) and the seated human—the question is whether a gender classification was always intended. At the same time, there are also stelae with names or names with titles that do not have a classifier. What is already apparent from this corpus of stelae from Abydos is the need to differentiate between groups buried alongside the king. While the groups of [DOG], [DWARF] and [SOLDIER] are clear, the group of unclassified names or names with title and those classified with a seated human should be examined more closely with a focus on whether the seated person indicates the gender of the aforementioned name. A development can be observed: While unclassified names/titles (or Ø-writing of a classifier) and names/titles with the classifier  are attested in the stelae from Tomb O/Djer at the same time, the inventory of classifiers on stelae from Tomb T/Den has expanded. The following are now documented:  ,  ,  and no classifier (Ø-classifier).[34]  ,  and  have in common the absence of gestures and therefore can be identified as  (B1) and variant  (B8A), while the "running arms" of  are clearly recognisable (see fig. 7, d, g, h) which can be identified as  (A1).[35] At the same time, it is the most recent sign (see also fig. 14). How can unclassified names/titles be explained? Already during the First Dynasty A1 together with B1 () are attested as classifiers (Kahl 1994: 421, 435–436): A1&B1  are used as classifiers on a more encyclopedic level for the word *rmṯ* which together are "the people" (fig. 10). The order is fixed and reflects the basic gender hierarchy.[36] For the Fourth Dynasty, A1, 19, 20, 32, 40, 51 and 299B are attested for [MAN] and B1 and 21A for [WOMAN], as well as A1&B1 and A1&B1&B2 for [PEOPLE] (Schweitzer 2005: 95–96), but the process of creating these classifiers for different functions in the Old Kingdom is not yet complete (Goldwasser 2002: 18–19).

33 Stelae 173, 178, 192, 206, 283.

34 Morenz 2020 and Beaux 2008 address the development of classifiers A1 and B1 in the early writing systems; however, both refer to later sources and omit the stelae of Umm el-Qa'ab, so that Morenz 2020: 58 incorrectly assumes that A1 is attested before B1 ("The decidedly iconically open basic type MAN——was created out of the older group of signs depicting warrior-like men in warlike activities in the context of this complex process. The seemingly slightly later sign for woman was subsequently created by analogy, and more specifically through structural correspondence, to the former.").

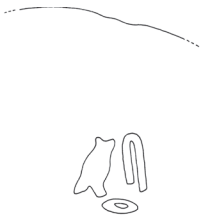
35 To be identifiable as a hieroglyph sign, a certain economy must be observed; on one hand, the sign should maintain a *connective* iconicity, typically by identifying prototypical features of the represented entity. On the other hand, the sign should convey a *distinctive* iconicity, e.g. the running arms of A1 versus no arms of B1. See Loprieno 2020: 492.

36 Goldwasser & Grinevald 2012: 23; Goldwasser 1995: 31.

If we, therefore, assume that these classifiers are motivated by the specification of the prototypical agent plus gender marker (Goldwasser & Grinevald 2012: 28–29)—as in *rmṯ*  "all [people]"—than we should also assume that the names on the stelae from Abydos are classified considering their gender. In the case of stelae with titles and names but without a classifier, we can therefore assume that it belonged to someone who was not in need to make a difference. Usually and reflecting the basic gender hierarchy, the default setting is [man] that therefore could be expressed in a Ø-writing of  A1.[37] This implies that "gender classification" was intended.[38]

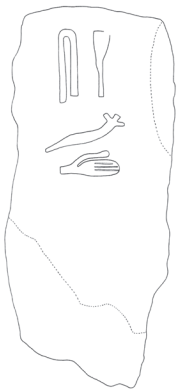
4.3. Names and titles

In addition to grammatical endings and classifiers, writing offers various references to individuals of both genders via names and titles. As in the Old Kingdom, personal names are constructed similarly for men and women, i.e. it is not possible to tell from the name alone whether it is that of a man or a woman (Scheele-Schweitzer 2014: 44–47, esp. 45). In some cases, a suffix referring to the bearer allows determining the gender.[39] Still others are provided with a classifier that—as discussed above—indicates the gender.



smr
a) Stela 69
(Martin 2011: 63)

sš.t
b) Stela 118
(Martin 2011: 95)



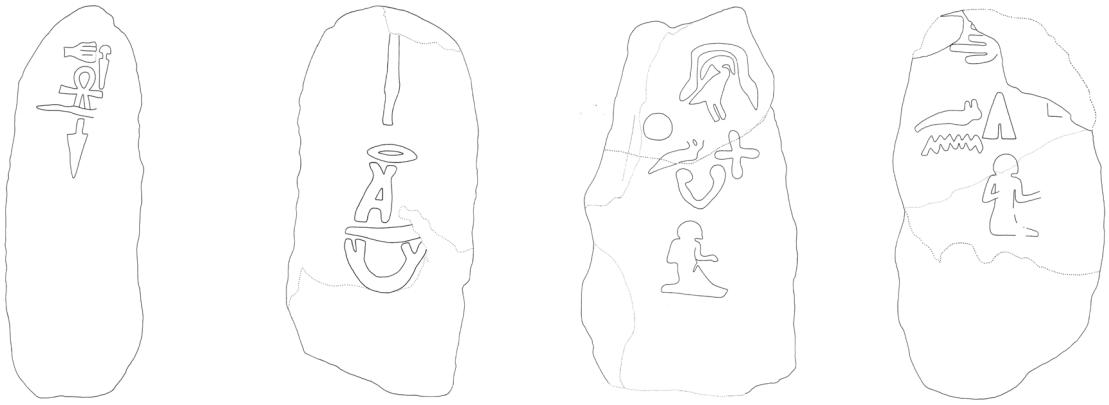
fd.j
c) Stela 197
(Martin 2011: 141)

šrs
d) Stela 20
(Martin 2011: 29)

37 The absence of A1 during the reign of Djer does not mean that there was a lack of the category [male] (contrary Fitzenreiter 2022: 5). It only shows what seemed important to be reflected in the script. In case of the stelae the inscription is only one part of the information while the knowledge where the stele was erected, who made the funeral offerings etc. are inherent. See Fischer 1973 for Old Kingdom male names that show classifiers less often than female names.

