

EDUCATION AND APPRENTICESHIP

التعليم والتأهيل المهني

Nikolaos Lazaridis

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Nikolaos Lazaridis

Ausbildung und Lehre
Éducation et apprentissage

The main purpose of education and apprenticeship in ancient Egypt was the training of scribes and of specialist craftsmen. The result of this profession-oriented educational system was restricted accessibility to schooling, most probably favoring male members of the Egyptian elite. Basic education offered in Egyptian local schools consisted of the teaching of language, mathematics, geography, and of other subjects appropriate for the preparation of potential scribes who were destined to work in local and national Egyptian institutions, such as the palace or the temples. The evidence for the existence of such an educational system in ancient Egypt comes mainly in the form of school exercises, schoolbooks, and references found in literary and documentary texts. There is comparatively less evidence, however, for the role of apprenticeship, which was a pedagogical method employed mainly for the training of craftsmen or for advanced and specialized education, such as that needed to become a priest. Although the main elements of pedagogy probably remained as such throughout Egyptian history, it is likely that foreign languages were taught from the New Kingdom onwards, culminating in the bilingual Egyptian-Greek education of the Ptolemaic and Roman Periods.

كان الغرض الرئيسي للتعليم والتأهيل المهني في مصر القديمة هو تدريب الكتّاب والحرفيين المتخصصين. ولكن تطبيق هذا النظام التعليمي ذي التوجه المهني أدى إلى الحد من إمكانية التعليم وحصرها غالباً بالذكور من عليّة القوم. وكان التعليم الأساسي متاح في المدارس المحلية المصرية يشمل تعليم اللغة، والرياضيات، والجغرافيا، وغيرها من المواضيع الأخرى الملائمة لإعداد كتبة المستقبل اللذين كان يتم توجيههم للعمل في المؤسسات المصرية مثل القصر أو المعابد. ويأتي الدليل على وجود مثل هذا النظام التعليمي في مصر القديمة غالباً في صورة تمارين مدرسية وكتب مدرسية وإشارات في النصوص الأدبية والوثائقية. من ناحية أخرى هناك دلائل أقل نسبياً عن دور التأهيل المهني الذي كان وسيلة تربوية استخدمت بالدرجة الأولى لتدريب الحرفيين أو للتعليم المتقدم والمتخصص، مثل التعليم اللازم لإعداد الكهنة. وأخيراً على الرغم من أن العناصر الرئيسية لعلم أصول التعليم بقيت على نفس الحال عبر التاريخ المصري، فإن تدريس اللغات الأجنبية بدأ على الأرجح منذ عهد الدولة الحديثة وما بعدها، حتى بلغ أوجه في العصور البطلمية والرومانية عند انتشار التعليم الثنائي اللغة (المصرية واليونانية).

The term “education” is used here, as in most related Egyptological studies, to denote a social institution (or an educational system) rather than a general idea encompassing all forms of teaching and learning. Thus, by definition, the study of ancient Egyptian education excludes the upbringing of children at home. The main reason for this exclusion is that there is very limited evidence for the way children were educated at home and for the relationship between home and school education. However, it must be noted that home education was probably a pedagogical method as important as schooling. The majority of the working population, including agricultural workers and local craftsmen, probably received their training within a domestic context, rather than at school. The existence of such a household/family-related training context is implied in evidence from Deir el-Medina, suggesting family connections between various groups of craftsmen (cf. the studies on woodcutters and potters in Janssen et al. 2003). The same may have applied, to a certain extent, even to scribe candidates, since family relations between succeeding scribes are widely attested (see, for example, Haring 2006).

The study of ancient Egyptian education focuses on the function of the Egyptian schools, which aimed at providing the youth with a basic knowledge in a variety of subjects, such as language and mathematics, as well as at teaching ethics and rules of everyday conduct (compare definition of Brunner 1977: 22).

Like modern educational systems, ancient Egyptian education prepared the young members of middle and upper classes for entering the labor force of the country and actively participating in various professions and duties related to the civil, priestly, and military spheres. However, unlike education nowadays, the Egyptian school system mainly offered basic and rarely advanced training. Hence, there was probably no Egyptian equivalent to a modern university with its

broad educational horizons and its large diversity of specializations. Also, unlike modern educational standards according to which schooling is in most countries a prerequisite for most professions and careers, the Egyptian local school focused primarily on the preparation of scribes and officials before they joined the complex system of local or national bureaucracy. Together with the priesthood, these were the main, highly-esteemed professions available for those who completed schooling.

The narrow perspectives Egyptian schooling kept resulted in a limited curriculum and probably also in limited approaches to study material. Although such limitations would suggest a canonized model for Egyptian education, its program and curricula most likely allowed considerable space for local variation—given that there was no central authority for controlling the function of Egyptian schools, since there is no evidence that the palace was much involved in the shaping and maintenance of schools. The lack of a nationally organized system in schooling probably also resulted in education’s minor involvement in the building of a national identity for Egyptian students (cf. the construction of national identity in Egyptian literature discussed in Loprieno 1988; for these issues more generally, see Moers 2005). By contrast, modern educational systems are designed and checked by the national authorities and are meant to contribute to the shaping and maintenance of a national identity (see Carr 2003: especially 3 - 18). However, one must be cautious when approaching the complex relationship between education, the study of an acknowledged uniform past, and national identity, since one cannot be certain how different the modern notions of national identity are from the Egyptian one. For instance, it has been suggested that the oft-quoted case of a graffito/dipinto from Northern Saqqara, which was written by a school teacher, may show that he visited tombs in that area together with his pupils as part of a school excursion. During this outing

they may have studied funerary stelae as records of a recent or distant historical past (see Popko 2006: 17, 137 - 138). Such assumptions, however, implying that history was included in the curriculum of Egyptian schools, are only based upon scarce evidence and cannot be conclusive (compare the discussion in McDowell 1992).