38 This development might correlate with the development of pronouns. Within the forms of personal pronouns, it can also be seen that the second- and third-person pronouns indicate both number and gender. The dependent personal pronouns *sw* (3ms) and *sj* (3fs) and the suffix pronouns *=f* (3ms) and *=s* (3fs) are attested in the Fourth Dynasty, while the 1ms of the suffix pronouns is usually not written, see Schweitzer 2005: 125–131.

39 e.g. names like *ʿnḫ=f* and *ʿnḫ=s* (Scheele-Schweitzer 2014: 309–310 [769, 771]).



sn=f-ʿnḫ
e) Stela 262
(Martin 2011: 179)

mr=f-k³
f) Stela 263
(Martin 2011: 179)

wn-k³=f
g) Stela 175
(Martin 2011: 129)

(r)dj.n=f
h) Stela 200
(Martin 2011: 143)

Fig. 7. Stelae with names with identified gender as inferred from analog Old Kingdom names (not to scale)

In other names, only a *.t* distinguishes between male and female names, a criterion that is not very reliable due to the inconsistent spelling of this element (Fitzenreiter 2022: 4 note 10). For still others, there are analogies to later epochs, which suggest that certain titles or names only apply to one gender or the other which works with some of the stelae (fig. 7). Although the use of a god's name within a personal name is often used to determine the gender of the bearer of the name (god = man, goddess = woman), it is not always unambiguous, as some people have names with gods of the opposite gender.[40]

The inconsistency of spellings becomes clear in individual inscriptions with several details (title, epithet, name) relating to one person: in seal inscriptions of private individuals from the reign of Khasekhemwy, it can be observed that words that appear masculine to us are the norm. However, some inscriptions indicate that a woman was the bearer of the seal, as this can be inferred either from the name or from a feminine form of the respective title. At the same time, other words in the same inscription may show the masculine form.[41]

In case of the Umm el-Qa'ab stelae, this means that there are only a few names that indicate the gender of the person without doubt by adding a *.t* or another suffix pointing to a female owner while the majority remains inconclusive (but not pointing to men as owners).

40 e.g., female names with *jrj.t-* + male gods: Scheele-Schweitzer 2014: 256–257.

41 e.g., Engel 2021b: 26, tab. 12; Engel 2021c: 200, fig. 6c, e.

5. Pictorial evidence

The classifiers with their pictorial character have proven to be good indicators for the determination of gender; now it has to be examined how certain typical features are shaped in three-dimensional representations.

Pictorial evidence from better identifiable representations of men and women offers different aspects that might be used for differentiation of the sexes: posture, dress, hairstyle, and skin color. Of those only posture and hairstyle seem to be relevant for the signs on the early stelae as details of dress are hardly visible and possible coloration of the images disappeared long ago.[42]

Fig. 8. Statue of Ankh (Musée du Louvre N40, https://collections.louvre.fr/ark: /53355/cl010009174 [accessed 2.12.2024]

Fig. 9. Statue of Redj (Museo Egizio Torino C3065, https://collezioni.museoegizio.it/en-GB/material/Cat_3065 [accessed 2.12.2024])

5.1. Hair

In many depictions, men wear a short, round, tiered curly wig, while women wear a long-haired tripartite wig consisting of individual braided plaits that end in small knots at the top of the back.[43] Occasionally, images of men with straight hair falling to their shoulders can be found[44] (Fig. 8), but this hairstyle is less voluminous and stringier than those of the female depictions, which sometimes

42 Only a few stelae preserve remains of color: e.g., Stela 124, 289, while Stela 102 was inscribed with ink, as were the green stone stelae from Tomb U.

43 The Helwan Funerary Slab Stelae show this consistent pattern (Köhler & Jones 2009). For an extensive documentation see Tassie 2008.

44 Quibell 1913: pl. XXIX–XXXI for different wigs worn by Hesira.

leave an almost teased impression (fig. 9). The seated statues of Rahotep and Nefret, on the other hand, show him without a wig and with short hair, while she again has individual plaits that end at shoulder level (e.g., Borchardt 1911: Blatt 1 [3, 4]). Hetepheres II and Mersyankh III, on the other hand, are occasionally depicted with short hair (e.g., Fay 1998: 135, fig. 25), so that this seems to be common for both genders, indicating that even at this early date hairstyle is a question of which wig to wear—at least in that part of society that could afford it—and not of individual hair for both genders.

A1 & B1		First Dynasty (temp. Den)	Label (after Dreyer 1990: Pl. 26b + joining fragment from Tomb U)
		Third/Fourth Dynasty	Tomb inscription, Metjen
		Third/Fourth Dynasty	Tomb inscription, Metjen
B1		Fourth Dynasty	Statue of Nofret

Fig. 10. Examples of classifiers A1 and B1 until the early Fourth Dynasty

However, the result is different when looking at classifiers A1 and B1 which we can identify without doubt, that is mostly in writings for *rmṯ* or other contexts:[45] there, the length of hair seems to be a fairly safe way to differentiate between squatting men and women: women always are shown with long hair/a wig while men are depicted as short-haired (fig. 10).[46]

5.2. Pose

The signs on the Umm el-Qa'ab stelae mostly show persons squatting on the floor. Only persons of short stature are depicted standing, obviously to make different proportions of arms and legs visible (see above, fig. 6).