The main term employed to denote “education” in the ancient Egyptian language read *sbꜣyt* and meant “instruction” with a connotation of “punishment” (see Fischer-Elfert 2001: 439). This was the same term that featured in the titles of Egyptian works of wisdom known as “Instructions”—a fact that may suggest a pedagogical use of such literary works (see Shupak 1989). Along with *sbꜣyt*, the term *mrt* was also employed to denote the sense of “instruction,” this time with a connotation of “witnessing” or “personal experience.” The latter term was mainly used in the Late Period, but a semantic difference (other than being simply based on etymological connotations) between *mrt* and *sbꜣyt* has not been detected.

In contrast to “education,” whose conventional definition, in the case of this essay, covers aspects of basic training received at school, “apprenticeship” is a term that usually refers to a specific method of instruction, namely the instruction offered by a single teacher to a single or a small number of students on one or more specialized subjects or skills. This was a very popular educational method that was employed mainly when advanced training was sought out in order to develop some of the aspects of the curricula of Egyptian schools, such as writing or mathematics, or to introduce new subjects and skills, such as the study of religious texts or the learning of a craft. In addition, apprenticeship was a manner of instruction that was probably also used in some local Egyptian schools even for basic training—perhaps due to the small number of teachers and students available.

The term most probably denoting apprenticeship read *hrj-ꜥ*, which literally meant “under the arm/control of,” while the expert

teacher was called either *nb*, “master,” or *jtj*, “father.” The latter is a term employed mainly in literary contexts to imply a close father-son relationship for that between an instructor and his audience. Thus, for instance, the title “father” is often used in didactic texts, denoting the author of the instruction and teacher of an audience that has still much to learn:

Beginning of the sayings of excellent discourse spoken by the Prince....Ptahhotep, in instructing the ignorant to understand and be up to the standard of excellent discourse....So he spoke to his son. [Instruction of Ptahhotep, lines 4,45 - 4,50 (published in Zába 1956, translated by the author)]

Methodology and Sources

When one attempts to discover and re-construct the educational system of an ancient civilization, one seeks, first, evidence for the existence of schools. This can be in the form of: a) archaeological traces of school activity in specific localities; b) products of school activity, such as schoolbooks or school exercises; and c) references to specific schools or to a more general school education in literary or documentary texts. Second, in order to better understand the way the educational system functioned within an ancient society, one can try to identify the locality of specific schools, examining their spatial relationship with a nearby community or other institutions. In this way, one can consider the schools’ potential contact with other aspects of an ancient society, as well as their potential role in the life and development of that society.

In the case of ancient Egypt, we have so far: 1) numerous copies of school exercises surviving mainly on pottery or stone ostraca, on wooden or stone tablets, or on small papyrus fragments, coming from a great variety of localities, and dating to almost all phases of Egyptian history (see, for instance, Bresciani et al. 1983; Kaplony-Heckel 1974; Vernus 1984; and compare ancient Greek school exercises in Criboire 1996); 2) a considerable number of copies of schoolbooks (see, for example, Erichsen 1948;

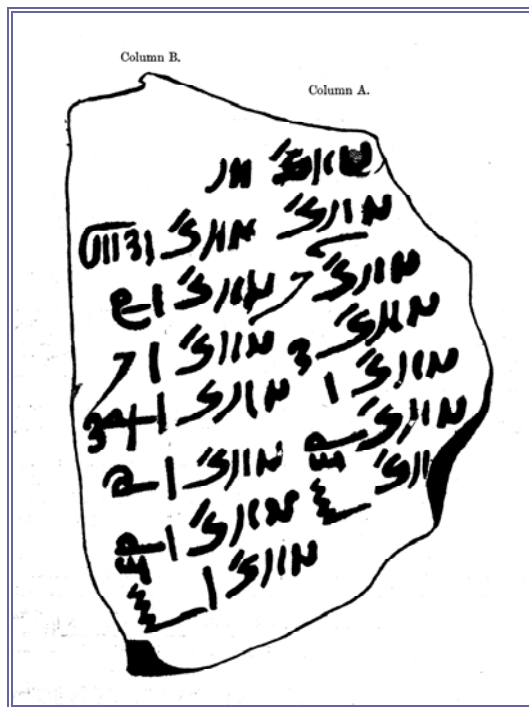


Figure 1. Demotic school exercise.

Guéraud and Jougeut 1938), such as the Middle Kingdom standard version of a schoolbook known as *Kemit*, “the complete one” or “the summary” (Barta 1978; Brunner 1980); and 3) a large number of references to school activity and educational methods in a range of textual sources from biographical inscriptions to the content of schoolbooks themselves, such as, for instance, a reference to the copying of one chapter per day as discussed by Fischer-Elfert (1993: 34).

Egyptian school exercises vary from basic exercises of grammar and orthography to copies of actual literary or documentary texts. There is a certain degree of difficulty in distinguishing between “professional” copies of texts produced by scribes and student copies produced in schools (Hagen 2006, 2007). In most of the cases, what determines whether a text is a student product are the material used as writing surface, the context of the artifact, as well as the style of writing and the contents. Hence, for instance, a school exercise, as mentioned above, was most frequently inscribed on pottery or stone ostraca that were useless otherwise. As far as

the context is concerned, school exercises tend to be found in clusters, reflecting a massive use by a group of students and teachers. The location, however, of such quantities of easily moveable material is seldom used to locate an Egyptian school, a task that has so far proven to be very difficult (see below). Finally, the most defining characteristics of a school exercise are the contents of the inscribed text, which in most cases was in the form of a list of words or phrases, as well as the style of writing, which was mostly crude, full of mistakes, and corrections.

An example of an Egyptian school exercise (fig. 1) reads:

*I said
You said
He said
She said...*

[Column A of the Demotic ostrakon (published and translated in Reich 1924)]

In the case of apprenticeship in ancient Egypt (see further discussion below), the available evidence concerns mainly the training of draftsmen and consists of: a) practice ostraca (Cooney *fc.*; Sesana and Nelson 1998), and b) textual references to artisan training (e.g., Cooney 2006). As with school exercises, practice material can be identified as such due to their crude drawings and the fact that they were painted on ostraca.

The Function of School and its Position in Egyptian Society

The term probably used by the Egyptians to refer to a school, as an educational institute rather than a certain space in which teaching was taking place, read *pr-nh*, “house of life” (Burkard 1980; Gardiner 1938; Helck 1984). In addition, there is the less commonly employed term *ṯ-sb3*, “house of instruction,” which could denote the school as a space. The meaning of *pr-nh* is still debated, since scholarly circles are divided between its translation as “school” and as “scriptorium” (that is, the space in which scribes worked—studying, producing, and copying various

texts) or “university” (in the sense of an institute of advanced learning in contrast to the basic teaching offered in a common school). The *pr-nḥ* in the sense of a scriptorium is closely associated with the function of the Egyptian temple, given that most of the major temples included libraries and archives that were probably managed and maintained by scribes, the primary product of school education (for the existence of temple libraries and archives, see Burkard 1980; Quirke 1996; Zinn 2007). However, there is very little evidence for the exact locations of the *pr-nḥ* or any other space used for teaching (see Helck 1984). Such evidence points towards the existence of schools, for instance, around the Ramesseum (school exercises; see Leblanc 2005), at Deir el-Medina (school exercises; see, for instance, Gasse 2000; McDowell 2000), and at the Mut temple in Karnak (references in the texts concerning Bakenkhons’ career mentioned below). No exact locations can be identified, however, mainly because schooling in Egypt probably took place outdoors and its location was not always fixed. References to the existence of a *pr-nḥ* vary from titles revealing a connection between administrative positions and school activity to actual references to a *pr-nḥ* in association with the life and activities of certain individuals (an overview of such references is given in Burkard 1980; Gardiner 1938).

It is this connection to specific individuals that has led to the Egyptological consensus that not all individuals had access to a school education. Instead, it seems that school education was primarily for the elite and mostly for the male members of the Egyptian society, who were destined to work for the main Egyptian socio-political and religious institutions, such as the palace, the treasury, or the temple. It should be noted here that, although many priests also bore the title of the scribe, no school texts make direct references to the priestly profession as a goal of education (for a possible honorific rather than functional use of the title of the scribe, see Nordh 1996: 32). Perhaps this suggests that the priestly duties were taught after

school, as part of an advanced apprenticeship in a temple, or that the children who were destined to become priests were trained in separate, special schools (see below the example of Bakenkhons’ educational career; see another fine example of this motif in Jansen-Winkeln 2007). The “be-a-scribe” orientation of Egyptian education is at the heart of most of the discovered Egyptian schoolbooks (see Williams 1972). Thus, for instance, in the Ramesside miscellany of Papyrus Lansing one encounters a number of short texts praising the scribal profession:

Befriend the scroll, the palette. It pleases more than wine. Writing for him who knows it is better than all other professions. It pleases more than bread and beer, more than clothing and ointment. It is worth more than an inheritance in Egypt, than a tomb in the West. [Papyrus BM 9994, 2,2 - 2,4 (published in Gardiner 1937; translated in Lichtheim 1976: 168)]

Judging from the various references to education and literacy made in Egyptian literary works, one could deduce that being a school graduate was, indeed, highly esteemed in Egyptian society. An example of such references made in Egyptian “Instructions” (that is, didactic works mostly ascribed to a famous sage and discussing, in the form of short sayings and admonitions, general matters of life and moral principles) is:

*One will do all you say
If you are versed in writings;
Study the writings, put them in your heart,
Then all your words will be effective.
Whatever office a scribe is given,
He should consult the writings...*
[*The Instruction of Any*, lines 7,4 - 7,5 (published in Quack 1994; translated in Lichtheim 1976: 140)]

The general style of such literary references to education is well illustrated in this example: education is praised in connection with the scribal profession and its high status in Egyptian society. Hence, one may say that such references are really made by scribes (that is, the authors of such compositions) about the value of their own profession,

addressing other scribes or students who are to follow the scribal profession. In other words, this is probably a dialogue between members of the same circle, reflecting little about the general appreciation of education among members of Egyptian society who have not gone through a scribal training.

The apparent limited accessibility to schooling in ancient Egypt has also been one of the reasons some scholars have argued that literacy in most phases of Egyptian history was restricted to a very low percentage of the population, in some cases amounting only to 1% (argued in Baines 1983; Baines 1984; Baines and Eyre 1983; and criticized in Lesko 1990; Szpakowska 2008: 102 - 112). Estimating degrees of literacy in ancient Egypt is, however, a very difficult task (compare comments on Greek literacy in Hellenistic and Roman Egypt in Youtie 1971: 164 - 165). Also, although nowadays literacy equals education, in ancient Egypt most men and women would have been illiterate, due to the limited orientation and accessibility of school education; but that does not necessarily mean that they were uneducated too, since home education and craftsman apprenticeship would train them in areas of specialized knowledge that did not require knowledge of writing or reading. Such home education was also likely for women, for whom there is no solid evidence that they could ever enter schools and be trained to read and write (contrast the unconvincing evidence treated in Bryan 1984; Toivari-Viitala 2001; and compare discussions about the education of Greek women in Cole 1981; Pomeroy 1977; or of Near Eastern women in Meier 1991).