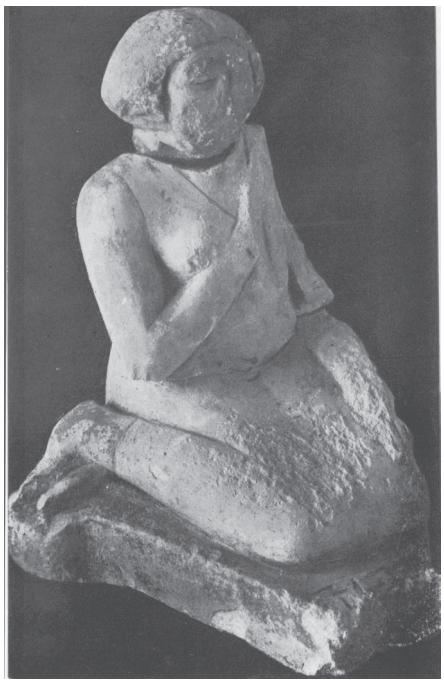
Given the crude style of many signs on the stelae, not many possibilities for the differentiation of genders exist. The squatting persons are shown either with raised knees or in a position that looks like kneeling when seen from the side. A three-dimensional ivory object in Munich, for example, preserves a predynastic version of this by showing a man and a woman next to each other, assumed to be an unnamed king and a queen (Dreyer & Josephson 2011: 47–50): he is sitting on a shallow chair while she is kneeling next to him (fig. 11a). In later periods, the kneeling posture is typical for

45 The vast majority of attestations quoted in Kahl 1994 and Regulski 2010 were taken from the stelae in question and are, therefore, not included.

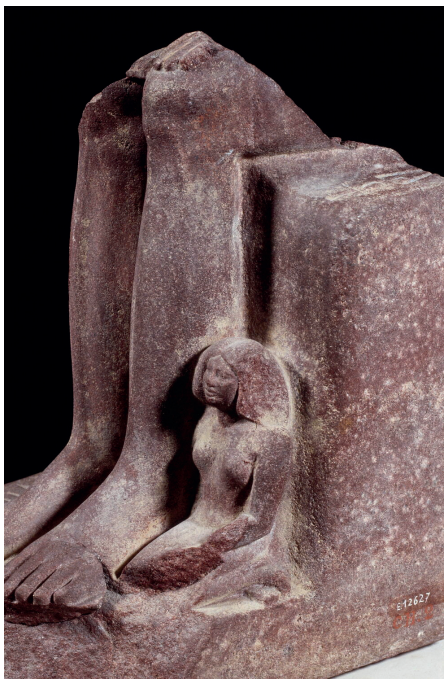
46 The picture is different with other classifiers, e.g. A50 which often has men with longer, stringy hair.

women in combination with other, higher ranking persons:[47] Old Kingdom representations show female members of the respective royal family sitting on the floor next to the king with the legs tucked to a side (so that would seem from the side that they are in a kneeling position).[48] A statue represents the king's daughter of (possibly) King Snofru, Wemtet-ka, alone in this pose, as others do later in company of the king (fig. 11b–c).

a) Ivory object, Munich, SMÄK 1520 (Dreyer & Josephson 2011: fig. 1–2)



b) King's daughter Wemtet-(ka) (Fakhry 1961: pl. XLIII)



c) King Djedefra with female family members (© Louvre https://collections.louvre.fr/ark: /53355/cl010006350 [accessed 2.12.2024])

Fig. 11. Kneeling women

47 Cf. Fay 1999: 135, fig. 25 for Mersyankh III and Hetepheres II.

48 See the examples by Fay 1998, 1999.

The statue of Hetepdief as an example of a kneeling man, on the other hand, rests the feet on their toes which results in a different angle of the thigh when seen from the side (fig. 12).[49] Sign A52, the classifier for [ANCESTOR], depicts a kneeling male person similar to the representations on the stelae, but with a flail in one of the hands which, therefore, can be ruled out as being the sign on the Umm el-Qa'ab stelae: sign A52 is not yet attested for the Early Dynastic Period (Regulski 2010). It seems therefore that mostly women were, at least at this early date, depicted in this kneeling pose with the feet flat on the floor.

Fig. 12. Statue of Hetepdief (Borchardt 1911: Blatt 1 [1])

As a result, there seem to be two designs for classifier B1 which probably added to the difficulties in accepting both versions (see above). Mapping the different signs (A1, and both versions of B1) on a site plan from Umm el-Qa'ab (fig. 13), however, a clear division becomes visible: examples with B1/"kneeling" are concentrated in and around the Tomb of Djer with some objects moved to Tomb P and Cemetery B in course of the early excavations.[50] Only two examples were found in the southern part of the necropolis but they differ in layout (no baseline) and quality of stone (dense, not porous) from the examples from Tomb O.[51] The second version of B1/"raised knees", on the other hand, is grouped in and around the Tomb of Den, as are the first attestations of sign A1 (or mentions of queen's titles).

49 Other three- and two-dimensional examples for squatting men show their legs similar to the layout in A1 (e.g., a limestone statue from Hierakonpolis [Quibell 1900: pl. II] or a depiction of bound prisoners [Petrie 1901: pl. IV [19]).