At the same time, there may be some exceptions to the rule of education accessibility according to social status. Hence, for example, in the Middle Kingdom *Instruction of Dua-Khety*, or the *Satire of the Trades* as it is often also called (found on Papyrus Sallier II and on Papyrus Anastasi VII, published in Helck 1970; translated in Lichtheim 1973: 185 - 191), Dua-Khety, who apparently did not hold any important

positions in his hometown (although the whole composition was attributed to him), escorts his son to the 12th Dynasty Egyptian capital (probably near el-Lisht) where his son is to be admitted to the scribal school together with the children of the elite. Given that there is no reference to a special permission or reward granted to Dua-Khety, this situation seems to reflect an open admission to such schools, including children of lower classes (see Szpakowska 2008: 104), although it should probably be best taken simply as a piece of literary fiction.

School Curriculum and Pedagogical Methods

Egyptian pupils entered school probably at the age of four or five and there they were mainly taught how to read and write (including the rules of rhetoric and proper speech), geography, mathematics, and geometry (compare Brunner 1991: 80ff.; Fischer-Elfert 2001: 439). In addition, there is some evidence for the learning of foreign languages in New Kingdom schools, a fact that historically corresponds to the era of Egyptian imperialism and of the extension of Egyptian foreign relations (Brunner 1991: 99; Fischer-Elfert 2001: 440). This evidence, however, which includes, for example, lists of foreign words or names, is far from conclusive, since it shows more an acquaintance with foreign vocabulary, possibly used in Egyptian texts, rather than mastery over a foreign language. Nevertheless, the occasional use of foreign languages in Egyptian administration (as was the case, for example, at el-Amarna and the famous diplomatic correspondence in Akkadian) was surely a result of some training in foreign languages that could have taken place either in the Egyptian capital or in foreign schools. In addition to these subjects, sports, music, and other arts could have also featured in Egyptian education. The evidence for the treatment of such subjects is, however, scarce.

The first script an Egyptian pupil learnt how to read and write was probably hieratic, which was later (ca. fourth century BCE onwards) replaced by Demotic. These were the scripts

the pupils used to practice writing letters and various types of administrative documents. They were also exposed to literary works, whose language and style often differ from those used in documentary texts. That was the case, for example, in the New Kingdom, when older literary works in Middle Egyptian were studied in school (evidenced by a copy of the *Story of Sinuhe* produced in a Ramesside school; see discussion in Barns 1952) along with works written in Late Egyptian (for this, see Baines 1996; Loprieno 1996). The pupil was taught language by doing a lot of spelling and grammar exercises, writing passages dictated by the teacher, and copying parts of real or model documentary and literary texts. Such model texts are found in the so-called “miscellanies” (such as Papyrus Lansing mentioned above), which could be compilations made by teachers for classroom use (contrast Hagen 2006). Given that some of the texts copied in schools were instructive, teaching mainly about general ethics, the Egyptian pupil was educated also through the study of the contents of such didactic texts. Probably at a later stage, the pupils learnt how to read and write hieroglyphs, the main script for monumental and archaizing writing during most periods of Egyptian history.

An exemplary educational career of an elite child, who was to become high priest of Amun at Karnak, is described in the biographical texts inscribed on two block statues of Bakenkhons, now in Cairo (fig. 2) and Munich (see Jansen-Winkel 1993). In these texts Bakenkhons mentions among other things:

I spent 4 years as an excellent youngster. I spent 11 years as a youth, as a trainee stable-master...
[Munich statue, Gl. WAF 38, back pillar (translated in Frood 2007: 41)]

I came out from the room of writing in the temple of the lady of the sky as an excellent youngster. I was taught to be a wab-priest in the domain of Amun...
[Cairo statue, Cairo CG 42155, back pillar (translated in Frood 2007: 43)]

In contrast to the considerable amount of evidence available for basic school education

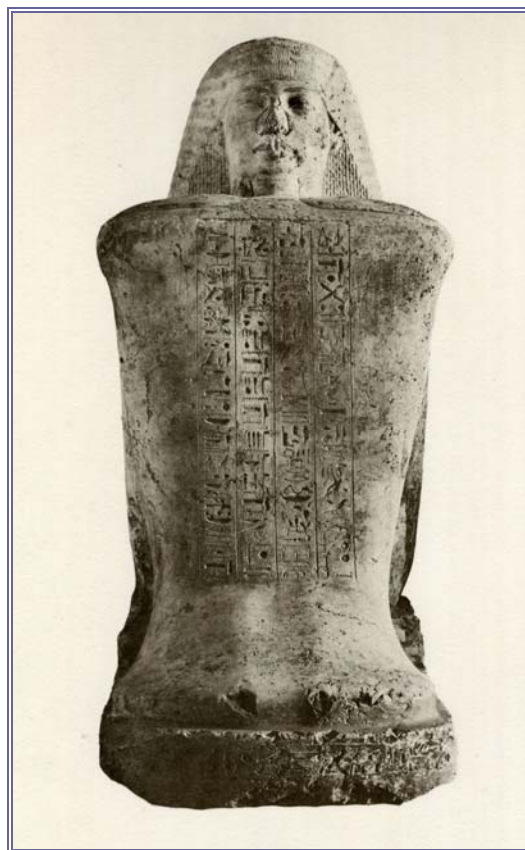


Figure 2. Block statue of Bakenkhons from the Karnak cachette. 19th Dynasty, reign of Ramesses II. Cairo CG 42155.