50 As a consequence, the attestations for B1 that are taken to date to the reign of Aha (sources 259, 268: Kahl 1994; Regulski 2010) have to be shifted to the reign of Djer leaving no attestation of B1 before the reign of Djer.

51 Stelae 32, 35 (here: fig. 3e, see also fig. 14).

This finding indicates that in the middle of the First Dynasty, during the reign of Den, the standard shape for B1 was modified at the same time as A1 was introduced, with a certain overlapping period: This is supported by the writing for *rmṯ* on a label from the reign of Den that attests to the use of this early form of B1 until his reign (fig. 10 first line)[52] and the two stelae with the "old" shape of B1 which were found in Tomb U (Stelae 32, 35) but probably originate from Tomb T. Both shapes of B1 are, therefore, not different signs but refer to a chronological development in the creation of later standard hieroglyphs.

Fig. 13. Distribution of stelae with classifiers A1 and B1 and with queen's titles

52 Dreyer 1990: pl. 26b; in the meantime, the lower part of the label was found in Tomb U (still unpublished), see here fig. 10 [first line].

Conclusion

The archaeological evidence yielded hardly any information for identifying the discussed sign(s) as no general differences between male and female burials could be established that would be identifiable in writing. Yet, linguistic evidence as well as comparison to other, later representations of men and women indicated that the persons depicted on the stelae from Tomb O were most likely women, and therefore the sign "kneeling person" was a version of B1. The spatial and chronological distribution of the objects indicated that sign B1 underwent a change during the reign of Den (fig. 14) as was the case with other signs before the final shape as standardized hieroglyphs developed.[53]

By showing that B1 was clearly used as a classifier, the study emphasizes the use of classifiers that mark differences from the (male) standard, and shows that there was a need in the written language to link names and titles to a specific prototypical agent. The written language did not need a classifier [MAN] for male agents at this time. However, words like *rmṯ* [PEOPLE] are classified with A1and B1 highlighting that [PEOPLE] are male and female, at the same time reflecting gender hierarchy by writing the man in front of the woman.

Coming back to the situation in Umm el-Qa'ab, the earliest setting in which these classifiers were used on a larger scale, it seems as if this development is an answer to the diverse section of the population buried close to the kings which had to be identified by later generations. In Egyptian antiquity, too, a gender ratio of approximately 50: 50 can be assumed and a corresponding distribution in the cemeteries is expected. However, occupancy of many cemeteries is influenced by selection criteria: already during the Predynastic Period, Cemetery U at Umm el-Qa'ab/Abydos developed into a cemetery of the elite (e.g., Hartung 2007; 2024), so that here the selection was not based on gender, but on family or status affiliation. Burials at the enclosures of Aha in Abydos contained exclusively women while the subsidiary tombs of Aha's seem to have been predominantly male (Bestock 2008: 53–54). In later periods, burials of followers in the vicinity of a large tomb do not display a "normal" distribution, as for the Old Kingdom Seidlmayer was able to observe shifts by comparing the necropolises at Elephantine and Qubbet el-Hawa, which can be attributed to external circumstances (Seidlmayer 2001: 218).

53 See Regulski 2010: 290–291 for changes in the middle of the First Dynasty. For B1 already suggested by Fitzenreiter 2022: 4.

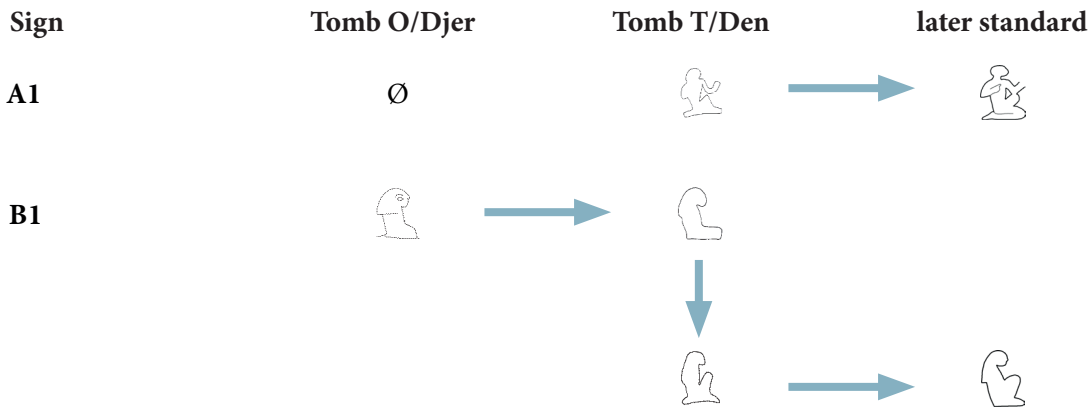


Fig. 14. Development of A1 & B1 during the First Dynasty

In case of the individuals who were buried in the subsidiary chambers around the royal tombs in Umm el-Qa'ab, there are further options that might explain an uneven representation of the sexes: either due to the individuals' proximity to the king ("concubines", see note 3), their function in the household (Engel 2021a: 133) and/or due to their function in the ritual during the burial (Engel 2023: 323). These options do not stand in the way of "too many" women, as long as we do not know the criteria that prompted the selection of people to be buried in the surroundings of the First Dynasty kings[54]—on the contrary: by "eliminating" women from the subsidiary tombs in Umm el-Qa'ab one would end up with definitely too many men.