in ancient Egypt, there is much less evidence for apprenticeship in advanced or special subjects and skills. Such evidence includes, for example, painted ostraca from Deir el-Medina that could have been made by artisan apprentices in situ (see, for instance, Brunner-Traut 1979; compare Cooney *fc.*; for the training of sculptors, see von Lieven 2007). Probable references to such young apprentices are made in other ostraca from Deir el-Medina (for these, see Cooney 2006). Finally, there is also some evidence of the manner in which temple musicians were trained (for this, see Quack 2002: 163 - 164). Overall, the method of knowledge transfer through apprenticeship in Pharaonic Egypt was most likely informal and circumstantial, based not so much upon a uniform curriculum but rather upon the personal choices of the experienced professional who

took over the education of his potential successors (compare discussion on the training and work of artisans in Bryan 2001; and Keller 1991). The close relationship between artisan apprenticeship and school education is evident in the case of a number of tombs, in the context of which school exercises have been discovered (see Amenta 2002). This evidence might indicate that Egyptian students were learning how to read and write by using the material inscribed on tomb walls. After all, tombs in ancient Egypt probably also functioned as places where important works of literature were meant to be preserved (for this, see Assmann 1983). In such cases, the artisan master who was overseeing the works in tombs would probably have also acted more broadly as a teacher.

Legacy in the Post-Pharaonic Era

Historical developments in the educational system of ancient Egypt were probably closely linked to developments in Egyptian language. As mentioned above, hieratic, which was most likely the first script an Egyptian pupil was taught, was replaced at some point during the fourth century BCE by Demotic. This change took place at the beginning of the Hellenistic era, during which Greek became the official language of the palace in Alexandria. Therefore, in terms of administration, Demotic and Greek co-existed and were used on different occasions, making their mastery a significant requirement for those who wanted to climb the social ladder in Hellenistic and, later, Roman Egypt. As a result, probably most of the local Egyptian schools of those

eras added Greek to their curricula. In addition, Greek *didaskaleia* (“schools”) along with *gymnasia* (“sport schools”) were founded at most of the sites of Hellenistic and Roman Egypt, as in Alexandria, Antinoopolis, or Krokodilopolis, which included large non-Egyptian populations (Cribiore 2001: 18ff.; Delorme 1960). The relationship between the Greek gymnasia and the Egyptian schools is not clear, but it seems they were attracting ethnically and/or socially different groups.

As Demotic was replaced by Coptic from the second century CE onwards and the usage of Egyptian language retreated from the areas of administration and trade, in which Greek and Latin were used instead, the number of schools teaching in Egyptian probably decreased and were limited to Christian monasteries that took over the task of maintaining and developing Coptic language and literature (Nasim 1991).

As far as the function of apprenticeship in the post-Pharaonic era is concerned, there is some evidence for children becoming apprentices to experienced craftsmen. Thus, for instance, contracts exist between such craftsmen and parents who sent their children off to learn a craft like weaving or playing a musical instrument. One of these contracts written in Greek and dated to 10 CE reads:

...we will produce our brother named Pasion to stay with you one year from the 40th year of Caesar and to work at the weaver's trade, and...he shall not sleep away or absent himself by day from Pasonis' house. [Papyrus Tebtunis 0384 (text and translation available online at [APIS](#))]

Bibliographic Notes

Apart from the monograph on Egyptian education by Hellmut Brunner (1991) originally published in 1957, most studies on Egyptian education are incorporated in Egyptological lexica and encyclopedias (for example, Fischer-Elfert 2001; Helck 1984) or general books about life and growing up in ancient Egypt (for instance, Janssen and Janssen 1990; Szpakowska 2008). Also, attention to Egyptian education has been paid in the numerous studies of the material from Deir el-Medina (for example, Demarée and Egberts 2000; Donker van Heel and Haring 2003), most of which are based upon the earlier monumental work of Jaroslav Černý originally published in

1973. The material from Deir el-Medina is rich and a large part of it remains unpublished, promising new insights into scribal practices and education (as shown in Hagen 2006, 2007; McDowell 1995, 2000). It is not, however, certain to what extent the uniquely rich archaeological situation in Deir el-Medina is representative evidence for everyday life and social organization in other Egyptian communities of this sort. Doubts about the fairness of treating the situation in Deir el-Medina as a valid case study for the whole New Kingdom Egypt have been expressed in Baines' and Eyre's studies of Egyptian literacy (1983). Finally, a great variety of articles have been published touching upon various aspects of Egyptian education, such as Egyptian schoolbooks (Barta 1978; Guéraud and Jougeut 1938) and the function of the *pr-nh* (Burkard 1980; Gardiner 1938; Gasse 2000; Morenz 2001). What is missing so far from the Egyptological scholarship on education is a thorough and up-to-date study of school exercises in hieroglyphic, hieratic, and Demotic and the insights into Egyptian education they may offer (a study very much like Cribiore 1996), as well as further investigation into informal education and apprenticeship to counterbalance the evidence for formal scribal training.

References

Amenta, Alessia

- 2002 The Egyptian tomb as a house of life for the afterlife? In *Egyptological essays on state and society*, Serie Egittologica 2, ed. Rosanna Pirelli, pp. 13 - 26. Naples: Università degli Studi di Napoli "L'Orientale".

Assmann, Jan

- 1983 Schrift, Tod und Identität: Das Grab als Vorschule der Literatur im alten Ägypten. In *Schrift und Gedächtnis: Archäologie der literarischen Kommunikation*, ed. Jan Assmann, Aleida Assmann, and Christof Hardmeier, pp. 64 - 93. Munich: Fink.

Baines, John

- 1983 Literacy and ancient Egyptian society. *Man Neue Serie* 18, pp. 572 - 599.
1984 Schreiben. In *Lexikon der Ägyptologie*, Vol. 5 (columns 693 - 698), ed. Wolfgang Helck, and Wolfhart Westendorf. Wiesbaden: Otto Harrassowitz.
1996 Classicism and modernism in the literature of the New Kingdom. In *Ancient Egyptian literature: History and forms*, Probleme der Ägyptologie 10, ed. Antonio Loprieno, pp. 157 - 174. Leiden and New York: Brill.

Baines, John, and Christopher Eyre

- 1983 Four notes on literacy. *Göttinger Miszellen* 61, pp. 65 - 96.

Barns, John

- 1952 *The Ashmolean ostrakon of Sinuhe*. London: Oxford University Press.

Barta, Winfried

- 1978 Das Schulbuch Kemit. *Zeitschrift für Ägyptische Sprache und Altertumskunde* 105, pp. 6 - 14.

Bresciani, Edda, Sergio Pernigotti, and Maria Carmela Betro

- 1983 *Ostraca demotici da Narmuti: Nos. 1 - 33*. Quaderni di Medinet Madi 1. Pisa: Giardini ETS.

Brunner-Traut, Emma

- 1979 *Egyptian artists' sketches: Figured ostraka from the Gayer-Anderson Collection in the Fitzwilliam Museum, Cambridge*. Uitgaven van het Nederlands Historisch-Archaeologisch Instituut te Istanbul 45. Istanbul: Nederlands Historisch-Archaeologisch Instituut.

Brunner, Hellmut

- 1977 Erziehung. In *Lexikon der Ägyptologie*, Vol. 2 (columns 22 - 27), ed. Wolfgang Helck, and Wolfhart Westendorf. Wiesbaden: Otto Harrassowitz.
1980 Kemit. In *Lexikon der Ägyptologie*, Vol. 3 (columns 383 - 384), ed. Wolfgang Helck, and Wolfhart Westendorf. Wiesbaden: Otto Harrassowitz.

- 1991 *Altägyptische Erziehung*. 2nd edition. Wiesbaden: Otto Harrassowitz. (1st edition published in 1957.)
- Bryan, Betsy
- 1984 Evidence for female literacy from Theban tombs of the New Kingdom. *Bulletin of the Egyptological Seminar* 6, pp. 17 - 32.
- 2001 Painting techniques and artisan organization in the tomb of Suemniwet, Theban Tomb 92. In *Colour and painting in ancient Egypt*, ed. W. Vivian Davies, pp. 63 - 72. London: British Museum Press.
- Burkard, Günter
- 1980 Bibliotheken im alten Ägypten: Überlegungen zur Methodik ihres Nachweises und Übersicht zum Stand der Forschung. *Bibliothek: Forschung und Praxis* 4, pp. 79 - 115.
- Carr, David
- 2003 *Making sense of education: An introduction to the philosophy and theory of education and teaching*. London and New York: RoutledgeFalmer.
- Černý, Jaroslav
- 1973 *A community of workmen at Thebes in the Ramesside Period*. Bibliothèque d'étude 50. Cairo: Institut français d'archéologie orientale. (2nd edition, reprinted in 2001.)
- Cole, Susan
- 1981 Could Greek women read and write? In *Reflections of women in antiquity*, ed. Helene Foley, pp. 219 - 245. New York, London, and Paris: Gordon and Breach.
- Cooney, Kathlyn
- 2006 An informal workshop: Textual evidence for private funerary art production in the Ramesside Period. In *Living and writing in Deir el-Medine: Socio-historical embodiment of Deir el-Medine texts*, Aegyptiaca Helvetica 19, ed. Andreas Dorn, and Tobias Hofmann, pp. 43 - 55. Basel: Schwabe.
- fc. Informal apprenticeship: Sketching on figured ostraca in the Los Angeles County Museum of Art. In *Archaeology and apprenticeship: Acquiring body knowledge of the ancient world*, ed. Willeke Wendrich.
- Criboire, Raffaella
- 1996 *Writing, teachers, students in Graeco-Roman Egypt*. American Studies in Papyrology 36. Atlanta: Scholars Press.
- 2001 *Gymnastics of the mind: Greek education in Hellenistic and Roman Egypt*. Princeton: Princeton University Press.
- Delorme, Jean
- 1960 *Gymnasion: Étude sur les monuments consacrés à l'éducation en Grèce (des origines à l'empire romain)*. Bibliothèque des écoles françaises d'Athènes et de Rome 196. Paris: Éditions E. De Boccard.
- Demarée, Robert, and Arno Egberts (eds.)
- 2000 *Deir el-Medina in the third millennium AD: A tribute to Jac. J. Janssen*. Leiden: Nederlands Instituut voor het Nabije Oosten.
- Donker van Heel, Koenraad, and Ben Haring (eds.)
- 2003 *Writing in a workmen's village: Scribal practice in Ramesside Deir el Medina*. Egyptologische Uitgaven 16. Leiden: Brill.
- Erichsen, Wolja
- 1948 *Eine ägyptische Schulübung in demotischer Schrift*. Historisk-filologiske Meddelelser 31.4. Copenhagen: Munksgaard.
- Fischer-Elfert, Hans-Werner
- 1993 Vermischtes II. *Göttinger Miscellen* 135, pp. 31 - 37.
- 2001 Education. In *The Oxford encyclopedia of ancient Egypt*, Vol. 1, ed. Donald Redford, pp. 438 - 442. Oxford and New York: Oxford University Press.