Acknowledgements. We are indebted to Anke Ilona Blöbaum, Ulrike Dubiel, Sebastian Schnettler and Simon D. Schweitzer for several fruitful discussions on the topic and Zana Isakovic for correcting our English. We thank Dietrich Raue and Martin Sählhof (German Archaeological Institute Cairo) for the permission to use the hieroglyphs from the label in fig. 10 and we are indebted to the Musée du Louvre and the Museo Egizio di Torino for the possibility to use their photographs under a Creative Commons licence.

Bibliography

Alexanian, N. 1999. *Das Grab des Prinzen Netjer-aperef. Die Mastaba II/1 in Dahschur*. Archäologische Veröffentlichungen, Deutsches Archäologisches Institut Abteilung Kairo 56. Mainz, Philipp von Zabern.

Almansa-Villatoro, V. 2019. "Renaming the Queens. A New Reading for the Crossed Arrows Sign and a Religious Approach to the Early Dynastic Onomastics," *Studien zur Altägyptischen Kultur* 48: 35–51.

Amélineau, E. 1899a. *Le Tombeau d'Osiris – Monographie de la découverte faite en 1895–1896*. Paris, Ernest Leroux.

54 The assumption that an even distribution between bearers of names with the element *k³* and those of the element *n.t/hmws.t* was intended among the burials in the subsidiary tombs (Fitzenreiter 2022: 25 following Almansa-Villatoro 2019) suggests a selection for those to be killed for the royal burial on the basis of the individual's name instead of other properties which seems a little farfetched.

Amélineau, E. 1899b. *Les nouvelles fouilles d'Abydos 1895–1896 – Compte rendu in extenso des fouilles, description des monuments et objets découverts*. Paris, Ernest Leroux.

Amélineau, E. 1904. *Les nouvelles fouilles d'Abydos 1895–1896 – Compte rendu in extenso des fouilles, description des monuments et objets découverts*. Paris, Ernest Leroux.

Amélineau, E. 1905. *Les nouvelles fouilles d'Abydos 1895–1896 – Compte rendu in extenso des fouilles, description des monuments et objets découverts (Deuxième partie)*. Paris, Ernest Leroux.

Beaux, N. 2008. "Étude de quelques hiéroglyphes égyptiens." In: *Image et conception du monde dans les écritures figuratives – Actes du colloque Collège de France – Académie des Inscriptions et Belles-Lettres, Paris, 24–25 janvier 2008*, ed. by N. Beaux, B. Portier, N. Grimal: 288–313. Paris, AIBL, Soleb.

Bestock, L. 2008. "An Undisturbed Subsidiary Burial from the Reign of Aha" In: *Zeichen aus dem Sand. Streiflichter aus Ägyptens Geschichte zu Ehren von Günter Dreyer*, Menes 5, ed. by E.-M. Engel, V. Müller, U. Hartung: 41–57. Wiesbaden, Harrassowitz.

Bestock, L. 2009. *The Development of Royal Funerary Cult at Abydos. Two Funerary Enclosures from the Reign of Aha*, Menes 6. Wiesbaden, Otto Harrassowitz.

Borchardt, L. 1911. *Statuen und Statuetten von Königen und Privatleuten im Museum von Kairo Nr. 1–1294. Teil 1*, Catalogue Général des Antiquités Égyptiennes du Musée du Caire. Berlin, Reichsdruckerei.

Dreyer, G. 1990. "Umm el-Qaab. Nachuntersuchungen im frühzeitlichen Königsfriedhof, 3./4. Vorbericht," *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 46: 53–90.

Dreyer, G., Hartung, U., Pumpenmeier, F. 1993. "Umm el-Qaab. Nachuntersuchungen im frühzeitlichen Königsfriedhof, 5./6. Vorbericht," *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 49: 23–62.

Dreyer, G. 1998. *Umm el-Qaab I. Das prädynastische Königsgrab U-j und seine frühen Schriftzeugnisse*, Archäologische Veröffentlichungen, Deutsches Archäologisches Institut Abteilung Kairo 86. Mainz, Philipp von Zabern.

Dreyer, G., Hartmann, R., Hartung, U., Hikade, H., Köpp, H., Lacher, Cl, Müller, V., Nerlich, A., Zink, A. 2003. "Umm el-Qaab. Nachuntersuchungen im frühzeitlichen Königsfriedhof, 19./20./21. Vorbericht," *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 59: 67–138.

Dreyer, G., Blöbaum, A.K., Engel, E.-M., Köpp, H., Müller, V. 2011. "Umm el-Qaab. Nachuntersuchungen im frühzeitlichen Königsfriedhof, 19./20./21. Vorbericht," *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 67: 53–92.

Dreyer, G., Engel, E.-M., Hartmann, R., Knoblauch, Chr., Köhler, E. Chr., Köpp-Junk, H., Kuhn, R., Mahn, M., Meyrat, P., Müller, V., Regulski, I., Sählhof, M. 2017. "Umm el-Qaab. Nachuntersuchungen im frühzeitlichen Königsfriedhof, 25./26./27. Vorbericht," *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 73: 15–104.

Dreyer, G. & Josephson, J. 2011. "Royal Sculpture of the Predynastic and Archaic Periods," *Journal of the American Research Center in Egypt* 47: 45–70.

Edel, E. 1955. *Altägyptische Grammatik*, Analecta Orientalia 34. Rome, Pontificum Institutum Biblicum.

Emery, W.B. 1958. *Great Tombs of the First Dynasty* III. Excavations at Saqqara, Memoir of the Egypt Exploration Society 47. London, Egypt Exploration Society.