Frood, Elizabeth

- 2007 *Biographical texts from Ramessid Egypt*. Writings from the Ancient World 26. ed. John Baines. Atlanta: Society of Biblical Literature.

Gardiner, Alan

- 1937 *Late-Egyptian miscellanies*. Bibliotheca Aegyptiaca 7. Brussels: Fondation égyptologique Reine Élisabeth.
1938 The house of life. *Journal of Egyptian Archaeology* 24, pp. 157 - 179.

Gasse, Annie

- 2000 Le K2, un cas d'école? In *Deir el-Medina in the third millennium AD: A tribute to Jac. J. Janssen*, ed. Robert Demarée, and Arno Egberts, pp. 109 - 120. Leiden: Nederlands Instituut voor het Nabije Oosten.

Guéraud, Octave, and Pierre Jougeut

- 1938 *Un livre d'écolier du IIIe siècle avant J.-C.* Cairo: Institut français d'archéologie orientale.

Hagen, Fredrik

- 2006 Literature, transmission, and the Late Egyptian miscellanies. In *Current research in Egyptology 2004: Proceedings of the fifth annual symposium, University of Durham, January 2004*, ed. Rachael Dahn, pp. 84 - 99. Oxford: Oxbow Books.
2007 Ostraca, literature and teaching at Deir el-Medina. In *Current research in Egyptology 2005: Proceedings of the sixth annual symposium, University of Cambridge, 6 - 8 January 2005*, ed. Rachel Mairs, and Alice Stevenson, pp. 38 - 51. Oxford: Oxbow Books.

Haring, Ben

- 2006 Scribes and scribal activity at Deir el-Medina. In *Living and writing in Deir el-Medine: Socio-historical embodiment of Deir el-Medine texts*, Aegyptiaca Helvetica 19, ed. Andreas Dorn, and Tobias Hofmann, pp. 107 - 112. Basel: Schwabe Verlag.

Helck, Wolfgang

- 1970 *Die Lehre des Dnw3-Htjj*. 2 volumes. Kleine Ägyptische Texte. Wiesbaden: Otto Harrassowitz.
1984 Schule. In *Lexikon der Ägyptologie*, Vol. 5 (columns 741 - 743), ed. Wolfgang Helck, and Wolfhart Westendorf. Wiesbaden: Otto Harrassowitz.

Jansen-Winkel, Karl

- 1993 The career of the Egyptian high priest Bakenkhons. *Journal of Near Eastern Studies* 52, pp. 221 - 225.
2007 Eine "neue" ramessidische Biographie. *Zeitschrift für Ägyptische Sprache und Altertumskunde* 134(2), pp. 107 - 115.

Janssen, Jac, and Rosalind Janssen

- 1990 *Growing up in ancient Egypt*. London: Rubicon Press.

Janssen, Jac, Elizabeth Frood, and Maren Goecke-Bauer (eds.)

- 2003 *Woodcutters, potters and doorkeepers: Service personnel of the Deir el-Medina workmen*. Egyptologische Uitgaven 17. Leiden: Nederlands Instituut voor het Nabije Oosten.

Kaplony-Heckel, Ursula

- 1974 Schüler und Schulwesen in der ägyptischen Spätzeit. *Studien zur Altägyptischen Kultur* 1, pp. 227 - 246.

Keller, Cathleen

- 1991 Royal painters: Deir el-Medina in Dynasty XIX. In *Fragments of a shattered visage: The proceedings of the international symposium of Ramesses the Great*, Monographs of the Institute of Egyptian Art and Archaeology 1, ed. Edward Bleiberg, and Rita Freed. Memphis: Memphis State University Press.

Leblanc, Christian

- 2005 L'école du temple (ât-sebait) et le per-ankh (maison de la vie): À propos des récentes découvertes effectuées dans le contexte du Ramesseum. *Memnonia* 15, pp. 93 - 110.

Legrain, Georges

- 1909 *Statues et statuettes de rois et de particuliers II: Nos. 42139 - 42191*. Catalogue général des antiquités égyptiennes du Musée du Caire. Cairo: Imprimerie de l'Institut français d'archéologie orientale.

Lesko, Leonard

- 1990 Some comments on ancient Egyptian literacy and literati. In *Studies in Egyptology presented to Miriam Lichtheim*, Vol. 2, ed. Sarah Israelit-Groll, pp. 656 - 667. Jerusalem: Magnes Press.

Lichtheim, Miriam

- 1973 *Ancient Egyptian literature: A book of readings, Volume I: The Old and Middle Kingdoms*. Berkeley, Los Angeles, and London: University of California Press.
1976 *Ancient Egyptian literature: A book of readings, Volume II: The New Kingdom*. Berkeley, Los Angeles, and London: University of California Press.

Lieven, Alexandra von

- 2007 Im Schatten des Goldhauses: Berufsgeheimnis und Handwerkerinitiation im Alten Ägypten. *Studien zur Altägyptischen Kultur* 36.

Loprieno, Antonio

- 1988 *Topos und Mimesis: Zum Ausländer in der ägyptischen Literatur*. Ägyptologische Abhandlungen 48. Wiesbaden: Otto Harrassowitz.
1996 Linguistic variety and Egyptian literature. In *Ancient Egyptian literature: History and forms*, Probleme der Ägyptologie 10, ed. Antonio Loprieno, pp. 515 - 530. Leiden and New York: Brill.

McDowell, Andrea

- 1992 Awareness of the past in Deir el-Medina. In *Village voices: Proceedings of the symposium "Texts from Deir el-Medina and their interpretation"*. Leiden, May 31 - June 1, 1991, ed. Robert Demarée, and Arno Egberts, pp. 95 - 109. Leiden: Centre of Non-Western Studies, Leiden University.
1995 Student exercises from Deir el-Medina: The dates. In *Studies in honor of William Kelly Simpson*, Vol. 2, ed. Peter Der Manuelian, pp. 601 - 608. Boston: Museum of Fine Arts.
2000 Teachers and students at Deir el-Medina. In *Deir el-Medina in the third millennium AD: A tribute to Jac. J. Janssen*, ed. Robert Demarée, and Arno Egberts, pp. 217 - 233. Leiden: Nederlands Instituut voor het Nabije Oosten.

Meier, Samuel

- 1991 Women and communication in the ancient Near East. *Journal of the American Oriental Society* 111(3), pp. 540 - 547.

Moers, Gerald

- 2005 Auch der Feind war nur ein Mensch: Kursorisches zu einer Teilansicht pharaonischer Selbst- und Fremdwahrnehmungsoptionen. In *Feinde und Aufrührer: Konzepte von Gegnerschaft in ägyptischen Texten besonders des Mittleren Reiches*, Abhandlungen der Sächsischen Akademie der Wissenschaften zu Leipzig, Philologisch-historische Klasse 78.5, ed. Heinz Felber, pp. 223 - 282. Stuttgart: Hirzel.

Morenz, Ludwig

- 2001 Neues zum Per-anch: Zwei Überlegungen zu einem institutionellen Zentrum der sakralen Schriftlichkeitskultur Altägyptens. *Göttinger Miszellen* 181, pp. 77 - 81.

Nasim, Sulayman

- 1991 Education, Coptic. In *The Coptic encyclopedia*, Vol. 3, ed. Aziz S. Atiya, pp. 931 - 933. New York, Toronto, and Oxford: Macmillan.

Nordh, Katarina

- 1996 *Aspects of ancient Egyptian curses and blessings: Conceptual background and transmission*. Uppsala: Uppsala University.

Pomeroy, Susan

- 1977 Technikai kai Mousikai: The education of women in the fourth century and in the Hellenistic Period. *American Journal of Ancient History* 2, pp. 51 - 68.

Popko, Lutz

- 2006 *Untersuchungen zur Geschichtsschreibung der Ahmosiden- und Thutmosidenzeit: "...damit man von seinen Taten noch in Millionen von Jahren sprechen wird"*. Wahrnehmungen und Spuren Altägyptens 2. Würzburg: Ergon.

Quack, Joachim

- 1994 *Die Lehren des Ani: Ein neuägyptischer Weisheitstext in seinem kulturellen Umfeld*. Orbis Biblicus et Orientalis 141. Freiburg: Academic Press; Göttingen: Vandenhoeck & Ruprecht.
- 2002 Die Dienstanweisung des Oberlehrers aus dem Buch vom Tempel. In *5. Ägyptologische Tempeltagung: Würzburg, 23. - 26. September 1999*, Ägypten und Altes Testament 33,3, ed. Horst Beinlich, pp. 159 - 171. Wiesbaden: Harrassowitz.

Quirke, Stephen

- 1996 Archive. In *Ancient Egyptian literature: History and forms*, Probleme der Ägyptologie 2, ed. Antonio Loprieno, pp. 379 - 401. Leiden and New York: Brill.

Reich, Nathaniel

- 1924 A grammatical exercise of an Egyptian schoolboy. *Journal of Egyptian Archaeology* 10, pp. 285 - 288.

Sesana, Angelo, and Monique Nelson

- 1998 Exercices d'élèves-artisans découverts au sud-ouest du temple de "millions d'années" d'Aménophis II. *Memnonia* 9, pp. 191 - 199.

Shupak, Nili

- 1989 Instruction and teaching appellations in Egyptian wisdom literature (and their biblical counterparts). In *Akten des vierten internationalen Ägyptologen Kongresses München 1985*, Studien zur Altägyptischen Kultur (Beihefte) 3, ed. Sylvia Schoske, pp. 121 - 129. Hamburg: Helmut Buske.

Szpakowska, Kasia

- 2008 *Daily life in ancient Egypt: Recreating Lahun*. Malden, Mass., and Oxford: Blackwell.

Toivari-Viitala, Jaana

- 2001 *Women at Deir el-Medina: A study of the status and roles of the female inhabitants in the workmen's community during the Ramesside Period*. Egyptologische Uitgaven 15. Leiden: Nederlands Instituut voor het Nabije Oosten.

Vernus, Pascal

- 1984 Schreibtafel. In *Lexikon der Ägyptologie*, Vol. 5 (columns 703 - 709), ed. Wolfgang Helck, and Wolfhart Westendorf. Wiesbaden: Otto Harrassowitz.

Williams, Ronald

- 1972 Scribal training in ancient Egypt. *Journal of the American Oriental Society* 92, pp. 214 - 221.

Youtie, Herbert

- 1971 Agrammatos: An aspect of Greek society in Egypt. *Harvard Studies in Classical Philology* 75, pp. 161 - 176.

Zába, Zbynek

- 1956 *Les maxims de Ptahhotep*. Prague: Editions de l'Académie Tchécoslovaque des Sciences.

Zinn, Katharina

- 2007 Libraries and archives: The organization of collective wisdom in ancient Egypt. In *Current research in Egyptology 2006: Proceedings of the seventh annual symposium, University of Oxford 2006*, ed. Maria Cannata, pp. 169 - 176. Oxford: Oxbow Books.

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Figure 1. Demotic school exercise. (After Reich 1924: 286.)

Figure 2. Block statue of Bakenkhons from the Karnak cachette. 19th Dynasty, reign of Ramesses II. Cairo CG 42155. (Legrain 1909: pl. 18.)