Engel, E.-M. 2015. "The Early Dynastic Pot Mark Project." In: *Non-Textual Marking Systems in Ancient Egypt (and Elsewhere)*, ed. by J. Budka, F. Kammerzell, S. Rzepka. Lingua Aegyptiaca Studia Monographica 16. Hamburg, Widmaier.

Engel, E.-M. 2021a. "Why Can't a Woman Be More Like a Man? Frauen (und Männer) in den Nebenkammern der königlichen Grabanlagen in Umm el-Qa'ab," *Zeitschrift für Ägyptische Sprache und Altertumskunde* 148(2): 124–136.

Engel, E.-M. 2021b. *Private Rollsiegel der Frühzeit und des frühen Alten Reiches. Versuch einer Einordnung*, Menes 8. Wiesbaden, Harrassowitz.

Engel, E.-M. 2021c. "Three Sites – One Administration?" In: *Keep Out! Early Dynastic and Old Kingdom Cylinder Seals and Sealings in Context*, Menes 7, ed. by E.-M. Engel, A.I. Blöbaum, F. Kammerzell: 193–216. Wiesbaden, Harrassowitz.

Engel, E.-M. 2022. "Early Dynastic Women – the Written Evidence," In: *Women in Ancient Egypt. Revisiting Power, Agency, and Autonomy*, ed. by M. Ayad: 27–38. Cairo, American University in Cairo Press.

Engel, E.-M. 2023. "Wein, Weib und Gesang oder: Was taten die Ägypter der Frühzeit im Jenseits?" In: *Pharaonen, Mönche und Gelehrte. Auf dem Pilgerweg durch 5000 Jahre ägyptische Geschichte über drei Kontinente. Heike Behlmer zum 65. Geburtstag*, Texte und Studien zur Koptischen Bibel 4, ed. by D. Atanassova, F. Feder, H. Sternberg el-Hotabi: 303–332. Wiesbaden, Harrassowitz.

Fay, B. 1998. "Royal Women as Represented in Sculpture During the Old Kingdom." In: *Les critères de datation stylistiques à l'Ancien Empire*, Bibliothèque d'Étude 120, ed. by N. Grimal: 159–180. Cairo, Institut Français d'Archéologie Orientale.

Fay, B. 1999. "Royal Women as Represented in Sculpture During the Old Kingdom Part II: Uninscribed Sculptures." In: *L'Art de l'Ancien Empire égyptien. Actes du colloque organisé au musée du Louvre par le service culturel les 3 et 4 avril 1998*, ed. by C. Ziegler: 99–147. Paris, Documentation française.

Fischer, H.G. 1973. "Redundant determinatives in the Old Kingdom," *Metropolitan Museum Journal* 8: 7–25.

Fitzenreiter, M. 2022. "Lesefunde in frühägyptischen Inschriften." In: *Early Egyptian Miscellanies. Discussions and Essays on Predynastic and Early Dynastic Egypt*, Internet-Beiträge zur Ägyptologie und Sudanarchäologie 26, ed. by G. Sperveslage: 1–29. Berlin, London, Golden House.

FrühWb: Kahl, J. 2002. *Frühägyptisches Wörterbuch*. Wiesbaden, Harrassowitz.

Goldwasser, O. 1995. *From Icon to Metaphor. Studies in the Semiotics of the Hieroglyphs*. Fribourg, Göttingen, Universitätsverlag, Vandenhoeck & Ruprecht.

Goldwasser, O. 2002. *Prophets, Lovers and Giraffes. Wor(l)d Classification in Ancient Egypt*. Göttinger Orientforschungen IV/38. Wiesbaden, Harrassowitz.

Goldwasser, O. 2006. "On the New Definition of Classifier Languages and Scripts." In: *After Polotsky, New Research and Trends in Egyptian and Coptic Linguistics*, Lingua Aegyptia. Journal of Egyptian Language Studies 14, ed. by V.M. Lepper: 473–484.

Goldwasser, O. 2023. "Mapping the Ancient Mind: iClassifier, a New Platform for Systematic Analysis of Classifiers in Egyptian and Beyond." In: *Ancient Egypt, New Technology. The Present and Future of Computer Visualization, Virtual Reality and Other Digital Humanities in Egyptology*, Harvard Egyptological Studies 17, ed. by R. Lucarelli, J. Robertson, S. Vinson: 130–158. Leiden, Boston, Brill.

Goldwasser, O. & Grinevald, C. 2012. "What are 'Determinatives' good for?" In: *Lexical Semantics in Ancient Egypt*, Lingua Aegyptia. Journal of Egyptian Language Studies, Studia monographica 9, ed. by E. Grossman, S. Polis, J. Winand: 17–53. Hamburg, Widmaier.

Grinevald, C. 2015. "Classifiers, Linguistics of." In: *International Encyclopedia of the Social & Behavioral Sciences*, ed. by J.D. Wright, 2nd edition, vol. 3: 811–818. Oxford, Elsevier.

Hartung, U. 2007. "Der prädynastische Friedhof U: Nilpferdjäger und erste Bürokraten." In: *Begegnung mit der Vergangenheit – 100 Jahre in Ägypten. Deutsches Archäologisches Institut Kairo 1907–2007*, ed. by G. Dreyer, D. Polz: 186–192. Mainz, Philipp von Zabern.

Hartung, U. 2024. *Umm el-Qaab* III. *Die Grubengräber des prädynastischen Friedhofs U in Abydos (Umm el-Qaab)*, Archäologische Veröffentlichung des Deutschen Archäologischen Instituts Abteilung Kairo 93. Wiesbaden, Harrassowitz.

Kahl, J. 1994. *Das System der ägyptischen Hieroglyphenschrift von der 0.–3. Dynastie*, Göttinger Orientforschungen IV/29. Wiesbaden, Harrassowitz.

Kahl, J. 2000. "neb („jeder") als Quantitäts-Substantiv in der frühen ägyptischen Sprache," *Göttinger Miszellen* 175: 5–7.

Kahl, J. 2001. "Hieroglyphic Writing During the Fourth Millenium BC: an Analysis of System," *Archéo-Nil* 11, 102–134.

Kahl, J. 2003. "Entwicklung der frühen Hieroglyphenschrift." In: *Der Turmbau zu Babel: Ursprung und Vielfalt von Sprache und Schrift*. Eine Ausstellung des Kunsthistorischen Museums Wien für die Europäische Kulturhaupstadt Graz2003, Schlo■Eggenberg, Graz, 5. April bis 5. Oktober 2003, IIIA, B, ed. by W. Seipel: 127–131. Wien, Milano, Kunsthistorisches Museum, Skira.

Kahl, J., Kloth, N., Zimmermann, U. 1995. *Die Inschriften der 3. Dynastie. Eine Bestandsaufnahme*. Ägyptologische Abhandlungen 56. Wiesbaden, Harrassowitz.

Kammerzell, F. 2005. "Old Egyptian and Pre-Old-Egyptian: Tracing Linguistic Diversity in Archaic Egypt and the Creation of the Egyptian Language." In: *Texte und Denkmäler des ägyptischen Alten Reiches*, TLA 3, ed by S. Seidlmayer: 165–246. Berlin, Achet, Dr. Norbert Dürring.

Kammerzell, F. 2021. "Reading Multimodal Compositions from Early Dynastic Egypt (With an Appendix on Previously Unlisted, Reinterpreted or Otherwise Noteworthy Signs)." In: *Keep Out! Early Dynastic and Old Kingdom. Cylinder Seals and Sealings in Context*, Menes 7, ed. by E.-M. Engel, A.I. Blöbaum, F. Kammerzell: 1–98. Wiesbaden, Harrassowitz.

Kaplony, P. 1963. *Die Inschriften der ägyptischen Frühzeit*, Ägyptologische Abhandlungen 8. Wiesbaden, Harrassowitz.

Kaplony, P. 1986. "Toter am Opfertisch." In: *Lexikon der Ägyptologie* 6, ed. by W. Helck & W. Westendorf: 711–726. Wiesbaden, Otto Harrassowitz.

Köhler, E. C. & Jones, J. 2009. *Helwan* II. *The Early Dynastic and Old Kingdom Funerary Relief Slabs*, Studien zur Archäologie und Geschichte Altägyptens 25. Rahden, Westf, Leidorf.

Köhler, E. C., Ferschin, P., Hood, A., Junge, F., Kovács, B.I., Minotti, M. 2023. "A Preliminary Report on new Archaeological Fieldworkat the Tomb of Queen Meret-Neith of the 1st Dynasty at Abydos, Umm el-Qaab," *Ägypten und Levante* 33: 75–144.

Köhler, I. 2016. *Rage like an Egyptian. Die Möglichkeiten eines kognitiv-semantischen Zugangs zum altägyptischen Wortschatz am Beispiel des Wortfelds [WUT]*, Beihefte zu Studien zur altägyptische Kultur 18. Hamburg, Helmut Buske.

Kroeper, K. & Wildung, D. 1994. *Minshat Abu Omar I. Ein vor- und frühgeschichtlicher Friedhof im Nildelta (Gräber 1–114)*. Mainz.

Kroeper, K. & Wildung, D. 2000. *Minshat Abu Omar II. Ein vor- und frühgeschichtlicher Friedhof im Nildelta (Gräber 115–204)*. Mainz, Philipp von Zabern.

Lapčič, A. 2014. "Bild-Schrift-Gestalten des Göttlichen. Multimodale Informationsverarbeitung im Amduat Thutmosis' III." In: *Bild—Ästethik—Medium—Kommunikation. Beiträge des dritten Münchner Arbeitskreises Junge Aegyptologie (MAJA 3), 7. bis 9.12.2012*, Göttinger Orientforschung IV/Ägypten 58, ed. by G. Neunert, A. Verbovsek, K. Gabler with the cooperation of C. Jones: 169–192. Wiesbaden, Harrassowitz.

Lincke, E.-S. 2011. *Die Prinzipien der Klassifizierung im Altägyptischen*, Göttinger Orientforschungen IV/Ägypten 38. Wiesbaden, Harrassowitz.

Loprieno, A. 2020. "Standardization in Egyptian." In *A Companion to Ancient Near Eastern Languages*, ed. by R. Hasselbach-Andee: 489–504. Hoboken, NJ, Wiley Blackwell.

Martin, G. T. 2011. *Umm el-Qaab VII. Private Stelae of the Early Dynastic Period from the Royal Cemetery at Abydos*, Archäologische Veröffentlichungen, Deutsches Archäologisches Institut Abteilung Kairo 123. Wiesbaden, Harrassowitz.

Morenz, L.D. & Kuhn, R. 2011. "Ägypten in der Vor- und Frühzeit. Vorspann oder formative Phase? – Ein kurzer Überblick." In: *Vorspann oder formative Phase? Ägypten und der Vordere Orient 3500–2700 v. Chr.*, Philippika 48, ed. by L.D. Morenz, R. Kuhn: 3–17. Wiesbaden, Harrassowitz.

Morenz, L.D. 2020. "The Development of Egyptian Writing in the Fourth and Early Third Millennium BCE." In *A Companion to Ancient Near Eastern Languages*, ed. by R. Hasselbach-Andee: 47–64. Hoboken, NJ, Wiley Blackwell.

Morris, E.F. 2007. "Sacrifice for the State: First Dynasty Royal Funerals and the Rites at Macramalla's Rectangle." In: *Performing Death. Social Analyses of Funerary Traditions in the Ancient Near East and Mediterranean*, Oriental Institute Seminars 3, ed by N. Laneri: 15–37. Chicago, The Oriental Institute of Chicago Press.

O'Connor, D. 2009. *Abydos. Egypt's first Pharaohs and the Cult of Osiris*. London, Thames & Hudson.

Petrie, W.M.F. 1901. *The Royal Tombs of the Earliest Dynasties II*, Memoir of the Egypt Exploration Fund 21. London, Egypt Exploration Fund, Kegan Paul, Trench, Trübner & Co.

Petrie, W.M.F. 1914. *Tarkhan II*, British School of Archaeology in Egypt / Egyptian Research Account 26. London, School of Archaeology in Egypt, Bernard Quaritch.

Petrie, W.M.F., Wainwright, G.A., Gardiner, A.H. 1913. *Tarkhan I and Memphis V*, British School of Archaeology in Egypt / Egyptian Research Account 19. London, School of Archaeology in Egypt, Bernard Quaritch.

Quibell, J.E. 1900. *Hierakonpolis I*, Egyptian Research Account 4. London, Bernard Quaritch.

Quibell, J.E. 1913. *The Tomb of Hesy*, Excavations at Saqqara. Cairo, Institut Français d'Archéologie Orientale, Service des Antiquités de l'Égypte.

Raue, D. 2018. *Elephantine und Nubien vom 4.–2. Jahrtausend v.Chr.*, mit einem Beitrag von Peter Kopp, Sonderschriften des Deutschen Archäologischen Instituts Abteilung Kairo 40. Wiesbaden, Harrassowitz.

Regulski, I. 2010. *A Palaeographic Study of Early Writing in Egypt*, Orientalia Lovanensia Analecta 195. Leuven, Peeters, Departement Oosterse Studies.

Regulski, I. 2015. "The Origins and Early Development of Writing in Egypt." In: *Oxford Handbook of Topics in Archaeology* (https://doi.org/10.1093/oxfordhb/9780199935413.013.61).

Reisner, G.A. 1936. *The Development of the Egyptian Tomb down to the Accession of Cheops*. Cambridge, London, MA, Harvard University Press, Oxford University Press.

Scheele-Schweitzer, K. 2014. *Die Personennamen des Alten Reiches. Altägyptische Onomastik unter lexikographischen und sozio-kulturellen Aspekten*, Philippika 28. Wiesbaden, Harrassowitz.

Schweitzer, S. 2005. *Schrift und Sprache der 4. Dynastie*, Menes 3. Wiesbaden, Harrassowitz.

Seidlmayer, S.J. 2001. "Die Ikonographie des Todes." In: *Social Aspects of Funerary Culture in in the Egyptian Old and Middle Kingdoms. Proceedings of the international colloquium held at Leiden University 6–7 June, 1996*, Orientalia Lovanensia Analecta 103, ed. by H. Willems: 205–252. Leuven, Paris, Sterling, Peeters.

Seidlmayer, S.J. 2003. "Vom Sterben der kleinen Leute. Tod und Bestattung in der sozialen Grundschicht am Ende des Alten Reiches." In: *Grab und Totenkult im Alten Ägypten*, ed. by M. Bommas, H. Guksch, E. Hofmann: 60–74. München, Beck.

Sperveslage, G., Schneider, J., Bussmann, R. 2022. "Perspektiven einer elektronischen Auswertung des Zeicheninventars der Frühzeit." In: *Early Egyptian Miscellanies. Discussions and Essays on Predynastic and Early Dynastic Egypt*, Internet-Beitraege zur Aegyptologie und Sudanarchaeologie 26, ed. by G. Sperveslage: 225–244. Berlin, London, Golden House.

Tassie, G.J. 2008. *The Social and Ritual Contextualisation of Ancient Egyptian Hair and Hairstyles from the Protodynastic to the End of the Old Kingdom*. London, University College London.

TLA. *Thesaurus Linguae Aegyptiae* https://thesaurus-linguae-aegyptiae.de/info/introduction [accessed 2.12.2024].

Trigger, B.G. 1983. "The Rise of Egyptian Civilization." In: *Ancient Egypt. A Social History*, ed. by B.G. Trigger, B.J. Kemp, D. O'Connor, A.B. Lloyd: 1–70. Cambridge, Cambridge University Press.

Troy, L. 1986, *Patterns of Queenship in Ancient Egyptian Myth and History,* BOREAS 14. Uppsala, Uppsala University.

von Bissing, F.W. 1952. *Der Tote vor dem Opfertisch*, Sitzungsberichte der Bayerischen Akademie der Wissenschaften 1952/3. München, Verlag der Bayerischen Akademie der Wissenschaften.

Zink, A. 2008. "Von Riesen und Zwergen – besondere anthropologische Befunde aus den prä- und frühdynastischen Grabanlagen in Abydos." In: *Zeichen aus dem Sand. Streiflichter aus Ägyptens Geschichte zu Ehren von Günter Dreyer*, Menes 5, ed. by E.-M. Engel, V. Müller, U. Hartung: 691–704. Wiesbaden, Harrassowitz.